Stories That Leave a Mark

75 Years of Sumitomo Forestry

SUMITOMO FORESTRY

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Corporate Philosophy

The Sumitomo Forestry Group utilizes wood as a healthy and environmentally friendly natural resource to provide a diverse range of lifestyle-related services that contribute to the realization of a sustainable and prosperous society. All our efforts are based on Sumitomo's Business Spirit, which places prime importance on fairness and integrity for the good of society.

Greetings

Sumitomo Forestry Co., Ltd. celebrated its 75th anniversary in 2023. We extend our deepest gratitude to all our stakeholders who have supported us over the years.

Taking this as an opportunity, we have compiled two volumes: “Sumitomo Forestry’s 75-Year History—1948–2023” and “Stories That Leave a Mark—75 Years of Sumitomo Forestry.” The former provides a panoramic and comprehensive record of our management and business activities, while the latter is a collection of 40 short stories compiled as reading material to pass on the sentiments of our predecessors and employees and make them widely known.

The Sumitomo Forestry Group, which evolved from Sumitomo’s management of forests around a copper mine in 1691, has spent the past 25 years addressing unprecedented challenges such as global environmental issues and a declining population. During this time, we have transformed our timber and building materials business as well as our housing business. We have also expanded our afforestation and housing businesses overseas, ventured into new fields such as biomass power generation and nursing care, and by spinning the Wood Cycle, which leverages forests and wood, we aim to contribute to society and people’s lives, including solutions for environmental issues. None of this could be achieved without the determination to take on new situations and the efforts of each and every employee.

At the same time, while continuing to adapt to changes, Sumitomo’s Business Spirit—particularly the principles of “benefit self and benefit others, private and public interests are one and the same” and the spirit of “repaying for what had been reaped from the land”—as well as the reverence and affection for forests and trees since the Great Reforestation Plan of the Meiji era to the currently ongoing Mission TREEING 2030—have been passed down unwaveringly.

Through this book, we hope readers will take away both these ideas and spirit of transformation and challenge demonstrated by our Group’s employees. With it, I hope to give our employees even more courage and dedication, and ask our shareholders and business partners for their continued support of our Group.

December 2024

Toshiro Mitsuyoshi
President
Sumitomo Forestry Co., Ltd.

Contents

1690 1900 1945 1950 1960 1970 1980 1990 1995 2000

1 1893 Smoke pollution at the Besshi Copper Mine becomes evident
2 1957 Establishes Ishiyama Research Center
1 1894 Teigo Iba becomes general manager of the Besshi Copper Mine and establishes the "Great Reforestation Plan"
2 1957 Exchange of Besshi Mountain and other national forests for Ishizuchi mountains and other forests
1 1900 Teigo Iba is appointed director-general
10 1984 Opened a branch office in Port Moresby
2 1904 Sumitomo Kakkien is constructed
15 1984 NPIL is established
3 1691 Besshi Copper Mine is opened and forestation around it begins
14 1985 Plywood export restrictions imposed by APKINDO
3 1927 Sumitomo Besshi Mine is established, entrusted with management of Besshi forest
4 1904 Masaya Suzuki is appointed as director-general
15 1986 Line 1 of MDF factory begins operation [NPIL]
4 1919 A forestry section at Sumitomo General Head Office is established
5 1894 The "Great Reforestation Plan"
5 1964 The deregulation of all timber imports
15 1987 Began exporting MDF to Japan [NPIL]
5 1904 The first forest management plan is formulated
10 1940 Began expanding to the south. Research on rubber plantation management in Borneo (Indonesia)
10 1970 Opened a representative office in Jakarta
17 1989 Shikoku Ringyo changes its name to Robin Hood
10 1955 Started handling rainforest timber logs
15 1968 Began direct imports of New Zealand radiata pine
10 1956 Began direct import of rainforest timber logs from the Philippines
17 1980 Established Shikoku Ringyo (now Sumitomo Forestry Wood Products Co., Ltd.)
10 1961 Opened a representative office in Seattle
14 1966 Began purchasing rainforest timber logs in Samarinda (Indonesia)
14 1970 Established KTI. Started exporting logs to Japan
14 1974 Opened a plywood factory [KTI]
10 1977 Opened a branch office in Tawau

3 1990 The opening of the Daieizan Tunnel
3 1991 The opening of Minetopia Besshi
3 1993 The opening of the "Sumitomo Forest Ecosystem"
6 1991 The Rainforest Regeneration Project in Sebulu, East Kalimantan (first environmental reforestation project)
5 1998 Domestic company-owned forest area: 40,490 ha
5 1999 Domestic company-owned forests acquire ISO 14001 certification

9 1990 Established joint venture PCR
14 1990 RPI is established
9 1995 Opened representative office in Amsterdam
12 1999 Established INOS Mutual Aid Association
14 1990 Began timber production business [KTI]
9 1995 Started importing European timber products
14 2000 Established KTI Education Foundation [KTI]
12 1992 Began CAD & parts business (predecessor to INOS)
14 2000 Released E0 (low formaldehyde) PB [RPI]
14 1992 Nippindo restricts imported plywood trade

16 1992 Began particleboard (PB) production [RPI]
15 2001 Started veneer production [NPIL]
14 1993 Constructed an EW factory [KTI]
13 2001 Sumitomo Forestry Crest Co., Ltd. is established through the merger of 4 companies
10 1993 Opened a representative office in Honiara, Solomon Islands
12 1993 Started the material supply system business (predecessor to INOS)
12 1993 Founded the INOS Group
17 1993 Changed name to Sumitomo Forestry Wood Products [Robin Hood]
18 2001 The US Housing Study Team is launched

Global Housing, Construction and Real Estate Businesses

23 1975 Entered the wooden custom-built detached housing business
28 1963 Sumirin Tochi (now Sumitomo Forestry Home Services) is established

23 1997 MB construction method "FOREST" launched
22 2000 Development of Kizure Panel
24 1997 "Improving customer satisfaction" stated in the Corporate Philosophy and Ethics Charter
24 2000 Magokoro ("sincerity of heart") pamphlet is distributed to employees
22 2000 The Customer Service Department is established under direct control of the president
30 1997 Sumirin Maintenance was spun off again as a dedicated renovation company [Sumitomo Forestry Home Tech]
23 2000 A Design Group is established in all branches
23 1992 EW is adopted as structural material
25 2001 DPG is established in Tokyo, Nagoya, and Osaka

◆1948 Shikoku Ringyo is established (February 20th) (the origin of the current Sumitomo Forestry Corporation)
29 1977 Sumirin-Ryokka (Sumitomo Forestry (RK)) is established
◆1955 Sumitomo Forestry is founded
Uemura Minoru becomes the first president
The Head Office is located at 22 Kitahama 5-chome, Higashi-ku, Osaka
27 1987 The Special Construction Department is established within the Housing Business Department
21 1988 Housing construction materials become precut

30 1991 Sumirin Maintenance merges with Tom House's renovation division to become Sumitomo Forestry Home Tech
24 1999 The Customer Service Department is established, and the night-time call center is opened
32 2000 Friend Membership (annual membership system) introduced [Kawanokita Development]
35 2001 Business expands as an agent for multiple life insurance companies [SEP]
33 1990 Takinomiya CC adds 9 holes to their golf course, bringing the total to 27 holes [Kawanokita Development]

35 1963 Sumirin Tochi is established (real estate business and non-life insurance agency business)
38 1974 Sumirin Tochi changes its name to (former) Sumirin Enterprises
38 1976 Became an authorized dealer for a foreign life insurance company
35 1979 Sumirin Enterprises Co., Ltd. (SEP) is established, taking over the insurance division of the former Sumirin Enterprise
33 1987 Takinomiya Country Club opens (Kawanokita Development)

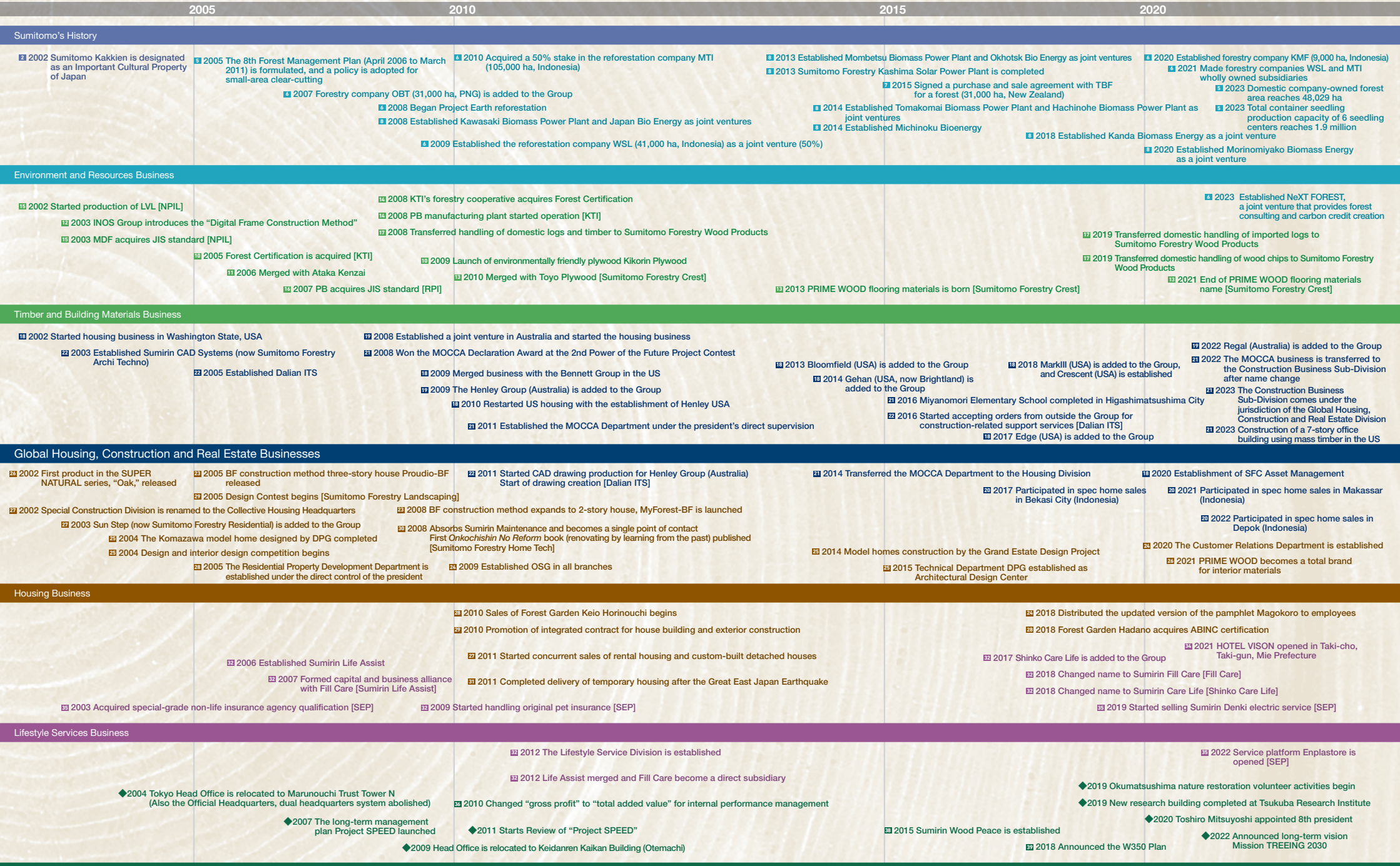
◆1990 Stock is listed on the First Section of the Tokyo Stock Exchange
◆1994 Hiroto Yamaguchi becomes the fifth president. The Tokyo Head Office is moved to Shinjuku Green Tower Building
40 1996 Mt. Fuji's "Manabi no Mori" is launched
40 1999 The "Manabi no Mori" Forest Arc is completed
37 2000 Successfully propagated the *Taikou Shidare Zakura* at Daigoji Temple through tissue culture
37 1998 Successfully propagated Dipterocarpaceae trees through tissue culture
40 1998 Mt. Fuji Charter is established
"Manabi no Mori" participants begin reforestation activities
◆2001 The Management Restructuring Plan is formulated, and the direction of Group business is determined

◆1966 Katsumi Yasuda becomes the second president
◆1970 Stock is listed on the Second Section of the Osaka Securities Exchange
◆1972 Stock is relisted on the First Section of the Osaka Securities Exchange
◆1974 The Head Office organization is relocated to Sumitomo Building (Marunouchi) (Osaka and Tokyo dual headquarters system)
Yamazaki Hiroshi become third president
◆1975 Sumirin Housing Sales is established in Tokyo and Osaka
◆1982 The Tokyo Head Office is moved to Nissin Building (Koamicho)

Sumitomo's History
Environment and Resources Business
Timber and Building Materials Business
Housing Business
Lifestyle Services Business
Head Office Organizations

About this book

This book was compiled in conjunction with the Sumitomo Forestry's 75-Year History (hereinafter referred to as the official history). While the official history comprehensively describes the progress of management and business in a broad sense, this book focuses on the "frontline" that formed the foundation of the current business, described in 40 stories. In order to convey the spirit that underpins our business, our management decisions, and the thoughts of our predecessors and employees who struggled in the field, the expressions have been dramatized without altering historical facts. In principle, the descriptions are as of February 2023, just like the official history, but are not strictly adhered to due to the nature of this book. At the end of each of the 40 chapters, relevant matters are presented along with references to the chapters and sections of the official history.


2005
2010
2015
2020
Sumitomo's History
2 2002 Sumitomo Kakkien is designated as an Important Cultural Property of Japan
5 2005 The 8th Forest Management Plan (April 2006 to March 2011) is formulated, and a policy is adopted for small-area clear-cutting
6 2010 Acquired a 50% stake in the reforestation company MTI (105,000 ha, Indonesia)
8 2013 Established Mombetsu Biomass Power Plant and Okhotsk Bio Energy as joint ventures
8 2013 Sumitomo Forestry Kashima Solar Power Plant is completed
6 2020 Established forestry company KMF (9,000 ha, Indonesia)
4 2021 Made forestry companies WSL and MTI wholly owned subsidiaries
5 2023 Domestic company-owned forest area reaches 48,029 ha
5 2023 Total container seedling production capacity of 6 seedling centers reaches 1.9 million
6 2007 Forestry company OBT (31,000 ha, PNG) is added to the Group
6 2008 Began Project Earth reforestation
8 2008 Established Kawasaki Biomass Power Plant and Japan Bio Energy as joint ventures
7 2015 Signed a purchase and sale agreement with TBF for a forest (31,000 ha, New Zealand)
8 2014 Established Tomakomai Biomass Power Plant and Hachinohe Biomass Power Plant as joint ventures
8 2014 Established Michinoku Bioenergy
8 2018 Established Kanda Biomass Energy as a joint venture
8 2020 Established Morinomiyako Biomass Energy as a joint venture
6 2009 Established the reforestation company WSL (41,000 ha, Indonesia) as a joint venture (50%)
Environment and Resources Business
15 2002 Started production of LVL [NPIL]
12 2003 INOS Group introduces the "Digital Frame Construction Method"
15 2003 MDF acquires JIS standard [NPIL]
10 2005 Forest Certification is acquired [KTI]
11 2006 Merged with Ataka Kenzai
14 2008 KTI's forestry cooperative acquires Forest Certification
14 2008 PB manufacturing plant started operation [KTI]
17 2008 Transferred handling of domestic logs and timber to Sumitomo Forestry Wood Products
10 2009 Launch of environmentally friendly plywood Kikorin Plywood
13 2010 Merged with Toyo Plywood [Sumitomo Forestry Crest]
16 2007 PB acquires JIS standard [RPI]
4 2023 Established NeXT FOREST, a joint venture that provides forest consulting and carbon credit creation
17 2019 Transferred domestic handling of imported logs to Sumitomo Forestry Wood Products
17 2019 Transferred domestic handling of wood chips to Sumitomo Forestry Wood Products
13 2021 End of PRIME WOOD flooring materials name [Sumitomo Forestry Crest]
13 2013 PRIME WOOD flooring materials is born [Sumitomo Forestry Crest]
Timber and Building Materials Business
18 2002 Started housing business in Washington State, USA
22 2003 Established Sumirin CAD Systems (now Sumitomo Forestry Archi Techno)
22 2005 Established Dalian ITS
19 2008 Established a joint venture in Australia and started the housing business
21 2008 Won the MOCCA Declaration Award at the 2nd Power of the Future Project Contest
18 2009 Merged business with the Bennett Group in the US
17 2009 The Henley Group (Australia) is added to the Group
19 2010 Restarted US housing with the establishment of Henley USA
21 2011 Established the MOCCA Department under the president's direct supervision
19 2013 Bloomfield (USA) is added to the Group
18 2014 Gehan (USA, now Brightland) is added to the Group
18 2018 MarkIII (USA) is added to the Group, and Crescent (USA) is established
21 2016 Miyanomori Elementary School completed in Higashimatsushima City
22 2016 Started accepting orders from outside the Group for construction-related support services [Dalian ITS]
18 2017 Edge (USA) is added to the Group
19 2022 Regal (Australia) is added to the Group
21 2022 The MOCCA business is transferred to the Construction Business Sub-Division after name change
21 2023 The Construction Business Sub-Division comes under the jurisdiction of the Global Housing, Construction and Real Estate Division
21 2023 Construction of a 7-story office building using mass timber in the US
Global Housing, Construction and Real Estate Businesses
24 2002 First product in the SUPER NATURAL series, "Oak," released
23 2005 BF construction method three-story house Proudio-BF released
27 2005 Design Contest begins [Sumitomo Forestry Landscaping]
27 2002 Special Construction Division is renamed to the Collective Housing Headquarters
27 2003 Sun Step (now Sumitomo Forestry Residential) is added to the Group
23 2004 The Komazawa model home designed by DPG completed
23 2004 Design and interior design competition begins
26 2005 The Residential Property Development Department is established under the direct control of the president
22 2011 Started CAD drawing production for Henley Group (Australia) Start of drawing creation [Dalian ITS]
23 2008 BF construction method expands to 2-story house, MyForest-BF is launched
30 2008 Absorbs Sumirin Maintenance and becomes a single point of contact First Onkochishin No Reform book (renovating by learning from the past) published [Sumitomo Forestry Home Tech]
24 2009 Established OSG in all branches
21 2014 Transferred the MOCCA Department to the Housing Division
20 2017 Participated in spec home sales in Bekasi City (Indonesia)
25 2014 Model homes construction by the Grand Estate Design Project
25 2015 Technical Department DPG established as Architectural Design Center
19 2020 Establishment of SFC Asset Management
20 2021 Participated in spec home sales in Makassar (Indonesia)
20 2022 Participated in spec home sales in Depok (Indonesia)
24 2020 The Customer Relations Department is established
24 2021 PRIME WOOD becomes a total brand for interior materials
Housing Business
28 2010 Sales of Forest Garden Keio Horinouchi begins
27 2010 Promotion of integrated contract for house building and exterior construction
27 2011 Started concurrent sales of rental housing and custom-built detached houses
32 2006 Established Sumirin Life Assist
32 2007 Formed capital and business alliance with Fill Care [Sumirin Life Assist]
31 2011 Completed delivery of temporary housing after the Great East Japan Earthquake
35 2003 Acquired special-grade non-life insurance agency qualification [SEP]
32 2009 Started handling original pet insurance [SEP]
24 2018 Distributed the updated version of the pamphlet Magokoro to employees
28 2018 Forest Garden Hadano acquires ABINC certification
34 2021 HOTEL VISON opened in Taki-cho, Taki-gun, Mie Prefecture
32 2017 Shinko Care Life is added to the Group
32 2018 Changed name to Sumirin Fill Care [Fill Care]
32 2018 Changed name to Sumirin Care Life [Shinko Care Life]
35 2019 Started selling Sumirin Denki electric service [SEP]
Lifestyle Services Business
33 2012 The Lifestyle Service Division is established
33 2012 Life Assist merged and Fill Care become a direct subsidiary
◆2004 Tokyo Head Office is relocated to Marunouchi Trust Tower N (Also the Official Headquarters, dual headquarters system abolished)
34 2010 Changed "gross profit" to "total added value" for internal performance management
◆2007 The long-term management plan Project SPEED launched
◆2011 Starts Review of "Project SPEED"
◆2009 Head Office is relocated to Keidanren Kaikan Building (Otemachi)
35 2022 Service platform Enplastore is opened [SEP]
◆2019 Okumatsushima nature restoration volunteer activities begin
◆2019 New research building completed at Tsukuba Research Institute
◆2020 Toshiro Mitsuyoshi appointed 8th president
36 2015 Sumirin Wood Peace is established
37 2018 Announced the W350 Plan
◆2022 Announced long-term vision Mission TREEING 2030
Head Office Organizations

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Global Housing, Construction and Real Estate Businesses

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Head Office Organizations

Sumitomo's Origins and Hirose Saihei's Role in Its Modernization

The House of Sumitomo originated with its founder, Masatomo, who started a business dealing in medicines and publishing. In 1590, his brother-in-law, Soga Riemon, began copper smelting (refining) in Kyoto. The second-generation leader, Sumitomo Tomomochi (Riemon's biological son, who was adopted into the Sumitomo family), expanded the copper business based in Osaka. The third generation Tomonobu expanded into copper mine management, and was entrusted by the shogunate with Besshi Copper Mine, which opened in 1691, and many other mines, responsible for a quarter of Japan's copper production. He also developed a currency exchange (finance) business, laying the foundation for Sumitomo's development.

After the Meiji period, Sumitomo received permission from the new government to continue managing the copper mines. The company pursued modernization by introducing Western-style smelting methods, constructing railways, and reforming its administration. Leading these efforts was Hirose Saihei (1828–1914), Sumitomo's first prime agent (later titled director-general from the second generation onward). Hirose began working at the Besshi Copper Mine at the age of 11, and became its General Supervisor at the age of 38. Guided by his personal motto, "Disobey your master's orders and benefit him. That is loyalty," he contributed to Sumitomo's growth, such as by developing future talent. He also worked to promote industry in the Kansai region and was seen as western Japan's equivalent of Eiichi Shibusawa in the East. After stepping down in 1894, he wrote his autobiography, *Hansei Monogatari* (A Half-Life Story).

Sumitomo's History

Company-owned forest (Niihama City, Ehime Prefecture)

Episode 1

"I Choose to Do the Foolish Work that Others Hate"

——Second Sumitomo Director-General Teigo Iba and the Besshi Mountains

From Officialdom to Sumitomo

Teigo Iba came to be known as a pioneer in environmental issues. Around the middle of the Meiji era (1868–1912), he relocated the smelter of the Besshi Copper Mine (in Niihama City, Ehime Prefecture) to Shisaka Island to combat smoke pollution at the mine and commenced a major reforestation plan.

Born into a samurai family in Omi Province in 1847, Iba mastered the way of the sword and absorbed ancient Japanese thought and culture. After working as a judge, he joined Sumitomo on the recommendation of his uncle Saihei Hirose.[1] This was in 1879. Hirose had become Sumitomo's first director-general, having modernized the copper mining business and separated the business from the affairs of the Sumitomo family, thus laying the foundations for Sumitomo's development.

Second director-general of Sumitomo, Teigo Iba
(courtesy of the Sumitomo Historical Archives)

Sumitomo's concern for the national interest resonated with Iba, who followed as a doctrine this passage in *Shumon Mujinto Ron (Treatise on the Inexhaustible Lamp of Zen)* by Zen monk Torei Enji: "A man of virtue is fond of wealth, but there is a right way to acquire it."[2] Iba was introduced to the work by a friend, Buddhist priest Gazan (Shotei Hashimoto) of the Tenryuji temple in Kyoto, and his ties to Zen were strong.

Iba became general manager of Sumitomo Head Office. He also harbored ambitions in the public sphere, as seen in his appointment to director of the Osaka Commercial Training Institute[3] and his election to the Diet in Japan's first House of Representatives general election. The following year, however, he stepped down from all public roles due to the consecutive sudden deaths of Sumitomo family heads. He and Hirose worked busily to find a successor. They called upon the younger brother of future prime minister Kinmochi Saionji to become the 15th head of the House of Sumitomo. His name would be Tomoito (or the pseudonym "Shunsui") Sumitomo.

Assignment to Besshi Amid Pollution Woes

In 1893, smoke pollution at the Besshi Copper Mine was worsening. Mining pollution had already created problems prior to this at the Ashio Copper Mine (Nikko City, Tochigi Prefecture) and there were lessons to be learned. Sumitomo rushed to act.

In July 1894, Iba appointed himself general manager of the Besshi Copper Mine, flinging himself into the midst of a dispute with local farmers. Iba indicated his resolve in a letter to his close friend Yajiro Shinagawa,[4] pronouncing that he was "abandoning wife, children, home, possessions, and my own self" to deal with the task. When the priest Gazan said to Iba on his departure for Besshi, "I will gather your remains," he meant it.

But on arriving at Besshi, Iba did not take any new measures that stood out. In addition to the general manager's residence in Niihama, he kept a room in the village of Koashidani,[5] close to the mine headquarters. He would walk to the mine in straw sandals, spending time and connecting with the workers. He would express to them his pleasure learning how much ore had been excavated at the mine, and how much copper had been produced at the smelter in Niihama, while sparing a thought for their sweat and toils laboring away. Iba sensed the commotion at Besshi came from an estrangement between senior management and staff, between staff and other staff, and between the company and farmers, where there was a lack of mutual understanding.

He decided on a plain and simple course of action—taking himself to where it was occurring, talking to people, and waiting for hurt relationships to heal naturally.

His wife laughed at this. In the aforementioned letter to Yajiro Shinagawa, he wrote, "She said it was foolish work. I agree it is a fool's work. But I like doing a fool's work. There are so many clever people around today that I choose to do the foolish work that others hate."

The Great Reforestation Plan and Smelter Relocation

At the same time as he was mending relations with local residents, Iba was pushing ahead with a major reforestation project. He re-established an independent forestry section—which had been integrated into the civil engineering section—and made it focus exclusively on forest management, planting, and reforestation. He was acting on a report on forestry received prior to his assignment from head of the civil engineering section, Tanenosuke Honjo, whose recommendations included a reforestation drive, involving a ban on the felling of quality timber and the purchase of seedlings, and prevention of reckless deforestation through forest management. Lamenting the state of the hills around the Besshi Copper Mine, Iba proceeded to substantiate his resolve to "restore nature by returning the entire Besshi area to its original verdant state," as "allowing the Besshi mountains to become a wasteland would violate the natural order." Iba put heart and soul into this project, which saw a plantation of around 60,000 trees grow to some 4.80 million trees by the time he left his post in 1899. His successor picked up where he left off.

Meanwhile, Iba believed compensation alone would not fundamentally resolve the copper smelting smoke pollution problem. He introduced a plan to relocate the smelter to the uninhabited Shisaka Island around 20 kilometers off the Niihama coast. Despite some opposition, Iba looked ahead to the future and invested two years of net income from the Besshi Copper Mine. Construction began in 1897.

Shozo Tanaka,[6] known as the righteous man who spearheaded the protest movement at the time of the Ashio Copper Mine pollution incident, praised Iba's actions in the Imperial Diet: "The Besshi Copper Mine in Iyo Province is operated by Sumitomo, which is sensitive to social principles and reasoning and human sentiments… Sumitomo treasures its mountains and they will be passed down for generations to come."

The first director-general, Saihei Hirose, had said, “I will devote myself to the encouragement of new industries and share the benefits with tens of millions of people.” Iba followed suit: “Sumitomo’s business must be fundamental and benefit the nation and society as well as Sumitomo itself. In that sense, if a business is promising and expected to contribute to society, Sumitomo should undertake it on behalf of society. We must not deviate from this high-minded spirit of corporate citizenship” This shaped Sumitomo’s Business Spirit, “Benefit self and benefit others, private and public interests are one and the same.”

Shisaka Island Smelter, 1905
(Sumitomo Historical Archives)

Reform and Standing Aside for the Next Generation

In another of Iba’s achievements, he convened the first executive board meeting of the House of Sumitomo at the Onomichi Branch in 1895 and set out an organizational framework for those who would follow, including that all important matters were to be discussed by the executive board, and in the following year renaming the title of *sorinin* (prime agent, Hirose’s original title) to *soriji* (director-general).

Iba returned to Sumitomo Head Office in 1899 after living in Besshi for five years. He became the second director-general in 1900. A verse he composed aboard the boat departing from Niihama after leaving his post steeped in sentiment toward the mountains awaiting spring now that the smoke pollution issue had abated: “Five years / tracing them back to / snow-covered mountains.” Yajiro Shinagawa replied with a second verse to finish the poem, in the process praising Iba’s graciousness in leaving a major undertaking to others and moving on: “To others now bequeathed / the moon and flowers.”

The finesse with which Iba stuck to his task and handled his retreat shows again in his resigning as director-general in 1904, after four years. Iba was still only 58. In announcing his retirement, he offered his thoughts on maturing with age and the vigor of the young to a business journal. “What is most harmful to business development is not the mistakes of youth but the dominance of the old.” He denounced over-adherence to status and encouraged young people to aspire. In fact, Iba was the person who

brought Masaya Suzuki and Masatsune Ogura to Sumitomo and trained them.

In his later years, Iba said the following about the Great Reforestation Plan at Besshi. “This is what I consider true business. I am happy with this.” Having taken up the task of modernizing Besshi from Hirose, he paved a new growth path for Sumitomo business before stepping off the frontline.

After retirement, Iba withdrew to Kakkien, his alternative residence in Ishiyama, Otsu City, Shiga Prefecture, where he was born.[7] He died in 1926 at the age of 80.

Iba’s grave is in a corner of a field in Omihachiman City. It is surrounded by a simple wall, gate, and trees and can be glimpsed from the windows of bullet trains passing by.

Besshi Copper Mine (1881) (Sumitomo Historical Archives)

The Besshi mountains restored to their original lush green state

(75-year history, Prologue, Section 1: History Leading to the Establishment of Sumitomo Forestry)

1. Born into the Kitawaki family in Yasu, Omi Province (now Yasu City, Shiga Prefecture), he started working as an apprentice at the Besshi Copper Mine at the age of 11. In 1855, he was adopted by Giemon Hirose, a former manager of Sumitomo’s Edo branch. He became general manager of the Besshi Copper Mine in 1865. After the Meiji Restoration, Hirose argued against the newly formed government’s moves to requisition the mine, reasoning that leaving the mine to inexperienced managers was not in the national interest. He obtained a permit for Sumitomo to keep running the mine. In 1877, Hirose became *sorinin* (prime agent) of the House of Sumitomo and proceeded to modernize the copper mine, adopting western smelting methods and constructing a railway. Involved in the establishment of numerous enterprises, he was seen as western Japan’s equivalent of Eiichi Shibusawa in the East. His motto was “Disobey your master’s orders and benefit him.”
2. A well-educated person of exceptional moral character may like wealth, but they must obtain it by ethical means.
3. A forerunner of Osaka Metropolitan University
4. Shinagawa spearheaded administration of agriculture and forestry in the early Meiji era, including as head of the forestry bureau of the Ministry of Agriculture and Commerce.
5. Koashidani, a valley on the eastern side of the mine, was the central community of the area now known as “Kyu-besshi (Old Besshi)” before the mine headquarters was relocated to Tonaru. Today, you can still see remnants of facilities established there from 1870, including a brewery (for *sake* and soy sauce), an elementary school, and a theater.
6. Tanaka was elected to the Diet in Japan’s first House of Representatives at the same time as Iba.
7. Many of Iba’s writings exist to this day under pseudonyms that changed with the times—Koshu, Ishiyama, Yuan, and Yuo.

Episode 2

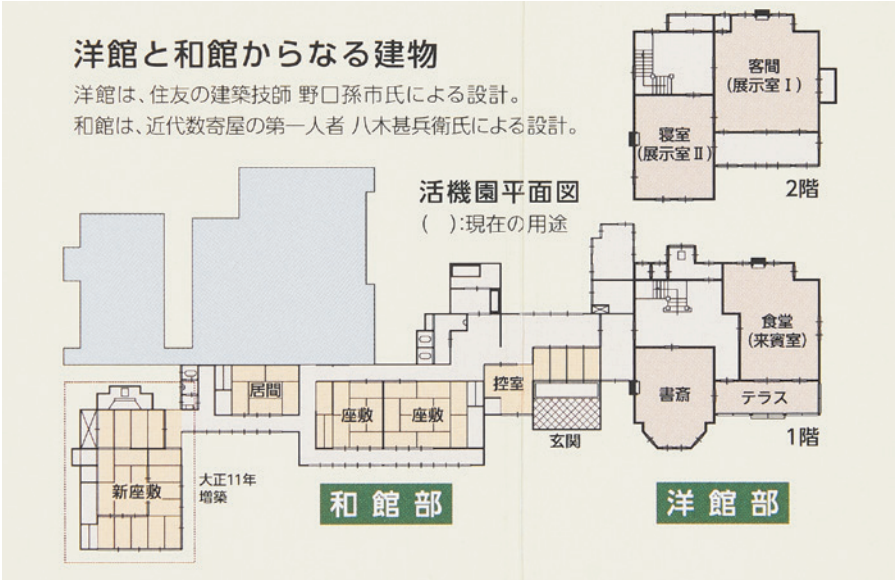
"Kakkien Residence— Luxury in Simplicity"

——Final Resting Place of Teigo Iba

Architecture and Garden Designated an Important Cultural Property

Sumitomo Kakkien (Teigo Iba Memorial Museum) is located on a small hill alongside the Seta River, in Otsu City, Shiga Prefecture, with a view of Lake Biwa. Built in 1904, this is where second Sumitomo director-general, Teigo Iba, retired and lived until his death in 1926. Encompassing Western- and Japanese-style rooms, east and west storehouses, a main gate, and a Japanese-style reception room (added in 1922), as well as a tea house, gazebo, other attached facilities, and a garden, the Kakkien was designated an Important Cultural Property by the Japanese Government in May 2002. Iba named the residence *Kakki*, a Zen term referring to familiarity with the subtleties of human emotions while separated from the mundane world.

In the years after Iba's death, Sumitomo Honsha took control of the residence in 1941 and, after purchasing around 16,500 m^2 of adjacent farmland, turned it into a center for agricultural research with relevance to Sumitomo Forestry's business. When the *zaibatsu* conglomerates were dissolved after the war, the property was contributed in kind to Fuso Ringyo, a forerunner of Sumitomo Forestry. In 1957, Sumitomo Forestry established a forestry technology research lab—the Ishiyama Research Center—in a section of the property and carried out research into raising forestry efficiency, for example through the selection of elite trees and trial cultivation of seedlings in pots. Around 1960, during Japan's period of rapid economic growth, parts of the land were bought up for the construction of, first, the Meishin Expressway, then the *shinkansen* bullet train line. No longer big enough to conduct planting research, the center relocated.[1] The garden and house, set on 7,130 m^2, remained the property of Sumitomo Forestry and would be maintained by 20 affiliated companies as a valuable common asset.



Floor plan of the Kakkien

Western-Style Room with Japanese Influences

The Kakkien's architecture blends Japanese and Western styles. The Western room is on the right as you approach, the Japanese room, where the entrance is located,

on the left. Both are notable structures, representing a contest of mastery between their creators, who were top architects of their time. For the design of his place of retreat, Iba asked only that quality materials were to be used. Each and every part showcases innovative techniques with this in mind.

The two-storied wooden Western room (110 m^2 building area) was designed by Magoichi Noguchi.[2] Its exterior features a steep roof and exposed pillars, beams, and other structural members. Viewed across the garden, the asymmetrical European façade—mortar and brick filling the space between the structural members—creates a harmonious scene amid the greenery. Glimpses of the exterior side walls reveal a scaled pattern of Sawara cypress. They are coated with black *kakishibu* persimmon tannin[3] that sharpens the overall appearance of the Western room exterior.

The interior follows basic styling popular in Europe at the time, making prolific use of curves, though Japanese influences are incorporated to just the right degree. On the first floor, which has a study, dining room, and terrace, the dining room is decorated with plastered plant patterns above the mulberry wood fireplace, while ironwork with an ivy motif is skillfully built into the windows of the doors leading onto the terrace. The dining room was used for entertaining guests. The extravagant customs of large residences of the day come across in features such as the service window for passing food through to a waiter from the kitchen.

The stair hall, connected to the entrance, also employs Japanese architectural methods—the use of natural unvarnished wood—and the residence's use as a retreat is reflected in considerations like the gentle gradient of the stairs. You can notice the architect's efforts seeming to anticipate contemporary barrier-free design.

On the second floor are a drawing room, bedroom, and veranda. The Western-style drawing room offers views of the Seta River and Lake Biwa. The adjacent veranda is like a sunroom. A pair of dignified wooden chairs—one large, one small—and a table, used by Iba and his wife, are on display here. The drawing room has a coffered ceiling with a *fukiyose* lattice structure,[4] while the handrail on the veranda features a *manjikuzushi*[5] pattern and other traditional Japanese patterns. Windows are sash windows that are lifted open. Weights are concealed in the frame to make the window easier to open and close. The weights are a copper mining by-product, *karami* (slag),[6] perhaps a tribute to the Besshi mine.

Sawara cypress scaled wall

Ironwork window with ivy motif

Sunroom-like veranda

Drawing room

Luxury in Simplicity—Japanese Building and Garden

Stretching out to the left-hand side of the residence is a *sukiya-zukuri* [7] Japanese-style room (250 m^2 building area) designed by Jinbee Yagi[8] (second generation), famed for his modern *sukiya* style.

Jinbee Yagi made the most of high-quality timber to create a tranquil design with limited embellishment. The *tokonoma* (recessed alcove) in the 10-mat reception room for entertaining guests, has no *nageshi* tie beams, and the *tokowaki* (shelving recess) has no staggered shelving or ceiling or floor cabinets, only a single shelf. This simplicity draws attention to the materials themselves; namely, the striated log of Kitayama Sugi Japanese cedar used as the alcove post, and the *tamamoku* circular swirls[9] in the wood grain of the *tsukeshoin* shelf The pole plate of the *engawa* passageway between the reception room and garden consists of a single straight Japanese cedar log around 11 meters long and without any knots—proof that Jinbee searched all over Japan for fine-quality timber. A portion of it is quality Tosa timber gifted to Iba by Besshi staff as a parting gift and memento of his time working there.

The new reception room, added in 1922 along with the tea house, offers an expansive view of the garden that Iba established himself. Iba is said to have enjoyed spotting and calling out to guests below him as they came up the slope from the main gate.

The garden, recognized as “forming a cohesive landscape” in its designation as an Important Cultural Property, has been characteristically left to grow naturally (unconditioned nature) without the help of an expert gardener. As a fan of pine and maple, Iba planted a mixed forest of broadleaf and conifer trees himself over a decade before the house was built. As time went by, the forest took shape on its own and produced beautiful moss. The space in front of the Western room, on one hand, and the gazebo located there give completely different impressions and convey to us today the diversity present in large residences and their gardens during the late Meiji era. As an Important Cultural Property, these facilities are opened to the public each year[10] on a day set aside during the season of new growth.

Reception room

(75-year history, Prologue, Section 1: History Leading to the Establishment of Sumitomo Forestry)

1. A new facility, the Omi Research Center, was established in Kita-Komatsu on the west shore of Biwa Lake, but when this was bought in 1972 as land for the Kosei Line of the Japanese National Railway, facilities and equipment were relocated to the forest nursery in Kannonbara, Niihama.
2. Architect for the provisional architectural department at Sumitomo Head Office. He was involved in the building of various Sumitomo business locations, the Higurashi Villa (1906), and the Osaka Prefectural Nakanoshima Library (1904).
3. Coating the timber provides water, corrosion, and insect resistance.
4. A wooden lattice framework is placed on structural tie beams and support beams, with the ceiling made of boards. *Fukiyose* is the use of not square timber, but two thin logs tied together, as the lattice material.
5. Also called *sayagata*. *Manji* (卍) characters are connected together in a continuous pattern signifying long-lasting prosperity and longevity. The pattern is used in temples and shrines.
6. Impurities (slag) that float to the surface of the molten copper during the smelting of copper ore. To reuse the slag, it was placed in casts and hardened to form bricks or other materials.
7. An architectural style incorporating into *shoin-zukuri* (architectural style for samurai residences) the philosophy behind *wabi-cha* tea ceremony houses (*soan*) of seeing the beauty that remains after removing all that is superfluous. Characteristics include simple design, craftsmanship making full use of natural materials, and a garden and reception room layout that seeks to draw on the surroundings.
8. The name of master carpenters in the service of the House of Sumitomo discovered by Saihei Hirose. First-generation Jinbee Yagi designed the Western-style building of the Unagidani main Sumitomo family residence (1879). Second-generation Jinbee Yagi created Saihei Hirose’s residence (1877), Seifuso Villa (home of Kinmochi Saionji, Kyoto Imperial University guesthouse after his death), and the Chausuyama main Sumitomo family residence (Keitakuen, 1918).
9. Large concentric circle pattern that appears when slicing lumps on a tree. This is rare material.
10. Employees of affiliated companies can view the site on appointment.

Episode 3

"Ties to the Community, a Foundation for Sumitomo Business Growth"

—— Promoting Local Culture and Tourism Through Forests and Industrial Heritage

Besshi/Niihama and Sumitomo—A 330-Year Relationship

The Sumitomo family started excavating the Besshi Copper Mine, in Niihama City, Ehime Prefecture, in 1691. It was the management of forests around the mine that would evolve into the business of today's Sumitomo Forestry Group. Second Sumitomo director-general, Teigo Iba, implemented the Great Reforestation Plan. Third director-general, Masaya Suzuki, established sustainable forestry operations and entered forestry as a business. When Sumitomo went down the path of an integrated conglomerate in 1927, Kageji Washio, superintendent of the Besshi Mining Division from the previous year (managing director of Sumitomo Besshi Mine Co., Ltd. on its establishment in 1927), turned his mind to the future prosperity of Niihama. He advanced projects to establish infrastructure for the city, such as construction of a port and reclamation of land, for attracting new plants, and the construction of roads.

The land that was developed today constitutes the heart of Niihama as an industrial center. It is home to plants of prominent Japanese companies in the Sumitomo Group[1] and where many group companies and business partners do business. There are also branches of Sumitomo Group companies[2] located in the downtown area.

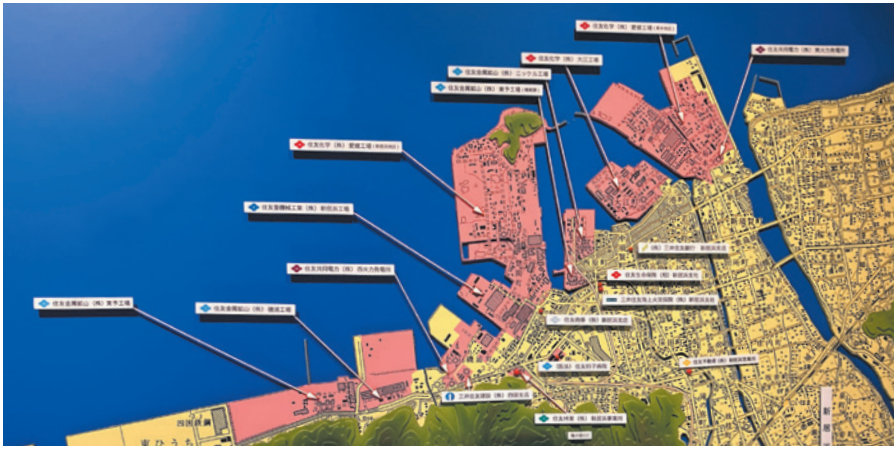
In October 1990, the Daieizan Tunnel opened to traffic, dramatically reducing the travel time between Niihama City and the village of Besshiyama. Besshiyama was integrated into Niihama City in April 2003, extending the city's boundaries to the south side of Dozangoe Pass[3]—in other words, the area of copper mining operations prior to excavation of the adits mentioned below.

Sumitomo Forestry Group Business Locations in Niihama City

Company	Unit/facility (business)
Sumitomo Forestry Co., Ltd.	General Affairs Dept. Niihama Office Forester House
	Environment and Resources Division Forest Resources Dept. Niihama Forestry Office
	Housing Division Matsuyama Branch Niihama Sales Office Niihama Model Home
Sumitomo Forestry Wood Products Co., Ltd.	Sales Division West Japan Department Shikoku Sales Office (Timber and Building Materials)
Sumitomo Forestry Crest Co., Ltd.	Manufacturing Division Niihama Plant (Timber and Building Materials)
Sumitomo Forestry Home Tech Co., Ltd.	Matsuyama Branch Niihama Sales Office (Housing)
Sumitomo Forestry Home Engineering Co., Ltd.	Chugoku/Shikoku Dept. Shikoku Office (Housing)
Kawanokita Development Co., Ltd.	Takinomiya Country Club (Lifestyle Services)
Sumirin Enterprises Co., Ltd.	West Japan Sales Dept. Chugoku/Shikoku Sales Office Shikoku Representative (Lifestyle Services)
Sumirin Wood Peace Co., Ltd.	Human Resources Dept.

Sumitomo Forestry Group Business Locations in Niihama

Niihama is where Sumitomo Forestry's Shikoku Forest is located—15,000 hectares originally managed alongside the copper mining operation, as mentioned earlier. This made Niihama an important base for cultivating valuable wood resources, such as aged, high value-added Japanese cypress and virgin forests. As a result, the company came to conduct various business activities across the area, and Niihama is now the Japanese city with the third most business locations after Tokyo and Osaka.



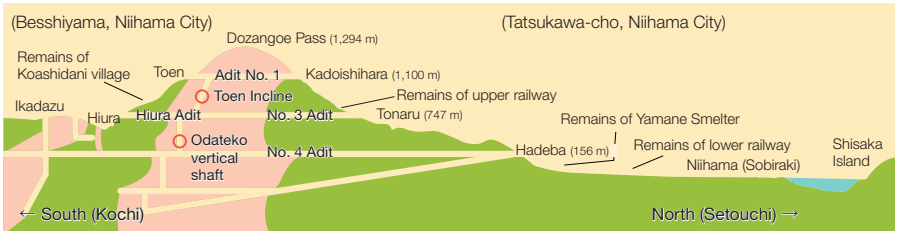
Niihama City center and the main bases of Sumitomo Group companies
(source: Besshi Copper Mine Memorial House)

Geographical Relationship Between Besshi Copper Mine Deposits and Niihama

Besshi Copper Mine opened in 1691. Its history began with the discovery of an outcrop, around 1,300 meters above sea level, in the former village of Besshiyama, on the other side of the Dozangoe Pass along a dividing ridge south of Niihama. The copper deposit—a tabular vein on average around 1,500 meters wide and 2.5 meters thick—extended from there to a depth of more than 1,000 meters below sea level, cutting into the ridge and diagonally down into the earth in the direction of Niihama to the north. Excavated diagonally toward deeper levels, ore was smelted into crude copper on the south side of Dozangoe Pass. As final refining took place at the Sumitomo Copper Refinery in Osaka, by 1702, not long after the mine opened, goods (blister copper going to Osaka and daily supplies for the mine) were being transported via a route stretching from Dozangoe Pass to Niihama-ura bay. A store *(kuchiya)* established there as a base for shipping goods to Osaka by sea led to the development of Niihama City. A pine tree more than 300 years old, known as Kuchiya Akagane-no-Matsu, still stands on the site of the store today.

As the excavation went deeper, the mine entrance moved to a lower altitude and the transport of goods over the Dozangoe Pass became a major challenge. Efforts to overcome the problem included the construction of a path for ox-drawn wagons. The movement of goods dramatically improved in 1886 with the completion of the No. 1 Adit. The project took four years. The adit (a 1,021-meter horizontal tunnel) cuts through the mountain under Dozangoe Pass, connecting the Toen district (1,150 m) on the south side, where the excavation and smelting took place, with Kadoishihara (1,100 m) on the north side. From Kadoishihara, the town of Niihama was reached via an upper railway, a cableway, and a lower railway (fully opened in 1893).

In 1869, the copper refinery relocated from Osaka to Tatsukawa-cho. Then in 1888, the Yamane and Sobiraki smelters opened for business. The Shisaka Island



Adits and inclines cutting through the mine, and nearby placenames

Smelter started operating in 1905. As routes for transporting the ore, No. 3 Adit (1,795 meters long, completed in 1902) opened to convey ore inside the mine (at the bottom of the Toen Incline[4]) directly to Tonaru (747 m), the base in the north, and No. 4 Adit (4,596 meters long, completed in 1915) opened 13 years later to transport ore directly to Hadeba (156 m). The mine headquarters for the Besshi Copper Mine subsequently relocated, in 1916, from Toen, which had been the main base in Kyu-Besshi for more than 220 years, to Tonaru, at the Niihama end of No. 3 Adit, and in 1930, to Hadeba, where it remained until the mine closed. The Hadeba area remains home to many sites of industrial heritage, including the Hadeba Hydroelectric Power Plant,[5] which was completed in 1912.

Mine workers, and the communities serving them, shifted with them, from Koashidani in Kyu-Besshi to Tonaru, and then to Hadeba. While smelting facilities were ultimately relocated from Niihama to Shisaka Island, a wide range of sites representing a heritage of industrial modernization and structures of historical value remain in urban Niihama. The city has sustained a variety of industries, mining in particular.

The Kuchiya Akagane-no-Matsu pine, more than 300 years old, and a young pine bearing its DNA propagated using tissue culture

Passing Down and Utilizing Industrial Modernization Heritage

The history of Sumitomo's business expansion, starting in the former village of Besshiyama, matches Japan's own modernization path and sites of industrial modernization heritage, like the Hadeba Hydroelectric Power Plant, ought to be preserved long into the future for coming generations. Among the historical relics are heritage sites constructed by willing Sumitomo company employees on company-supplied land, such as Yamane Ground and its stonework stands. These tell a story about what we cannot see—the management philosophy at the time of seeking coexistence with the community, and the minds of employees who worked there. Sumitomo Forestry inherited Sumitomo's forestry operations in this area and therefore

inherited not only forests, but also a lot of land related to those operations. Various historical relics sit on that land.

In March 2018, 20 Sumitomo Group companies joined forces to relocate the Higurashi Villa from Shisaka Island to Niihama City. Built on Shisaka Island in 1906, the villa was an alternative residence for the Sumitomo family. Having fallen into disrepair more than 110 years later, it was relocated[6] for the purpose of public viewing. On the inside, around 10,000 parts and materials were dismantled one by one, restored, and faithfully returned to their original state, bringing to life the essence of refined architecture of times past.

While some heritage items have been designated an Important Cultural Property or a Registered Tangible Cultural Property by the Japanese Government, others would disappear if people or corporations in the community did not tell their story. Sumitomo Forestry, while conducting its own form of community contribution through its business and especially its use of forests, is also working with the rest of the Sumitomo Group, in alignment with the spirit of coexistence and coprosperity in cooperation with Niihama City, to revitalize the local community by passing on to the future the heritage of industrial modernization as a tourism resource.

Hadeba Hydroelectric Power Plant

Yamane Ground and stonework stands built by Sumitomo volunteers

(75-year history, Prologue, Section 1: History Leading to the Establishment of Sumitomo Forestry)

1. The 20 core companies of Sumitomo business and their groups of affiliated companies.
2. Sumitomo Mitsui Banking Corporation, Mitsui Sumitomo Insurance Company, Sumitomo Mitsui Construction, Sumitomo Corporation, Sumitomo Realty & Development, Sumitomo Life Insurance, and Sumitomo Forestry.
3. A pass (1,294 meters above sea level) over the Akaishi Mountains, a subrange of the Ishizuchi Mountains. Dozangoe Pass forms part of Dozan Ridge.
4. The end of the shaft excavated toward lower levels from the Toen mine entrance.
5. Electrification of the Besshi Copper Mine progressed through the enhancement of both thermal and hydroelectric power generation facilities, starting with the installation of a small-scale thermal power generator in Hadeba in 1897. The Hadeba Hydroelectric Power Plant, a large-scale power-generating facility with output of three megawatts, opened in 1912. Water from tributaries of the Dozan River, on the other side of the dividing range, was collected in Hiura, at an altitude of 747 meters. This was then channeled through the mountain, via No. 3 Adit, to the Ishigasanjo reservoir on the Niihama side and fed through a high-pressure steel pipeline boasting the largest elevation drop in the East at the time—597 meters—to power the generator. In 1922, a submarine cable—the world's longest at the time—was laid, supplying electricity to the Shisaka Island Smelter.
6. Sumitomo Forestry and Sumitomo Mitsui Construction undertook the project, which took 30 months.

Episode 4

"We Should Make Forests Sumitomo's Final Stronghold"

——Masaya Suzuki—Sumitomo's Third Director-General Who Led the Move into Forestry Business

Assignment to Besshi Mining Division Followed by Debris Flow Disaster

Masaya Suzuki, who took over as Sumitomo's third director-general when Teigo Iba retired after a little over four years in the position, was born in 1861 into the Akizuki clan, son of a chief retainer of the Takanabe domain, in today's Miyazaki Prefecture. He was adopted by relatives on his mother's side, the Suzuki family, whose head had perished in the Boshin War. After the Meiji Restoration, he attended Tokyo Imperial University, then worked for the Home Ministry and the Ministry of Agriculture and Commerce before joining Sumitomo in 1896. It was around the time Teigo Iba commenced the process of relocating smelting facilities to Shisaka Island and his reforestation plan, and was putting in place a system of management based on consensus building. In 1899, Suzuki was seconded to the Besshi Mining Division as its general manager, taking over from Iba when the latter returned to Sumitomo Head Office.

That summer, debris flows occurred in the Besshi mountains, which had been devastated by the felling of forests and smoke pollution. The disaster took more than 500 lives. Two decades later, in 1920, Suzuki touched on the event during the inaugural meeting of forestry office chiefs, saying that mining activities, which impacted the land, needed to be accompanied by safeguards protecting the land. "The best way to do that," he said, "is through forestry as a business.

Third director-general of Sumitomo, Masaya Suzuki (courtesy of the Sumitomo Historical Archives)

People do not dislike forests. And forests do not cause disputes. Forests also have major benefits for land protection and flood control."

Returning to 1904, Suzuki became Sumitomo's third director-general and declared that while he would continue with Iba's Great Reforestation Plan, he would also seek to fundamentally resolve the issue of smoke pollution, which Iba had been unable to do despite relocating smelting facilities to Shisaka Island. "We will resolve the problem even if it costs more than compensation," he said. Regarding the business domain, Suzuki dramatically expanded Sumitomo's business platform during his tenure. Starting in the 1910s, he set up companies to focus on processed copper products, fertilizer, glass, and real estate development. In 1920, he invested in a communications equipment company.

Decision to Formally Enter the Forestry Business

Suzuki, who constantly preached coexistence and co-prosperity between agricultural and forestry industries and mining, recruited Shigeharu Murata, an engineer with the Forestry Bureau of the Ministry of Agriculture and Commerce, to head the process of entering the forestry business. Even during his time with the ministry, Murata had explained to Suzuki the importance of planting forests. He advised that forestry was like atonement for other businesses and effort should be put into managing forests in areas other than Besshi, too. He went on to recommend entry into forestry as a safety net below other businesses with fluctuating fortunes and as a sound business which, while low in profit, was of use to society and was relatively permanent, undergoing little change.

Following Murata's advice, Suzuki resolved to enter the forestry business around 1911–12. Seeking the consent of the Sumitomo family, he led the approval process, having Murata explain over three sessions the relationship between the state and its forests, and the state of the countryside in both Japan and the Korean Peninsula, which was controlled by Japan, and having a detailed study undertaken to look at scale, location, required capital, future cash flows, and management methods. Sumitomo General Head Office advanced preparations and conducted fact-finding surveys of forests on the Korean Peninsula, as well as in Hokkaido and Kyushu. The foundations of a forestry business began to take shape—in 1916, around 800

hectares of state-owned forests in Monbetsu, Hokkaido, sold off by the government; in 1917, a lease on around 1,200 hectares of state-owned forests in South Hamgyong Province (now in North Korea's north-east) on the Korean Peninsula; and, in 1918, surface rights for around 45 hectares of forest in Shiiba, Miyazaki Prefecture, in Kyushu. This was followed by the establishment of a forestry section at Sumitomo General Head Office in March 1919. After Sumitomo General Head Office was reorganized into a *goshi-kaisha* (limited partnership) in February 1921, the forestry section became the Sumitomo Ringyo-sho. Sumitomo's forestry operations were subsequently administered through two structures—the forestry section of the Besshi Mining Division, and the Sumitomo Ringyo-sho.

Pushing Through Illness to Issue Guidance at a Meeting of Forestry Office Chiefs

On establishment of the Sumitomo Ringyo-sho in November 1921, an inaugural meeting of forestry office chiefs (followed by a meeting of forestry office chiefs thereafter) was held. Suzuki went so far as to extend the 10-day conference by four days to ensure full adherence to the forestry mission and management policy. He sat in on the meeting, often accompanied by the next generation of leaders. On the fifth day, Suzuki was allotted a large time slot to speak. Citing lessons learned from the Besshi debris flows, he expounded on the importance of forestry and the mindset of forestry personnel. We can sense his strong ambitions for forestry from his taking the unusual step of inviting the head of the Sumitomo family, Tomoito, to speak at the meeting.

In March 1922, Suzuki suffered a cerebral hemorrhage. He made it to the meeting of forestry office chiefs in November, though he was in poor health. Having difficulty speaking, he summoned up all his energy to impart his guidance.[1] "Sumitomo's forestry business is a 100-year project and we should make forests Sumitomo's final stronghold. That makes the most sense to me. Forest work is hard work, but we have no choice but to depend on people. Please engage in this business with sincerity, knowing, as the old saying goes, 'Even if you do not attain the goal, pursue it with a sincere heart and it will be within reach.'" On December 5, Suzuki's resignation as director-general was accepted. He died 20 days later, on December 25. The guidance he delivered at the meeting of forestry office chiefs, were the last words spoken in an official capacity at Sumitomo by the man who had propelled Sumitomo toward

becoming an integrated conglomerate.

Afterward, the area of forest managed by Sumitomo Ringyo-sho increased to around 84,000 hectares in 1926, and 107,000 hectares in 1930. The area of artificially reforested land surpassed 30,000 hectares in 1937. Business profit and loss calculations began in 1938. In 1941, Sumitomo diversified into tropical agriculture and forestry by acquiring a rubber tree forest in Indonesia. This became a base for expansion into Southeast Asia for all of Sumitomo. At the close of World War II, the area of forest managed by Sumitomo Ringyo-sho had surpassed 120,000 hectares.[2]

More than a century has passed since Suzuki proclaimed, “Forests are suitable as a final stronghold and forestry is a difficult business that relies on the people involved in it.” Those words live on in the hearts of Sumitomo Forestry Group employees as we aim to become the world’s leading forestry company and implement the Wood Cycle to help resolve environmental issues affecting the entire planet.

Snowy landscape at Monbetsu Forest, which started out as a forest reserve for the Konomai Gold Mine

(75-year history, Prologue, Section 1: History Leading to the Establishment of Sumitomo Forestry)

1. The full text of his guidance can be found in the data section of the official history.
2. The area of forest owned and managed by Sumitomo Forestry as of December 2022 was 288,000 hectares. This comprised 48,000 hectares in Japan and 240,000 hectares overseas.

Environment and Resources Business

Managed forest by OBT Ltd. in Papua New Guinea

Episode 5

"Creating Forests to Protect the Planet's Future"

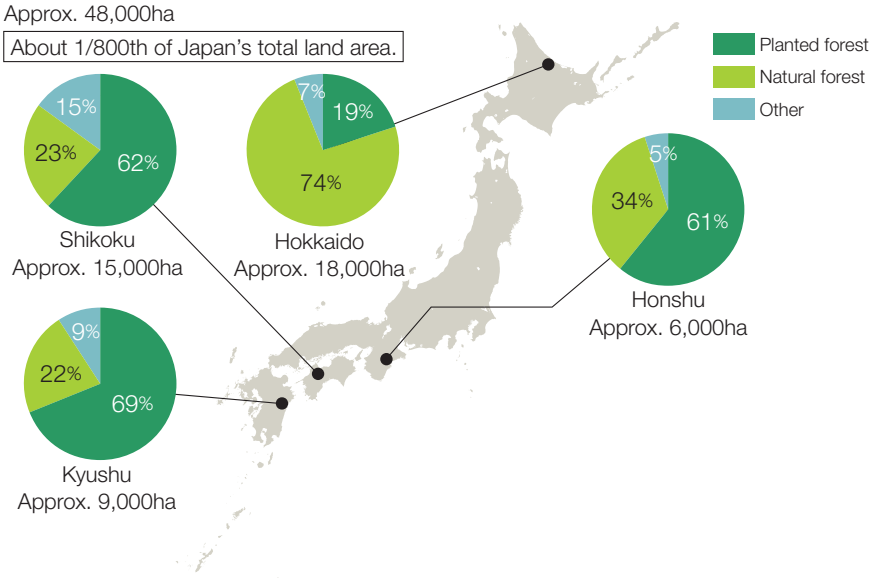
——A Spirit of Preserving Mountains, Guided by the Words of Predecessors

Watching Over and Protecting Forests

Sumitomo Forestry retains forest management plans created for its domestic company-owned forests, which were established by its predecessors. These include the first private-sector forest management proposal[1] drafted in 1904 (with a 10-year cycle) and the Forest Management Plans implemented since 1971 (with a 5-year cycle). Both documents detail the forests' general conditions (terrain, forest conditions, etc.), business outlines, management methods and plans, as well as projected long-term revenues and expenditures. While the methods have evolved—from manually surveying designated standard areas and recording findings with brushes, to employing aerial photography and sophisticated forest management systems to survey and create data maps—on-site inspections remain essential even today. Those engaged in the company's current forestry operations feel the weight of over 100 years of diligent, tree-by-tree effort reflected in every page of these documents, and have renewed their resolve to carry these ideals forward into the future.

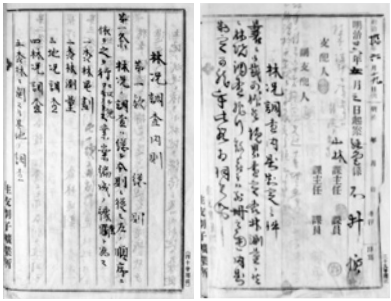
Sumitomo's forest operations began as a means to procure materials for the Besshi Copper Mine (opened in 1691). Under the leadership of Sumitomo's director-general during the Meiji and Taisho eras, Teigo Iba and Masaya Suzuki, this operation adopted a clear philosophy of "repaying for what was reaped from the land," aiming to restore the natural resources consumed by the business. By 1942, this approach culminated in the establishment of "sustainable forestry," guided by the principle of cutting no more than the growth volume, to protect the land and achieve the highest possible revenue while maintaining it forever. Following this policy, Sumitomo's company-owned forests in Japan have expanded to approximately 48,000 hectares, equivalent to about 1/800th of Japan's total land area.

This philosophy and approach were carried forward in the company's long-term



Distribution and Area of Company-Owned Forests (as of December 31, 2023)

plan, Mission TREEING 2030, announced in 2022. The plan addresses the Japan's need for renewal through appropriate logging and reforestation, as opposed to the circumstances of the world's forests, where continued decline and protection/conservation are urgent issues as society moves toward a decarbonized society. It envisions a business model that eliminates waste in the use of domestic timber and enables this renewal. This business model leverages Sumitomo Forestry's interconnected business domains of "forests," "timber," "construction," and "renewable energy." This integrated approach, termed the "Wood Cycle," aims to establish a circular forestry business model. Forest management has been redefined as the starting point of this cycle.



Internal Rules for Forest Condition Surveys (June 1903, housed in the Besshi Copper Mine Memorial Museum)
The First Sumitomo Forest Management Proposal Regulations
Photo credit: Sumitomo Historical Archives

From a Revenue Pillar to Challenging Times

Sumitomo Forestry's domestic forestry business has long been involved in efforts to promote Japan's forests and forestry industry. In 1955, Japan—a nation rich in forests—had a timber self-sufficiency rate of about 95%. During this time, the company's primary business centered on domestic timber, with company-owned forests serving as a significant source of revenue, to the extent that increased timber yields from these forests balanced the company's overall revenues and expenditures.

However, in the 1960s, Japan's forests, which were still recovering from overharvesting during the Pacific War, could not meet the surging timber demand driven by rapid economic growth.[2] Following the liberalization of timber imports in 1964, imports of foreign timber increased. The resulting price competition drove domestic timber prices down to a fraction of their previous levels. The number of domestic forestry workers dropped to one-third by 2020 compared to the 1990s. Japan's timber self-sufficiency rate continued to decline, reaching a low of 18.8% in 2002. Sumitomo Forestry sought to improve operational efficiency, including through the establishment of Shikoku Ringyo (now Sumitomo Forestry Wood Products Co., Ltd.). Despite these efforts, the forestry business fell into deficit in fiscal 1980 and continued to struggle financially, with few exceptions, such as the economic boom at the end of the bubble era. Nonetheless, company-owned forests and forestry are the origins of the company's identity, and it persevered with trial-and-error efforts, including mechanization, to improve profitability.

Reacknowledging Forests' Value and Expanding Company-Owned Forests

By the 1990s, growing urgency around global environmental issues heightened the recognition of forests' and timber's environmental conservation functions. This led to a worldwide push for sustainable forest management. In Japan, the Forest and Forestry Basic Act was enacted in 2001 to facilitate the multifaceted functions of forests and promote the sustainable and sound development of the forestry industry.

In its 8th Forest Management Plan announced in 2005, Sumitomo Forestry shifted its approach to company-owned forest operations to further enhance forest resources, ensure continuity, and achieve sound management. Forests were categorized into working forests, semi-working forests, and non-working forests. Working forests prioritized productivity improvements, transitioning from thinning to small-area clear-

cutting. Semi-working forests adopted selective logging, while non-working forests focused on their multifaceted environmental functions and were therefore excluded from profit-oriented activities. Small-area clear-cutting in working forests, including a renewed effort toward mechanization, aimed at improving efficiency and profitability and ensure a stable workload, addressing the decline in forestry workers. Logging and replanting were also essential for increasing CO_2 absorption, although there was public misunderstanding at the time that cutting trees equated to environmental destruction. Amid these challenges, the company obtained forest certifications, conducted biodiversity conservation studies,[3] and advanced small-area clear-cutting initiatives.

In the long-term management plan Project SPEED launched in fiscal 2007, the company announced a policy to expand company-owned and managed forests and actively undertook forest management and administration contracts. A revision of the plan in 2010 set the goal of becoming the "world's leading forestry company" within 30 years by maximizing forest value, including utilization. This strategy promoted reforestation to enhance CO_2 absorption and fixation, alongside the company's distribution, manufacturing, and housing businesses. Research findings publicized around this time indicated that cutting down and replanting forests was beneficial from the perspective of CO_2 absorption, which contributes to the mitigation of global warming. At the 2011 COP17 meeting (part of the Paris Agreement), it was agreed to include harvested wood products (HWP)—such as timber and wooden processed goods—in greenhouse gas absorption calculations. This underscored that, under proper management, "forests await harvesting."

Domestically, however, many forests planted during post-war reforestation efforts had reached maturity for cutting but were increasingly abandoned or left unmanaged due to unclear ownership or boundaries. Sumitomo Forestry's policy of expanding company-owned and managed forests aimed to address these issues by actively engaging with such neglected forests, revitalizing local communities, and contributing to Japan's overall forest rejuvenation.

Alongside the expansion of forest areas, Sumitomo Forestry has advanced initiatives such as seedling production, mechanization through the use of drones, forest resource surveys utilizing ICT technologies, forest consulting, and exports of domestic timber to China, South Korea, and Taiwan. In fiscal 2021, these efforts, coupled with the impact of the "wood shock" triggered by the COVID-19 pandemic—

marked by a sharp decline in imported timber and soaring prices—resulted in the domestic forestry business achieving profitability for the first time in 28 years.

Container-grown saplings at Togo Tree Breeding Center, Miyazaki Prefecture

Testing seedling transport via drones

Forest Management That Passes on Dreams

As Sumitomo Forestry's operations have become more global, its forestry philosophy has evolved from expressing "repaying for what was reaped from the land" at the national level to doing so on a global scale.

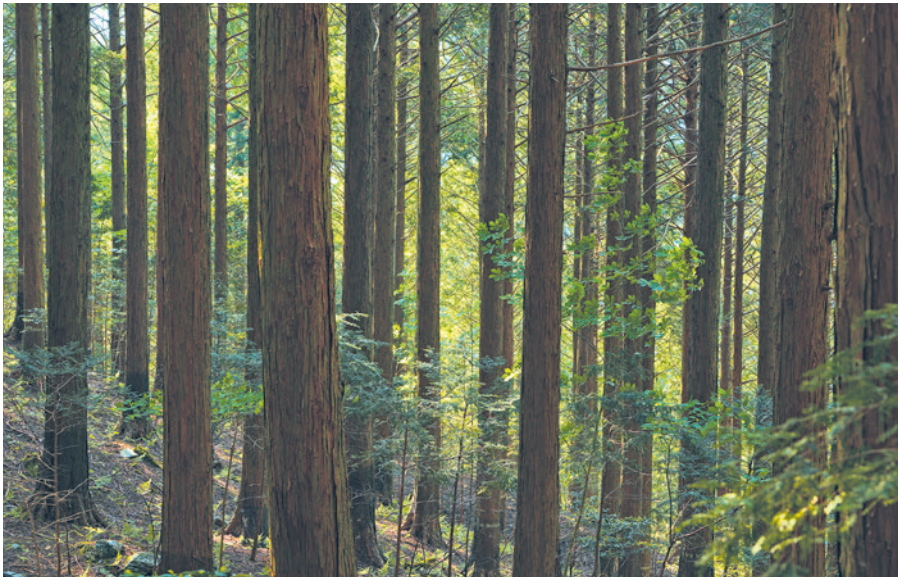
The company seeks to apply the words of its pioneers, such as Teigo Iba, who stated: "To leave the mountains of Besshi barren is to go against the fundamental laws of nature [...]

We must return the entirety of Besshi to its former lush green state and restore it to the great natural world," and Masaya Suzuki, who said: "Sumitomo's forestry business is a 100-year project and we should make forests Sumitomo's final stronghold." This philosophy extends beyond Besshi to encompass all of Japan and, ultimately, the entire planet.

Such ambitions cannot be achieved overnight. In Sumitomo Forestry's 10th Forest Management Plan, the average cutting age for its hinoki (Japanese cypress) forests exceeds 80 years, while that of its *sugi* (Japanese cedar) forests exceeds 60 years. These timelines surpass the career span of an employee from hiring to retirement. Even for kamarere, the primary tree species used in reforestation efforts in Papua New Guinea, it takes 18 years to reach maturity for cutting, allowing only two full cycles

from planting to harvest in a forester's career. For individuals, this "100-year project" may seem more like a dream.

Precisely because of this, Sumitomo Forestry, as a company, strives to carry on this "dream" and cultivate the personnel to realize it. Documents like the initial forest management proposal embody the footsteps of pioneers who envisioned a future where forests would return to their verdant state 100 years later. They walked through the forests toward realizing this future, recorded their conditions, drafted plans, and entrusted these aspirations to those who would follow. Sumitomo Forestry's forestry business serves as a relay baton, sharing this vision with national and local governments, regional businesses, and residents, and passing it on to the future.



Company-owned forests in Shikoku

(75-year history, Chapter 2, Section 1: Environment and Resources Business)

1. The creation of the first forest management proposal took 10 years to complete across all operational areas.
2. To address post-war reconstruction timber demand, the government promoted the "expanded afforestation policy" using coniferous trees starting in the 1950s. However, this initiative could not meet the pace of rapid economic growth.
3. In 2006, Sumitomo Forestry established a Basic Policy on Biodiversity Conservation for its company-owned forests, compiling a Red Data Book of rare animals within the forests and a riparian forest management manual. Since fiscal 2008, it has monitored the habitats of birds and mammals within these forests.

Episode 6

"A Modern Great Reforestation Plan on Indonesian Ground"

—— Protecting, Regenerating, and Cultivating Forests in West Kalimantan with Local Communities

From Environmental to Industrial Afforestation

Starting with the Sebulu Experimental Forest Project in Indonesia in the 1990s, Sumitomo Forestry has expanded its operations globally. As of February 2023, the company manages approximately 238,000 ha of forests across three countries: Papua New Guinea (about 31,000 ha), Indonesia (about 171,000 ha), and New Zealand (about 36,000 ha). Afforestation efforts are divided into two primary categories: environmental afforestation, which aims to restore and maintain degraded forests, and industrial afforestation, which involves planned logging and replanting to sustainably supply raw materials for the company's distribution and manufacturing businesses. Both approaches are developed as "social forestry" initiatives that provide economic benefits to local communities. These efforts involve innovations for agricultural and forestry coexistence, establishing cooperative planting unions, and obtaining forest certification while operating with the collaboration of nearby residents.

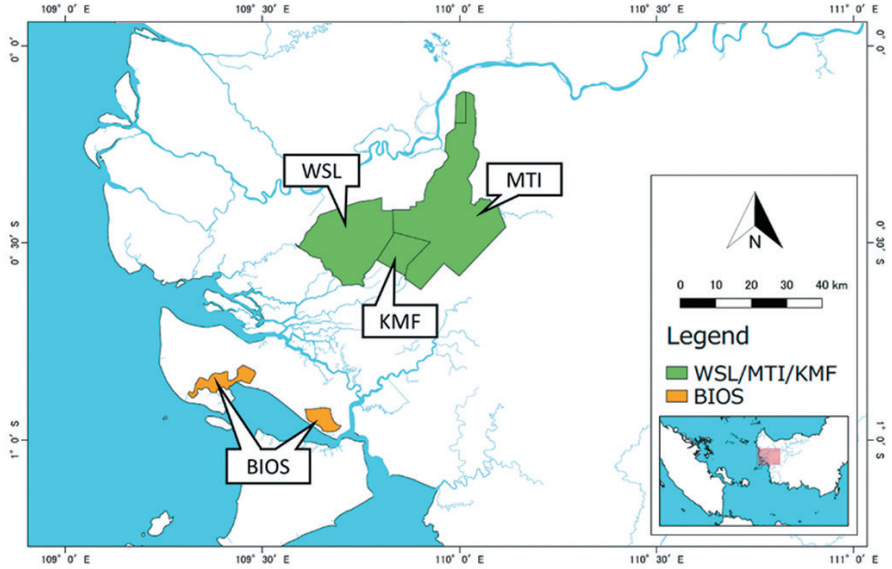
Among these three countries, Papua New Guinea and New Zealand involved the acquisition of existing afforestation areas, while in Indonesia, operations began by preparing degraded forestlands.[1]

"Great Reforestation Plan" in Indonesia with No Revenue for Five Years

Sumitomo Forestry's industrial afforestation business in Indonesia began in 2009 with its investment in MTI,[2] an afforestation company owned by the Alas Kusuma Group, a major local player in forest management and plywood manufacturing, as well as the establishment of a new joint venture, WSL.[2] The managed forests are located in Kalimantan (Borneo Island), under Indonesia's jurisdiction, covering approximately 145,000 ha, of which 105,000 ha belong to MTI and 40,000 ha to WSL. Of this area, 22,000 ha are designated for forestry operations. The company plants fast-growing Acacia crassicarpa with a short harvesting period of about four years. Each year, approximately 4,000 ha are harvested

and sold as raw material for papermaking to a paper manufacturing company in Sumatra. The remaining areas are managed as conservation zones to protect local wildlife, flora, and community needs. Much of these zones consist of tropical peatlands.

Tropical peatlands, with their high water levels, are formed from undecomposed plant matter that accumulates in water-saturated conditions. As this organic matter accumulates, it undergoes a process of carbonization. Although they account for only 3% of the Earth's land area (about 4 million square km), they're said to store approximately one-third of the world's soil carbon. Unregulated development of peatlands can lead to drying, releasing stored CO_2, and making the peat itself more flammable. In the region, peat fires have been the cause of extensive soot pollution, known as the haze problem.[3]



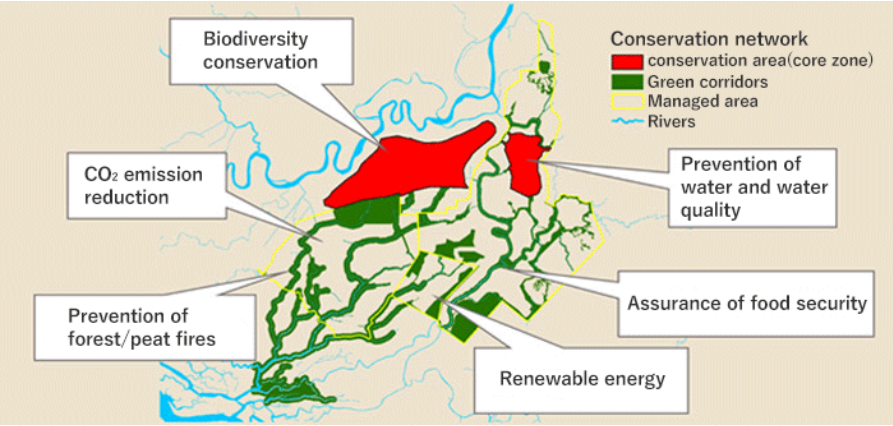
Location of afforestation areas by the four companies in West Kalimantan, Indonesia

For the industrial afforestation business in Indonesia, Sumitomo Forestry aims to turn these difficult-to-utilize peatlands into a foundation for local livelihoods while ensuring the plan's viability. Nurturing stewards of these forests locally has been identified as a critical mission. Confronted with vast expanses of degraded land, company representatives stationed locally were motivated by their "forestsmanship" to tackle the task of afforestation in the peatlands.

In Indonesia, local residents often rely on forest wood for their daily needs and

practice slash-and-burn agriculture, a legally recognized right. Respecting these practices, the company has focused on creating jobs through maintaining planted forests, actively contributing to and engaging with local communities to improve incomes and foster trust-based relationships.

Initially, the plan was to generate early revenue by selling residual timber harvested during the maintenance of planted forests. However, the overall quality of the timber was poor, and the volume suitable for sale was too low. This made transportation costs prohibitively expensive, forcing the company to abandon the plan. As a result, the business had to continue investing in maintenance of planted forests and afforestation expenses for the first five years, until the initial crop of Acacia crassicarpa matured, despite generating almost no revenue during this period.



Conservation network by WSL and MTI

Developing a Globally Recognized Water Table Management System

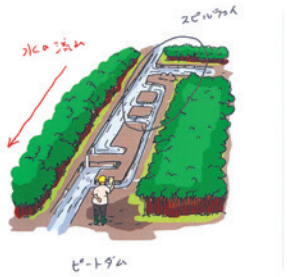
Amidst the prolonged period of no income, WSL and MTI sought innovative ways to manage tropical peatlands.

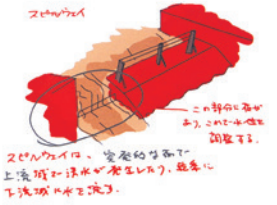
Traditionally, in peatland forestry, soil moisture would flow from higher elevations to lower ones, causing the water table in higher areas to drop. This led to drying and subsequent loss of the peatland. To address this issue, Sumitomo Forestry developed a “reservoir-based water table management system” utilizing a comb-shaped canal network. This system begins with the creation of a detailed contour map of the planted forests. The area is then divided into zones that work in harmony: protected forests (reservoir areas)

where no logging occurs, buffer zones with a groundwater level maintained between 0 and 20 cm, and production areas with a groundwater level maintained between 0 and 40 cm. A main canal runs through the center of the production area, with several water-level control dams installed at intervals to utilize slight differences in land elevation to regulate water levels. This ensures that the groundwater level remains within a stable range.

The system is designed with the concept of “simplicity, low cost, and easy maintenance” in mind. The canals are constructed without concrete, and the water gates use floating metal barrels as a simple mechanism for opening and closing.[4] By combining high-tech observation, survey, and design with low-tech structure and operational management, the system is adaptable to various regions.

In 2020, Sumitomo Forestry established KMF,[2] acquiring approximately 9,000 ha of industrial afforestation assets and operational rights adjacent to the areas managed by WSL and MTI. Further expansion came in 2022 with the acquisition of BIOS,[2] which owns approximately 10,000 ha of mangrove forests. This brought the total managed area to about 164,000 ha—equivalent to roughly 27 times the size of the area enclosed by the Yamanote Line in Tokyo. The mangrove forests owned by BIOS are estimated to sequester approximately 3.4 million tons of CO_2 in the entire trees, including their roots and about 62.7 million tons of CO_2 in their soil. Sumitomo Forestry aims to create carbon credits from the above-ground portions of these mangroves while maintaining the carbon stored in the soil, contributing to decarbonization efforts.





Reservoir-based water table management using a comb-shaped canal network

Mangrove forest

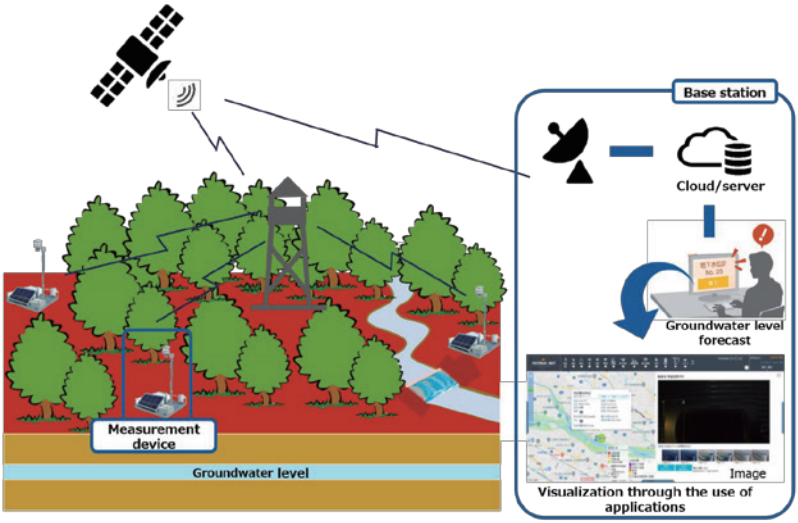
Nurturing People and Systems, Bringing Them to the World

Sumitomo Forestry has shared the results of its water management efforts in peatlands at the United Nations Framework Convention on Climate Change Conferences

(COP23, COP24, and COP25). These achievements have earned high praise, particularly from African nations, which also manage extensive peatlands. In 2021, this initiative led to a partnership with IHI and, by 2023, to the establishment of a joint venture, NeXT FOREST, specializing in peatland management.

Efforts to train forest stewards have also steadily progressed. Local staff, who initially performed tasks only as instructed, have since acquired sufficient knowledge and skills to take on core responsibilities. They are now actively involved in improving peatland management, including monitoring groundwater levels and soil moisture, and enhancing water management infrastructure technologies.

Even today in Indonesia, newly trained forest stewards are planting Acacia crassicarpa, paving the way for a sustainable future.



Groundwater level forecasting system

(75-year history, Chapter 2, Section 1: Environment and Resources Business)

1. Includes the forested area managed by KTI, the company's plywood manufacturing base, where afforestation activities are conducted in line with the principles of sustainable forestry.
2. Sumitomo Forestry's Indonesian afforestation companies include MTI (PT. Mayangkara Tanaman Industri), WSL (PT. Wana Subur Lestari), KMF (PT. Kubu Mulia Forestry), and BIOS (PT. Bina Ovivipari Semesta).
3. Fires from slash-and-burn agriculture have, in cases of lowered water tables with dry peat, ignited underground peatland fires, leading to widespread air pollution from the smoke.
4. The water level adjustment mechanism operates on the same principle as the opening/closing of the valve in a flush toilet tank.

Episode 7

"At Last, This Opportunity Has Come—We Won't Let It Slip Away"

——Executing the Company's Largest Investment After Over 3,000 Kilometers of On-Site Surveys in New Zealand

A Major Forest Sale in New Zealand

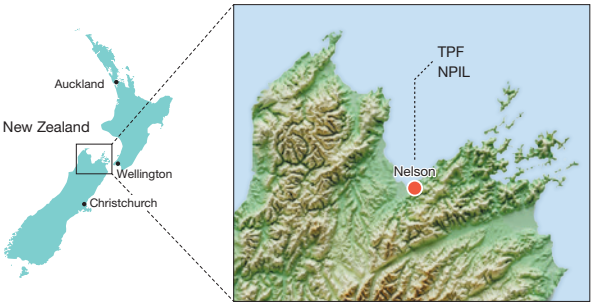
New Zealand, with a landmass approximately three-quarters the size of Japan, has over 30% of its territory covered by forests and is the world's largest exporter of industrial-use logs. Sumitomo Forestry has maintained a deep relationship with the country, establishing NPIL[1] in 1984 in the Nelson region at the northern tip of the South Island. This entity developed into the world's largest single-site MDF (medium-density fiberboard) production facility.

Having built up its business in the country over the past 30 years, in September 2015, information emerged about the potential sale of approximately 31,000 ha of Radiata Pine planted forest in the Nelson region. The land was owned and managed by Tasman Bay Forests Company (TBF), a forestry firm based in Auckland. It had been part of a fund managed by the U.S. forestry investment firm Hancock Natural Resource Group, which was to be sold off due to the fund's expiration.

As Sumitomo Forestry expanded globally, the company aimed to extend its domestically established principles of "sustainable forestry" to the world, balancing the stable procurement of timber resources with the conservation of overseas forests. After acquiring Papua New Guinea's OBT[1] in 2007 as a stepping stone, the company began forestry business in Indonesia in 2009. Despite multiple attempts at bidding for forest-related projects in New Zealand, success had proven elusive. Although facing difficulties in the bidding process, this Nelson project finally represented an opportunity too good to miss.

The planted forest was located close to both NPIL and Nelson Port. Its trees had already reached maturity for cutting (approximately 25 years), and it held a forest certification, with a well-established management system in place. Integrating the newly acquired forest with NPIL's existing 5,000 ha of planted forest land also became a feasible option. Additionally, the acquisition presented an opportunity to gain established

forest management expertise from a leading forestry nation. With these advantages in mind, Sumitomo Forestry approached the bid with unprecedented determination.



Nelson, located at the northern tip of New Zealand's South Island, is home to TPF and NPIL.

Securing the Bid Through Comprehensive Due Diligence

To secure the acquisition, Sumitomo Forestry conducted meticulous due diligence.

Executives and technical staff visited the site to survey the targeted forest. Divided into 23 forest compartments, each area underwent aerial inspections via helicopters, surveys with drones, and reconnaissance survey. These efforts examined planted forest conditions, tree damage, and the state of forest roads. The investigation team traversed 3,000 kilometers and conducted surveys of individual trees at 56 locations, scrutinizing factors such as soil erosion, nurseries, and equipment. Beyond forestry conditions, the due diligence extended to legal matters, potential risks (natural disasters and market fluctuations), projected demand and sales negotiation contacts for coniferous logs in potential export markets such as China, South Korea, and India, as well as export conditions in competing countries such as Canada, the United States and Russia. Even aspects related to emissions trading were thoroughly reviewed.

The initial Executive Committee meeting to discuss the acquisition took place in late October, 2015. By early December, the Board of Directors meetings convened to decide on participation in the final bid based on the investigation's findings. The intensive due diligence process was completed in just one and a half months, with the forest survey team repeatedly traveling between Japan and New Zealand in a short period of time.

Their frequent comings and goings became so notable that airport customs staff began recognizing them.

Teaming up with NPIL staff, the investigation team conducted surveys over two weeks, covering more than 50 locations across TBF's 23 scattered planted forests. Using rental cars and staying in weekly accommodations, they worked tirelessly every day from early morning until late at night, navigating narrow, unpaved forest roads. Day after day, breakfast and lunch consisted of meat pies and coffee eaten in the car. The team combined GPS and drones brought from Japan with hands-on fieldwork to compile extensive data.

After crisscrossing the forest and successfully completing the survey, the team returned the rental car, facing complaints about the vehicle's numerous scratches. Through those challenges, the results revealed that TBF's planted forests had a well-balanced age distribution, allowing for stable harvest volumes in each period.

The proposal to the Board of Directors meetings regarding the acquisition was led by the Environment and Resources Division, the Overseas Business Division (for acquisition planning) and the Timber & Building Materials Division (for post-acquisition sales to China). This collaborative effort reflected the company's full commitment. Despite the demanding schedule, the meticulous due diligence findings culminated in a calculated bid amount, the largest investment in the company's history. The proposal underwent multiple reviews in Executive Committee and Board of Directors meetings, and additional re-surveys were conducted to address questions raised during deliberations.

Finally, in December 2015, Sumitomo Forestry prevailed in the final bid, securing a contract with TBF for the purchase of the forest. Staff at all divisions spent a joyful Christmas.

The extent and routes of on-site due diligence inspections


Drone-based canopy surveys conducted at an altitude of 120 meters

Establishment of TPF and Integration of NPIL Forests

To operate the newly acquired forests, TPF[1] was established in April 2016 through SFNZ.[1] In January 2018, TPF took over the forest assets of NPIL, consolidating Sumitomo Forestry's planted forest operations in New Zealand under TPF.

The company divided the forests into 30 compartments, harvesting and replanting one compartment annually on a 24–27 year harvest rotation to achieve sustainable forest management. Every year, 800 to 1,000 radiata pine trees are planted per hectare. Radiata pine, a conifer with uniform and versatile timber, holds strong market competitiveness. Its uses range from furniture and packaging to construction and civil engineering materials, as well as raw material for LVL (laminated veneer lumber) and MDF (medium-density fiberboard).[2] Of the harvested wood, 40–50% is sold domestically, while 50–60% is exported. Responding to NPIL's request to expand product lines by manufacturing structural LVL, TPF collaborated with the Tsukuba Research Institute and external research institutions to select and cultivate elite high-strength radiata pine trees. These efforts aimed to leverage the strengths of Sumitomo Forestry's vertically integrated business model. Additionally, TPF supported securing market territory by directly exporting logs to customers in the Chinese market. From the beginning, the acquired forests contributed to stable revenue generation. TPF's role in the "Wood Cycle"—planting, growing, harvesting, using, and replanting—has grown increasingly significant. The acquisition of the radiata pine forests, expected to foster the development of Sumitomo Forestry's environmental resources as well as its timber building materials businesses and housing businesses in Oceania, has proved highly successful.

Transportation of radiata pine logs

(75-year history, Chapter 2, Section 1: Environment and Resources Business)

1. NPIL Ltd.: Nelson Pine Industries Limited; OBT Ltd.: Open Bay Timber Ltd.; SFNZ Ltd.: Sumitomo Forestry NZ Ltd.; TPF Ltd.: Tasman Pine Forests Ltd.
2. Nelson is also a wine-producing region, and TPF supplies logs to a factory manufacturing wooden stakes for vineyard trellises.

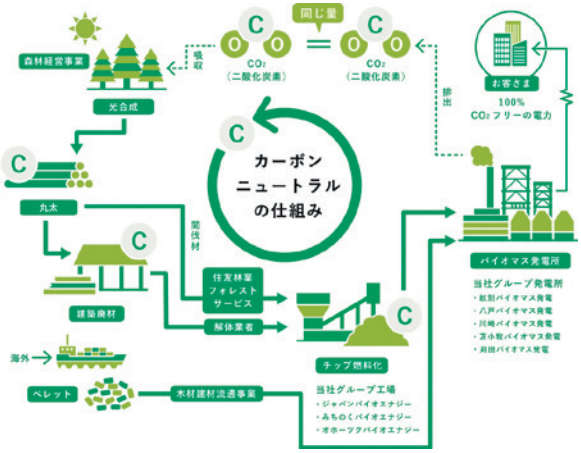
Episode
8

“Entering the Energy Business—Something I Never Expected When I Joined”

——Participation in Urban- and Forest-Sourced Wood Biomass Power Generation Business

Reusing Construction Waste to Take on the Challenge of Power Generation

Those involved in the early stages of the wood biomass power generation business often reflect on the surprising shift of selling electricity while working for a forestry company. When Sumitomo Forestry’s participation in its first project, the Kawasaki Biomass Power Plant, was considered, domestic power generation in Japan—especially with a responsibility to ensure supply—was virtually uncharted territory. While the company had some prior experience with biomass power generation in Indonesia, it was limited to small-scale facilities for private use within the Group.



The CO_2 emitted during the operation of biomass power plants is considered equivalent to the amount absorbed by trees through photosynthesis, resulting in no net impact on atmospheric CO_2 levels.

Entering the Business, Starting with Establishing a Waste Collection System

In April 2008, a proposal from Sumitomo Joint Electric Power led to the joint establishment of Japan’s first urban-sourced biomass power plant (33 MW capacity)

using construction waste and other materials in Kawasaki City. The company was expected to supply the raw materials. The required wood chips amounted to approximately 180,000 tons annually. While the Kanto region, where Kawasaki City is located, generates a large volume of construction waste, ensuring a stable supply of the necessary volume for chip production was not an easy task. Separation and efficient collection of waste materials from scattered construction sites and factories were essential. However, the company viewed its accumulated expertise in the timber and building materials business, as well as the housing business, as an asset to be utilized and decided to participate in the project.

This decision aligned with the policy of "promoting environmentally responsible and compliance-conscious business development." It enhanced the value of wood resources, fostered local industries whose products and services are produced and consumed locally, as well as consequent employment. Compared to fossil fuel use, the new power plant reduced annual CO_2 emissions by approximately 120,000 tons (equivalent to the emissions of about 22,000 ordinary households).

On the other hand, industrial waste disposal required navigating various stakeholder interests and ensuring strict management of collection, storage, and processing. To address this, the company established a fuel chip manufacturing company, Japan Bio Energy (JBE) through a merger to build a collection framework. Chips are efficiently delivered directly from the adjacent JBE factory to the power plant via a conveyor system.

The Kawasaki Biomass Power Plant began commercial operations in February 2011. Shortly afterward, in March 2011, the Great East Japan Earthquake struck, and the resulting nuclear power plant accident caused electricity shortage to become a societal problem. Amid this, the plant gained recognition as a source of "clean energy." Starting in 2013, it also began accepting discarded pallets and food residues[1] from within the city, further contributing to regional promotion of recycling efforts.

Kawasaki City, focusing on environmental initiatives, has established a system to certify CO_2 reduction mechanisms and related products and services. The power plant became part of the city's environmental bus tours, and within two years of starting operations, approximately 4,000 people had visited. In 2016, JBE was certified as an excellent industrial waste treatment operator by Kawasaki City, and

both the Kawasaki Biomass Power Plant and JBE received the Encouragement Award of the city's Smart Lifestyle Grand Prize.

Kawasaki Biomass Power Plant

Utilizing construction waste at Japan Bio Energy

Forest-Sourced Biomass Power Generation for Full-Scale Utilization of Unused Forest Resource

Next, the company embarked on a forest-sourced power generation project using unused forest resource[2] and thinned wood, etc.

The success of this project depended on creating a system that connects "forestry" and "power generation." For this reason, the company chose Mombetsu City in Hokkaido as the project site. Since the post-war period, the company has managed company-owned forests in Shokotsu and Konomai in Mombetsu, currently owning approximately 18,000 ha of forest and operating the Mombetsu Forestry Office. This established a strong foundation for collaboration with both the local forestry sector and the municipal government.

In July 2013, the Mombetsu Biomass Power Plant (50 MW capacity) and the Okhotsk Bio Energy (wood fuel manufacturing facility) were established under the company's leadership with support from Sumitomo Joint Electric Power (both entities had an investment ratio of 51% by the company). Unused wood resource, the primary raw material, poses challenges if left in forests, such as creating nests for harmful wildlife and obstructing reforestation efforts. Thus, converting it into wood chips achieves two benefits.

The plant is one of the largest domestic biomass power plants using domestically sourced wood as the primary fuel. Okhotsk Bio Energy also worked to secure stable supply by sourcing chips also from partner factories. Given the irregular shapes and poor loading efficiency of unused wood resources, the company implemented

measures to improve logistics efficiency, such as establishing intermediate collection sites to chip the wood on-site before transport.

Since then, the company has steadily increased the number of power plants. It has been confirmed to achieve the initial total generation target of 200 MW and is now aiming for 300 MW.

[List of Sumitomo Forestry's Major Biomass Power Plants] (as of December 2022)

	Kawasaki Biomass	Mombetsu Biomass	Tomakomai Biomass	Hachinohe Biomass	Kanda Biomass
Start of Operation	February 2011	December 2016	April 2017	April 2018	June 2021
Sumitomo Forestry's Investment Ratio	34%	51%	20%	52%	41.50%
Generation Capacity	33 MW	50 MW	6.2 MW	12.4 MW	75 MW
Fuel	Construction waste and other resources (e.g., discarded pallets, pruned branches)	Unused forest resource and other resources (PKS, coal)	Unused forest resource	Unused forest resource and other resources (PKS)	Imported pellets and other resources (PKS, unused forest resource)

The wood biomass power generation business leverages its expertise in forest management from the environment and resources business, its network in the timber and building materials business, and its system for recovering demolition materials from its housing business. This was made possible by leveraging the company's unique combination of business resources, spanning from upstream to downstream. With a focus on contributing to energy supply and combating global warming, the company continues to develop professionals who create systems for generating electricity from forests and wood, spinning the "Wood Cycle" to realize carbon neutrality.

Mombetsu Biomass Power Plant

Port yard of Okhotsk Bio Energy

(75-year history, Chapter 2, Section 1: Environment and Resources Business)

1. Includes materials such as soybean and coffee residues from food and beverage manufacturers.
2. Includes small logs, branches, and root sections unsuitable for lumber production.

Timber and Building Materials Business

Unloading lauan timber off the coast of Probolinggo Port, KTI

Episode 9

"Opening the Market for Laminated Engineered Wood, from U.S./Canadian Timber to European Timber"

——Leading the Industry by Accurately Grasping the Seeds and Needs Within and Outside Japan

Switching to Import of Timber Ahead of Log Export Restrictions

From the 1980s to 1990s, the timber trade experienced major structural changes. One such change was the shift from log to timber import. While the sudden appreciation of the yen was also an influence, things changed significantly when the international consensus started to seek sustainable forest management.

From the second half of the 1980s, the United States, a major producer of logs, saw a surge in efforts to restrict log exports, driven by a growing movement to protect the environment and the timber industry. In August 1990, a law entered effect that permanently prohibited the export of logs from all federal forests west of longitude 100°W except for Alaska and restricted exports from state forests. The next year, in May 1991, the Seattle federal courthouse ordered a temporary ban on the sales of wood from federal forests in the three northwestern states forming the habitat of the northern spotted owl, which was designated as an endangered species. Canada also essentially prohibited the export of all logs[1] from its southwestern regions in 1989.

Under these circumstances, to meet timber demand within Japan, Sumitomo Forestry and Japanese trading companies shifted to importing timber in alignment with the industrial policies of the United States, and also developed supply routes for timber products manufactured in Canada and timber products manufactured in Korea originating from the United States.

Amid the growing trend of requests for tighter restrictions on log exports, Sumitomo Forestry switched to importing timber and processed wood products early without waiting for legislative regulations in the United States. One of these efforts was entering into laminated engineered wood. In February 1990, Plum Creek Remanufacturing J.V. (PCR) was established as a joint venture with Plum Creek Timber Company in the city of Spokane in the eastern part of Washington state. PCR started producing 1,500 m^3

of laminated engineered wood each month, which were all exported to Japan.

Sumitomo Forestry dispatched a representative to Spokane to work on plant operation and quality management with the local partner. Although Spokane was the second largest city in Washington state after Seattle, it had few Japanese residents at that time and finding Japanese cuisine was near impossible. The Seattle representative developed business partners in the vicinity of Spokane and visited the representative working at the plant with New Year's cuisine and seasonal products.

At first, this laminated engineered wood was expected to be used as the core for pillars dressed using Japanese cypress veneer. However, it also had strength as a structural member. It achieved Japanese Agricultural Standards (JAS) certification by meeting strict standards and was adopted for the main structural pillar of YOU 21, a Sumitomo Forestry home launched in October 1992. Back then, laminated engineered wood had yet to establish a reputation in the building materials and housing industries, but Sumitomo Forestry offered YOU 21 with a long-term warranty of 20 years even though it was the first in the industry to use laminated engineered wood as an actual structural member. The success of YOU 21 led other home builders to adopt laminated engineered wood, significantly influencing the industry.

The import of products from the United States and Canada expanded steadily by meeting the needs of the times, and in the fiscal year ended March 1992, Sumitomo Forestry's import of timber products from North America exceeded that of logs.

Inspecting logs in Alaska (circa 1985)

Examples of timber products

[Main uses of imported timber products in 2003]

		Species	Origin	Uses
Imported timber	Coniferous trees	Douglas fir Western hemlock Yellow cedar Radiata pine Redwood Whitewood	United States, Canada New Zealand, Chile Europe, Russia Europe	Structural members such as beams Pillars, rafters, purlins, girders Antiseptic foundations, etc. Foundations Packaging materials Beams as laminated engineered wood Ceiling joists, rafters, main pillars Pillars, main pillars, etc. as laminated engineered wood
	Broad-leaved trees	Rubber tree Chinese oak	Indonesia, Malaysia China	Staircase materials, fixtures, and furniture as laminated engineered wood, and plywood cores Flooring materials

Approaching the Swedish Embassy Immediately After a Decision Was Quickly Made

Back in 1990, the Timber and Building Materials Business faced a crisis where log imports were dropping each year by 100,000 m^3 even though progress was being made in shifting to timber products from North America. It felt necessary to find new sources of coniferous trees. Specifically, one of the most important tasks was to provide a stable supply of building materials for Sumitomo Forestry homes at appropriate prices. The impact of U.S. export restrictions[2] on Sumitomo Forestry was greater than that on other trading companies, and the unclear future was also a concern.

It was under these circumstances that information came from the company's Forestry Division stating the possibility of procuring timber from Europe. The Forestry Division had detailed knowledge about matters in Europe, including Sweden, Finland, and Austria which were known as advanced countries in forestry making progress in mechanization and increase in scale. However, the department did not have information about the timber market. Even though there was a desire to take immediate action, we did not have a track record of transactions with Europe and had hardly any human network or information. Without firm prospects, out of the three countries, it was decided to approach Sweden and a visit was made to the Swedish embassy in Japan.

The embassy introduced Södra Skogsägarna, a forestry cooperative based in southern Sweden. From around 1992, Sumitomo Forestry employees flew to Sweden and started local surveys. In 1995, a representative office was established in

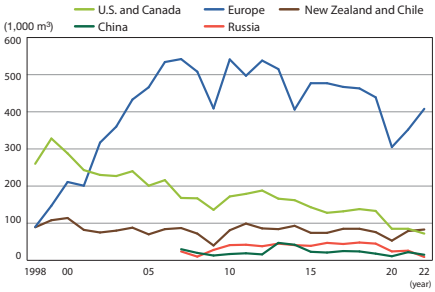
Amsterdam, Netherlands, and in between negotiations with Södra, employees visited timber plants in Sweden, Norway, France, Austria, Germany, and Italy, busily engaged in studying European timber market trends and finding suppliers. Cross-border visits were made without appointments, but many local plants opened their doors after seeing the word “Sumitomo” on the business cards.

Continuing this research, it was found that European timber was well-suited to the Japanese market. Sumitomo Forestry narrowed down the scope of imports to whitewood (European spruce) and redwood (European red pine).

There were three main points that made European timber products appealing. First, almost all European timber was distributed as dried timber. At that time, green timber (undried timber) was also handled normally in Japan, and this showed the high level of technology in Europe. The second point was that, unlike the United States and Canada, Europe is a region using the metric system.

The low transportation cost was the third point. An enormous volume of diverse exports is transported by container ships from Asia to Europe, but the volume of exports in opposite direction is extremely small, making it possible to transport timber at very low costs by using container ships bound for Asia. Furthermore, European dried timber is extremely light with a moisture content of 14% or less, allowing container freight with a high load rate. Estimates back then showed that it was cheaper to transport timber from Finland to Tokyo by container ship than via sea from Kyushu to Tokyo.

This allowed high-quality European timber to be stably supplied at competitive prices. Based on this confidence, Sumitomo Forestry embarked on import in 1995. The imported products mainly included lamina for laminated engineered wood and main pillars.



Volume of imported timber handled by Sumitomo Forestry, by country of origin

Redwood (European red pine) logs; import of whitewood (European spruce) was also vibrant

European Lamina Imported by Sumitomo Forestry to Meet the Increasing Demand for Laminated Engineered Wood

In actually importing these products, it became evident that the European technology related to timber products was advanced, with the moisture content of lamina at 14% or less, lower than that produced in the United States, and the drying process was uniform. Laminated engineered wood made from this lamina had high accuracy, expanding its application compared to previous products. Major home builders were the first to notice this characteristic, and this laminated engineered wood came to be used as core material for panels used in prefabricated construction. While there was a slight delay in its adoption in traditional construction methods, with the ratio of precut materials increasing up till 2000, its advantage in both quality and price came to be understood, and progress was made in switching from solid pieces of Japanese cedar and Japanese cypress to laminated engineered wood. Notably, laminated engineered wood made up close to 70% of pillars at its peak.

Lamina imported from Europe by Sumitomo Forestry met this increase in demand. Regular services of container ships stopped by Japan several times each month, providing a stable supply of European lamina. Being container freight, small-lot orders could also be handled, and as the ships stopped at major ports such as Tokyo, Osaka, and Nagoya, it was possible to transport efficiently to laminated engineered wood plants in Japan, significantly contributing to the expansion of Sumitomo Forestry's businesses.

European timber (lamina)

Creating New Markets as a Platform Operator

Meanwhile, there were large corporate mergers in Europe, and Sumitomo Forestry's main supplier became Stora Enso Oyj, a leading European timber company with its

head office in Finland. Stora Enso started producing laminated engineered wood for Japan in Estonia in 2003, and Sumitomo Forestry came to handle this product. Sumitomo Forestry built a strong business foundation, including the development of a long-term partnership with a leading company in Europe.

Looking back at history since the tightening of log exports from the United States and Canada, we can trace the transition in wood resource procurement—from log to timber products, and to laminated engineered wood with a higher degree of processing. This flow also gave birth to a new distribution channel from Europe to Japan.

The Sumitomo Forestry Group shifted the weight of importance to the import of timber products at an early stage, established a joint venture for manufacturing laminated engineered wood, worked also as a pioneer in opening routes for the import of European timber, and created new markets as a platform operator. This was made possible by the ability to discern materials as a professional in timber and Sumitomo Forestry's ability to perceive market trends. In the early 1990s, in contrast to the emphasis placed on importing rough cut logs[3] by many Japanese trading companies seeking European timber, Sumitomo Forestry focused on lamina and main pillars. The Sumitomo Forestry Group, with its comprehensive handling of business from upstream to downstream, enabled the creation of a business model that sought the most appropriate place and product. Behind the realization of this model and its development into a major business were the struggles of employees in unfamiliar Europe and a sense of mission in not causing problems for the housing business.

From the perspective of sustainability for forests and timber-related industries, the value of European timber produced from properly managed forests and the value of laminated engineered wood contributing to sophisticated use of wood will continue to grow in the future. As the leading company in these areas, the Sumitomo Forestry Group will need to meet the requirements of society.

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. British Columbia's state forests are managed through logging permits and processing is to be carried out within the state in principle. The export of logs is controlled through screening by the state government and export taxes.
2. In the United States, the export of logs from Washington state forests was temporarily banned.
3. These are logs for general purposes. The moisture content of precut logs before drying is around 20% and they cost more to transport from Europe compared to lamina.

Episode
10

"From Log Import to Working Forests"

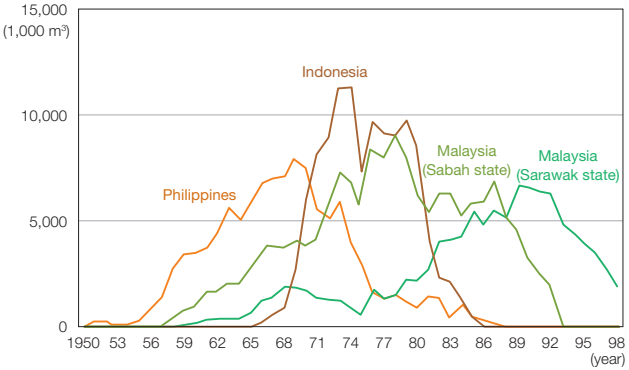
——Trading in Tropical Timber Reflecting Changes of the Times

Embarking On the Direct Import of Logs One Year After the Establishment of Sumitomo Forestry

Timber produced in tropical regions is known as tropical timber and is mainly used as raw materials for plywood. Full-scale handling of tropical timber started right after the establishment of Sumitomo Forestry in February 1955. In April 1955, a request for additional investment was received from Lianga Bay Logging, a company in the Philippines, and shipments started to be received the following year in October 1956. This was Sumitomo Forestry's first direct import of logs.[1]

In the 1950s, Japan's import of tropical timber overwhelmingly relied on timber from the Philippines. However, due to factors such as movements within the Philippines calling for restrictions on log exports to Japan and concerns about exhausting forest resources, gradually, moving away from Filipino timber and diversification of source countries became issues. The expectations of Japan's forestry sector were focused on Indonesian timber, which had not yet been traded so far.

Amid these circumstances, with the cooperation of the political, government, and financial sectors, major forestry companies came together to establish the Kalimantan Forest Development Cooperation Co., Ltd. (FDC) in 1963 to embark on forest development in Indonesia's province of East Kalimantan.[2] Sumitomo Forestry also invested in FDC and dispatched employees. During the time of FDC, "kuda-kuda" logs[3] extracted using human labor and water channels were also handled. While there were quality issues with "kuda-kuda" logs, they penetrated Japan's market due to their low prices and played a pioneering role in subsequently expanding the market for Indonesia timber.



Japan's import of tropical timber logs (by place of production)

Map of area around Malaysia and Indonesia (administrative zones as of February 2023)

Expanding Transactions in Indonesia and Malaysia

In 1979, the Philippines finally banned all exports of logs and Sumitomo Forestry closed its office in Manila. As the volume extracted from the Philippines had drastically reduced since the mid-1970s, Sumitomo Forestry was focusing on expanding imports from Indonesia and Malaysia before the total ban on exports.

In Indonesia, following the establishment of a representative office in Jakarta in May 1970, KTI was established in September 1970 as a joint venture with a local company. Representative offices were also established in places such as East Kalimantan's Samarinda and Balikpapan to expand transactions, peaking at approximately 30,000 m^3 of logs purchased each month. Meanwhile, in Malaysia, a representative was dispatched to Tawau in the state of Sabah in 1975 and an office

was established in 1977. Subsequently, a representative was also stationed at Sandakan in Sabah to find more suppliers.

Behind Sumitomo Forestry's significant growth in handling tropical timber were the employees stationed at the frontiers of deep forests, who settled down and found new sources. One employee who carried out site surveys of forests in Indonesia spoke nostalgically about those times.

"When I wore *jika-tabi* shoes and went into the mountains for the first time carrying a nata hatchet, I encountered an eastern green mamba up close and thought, 'What have I gotten myself into?'"

"I was shouted at by a former employee, who drove a machete into the table. I thought I wouldn't make it out alive."

"When I went into the mountains for a site survey, I experienced an accident where the passenger plane, which had a capacity of eight, couldn't stop due to a defective brake and overran the runway, eventually stopping after its landing gear broke. At that time, I truly felt I wouldn't survive this assignment even if I had nine lives."

Sumitomo Forestry's employees overcame various hurdles, going to the actual sites and seeing the actual situations. They also developed partnerships with local shippers and provided technical guidance. Instead of immediate gains, Sumitomo Forestry sought coexistence and co-prosperity with local companies from a long-term perspective. This was the company's basic policy in all endeavors.

Finding New Sources amid a Ban on Log Exports

A sense of crisis regarding the depletion of forest resources was also present in Indonesia and Malaysia's Sabah state. Around 1975, the Indonesian government started instructing that at least half of logs harvested be sent for processing within the country, and subsequently banned all exports of logs in 1985. Meanwhile, the state of Sabah in Malaysia started restricting exports around 1980 and banned all log exports in 1993.

With log exports gradually becoming more difficult, Sumitomo Forestry sought to find new sources of tropical timber. These were the state of Sarawak in Malaysia and Papua New Guinea.

Malaysia's Sarawak state retained its forest resources as the state was generally slow in its development. Sumitomo Forestry established an office in Sibu in 1982 and

focused on finding suppliers. Emphasis continued to be placed on building relationships of trust with local companies in Sarawak state, and the company succeeded in collaborating with the state's largest shipper in 1983, and also established a joint venture in Japan. Sumitomo Forestry came to become one of the leading companies in terms of Sarawak timber imports.

For Papua New Guinea, there were issues such as difficulty in gathering large volumes of certain tree species. In 1983, Sumitomo Forestry conducted a tree species survey in Port Moresby. From studying the results, it was assessed that, even with the wide range of tree species, it was commercially viable for Sumitomo Forestry, which had diverse sales channels such as plywood, construction, and furniture. A representative was dispatched to the capital of Port Moresby that year, followed by the establishment of an office in 1984.

Representatives were also dispatched to Bougainville Island and Rabaul, but in 1989, the independence movement on Bougainville Island turned into conflict. Martial law was declared, and Sumitomo Forestry's representative was forced to evacuate quickly to Port Moresby. Four Japanese citizens were evacuated at that time, of which three were members of the Japan Overseas Cooperation Volunteers program, and Sumitomo Forestry's employee was the only one stationed there for business. This was an episode that occurred because the company went to the very front lines to expand its business.

Subsequently, the frontier of Sumitomo Forestry's tropical timber business further advanced, with a representative office being established in Honiara, Solomon Islands in 1993.

Tropical timber logs (Meranti from Malaysia's Sarawak state, at Tokyo Port's No. 12 Lumberyard) in the 1990s (Sumitomo Forestry's 50-Year History)

OBT's planted forest in Papua New Guinea

Map of area around Papua New Guinea (administrative zones as of February 2023)

Promoting Conservation Forests and Working Forests for Sustainable Forest Management

From the 1990s, the protection of forest resources gradually came to be recognized as a global issue rather than an issue for each timber-producing country. With tighter restrictions on wood procurement becoming a global trend, Sumitomo Forestry also formulated its Wood Procurement Standards in 2005 and stated its policy of working with its business partners to ensure that its procurement takes place within a sound and fair supply chain.

The tropical timber business also sought to achieve procurement of sustainable timber and wood products and sustainable forest management and embarked on various initiatives. The pillars of these initiatives were conservation forests managed under consignment from governments and companies for the purpose of forest regeneration and conservation, and working forests where trees are planted in places that have been harvested as part of Sumitomo Forestry's business activities.

A pioneer of conservation forests was the Tropical Forest Regeneration Project carried out between 1991 to 2004 in the district of Sebulu of Indonesia's East Kalimantan province. This project received strong recognition from international agencies as an example of successful environmental cooperation with developing countries. Going into the 2000s, many projects were launched,[4] and Sumitomo

Forestry took the lead in regenerating forests.

With results from these conservation forests as a foundation, in 2009, Sumitomo Forestry decided on a policy to undertake large-scale working forests in Indonesia and entered into a partnership with Alas Kusuma Group, a major forest management and plywood manufacturing company in Indonesia. This was a project that sought to achieve a balance between the development of local communities and consideration for the environment through sustained production of logs cut from planted forests to meet the increase in global demand for wooden materials. Working forests were established in West Kalimantan province, with the project's land mainly being lowland forests and peatland forests that have been degraded by illegal logging and slash-and-burn farming. Revenue has been steadily rising since fiscal 2016. Sumitomo Forestry's forestry business area in Indonesia continues to expand, with the acquisition of new working forest business rights in 2020.

Looking back at Sumitomo Forestry's 75-year history, the handling of tropical timber has been a consistently ongoing business, although the business model has continued to change. The transition shows the stance of Sumitomo Forestry's representatives who immersed themselves in the local society and continued to take on challenges bravely to meet the new requirements of the times, working according to the changing situations of the times and sometimes anticipating changes.

Experimental forest in Sebulu (Meranti): First year of planting

Second year of planting

Tenth year of planting

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. Before this direct import, Toho Norin—a predecessor of Sumitomo Forestry—had started importing timber from British North Borneo in 1953 through a general trading company, sorting it for retail sale by use within Japan.
2. Kalimantan is the name used in Indonesia; in Malaysia, the name used is Borneo. The island of Kalimantan, where the province of East Kalimantan is located, is the same island as that known as the island of Borneo in Malaysia.
3. The logs are loaded by human labor onto wooden sleighs (kinma), brought to riverbanks, and transported using rafts.
4. Examples of conservation forests in Indonesia include forest restoration since 2000 after forest fires at Way Kambas National Park, the reforestation of Mitsui Sumitomo Insurance's Paliyan Wildlife Sanctuary since 2005, and ODA afforestation at three national parks since 2014.

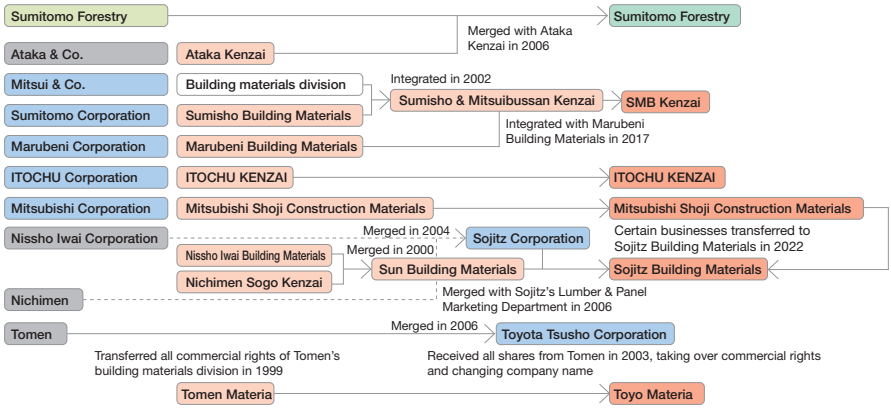
Episode 11

"Synergy Between Ataka Kenzai's Quality and Sumitomo Forestry's Management Resources"

—— Expanding Sales Through a Stable Supply of Quality-Controlled Ready-Mixed Concrete

Ready-Mixed Concrete, a Product Not Handled by Sumitomo Forestry

In April 2006, Sumitomo Forestry merged with Ataka Kenzai. Ataka Kenzai was established in 1976 when the building materials division of Ataka & Co., which used to be one of the 10 largest general trading companies in Japan, split from the company. Among trading companies selling building materials, Ataka Kenzai was especially strong in direct sales such as to builders, and had purchasing and sales routes, knowledge, and products that Sumitomo Forestry did not possess. One such product was ready-mixed concrete.



Restructuring of trading companies selling building materials

Ready-mixed concrete is defined under the Japanese Industrial Standards (JIS) as fresh concrete that comes from a plant with proper concrete manufacturing facilities and can be purchased by designating the quality required at its delivery destination. Concrete buildings are everywhere in cities, and almost all of these buildings use ready-mixed concrete, making it the staple of the construction industry.

There are stringent rules defined for ready-mixed concrete. An example is the time

limit for transportation. The amount of air in ready-mixed concrete decreases with time, reducing its slump value, which expresses the concrete's softness. To ensure quality, the JIS requires it to be transported within 1.5 hours from the time mixing starts at the ready-mixed concrete plant until the transporting vehicle arrives at the delivery destination. Furthermore, in the Japanese Architectural Standard Specification (JASS) defined by the Architectural Institute of Japan, there are detailed requirements for the time limits from start of mixing to completion of placing: 120 minutes when the outside air temperature is lower than 25 degrees Celsius, and 90 minutes when it is 25 degrees Celsius or higher. Other matters are also stated in detail in JIS and JASS,[1] including the storage of raw materials, production, types, quality standards, and testing methods.

On-site quality management

Difficult Product Requiring Quality Assurance

Due to these stringent rules, the transaction of ready-mixed concrete takes a special form that is different from other building materials. Generally, trading companies selling building materials are not involved in individual orders and deliveries once they have developed a sales channel; they are handled by the customer and supplier. In principle, the trading companies are not responsible for the quality of the building materials procured. In contrast, for ready-mixed concrete, as mentioned in the definition of ready-mixed concrete, the customer makes purchases designating the quality at the delivery destination, and the seller is required to ensure that quality. It is extremely difficult to handle ready-mixed concrete as a product without building a supply chain that can ensure the quality at the delivery destination and human resources that understand quality management. The market for ready-mixed concrete has a high barrier to entry.

Ataka Kenzai attempted to enter this market. Embarking on full-scale sales of

ready-mixed concrete in 1998, Ataka Kenzai worked earnestly to build its own supply chain. With approximately 900 designated plants out of more than 4,600 ready-mixed concrete plants nationwide, dealers were allocated for each region, establishing a supply system. In the aspect of quality management, besides requiring annual reports from all designated plants and conducting site visits to certain selected plants, for major construction sites, samples of ready-mixed concrete used for actual placement were also collected and stored, and the change in strength over time was checked. Furthermore, Ataka Kenzai retained employees who have obtained certification as authorized concrete engineers[2] and also put efforts into human resource development.

In addition to building a supply chain, Ataka Kenzai also strove to expand its business area. Besides builders of detached homes, it also actively deployed sales activities targeting developers and general contractors and became well-versed in ready-mixed concrete not only in construction but also civil engineering. In this way, the recognition that "Ataka's ready-mixed concrete can be trusted" penetrated the market and Ataka Kenzai's ready-mixed concrete business grew in performance.

The Tokyo Metropolitan Area Division Moved Promptly on Information About Ready-Mixed Concrete

Entering fiscal 2005, Sumitomo Forestry and Ataka Kenzai worked on business integration with a view toward merger. In the process, the recognition of Ataka's ready-mixed concrete was also conveyed to Sumitomo Forestry. The high level of quality management and nationwide network was also understood by the sites of the Timber and Building Materials Business, and that information reached the Housing Division through internal communication channels. This casual exchange of information will come to have significant meaning subsequently.

A few days after news reports about the business integration, the person-in-charge of ready-mixed concrete at Ataka Kenzai was surprised by a telephone call from someone at Sumitomo Forestry—a complete stranger—asking to do business. It left an impression of moving with a sense of speed.

The telephone call was from the head of the production management center under the Tokyo Metropolitan Area Division. The Tokyo Metropolitan Area Division was newly established in April 2005 to gain the top market share in Tokyo. To the production

management center, which was directly under the division and in charge of five former branch offices and all properties being constructed, which number approximately 800 projects each year, reducing costs was an especially important issue among the many production reform issues.

"Previously, we had been buying ready-mixed concrete from secondary wholesalers. If we can purchase from trading companies selling building materials, which are further upstream in the sales channel, we may be able to significantly reduce costs." This was the thought behind the call. Ready-mixed concrete is indispensable for laying foundations. Even if the cost reduction per building was small, there was value in taking this approach when considering the 800 buildings within Tokyo and 10,000 buildings nationwide.

However, there was the issue of quality. The quality risk was extremely high: if ready-mixed concrete that did not meet the rules for foundation work was used, the completed building would have to be torn down and rebuilt entirely, starting from the foundation. On this point, the quality management of Ataka Kenzai could be trusted.

Negotiations with Ataka Kenzai proceeded smoothly, and in January 2006, it was formally decided that Sumitomo Forestry's Division would purchase ready-mixed concrete from Ataka Kenzai. Able to satisfy both aspects of quality and price, another major advantage to Sumitomo Forestry was the availability of a nationwide supply network.

Merger ceremony for Sumitomo Forestry and Ataka Kenzai (April 1, 2006)

Further Enhancement to Turn Ataka Kenzai's Ready-Mixed Concrete into Sumitomo Forestry's Ready-Mixed Concrete

With the merger between Sumitomo Forestry and Ataka Kenzai, the team in charge of the ready-mixed concrete business at Ataka Kenzai became a part of the Development Promotion Division under the Timber and Building Materials Business Headquarters in April 2006. The Timber and Building Materials Business secured a new sales channel that it did not have in the past and achieved a net increase in sales, but the effects of the merger did not stop there.

The delivery of ready-mixed concrete to Sumitomo Forestry homes started from Tokyo. After the merger, the deliveries expanded to the whole of Japan. This was because Sumitomo Forestry's Division recognized the quality and reliability of the ready-mixed concrete at a national level.

This ready-mixed concrete used in Sumitomo Forestry homes had a strong selling point. To buyers, there was no better quality assurance beyond the fact that Sumitomo Forestry itself was using this concrete. In this way, the number of ready-mixed concrete customers grew smoothly even after the merger. In particular, the expansion of business to home builders known as "power builders" significantly contributed to the increase in sales. With even better sales, trust in this concrete further increased. There were even cases when general contractors—who were the main contractors of large-scale development projects—designated that orders be placed with Sumitomo Forestry.

The ready-mixed concrete business quickly showed the effects of Sumitomo Forestry's merger with Ataka Kenzai. The brand of "Ataka Kenzai's ready-mixed concrete" built based on robust quality management was further enhanced through fusion with the management resources of Sumitomo Forestry to become "Sumitomo Forestry's ready-mixed concrete."

Looking back at this process, there were the encounter between Ataka Kenzai's ready-mixed concrete and Sumitomo Forestry homes, internal communication that created this encounter, and the quality management of Ataka Kenzai that led to this recognition in the first place. High-quality items are the seeds of business expansion. These seeds grew significantly under the open corporate culture to give birth to the "Sumitomo Forestry's ready-mixed concrete" brand.

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. Japan Society of Civil Engineers has its own standards different from that of JASS, and the handling of ready-mixed concrete is complicated due to the different standards between construction and civil engineering.
2. The passing rate is around 30%. There is also the higher-level qualification of authorized chief concrete engineer.

Episode 12

"Combining the Credibility of Regional Building Contractors with Sumitomo Forestry's Expertise"

—— INOS Group Business Aiming for Reinstatement of Wooden Houses

INOS: Helping to Solve Issues Faced by Building Contractors

In April 1992 and the next year in April 1993, two new businesses for building contractors were launched in succession within the timber and building materials business. First was the CAD and parts (C&P) business of the Business Development Department. Certain parts of the CAD system developed by Sumitomo Forestry were provided to building contractors at a fee. Regional building contractors were organized centered on this service and house building materials were supplied in total to them. The other was the material supply system business within the First Business Department, which comprehensively supplied building contractor with key materials[1] centered on original structural members used in Sumitomo Forestry homes.

Both were mechanisms that support distributors by invigorating local building contractors, who are at the forefront of distribution channels for timber and building materials. The Business Headquarters had a plan to integrate the two businesses to create a mechanism that provides even more comprehensive support to contractors.

Amid a market where the proportion of wooden structures in the number of new housing starts continued to be below 50% since 1984,[2] regional building contractors faced issues with design, planning, sales capabilities, and labor productivity, troubled by problems that included the reduction and aging of skills workers and a shortage of new young workers. The INOS Group Builders' System of Sumitomo Forestry[3] was launched in October 1993 to solve difficult issues that cannot be handled by contractors alone and aim for the reinstatement of wooden houses.

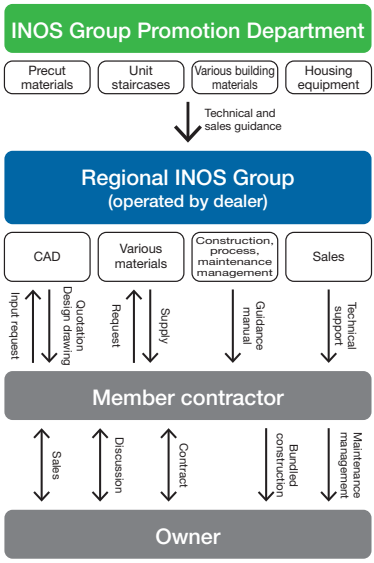
Establishing a System for Efficient Supply of Materials and Sales and Technical Support

In the INOS Group Business, retailers of house building materials in each location

were selected as dealers, and a group was created with regional building contractors as members of branches operated by those dealers. CAD stations were installed at locations nationwide, and at the same time, training was also conducted to develop CAD operators at dealers so as to allow the use of logical design by member contractors that include structural calculations using computers. The CAD system developed by Sumitomo Forestry is also linked to material production, and this mechanism allows dealers to efficiently supply member contractors with Sumitomo Forestry's streamlined and labor-saving materials, including precut materials. A system was also established to provide member contractors with detailed support in sales through system advisors (SA) and technical issues through technical advisors (TA).

In this way, the INOS Group Business supported areas where building contractors traditionally had difficulties: realization of lower costs through improvement in productivity, and improvement of capabilities in design and sales. In addition, making work more efficient and saving labor also supported contractors in the aspect of human resource development by improving the working environment of carpenters and their technical proficiencies.

The INOS Group Business received strong recognition from regional building contractors as well as material retailers. The number of member contractors continued to increase, and there was also a case of a major retailer sharing the same thoughts about the approach of the INOS Group Business who started doing business with Sumitomo Forestry and joined as a dealer. To respond to this expansion in business scale, the INOS Group Promotion Department[4] was established under the Business Headquarters in April 1995. The then-Ministry of Construction was also promoting a project to develop a new generation of wooden houses, and the



INOS Group system

initiatives of the INOS Group were recognized as having achieved excellent results and seeking appropriate practical use. In 1994, it was selected as the supply system for new-generation wooden houses.

Seeking a Simultaneous Quality in Local Living Customs and Standards Necessary for Construction

The INOS Group is not a franchise for the purpose of royalty income. The source of income for Sumitomo Forestry comes from the sales of materials to member contractors through dealers and the growth of regional building contractors brings profits to Sumitomo Forestry. It is truly a mechanism for coexistence and co-prosperity. The INOS Group was positioned as a nationwide home-building network in a partnership with Sumitomo Forestry, and business was conducted seeking a balance between the uniqueness of local living customs and standards necessary for construction.

This policy of applying local living customs is also shown in the use of richly individualistic naming befitting local areas, such as Mie Prefecture House and the *Shikisai* (Four Seasons) House. Using Sumitomo Forestry's product development capabilities and modern design approach as the foundation, INOS homes are built by combining with the credibility and home-building expertise that regional building contractors have in their respective regions.

Meanwhile, in the aspect of standards necessary for construction, Sumitomo Forestry implemented measures to support building contractors, taking into consideration the needs of construction sites. In 2007, when the Building Standards Act was revised, making the procedures for building confirmation and inspection more stringent, the burden on contractors was significantly reduced by allowing structural calculations to be carried out using the INOS Group's CAD stations. In 2008, an INOS home was selected as the first certified quality home under the home warranty insurance of Jyutaku Anshin Hosho, and in 2009, the business was selected as a model business leading long-life quality housing by the Ministry of Land, Infrastructure, Transport and Tourism in the second round of its selection that year. Furthermore, Sumitomo Forestry seeks to enhance the safety of INOS homes. In 2016, it was made standard that regular inspections will be carried out until the 10th year after handover, and in 2018, seismic control dampers—which were recognized

for their effects during the Kumamoto earthquake of the same year—were adopted as standard. The quality of INOS homes was polished through such generous initiatives.

Pamphlet introducing brands unique to each region across Japan

Improving the Brand of INOS Homes Through the Development and Introduction of Original Products

In the aspect of supporting sales, Sumitomo Forestry also continued to work on the development of original products under INOS homes and worked to improve the brand.

In 1993, the year when the INOS Group was established, Sumitomo Forestry launched the T series of homes where plans are proposed and the Y series of custom design homes, followed by the X series of high-class custom-built home in 1995. In 2005, when the original high-performance structural member PF-WOOD was also adopted, previous product systems were integrated into the brand of INOS homes using solid pieces of wood for design. Subsequently, Sumitomo Forestry continued to develop and introduce concept products successively according to the needs of the times. For example, the net zero energy house ENETOMO was launched in 2012, and the MOTENA PLUS house supporting working women was launched in 2018. So far, 29 original products have been launched under INOS homes. Sumitomo Forestry's

capabilities in planning and design bring vitality to the INOS Group Business as a whole, and also contribute toward improving the financial performance of building contractors.

While the number of member contractors shifted toward a temporary increase in the second half of the 2000s, a decreasing trend continues due to the shrinking home-building market. However, from the perspective of the INOS Group Business's starting point of supporting building contractors, it is not appropriate to evaluate the business solely using numbers. At the INOS Group's national general meeting held every year in spring, homes built by member contractors are recognized through excellent design awards, serving as an opportunity for the entire INOS Group to compete in and mutually enhance design excellence. Following exclusive sale of PF-WOOD for the INOS Group, Sumitomo Forestry plans to transition to an original construction method using metal fittings in 2025 for further safety and rationalization of building processes. Sumitomo Forestry will continue to provide new technologies and expertise meeting the needs of the times.

The INOS Group is a stage for co-creation between regional building contractors and Sumitomo Forestry, and the INOS homes born from this stage continue to evolve.

INOS Group's national general meeting in 1999

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. Five-item set comprising structural members, peripheral materials (hagarazai), staircase materials, INTERSHUNOL, and interior components used in Sumitomo Forestry homes.
2. According to "Housing Starts" statistics by the Ministry of Land, Infrastructure, Transport and Tourism; the percentage of new wooden housing starts remained around 80% throughout the 1980s.
3. The name given to the supply system for new-generation wooden houses when it was adopted.
4. The INOS Group Promotion Department became the INOS Department in 2012 and the business came under the charge of the Housing and Building Materials Department in January 2022.

Episode
13

"The Story of PRIME WOOD's Birth"

——Flooring Materials with a Name That Elevated to the Brand of Sumitomo Forestry Homes

High-Quality Sawn-Board Flooring That Is Compatible with Earnestly Desired Underfloor Heating

In April 2021, Sumitomo Forestry's Housing Business launched PRIME WOOD, a brand of original materials using high-quality wood. Currently, the PRIME WOOD brand has a lineup of materials for floors, ceilings, staircases, doors and windows, decorations, storage, cupboards, handrails, and washrooms, becoming one of the faces of Sumitomo Forestry homes. The PRIME WOOD brand originated from an original flooring material for Sumitomo Forestry homes developed by Sumitomo Forestry Crest ("Crest").

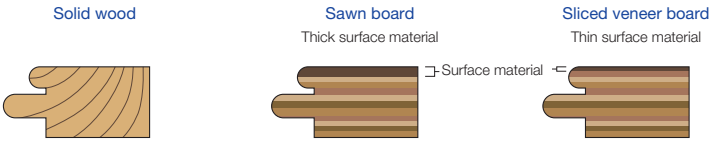
Flooring materials form the baseline for interior finish selection by people building a home. Decisions are made for interior components—such as doors and window frames—according to the color and texture of the flooring material. To a manufacturer, this is an important material in terms of design that links to other products. Due to this importance, both Sumitomo Forestry and Crest had special thoughts about flooring materials.

Here, the story goes back to around 2000. Back then, the proportion of new detached houses and multi-family housing installed with underfloor heating was rising rapidly. The market was looking for flooring materials that could withstand underfloor heating, which are flooring materials with small dimensional changes from heat. In 1988, veneer flooring materials compatible with underfloor heating were launched.

However, Sumitomo Forestry was insistent on using flooring materials made using solid pieces of wood from various tree species, which the company had been offering. This resulted in such flooring materials suitable for underfloor heating not being made, as the dimensional changes were significant. There was an earnest desire for a new flooring material that could achieve a balance between the housing functions sought

by the market and the housing texture that had been pursued by Sumitomo Forestry homes. Crest also knew this all too well.

Cross-sections of flooring



* Cross-section shapes may differ by manufacturer or product.

Cross sections of solid, sawn, and veneer boards

Unveiling Prime Wood of Five Tree Species at a Viewing in February 2013

In April 2012, Crest launched the sawn-board series LUCIDO EX of sawn-board flooring that looked like solid wood as a series of a higher class than SIST S/Pastio, a range of interior components including flooring materials for general distribution. As a high-class product, it was not expected that LUCIDO EX would be sold in volume through normal distribution channels. It was a product created in-house by Crest in its development of sawn-board flooring materials as higher-class products of existing sheet and veneer flooring materials. When launched, it was a product that was outside the scope of materials for Sumitomo Forestry homes.

The unforeseen LUCIDO EX was a flooring material sought by Sumitomo Forestry homes, having the texture of solid wood even though it was a sawn board while also being compatible with underfloor heating.[1]

Around the same time as the launch of LUCIDO EX, a competitor announced its dressed sawn-board flooring, and there was a possibility that this competing product would be adopted in Sumitomo Forestry homes.

Crest took action. To quickly turn LUCIDO EX into an original material of Sumitomo Forestry, the product was introduced at a meeting with Sumitomo Forestry's housing business segment, drawing attention to its high quality as well as its compatibility with Sumitomo Forestry's offering of products from many tree species. This was the first time that Sumitomo Forestry came to see that Crest's sawn board, which looked like solid wood and was compatible with underfloor heating, was the flooring material it was looking for, and there were high expectations. Through this, a path was seen for the adoption of Crest's product for external parties as an original material for Sumitomo Forestry homes.

Crest made refinements, including specification changes, to turn LUCIDO EX into an original product of Sumitomo Forestry as well as prepared for mass production. Meanwhile, at the same timing as the Sumai Haku housing fair organized by the Housing Division in Nagoya in February 2013, a viewing was conducted at Crest's nearby Nagoya Plant. Sumitomo Forestry made an informal decision to adopt a polished version of LUCIDO EX as an original material and named it Prime Wood.

The viewing showcased tree species variations—cherry, maple, oak, teak, and walnut—and the pamphlet featured catchphrases such as "Sumitomo Forestry's original flooring befitting Sumitomo Forestry's passion for wood," "Compatible with underfloor heating," and "Achieves the texture of solid wood." Fueled by expectations, advanced sales of Prime Wood started in April, an extraordinary fast pace, and it was stated in catalogs for Sumitomo Forestry homes in July.

Closed viewing for home building materials of Sumitomo Forestry Crest

Prime Wood Became the Face of Sumitomo Forestry's Interior Finishes

As expected, Prime Wood received support from many customers. Both Sumitomo Forestry and Crest firmly believed that Prime Wood would become a new flagship

product and worked on developing this product after formulating a strategy. Taking in customer feedback, Sumitomo Forestry made various requests, and Crest also worked on improvement after improvement to meet those requests. At the same time, Crest also gave proposals from technical perspectives.

Prime Wood came in five tree species when it was launched, and was expanded to other tree species that could only be procured by Sumitomo Forestry. Mahogany as well as oak, cheery, and walnut produced in Japan were added to the lineup. Coating and paints were also reviewed in pursuit of even more comfortable feel for the feet.

In this way, through cooperation between Sumitomo Forestry and Crest, Prime Wood's appearance and finishing gradually changed[2] while growing to become the face of Sumitomo Forestry homes' interior finishes. At model homes in particular, Prime Wood received the attention of many visitors for being products that express the overwhelming sense of wood, the pride of Sumitomo Forestry homes. "This flooring material is an original product of Sumitomo Forestry" became the winning sales pitch for Sumitomo Forestry homes.

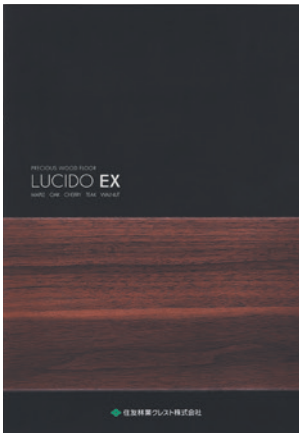
Becoming a Brand Encompassing All Original Materials of Sumitomo Forestry

Of the requests from Sumitomo Forestry, Crest struggled the most for oil finishing. Oil finishing is a method of letting oil soak into timber. As there is no coating on the surface, it does not prevent the wood from breathing and allows the skin to feel the natural texture of wood. At the same time, it creates a look that brings out the expression of wood. On the other hand, it took effort for daily maintenance, and there were concerns regarding the worsening of dimensional stability as the lack of a coating on the flooring's surface made it easier for moisture to escape from the wood. Crest worked on improving the properties of the flooring materials and also undertook research and development on the oil used for soaking timber. It took four years after the request before the oil-finished sawn-board flooring—with improved appearance and texture that can be felt by the skin—was completed.

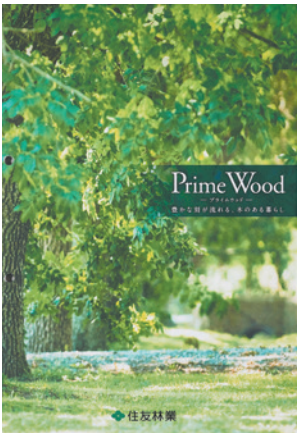
This oil-finished sawn-board flooring entered the lineup as a material simply under the product name "Sawn-board Flooring 114 Flat Oil" in June 2021. Prime Wood had come to be used as a collective brand name for Sumitomo Forestry homes' original materials, and since April 2021, Prime Wood was no longer used as a product name

for flooring materials.

Although the name of Prime Wood has disappeared from flooring materials, the efforts and passion of Crest's development staff and Sumitomo Forestry's materials staff working hand in hand to pursue Sumitomo Forestry's uniqueness and protect and increase product and brand value is passed down in Sumitomo Forestry's own original materials brand PRIME WOOD. As long as this passion remains, materials making use of the sense of wood will continue to be created in new brands.



LUCIDO EX catalog (2012)



Prime Wood catalog (2013)

Elevation from a name for flooring to a brand name
(catalog for 2018 on the left and catalog for 2021 on the right)

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. A unified standard has been defined by an industry organization based on the unique specifications held by the respective major gas companies. For example, in the heat-resistance running test, a wide range of items spanning appearance, floor squeak, gap, level difference, and warping are evaluated either through 1,000 hours of continuous operation, or 100 cycles—each cycle comprising eight hours of operation and four hours of rest—followed by 300 hours of continuous operation. Strict standard values are defined.
2. Prime Wood went through repeated minor changes and improved in quality. Due to major specification changes and performance improvements, it was renamed Prime Wood II in 2016 and Prime Wood III in 2019.

Episode 14

"From a Leading Wood Processing Business to the Forefront of Environmental Initiatives"

——KTI's Journey of Over Half a Century in Indonesia

Establishing a Joint Venture with a Local Company

In September 1970, the Sumitomo Forestry's first joint venture in Indonesia, PT. Kutai Timber Indonesia (KTI), was officially established with the approval of the Indonesian government.

Although the company had begun purchasing small quantities of tropical timber from Samarinda, East Kalimantan, in 1966, it had been exploring the establishment of a joint venture with local companies to expand its business. Fa. Kaltimex Jaya, the largest shipper in the Samarinda area with a prior business relationship with the company, was chosen as the joint venture partner, leading to an agreement.

KTI had a capital of USD 1 million, with a shareholding ratio of 30% Indonesian and 70% Japanese. Including loans to KTI, the total investment amounted to 468 million yen.[1] Given that Sumitomo Forestry's capital at the time in 1970 was 1.26 billion yen, the scale of this investment, which exceeded one-third of its capital, underscored the company's determination to enter the Indonesian market.

When KTI was established, the Indonesian Ministry of Forestry imposed conditions requiring the construction of a sawmill within three years and a processing plant to handle 60% of raw material production within seven years. In retrospect, these conditions became a precursor to KTI's significant development.

Starting Forest Development in Kalimantan and Plywood Manufacturing in Java

KTI began developing a 50,000-ha forest in the Sebulu Forest District, located about 80 kilometers upstream along the Mahakam River from Samarinda in East Kalimantan. In January 1971, it commenced exports to Japan, achieving profitability in its first year of operation.

In 1972, KTI began constructing a plywood factory in Probolinggo, East Java. A new log transport vessel was also built to link Samarinda and Probolinggo, and manufacturing of standard plywood started in December 1974. Following this, the production of teak veneer plywood and printed plywood started with enhanced facilities in 1976. In 1980, the company implemented an expansion project to increase production capacity by 50%. Further updates and upgrades to equipment were carried out in 1984 and 1986, focusing on export growth, allowing the business to expand steadily.

Several factors can be cited as reasons for the success of KTI's business.

First and foremost, the quality of the timber in the Sebulu Forest District provided a strong foundation. When exports began, a favorable market situation existed as the price of logs had risen significantly. Conversely, when plywood manufacturing started, market prices were sluggish. This led to the decision to halt exports, including those to Japan, and instead focus on rigorous sales efforts to cultivate domestic customers in Indonesia. Another contributing factor was the massive sale of plywood in Bali following the major earthquake in July 1976, driven by reconstruction demand. After plywood exports commenced in 1979, measures were implemented to ensure meticulous product management. For example, pocket-sized booklets summarizing the standards of export destination countries were distributed to all employees.

While these various efforts on both the production and sales fronts undeniably contributed to KTI's success, the more fundamental factor of Sumitomo Forestry's overall approach to overseas business was bigger.

When construction of the base in the Sebulu Forest District began, the initial Japanese team consisted of nine employees, mostly seconded from the company. These individuals lived in rented houses in a local village and prioritized building dormitories for local white collar workers, a gesture that earned the trust of those around them. Furthermore, the decision to unify the company's internal language as Indonesian from the outset played a significant role in fostering trust.

The company's approach of rooting itself in the local area, forming good partnerships with local businesses, employees, and communities, and committing to long-term operations helped foster harmony among people within KTI.

KTI's Business Expansion

Log Transport Ship Connecting Samarinda and Probolinggo (KUTAI RAYA DUA)

Diversifying Product Lines to Counter Increased Regulation of Plywood Exports

In 1985, significant changes occurred in the plywood industry. All plywood exports were required to go through APKINDO (the Indonesian Wood Panel Association),[2]

with quantities and prices becoming subject to government regulations. In Japan, an import agent trading company called Nippindo,[3] established in 1988 with APKINDO's investment, became the sole importer of Indonesian plywood starting in 1992. Both KTI and buyers of its plywood were forced into restricted trading conditions, making it challenging to envision expansion of the plywood business.

In response to the restrictions on plywood exports, KTI sought to diversify its product lineup further. In 1993, a new wood processing division was established, and a laminated wood factory was constructed, marking the start of the laminated wood business in 1994. With this, KTI developed an extensive product range, including natural wood laminated products like door components and wall materials for the European market, as well as merkusii pine laminated products for stair components and furniture. Additionally, in 1993, production began on long plywood specifically for use as flooring substrates for certain Japanese manufacturers.

KTI maintained an extremely high employee retention rate due to its favorable working environment, which allowed skilled workers to develop steadily. While Sumitomo Forestry's technical guidance supported the smooth diversification of product lines, the exceptional quality of KTI's workforce played a significant role.

Growth Into One of Indonesia's Leading Comprehensive Wood Processing Companies

The 1997 Asian Financial Crisis[4] plunged Indonesia into a severe economic crisis. Demonstrations erupted nationwide, escalating into riots in Jakarta. In May 1998, President Suharto, who had held power for over 30 years, was forced to step down. During this upheaval, KTI's factory in Probolinggo suspended operations for three days.

This political shift also dismantled the APKINDO-Nippindo system. By the late 1990s, the number of plywood factories had swelled to more than 130, reaching a historical peak. The sudden removal of previous regulations in this environment made intensified competition inevitable.

KTI focused on leveraging its advanced technical capabilities to produce products with a higher degree of processing. In 2000, it began producing fire-rated doors for the UK market using laminated boards with fast-growing falcata trees as a base, getting its building materials business on track. In 2008, a particleboard manufacturing

plant, constructed adjacent to the plywood factory, commenced operations, adding to KTI's existing facilities for plywood and wood processing. During the 2000s, as the supply of logs for plywood declined and less competitive factories were phased out, KTI gained widespread recognition as one of Indonesia's premier comprehensive wood processing companies.

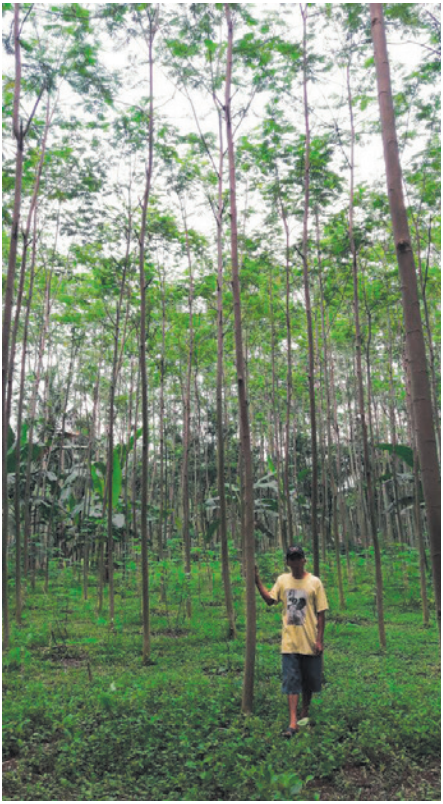
While pursuing the development and expansion of its wood processing business, KTI also remained committed to sustainable forestry practices. Starting in 1972, two years after its establishment, it launched initiatives to regenerate the Sebulu Forest District. Efforts included establishing experimental plots for measuring the growth of young meranti trees and undergrowth and planting merkusii pine along forest roads. Although these initiatives were lost in the great fire of Kalimantan in 1983, the principle of "planting what is harvested" became deeply ingrained among KTI employees. Amid the global trend toward protecting forest resources, several initiatives were launched: the Tropical Forest Regeneration Project in 1991, the "social forestry" in 1999, and Project EARTH[5] in 2009. As a key base for the Group's operations in Indonesia, KTI has played a central role in these efforts. Of particular note is the social forestry, in which seedlings of fast-growing trees like falcata are distributed free of charge to local residents, who then grow the trees. Once mature, the trees are purchased by KTI. This system, designed with environmental, social, and economic considerations in mind, has earned strong support from local communities. In December 2008, planted forests managed under the social forestry, organized through a forestry cooperative

Interior of a KTI factory

established by KTI with local farmers, received forest certification. This was the first certification achieved by the Group's planted forests, symbolizing KTI's dedicated support for social forestry and the trust it had built with local farmers.

In this way, KTI not only advanced its timber business—from raw logs to plywood, wooden products, and particleboard—but also established itself as a frontline player in the Group's environmental initiatives. By anchoring itself in local communities, KTI has been a driving force in various projects.

KTI, the first overseas group company, has consistently pushed the boundaries of new frontiers. Its journey remains ongoing, even in the face of global challenges.



Falcata-planted forest that has obtained forest certification

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. At the official parity rate in 1970, one U.S. dollar equaled 360 yen.
2. APKINDO (Asosiasi Panel Kayu Indonesia) was a private organization established in 1976 by 13 major companies in Indonesia's plywood industry. Later, Bob Hasan, who had strong ties with President Suharto, took a leading role, aligning APKINDO's activities with national policies. For example, in 1985, to promote Indonesia as a plywood-exporting country, APKINDO introduced a "New Market Export Incentive Program," targeting countries such as Japan, South Korea, Taiwan, Australia, and New Zealand.
3. Nippindo was a joint venture between the company Kanmatsu Shōji and APKINDO, headquartered in Osaka. Initially, Nippindo acted as an agent solely for plywood used in concrete molds. In 1992, it expanded its product coverage, and by 1994, Nippindo exclusively handled all panel imports from Indonesia.
4. The Asian Financial Crisis began in July 1997 with the sharp devaluation of the Thai baht. Like Thailand, Indonesia had adopted a dollar peg system but switched to a floating exchange rate in August. In October, the IMF approved emergency assistance. However, political turmoil exacerbated the crisis, and by 1998, the rupiah had plummeted to as little as one-seventh of its value against the dollar, causing widespread economic disruption.
5. Project EARTH offsets carbon emissions generated during the logging, carry out, milling, transport, and construction processes of wood used for the main structural materials in Sumitomo Forestry homes (approximately 60,000 tons of CO_2 annually) by reforesting areas in Indonesia.

Episode 15

"Pioneering the Japanese MDF Market Through Collaboration"

——Building a Sustainable Forestry Business with NPIL in New Zealand

Resonating with New Zealand's Sustainable Forest Management

Japan began importing New Zealand timber in 1958, following the signing of a trade agreement between the two nations. At the time, domestic Japanese pine supplies were running low, prompting Toyo Menka[1] to start importing radiata pine in an effort to increase supply. Sumitomo Forestry began handling radiata pine by taking charge of sales in the Kansai region on behalf of Toyo Menka. In 1968, it started direct imports.

New Zealand has been committed to forestry policies since the mid-19th century, fundamentally prohibiting the harvesting of natural forests and relying on planted forests for its forestry industry.[2] Approximately 90% of New Zealand's planted forests consist of radiata pine, a fast-growing species native to California. New Zealand established a sustainable forestry model for planted forests with planned cycles of harvesting and replanting every 25–30 years. Importing planted forest timber from such a country aligned with the company's policy of handling stable supplies of timber under the concept of sustainable forestry, the company strengthened the development of the New Zealand timber market in Japan. By the 1970s, it was handling roughly 10% of New Zealand's total radiata pine exports. The local shippers and administrative authorities in New Zealand also viewed the company favorably, as the company's approach to managing every step from planting to harvesting and processing resonated with their values. In 1974, a trainee exchange program was established with New Zealand's Forest Service, resulting in four exchanges being conducted.

Establishing a Manufacturing Company with Two Local Shippers

Against this backdrop, New Zealand's Forest Service and business partners approached the company to propose establishing a joint venture. Their goal was to enhance the effective use of radiata pine.

One emerging plan involved producing MDF (Medium Density Fiberboard). Radiata pine, while fast-growing, has wide growth rings and lower strength, and was thought to be unsuitable for structural applications like beams at the time. As a result, it was mainly used for packaging materials or temporary construction frameworks. However, processing radiata pine into MDF by leveraging its fiber characteristics could produce a material with excellent surface smoothness, appealing color, outstanding workability, and consistent quality, significantly increasing the utility of radiata pine.

Sumitomo Forestry carried out discussions on concretizing the business with two leading local shippers[3] who supplied radiata pine and, in October 1984, established NELSON PINE INDUSTRIES LIMITED (NPIL) as a three-company joint venture. The shareholding structure allocated 35% each to the two New Zealand companies and 30% to the company.[4]

NPIL constructed an MDF manufacturing plant in Nelson City,[5] located in the northern part of New Zealand's South Island. In May 1986, the first production line, with an annual capacity of 100,000 m^3, began operations. In January 1987, exports to Japan also commenced. MDF for the Japanese market was exclusively handled by the company under the brand name "N.P. Wood," while NPIL marketed the product globally under the "Golden Edge" brand, targeting regions outside of Japan such as Australia and Taiwan.

Panoramic view of NPIL

NPIL adopted a cutting-edge continuous press system from the German company Küster, enabling the production of high-quality MDF. With production cost reductions achieved, sales volumes steadily grew. The second production line was added and began operation in May 1991, followed by the third in October 1997, raising NPIL's production capacity to 350,000 m^3 annually, making it the world's largest single-site MDF factory by capacity.

Sumitomo Forestry assigned employees across a wide range of roles, including executive management, quality control, and marketing. Murray G. Sturgeon,[6] who served as NPIL's president from its inception until 2019, played a crucial role as a counterpart in harmonizing the business with local circumstances and driving its development. Under his leadership, by the late 2010s, NPIL had grown to process approximately 30% of the annual radiata pine harvest from Nelson and the neighboring Marlborough region.

Pioneering the MDF Market Through "Manufacturer Sales" by a Dedicated Team

The establishment of NPIL marked the Sumitomo Forestry's entry into the MDF manufacturing sector. The next mission was to develop the MDF market within Japan. When imports from NPIL began, the MDF market in Japan was significantly smaller than the plywood market, and MDF had limited recognition. Moreover, the small market was almost entirely dominated by two domestic MDF manufacturers.

The company ventured into this challenging market, working to enhance MDF's recognition. Efforts focused on encouraging the substitution of plywood with MDF for suitable applications and highlighting the superior quality of N.P. Wood. Traditional methods of selling building materials proved inadequate. In 1986, the company formed an MDF market development team at its headquarters and launched a "manufacturer sales" strategy. The MDF team partnered closely with branch office plywood representatives, visiting major building material retailers, major clients, and potential MDF users across various regions with thorough, persistent efforts. In parallel, the team worked to establish direct sales channels with large building material manufacturers and other major clients. Aiming to develop partnerships and cultivate customers who would use N.P. Wood over the long term, team members meticulously

explained the product's quality and performance while identifying customer needs.

The manufacturer sales by the MDF team extended beyond sales. Every three months, they visited NPIL to provide feedback on customer requests and product issues to the manufacturing and technical development teams. Collaborative discussions led to product improvements, such as the early switch to low-formaldehyde (E0) products for the Japanese market.

These efforts gradually increased sales of N.P. Wood. Especially when plywood prices surged, the stability and advantages of MDF's price were recognized, prompting major building material manufacturers to adopt MDF. This adoption became a turning point, further expanding its applications and distribution.

Promoting Sustainable Wood Products as the Company's Role

As N.P. Wood found increasing applications in housing components and as a base material for furniture and woodworking products, customer requests for product improvements also grew. Notable contributions to sales channel expansion included NPIL's world-first development of lightweight, low relative density thick MDF and the addition of thin MDF to its product lineup.

NPIL's LVL was used in the new research building at the Tsukuba Research Institute.

The MDF team and NPIL also looked for ways to improve areas like MDF's relative weakness against water compared to plywood. Through continuous efforts and adhesive improvements, they succeeded in enhancing the water resistance of N.P. Wood, enabling its use in applications such as window frames. Additionally, innovative measures, such as using empty space on return trips of car carrier ships to transport products to Japan, helped reduce costs beyond product improvements.

In 2001, NPIL began producing veneers, and in 2002, it started manufacturing LVL (Laminated Veneer Lumber), expanding its operations through the adoption of new technologies.

Through such efforts, Sumitomo Forestry has developed and expanded the MDF market in Japan. Forty years have passed since the establishment of NPIL, during which time the company has consistently strived to promote MDF, firmly believing that "MDF is a sustainable wood product and an essential material for balancing the growing global demand for wood with environmental considerations." This commitment stems from the belief that grasping societal demands swiftly and delivering solutions to society is a vital role of the timber and building materials business.

Transforming environmental value into business and supplying it to the market will be the foundation for corporate growth in the future. In this context, the mission of the Group is to conceptualize and create a sustainable business platform for wood. The collaboration between the Group and NPIL, built on a resonating philosophy regarding wood, represents one example of this platform. The philosophy of sustainable forest management is giving rise to innovative wood-based businesses that provide environmental value.

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. Former name of Tomen, which was absorbed into Toyota Tsusho in 2006.
2. Under the Treaty of Waitangi, signed in 1840 between Queen Victoria of the United Kingdom and the chiefs of the Māori, New Zealand's indigenous people retained ownership of land, forests, and fisheries, thereby protecting natural forests.
3. Ordlin Group and Newmans Group.
4. Subsequent changes in shareholding ratios made it a wholly owned subsidiary.
5. Nelson City is the central city of the Nelson region in the northern part of New Zealand's South Island. The corporate group owns approximately 35,000 ha of forest assets in the Nelson region, establishing an efficient and long-term stable raw material supply system for NPIL.
6. Currently the Chairman (as of February 2023).

Episode 16

"From Nine Consecutive Years of Losses to Debt-Free Management Through Business Restructuring"

——RPI, the First Particleboard Manufacturer in the Group, Based in Indonesia

RPI Had Never Achieved Profitability Since Its Establishment

The particleboard[1] manufacturer faced a critical financial crisis. This involved PT. Rimba Partikel Indonesia (RPI), a Group company based in Indonesia.

RPI was established in 1990 as a joint venture between Sumitomo Forestry and PT. Kayu Lapis Indonesia (KLI), a Chinese-owned company that operates Indonesia's largest plywood factory, with both parties contributing equally to the capital.[2] Sumitomo Forestry was responsible for management and sales, while KLI supplied the raw materials. A factory was built on land adjacent to KLI's plywood factory in Kendal Regency, Central Java, and production commenced in 1992. This was the Group's first particleboard production facility.

Particleboard is a product with a relatively low selling price, but was expected to be a profitable business as it utilized the large quantities of waste wood generated at KLI's factory as raw material. However, KLI used the waste wood as fuel and demanded compensation equivalent to the cost of fuel when supplying it to RPI. This resulted in raw material costs being higher than anticipated for RPI. In addition, Sumitomo Forestry's sales in Japan did not grow as expected. Miscalculations at both the input and output stages of the business led to RPI incurring losses for nine consecutive fiscal years, from its establishment until the fiscal year ending December 1998.

Particleboard

Waste wood used in particleboard production (RPI)

One saving grace amid the challenges was the high quality of RPI's particleboard. This achievement was the result of the dedicated efforts of the Sumitomo Forestry employees who had been involved with RPI.

The First Initiative Was Improving the Factory's Meals

In April 1999, a new president was appointed at RPI. When notified of the posting, a director of Sumitomo Forestry stated, "Do whatever it takes to achieve profitability." This was interpreted as meaning that there was no need to seek headquarters' approval for every decision. With that understanding, his decision to take on the role was made. This marked his fourth posting to Indonesia.

The first initiative at RPI was improving the factory's meals. Sharing meals with factory employees was taken as a matter of course, but the first taste of the factory-provided meals revealed their terrible quality. Upon investigating, it was explained that the meal budget was fixed at the same amount as that of KLI. A new expense category was created to improve the meal offerings, which included adding another side dish and milk. Furthermore, changes were made to allow even the previously excluded day laborers at the factory to receive meals.

Efforts were also made to improve hygiene management. The unsanitary kitchen was renovated, and the dining hall was refurbished. Living spaces were arranged separately for kitchen staff who had previously slept in the kitchen. Additional

The current dining hall at RPI

handwashing stations, toilets, and shower rooms were installed within the factory, raising hygiene awareness among employees. A prayer room (musholla) for Muslim employees was also rebuilt. The work schedule was revised from a three-team, three-shift system to a four-team, three-shift system. Attendance rates, which had fallen below 80%, rose to over 90%. Production volumes increased, and the yield of high-quality products improved. Investments in employees, prioritized as the first step toward turning the business around, produced tangible results.

Achieving the First Profitable Year in 1999 by Reducing Raw Material Costs and Revising Selling Prices

The next focus was addressing the input and output issues. If raw materials were expensive, cheaper alternatives needed to be sourced. Trimmings from roadside trees, scraps from mango and durian orchards, and branches from trees felled during development projects were collected as low-cost wood materials. Since RPI's technical team had been researching and developing alternative raw materials for some time, it was relatively easy to utilize materials other than waste from plywood factories. By reducing the procurement of expensive waste wood chips from KLI, manufacturing costs were reduced.

Sales at unprofitable prices were halted, and profitability was made the top priority. There were even cases where deals introduced by Sumitomo Forestry were declined. Naturally, any drop in sales volume needed to be compensated for, and this is where the high product quality came into play. New sales channels were developed within Indonesia to recover the lost volume. For exports, a new route to China was established, allowing sales at higher prices than those for the Japanese market. Additionally, RPI's technical team developed a new environmentally friendly product, a low-formaldehyde particleboard called "E1,"[3] which was launched in 1999. As a high-value-added product with a strong profit margin, E1 made a significant contribution to revenue.

As a result, the financial results for the fiscal year ending December 1999 turned a profit. A business structure capable of generating profits was established, and it seemed that RPI's management was on a more positive trajectory.

The Key to Recovery Was How Quickly Debt Could Be Repaid

In June 2000, a bill for interest payments arrived from the International Finance Corporation (IFC).[4] The previous year, an agreement had been reached with the IFC to extend the repayment deadline, but as a condition, the interest rate had been raised by about 2% to 9.5%. It was clear that sustaining the burden of a 9.5% interest rate in the long term would be untenable. It was determined that the success of RPI's turnaround hinged on how quickly the debt could be fully repaid.

Aiming to further improve profitability, a shift was made to a cash flow-oriented management approach. Production plans prioritized factory operating efficiency, and product inventories were reduced to less than half of previous levels, strengthening the financial foundation. From a product competitiveness standpoint, following the release of E1 in 1999, an even lower-formaldehyde particleboard, E0, was launched in 2000, further strengthening profitability. Additional efforts were devoted to cost reduction and the expansion of sales channels.

These efforts bore fruit, and RPI achieved six consecutive years of profit growth starting in 1999. Along the way, in 2002, all loans from the IFC were repaid ahead of schedule. By the first half of 2003, all other loans had also been repaid, enabling the company to transition to debt-free management.

Closet made using particleboard

Relying on Personal Experience from Previous Assignments in Indonesia

Within the Group, RPI was the only production base for particleboard at the time. Personal experience from extended assignments in Indonesia was the only strength to rely upon.

Over those years of experience, it became second nature to eat the same meals as employees at the local dining facilities. In hindsight, this approach revealed the challenges RPI faced. While countries differ, the foundation of happiness is the same for everyone. The most fundamental aspects proved to be the most critical. With that foundation firmly in place, efforts were directed toward implementing management reforms.

Particleboard is an environmentally friendly product that makes effective use of wood waste. With projected growth in demand, it was imperative to cultivate particleboard as the next key product following plywood. The shared determination to succeed at all costs was a sentiment held by all Sumitomo Forestry employees involved with RPI. That strong resolve forged a path through difficulties and fostered growth for both individuals and the company.

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. Particleboard refers to a panel with a thickness of 6 mm or more, made by applying synthetic resin adhesive to small pieces of wood that have been cut or crushed and pressing them into shape under heat and pressure.
2. Shareholding ratios: Sumitomo Forestry 47.5%, KLI 47.5%, and the International Finance Corporation (IFC) 5%.
3. At the time (1999), formaldehyde emissions from particleboard and fiberboard were categorized by JIS into three grades, from lowest to highest emissions: E0, E1, and E2. Although RPI's particleboard was not JIS-certified at the time, the 2003 amendment of the Building Standards Act led to a revision of JIS. Currently, labels are indicated with symbols such as "F☆☆☆☆," "F☆☆☆," and "F☆☆," in descending order of emissions. RPI obtained JIS certification in 2005.
4. A member of the World Bank Group, it is the largest global development finance institution focused on the private sector in developing countries.

Episode 17

"Mastering Wood and Devoting Oneself to Creating Market Value for It"

——Sumitomo Forestry Wood Products, Boasting Extensive Expertise and Talent

Expanding from Forest Management Operations to Domestic Timber Distribution Business

Sumitomo Forestry Wood Products (Wood Products) was established in 1980 under the original name Shikoku Ringyo. At that time, Sumitomo Forestry was conducting reforms in forest management operations, and as part of these efforts, the company was founded to carry out the management, harvesting, and cultivation of company-owned forests. The headquarters of Shikoku Ringyo was located in Niihama City, Ehime Prefecture. Alongside this, the company also inherited the operation of a long-standing local timber market from Sumitomo Forestry.

In 1989, Sumitomo Forestry announced its new forest management policy, "Non-clearcut Harvesting of Multi-layered Forests and Conservation of Forest Ecosystems." Simultaneously, the company introduced advanced machinery from leading forestry nations,[1] marking the start of forestry mechanization. During this period, Shikoku Ringyo took charge of training machine operators while also assuming management of forests in Hokkaido and Kyushu. The company was then renamed "Robin Hood." This name was also used for a forest management data mapping system2 developed by Sumitomo Forestry in 1984, representing the company's commitment to implementing advanced forestry practices. Mechanization not only improved efficiency in forest management operations but also contributed to securing forestry workers. Several young employees, including female operators, joined the company, providing a positive topic to the forestry industry.

In 1993, the company was renamed Sumitomo Forestry Wood Products to strengthen its domestic timber distribution business. By handling distribution and sales operations, the company aimed to increase profitability and return the generated

profits to forest owners and other upstream stakeholders. This became the core mission of Wood Products.

Integrated operations with a harvester (felling, debranching, processing)

Establishing a Raw Material Supply System for "Super Cypress" in Two Years

Wood Products demonstrated its significance through its role in supplying raw materials for Super Cypress.

In 2002, Sumitomo Forestry developed Super Cypress, a laminated engineered wood made from Japanese cypress. That same year, the company launched the "Sumitomo Forestry Home GODAI One's Story," the industry's first housing product to adopt Japanese cypress laminated engineered wood as its principal structural members. Each home required 5 m^3 of Japanese cypress, and assuming 6,000 homes were built annually, approximately 72,000 m^3 of Japanese cypress logs would be necessary, conservatively estimating a yield rate of around 40%. Acquiring such a large quantity of Japanese cypress in a short period was expected to significantly impact market prices, potentially causing a surge in timber prices.

To secure a solution, two employees from Wood Products toured forests across Japan. They identified unused short Japanese cypress timber at various sites, reasoning that utilizing this abundant short timber could provide the raw materials required for laminated engineered wood. Over a two-year period, they diligently went around small-scale forest owners and sawmills, establishing a supply route with the following steps: 1. Directly collecting materials, mainly difficult-to-use short logs from forest owners; 2. Transporting these logs to sawmills for processing into lamina; 3. Supplying the laminates

to laminated engineered wood factories; 4. Delivering the products to pre-cut factories. The success of “GODAI One’s Story” led to the continued standard adoption of Super Cypress as principal structural members for “Sumitomo Forestry Homes.”[3] The efforts of these two individuals, who visited mountains across Japan, were rewarded. For Wood Products, the knowledge and connections gained through constructing this supply route became valuable management resources. Their unmatched capacity to collect materials became a driving force for business expansion.

Super Cypress

A Fresh Start as a “Specialized Domestic Timber Trading Company”

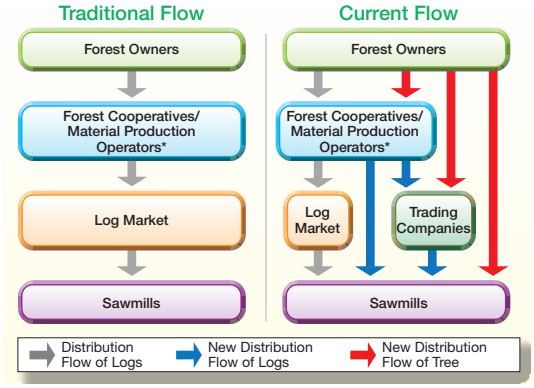
In 2008, Wood Products faced another major turning point. In April, the handling of domestic logs and timber was transferred from Sumitomo Forestry. Following this transfer, the company relocated its headquarters to Tokyo in June, embarking on a new chapter as a “specialized domestic timber trading company.” This transition coincided with a period of increasing wood self-sufficiency rate, and Wood Products began implementing various measures to promote the expanded use of domestic timber.

One of Wood Products’ significant initiatives was the stable and efficient supply of logs. Previously, log supply followed a product-out approach, in which it was routed through local log markets near forest owners. Wood Products, in collaboration with forest owners, cooperatives, and log suppliers, shifted this model. They incorporated customer needs into forest harvesting plans and established a direct supply route to sawmills and plywood factories without passing through log markets, pioneering this approach within the industry.

Starting from fiscal 2006, Wood Products also participated in the Forestry Agency’s “New Production System Project” and the “Biomass Co-Firing Power Generation Demonstration Project Using Forest Residual Material” initiated by the Ministry of Economy, Trade, and Industry and the Forestry Agency in 2010. These efforts aimed to improve the sustainability of forestry and society.

In fiscal 2013, Wood Products' management operations for forest owned by Sumitomo Forestry were transferred to Sumitomo Forestry's direct operations, ending its role in managing company-owned forests since its inception. While stepping away from "mountain"-related operations, its involvement in "wood"-related activities expanded. That same year, Wood Products began focusing on exporting domestic timber, handling the collection of logs for export, which Sumitomo Forestry began shipping overseas via Wood Products. In April 2019, the domestic sales of imported logs were transferred to Wood Products, followed by the chip business in October of the same year. Among these, the procurement and supply of biomass fuel chips for power generation emerged as a socially significant and promising business.

Wood Products has expanded its operations from upstream to midstream, innovating its business in areas such as distribution and the procurement and supply of raw materials. Through each business, the company has accumulated expertise and insights. By comprehensively understanding the entire process—from acquiring standing trees to harvesting, transporting, and selling logs—while accounting for regional characteristics, Wood Products transforms "wood" into market value. Its specialized expertise and business capabilities serve as a vital pillar supporting the promotion of domestic timber.



*Material Production Operators: Businesses responsible for harvesting trees and supplying logs

Changes in the Log Supply Flow by Wood Products (Excerpt from Building Materials Monthly, September 2015 issue)

(75-year history, Chapter 2, Section 2: Timber and Building Materials Business)

1. Equipment tailored to terrain and needs were introduced: Tower yarders from Austria for Kyushu forests and Shikoku forests, harvesters from Sweden and forwarders for transportation within a forest from Finland for Hokkaido forests.
2. A system consolidating geographic and attribute data on a computer for streamlined and labor-saving forest management and planning.
3. Led to the launch of the "MyForest" series (2005), which highlighted the high usage ratio of domestic timber for principal structural members.

Global Housing, Construction and Real Estate Businesses

Spec home community in Washington state, USA

Episode
18

"Growth in the U.S. Housing Market on the Second Attempt"

——Lessons Learned and Steady Business Expansion Achieved with Quality Partners

Decision to Expand Housing Business into the U.S.

From the initial offering of two homes for sale in April 2003, Sumitomo Forestry's U.S. housing business has grown to become one of the top 10 home builders in the U.S., with its group of five local builders delivering a total of 10,244 homes in fiscal 2022. This is the result of Sumitomo Forestry's two attempts to expand its housing business into the U.S., after a period of business stagnation due to the Global Financial Crisis involving the collapse of the Lehman Brothers in 2008.

In its Management Restructuring Plan of 2001, Sumitomo Forestry established a policy of moving away from a business structure centered on the Japanese market, and developing its overseas businesses as core businesses. With a U.S. housing business being part of this vision, it established a study team in February 2001 comprising seven members of relevant departments. The team conducted a detailed investigation of the U.S. housing industry, from the market, structure, and competition to relevant regulations and building technologies, and reported on its findings. Based on this report, in November 2001, the team suggested that the U.S. housing business had the potential to become a future core business for the company, from which Sumitomo Forestry made the decision to enter that market. The U.S. housing market at the time was the largest in the world, with around 1.6 million new housing starts annually, of which there were over 1.2–1.3 million single-family homes. Growth was continuing and local builders played a central role.

Partner Selection and the Lesson that "Housing is Culture"

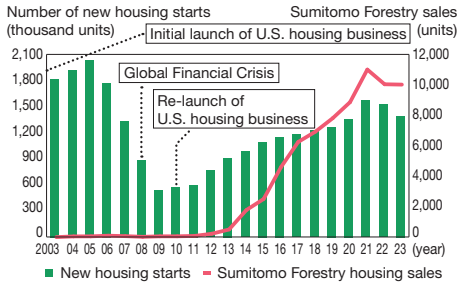
On the assumption of partnering in this joint venture with a growing mid-size builder in the growing U.S. market, Sumitomo Forestry decided to launch in Seattle, Washington, where it had a business foundation built on the long-term operation of a business

importing U.S.-grown logs. Despite having that foothold, the company's housing business was still starting from scratch. The representatives dispatched to the U.S. had to actively move around to diligently collect information and narrow down the candidates.

Sumitomo Forestry chose to partner with Bennett Homes Inc. (hereinafter Bennett), which proposed starting with a test project of a small number of houses. Other builders had envisioned rapid growth leveraging Sumitomo Forestry's financial strength, based on the fact that speed in capturing the best building sites was important in the U.S. housing business. However, the more cautious proposal by Bennett indicated a step-by-step approach that was the deciding factor in the selection.

The highest priority for Sumitomo Forestry when selecting partners for its overseas housing business was their ability to share in its Corporate Philosophy. It wanted to ensure, through in-depth dialogue, a mutual recognition of each other's philosophies and company histories. This sharing of the Corporate Philosophy is something that the company still practices today.

In this way, Sumitomo Forestry launched a project with Bennett as its first foray into the U.S. market. With the project making steady progress, while carrying the company's future hopes for the U.S. housing business, Sumitomo Forestry established Bennett-SFC LLC (hereinafter BSF) in September 2002 as a joint venture with Bennett, and put two homes on the market.



Number of new housing starts in the U.S. and Sumitomo Forestry housing sales
Source: Bloomberg


BSF spec home community (circa 2003)

In terms of housing products and construction level, Sumitomo Forestry felt that progress in the housing industry in the U.S. over the previous 20 years was poor compared to Japan. It thought it could create a stir in the market by achieving the

"Sumitomo Forestry homes" concept as an approach for building structures and equipment to be enjoyed over many years, including throughout changes in one's family composition. However, it was normal in the U.S. for people to change homes every few years in response to their personal situation, including marriage, birth, and children growing up. Therefore, what people wanted of houses in that market was good resale value after a few years. For this reason, equipment and ideas that did not lead to higher selling prices were not considered as advantages by the purchasers, which limited the situations where Sumitomo Forestry technologies and expertise could be an advantage. This was another lesson to the company that housing is a reflection of the local culture, covering everything from climate to customs and lifestyles. Rather than transplanting Japanese housing to another culture, it therefore decided to respect the knowledge and management policies of local builders with deep roots in their local communities and to build housing tailored to those communities.

Business Stagnation During the Global Financial Crisis

BSF steadily expanded its business. Monetary easing and low interest rates from the late 1990s drove a housing boom in the U.S., which was spurred on by sub-prime loans. The rapid rise in home prices also led to construction investment exceeding actual demand. During the boom, spec homes continued to sell out completely even before the homes were finished. Limited availability of land in Seattle, which is sandwiched between mountains and the sea, resulted in builders focusing their efforts on acquiring land. While Bennett and BSF were doing the same, U.S. home prices started to fall from around 2006 and people with these sub-prime loans continued to be unable to service their debts. Finally in September 2008, Lehman Brothers, a long-established investment bank handling many of these loans, declared bankruptcy in a definitive blow that caused the U.S. housing bubble to collapse.[1] This inevitably caused business activities to stagnate at BSF as well.

Leveraging Accumulated Knowledge in Second Attempt with Australian Partner

Meanwhile, Sumitomo Forestry had been preparing to launch a housing business in Australia since 2004, while working toward a joint venture business with Henley

Properties Group (hereinafter Henley Group) since 2008. In 2010, the two companies established Henley USA Unit LLC (hereinafter Henley USA; changed to MainVue Homes from 2015) and Sumitomo Forestry restarted its U.S. housing business. In addition to taking on the trusted Henley Group as a partner, the decision to restart the business was also made thanks to a wealth of knowledge accumulated by the people involved in the U.S. housing business, and because they had the ability to expand business while staying focused on factors such as housing market cycles. As the world's largest market for wooden houses, with ongoing population growth driven in part by immigration, the U.S. was still a valuable market for Sumitomo Forestry to make a second attempt at entering.

Since that decision was made, Henley USA applied the management resources of BSF in the U.S. to achieve a positive start in Seattle, and to make inroads into Texas in 2012. Henley Group CEO visited Texas, which he regarded as a growth market, and quickly expanded his base there before U.S. housing companies had completely recovered from the Global Financial Crisis. Sumitomo Forestry had also formulated a plan to cover the Sun Belt,[2] which was experiencing continued population increases and housing market growth, by acquiring Texas company Bloomfield Homes, L.P. (hereinafter Bloomfield) in 2013. Employing market information provided by a local consulting company in 2014, it selected Arizona, Texas, Washington, D.C. and its environs, North Carolina, Georgia, and Florida as priority areas to enter. Since then, it acquired another three companies over four years—Gehan Homes, Ltd. (hereinafter Gehan; changed to Brightland Homes from 2023) in 2014, DRB Enterprises, Inc. (hereinafter DRB Group) in 2016, and Edge Homes Group (hereinafter Edge Group) in

Bloomfield single-family home (Texas)

DRB Group single-family home

2017—with the aim of entering these areas through M&A with quality local builders. Leveraging the experience and expertise it developed since 2002, Sumitomo Forestry conducted scrupulous internal and external due diligence, and took advice from existing partners such as Peter Hayes from Henley Group and Donald Dykstra from Bloomfield, to ensure the most appropriate M&A. Looking back on the members involved, when selecting new partners (management), the company made its decisions based on whether they could develop relationships that remained friendly even in difficult times, regardless of differing cultures and values, and by asking how each company survived the Global Financial Crisis and whether they were honest in their dealings with customers.

Gehan
(now Brightland Homes) spec home community (Texas)

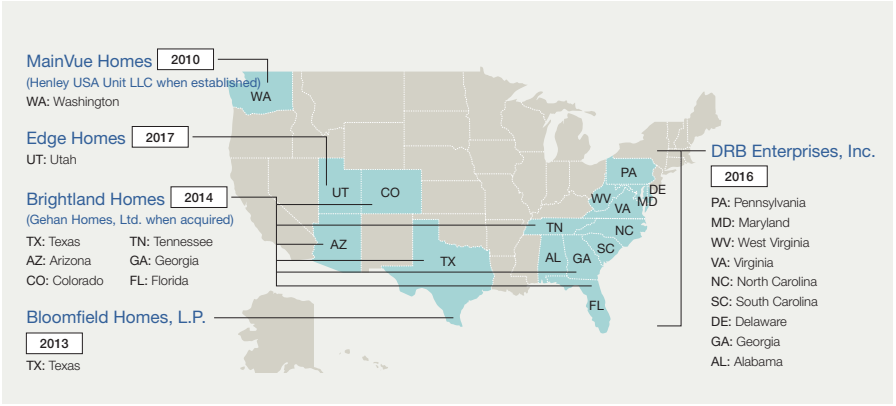
Edge Group condominiums (Utah)

Establishing a Balanced Business Portfolio

Sumitomo Forestry members are dispatched to join the management teams of each Group company. They are thereby able to learn business practices from close experience, including design-focused sales strategies (Henley USA and Gehan) and rapid business expansion through on-site inspections conducted by the CEO and delegation of authority (Bloomfield[3]). At the same time, as Sumitomo Forestry representatives, they take great care in areas such as Group governance. Sumitomo Forestry has also envisioned business expansion for the North American housing business as a whole by leveraging the synergies and comprehensive capabilities of the five builders that became part of the Group.

With resulting organic growth (including increased branch numbers) of each acquired company, and their M&A[4] as well, Sumitomo Forestry made steady progress into its priority areas. It now has a presence in 16 Sun Belt states, covering the majority

of this area. Just over six years after restarting its U.S. business, the company had achieved a level exceeding that of its business in Japan, delivering almost 10,000 homes annually across a business area stretching from Seattle at the northern tip of the West Coast, through the southern states, and up to Pennsylvania on the upper East Coast. It achieved this by creating a virtuous cycle of M&A activities, from selecting partners with which it could agree and share its Corporate Philosophy, and build trusting relationships, to employing a process that benefited all parties through staged investments.



Expansion of Sumitomo Forestry's U.S. business development area for single-family homes (plus company acquisition year)

During this time, Sumitomo Forestry acquired a developer and a land development company in the real estate development field as well, adding Crescent Communities, LLC (hereinafter Crescent) and Mark III Properties, LLC (hereinafter Mark III) to the Group in 2018, and starting development of commercial facilities and other properties. It also prepared for further business expansion with the formation of an ESG friendly real estate opportunities fund for developing multi-family housing, and the launch of a Fully Integrated Turn key Provider (FITP) business in response to increased costs and construction times associated with labor and material shortages in the U.S. construction industry. At the same time, it also responded to single-family rental (SFR) homes, which had grown as a new business since the Global Financial Crisis, and increased SFR construction as a business that experiences few declines, even during recessions. Furthermore, it is growing its U.S. business and improving its stability

through new initiatives in peripheral fields, including medium- to large-scale wooden construction and multi family housing where it can leverage its technologies.

Sumitomo Forestry achieved rapid growth in its U.S. housing, construction, and real estate businesses through the sharing of its Corporate Philosophy and the many encounters arising through a policy of respect for local home building practices, the power of human networks created through ongoing dialogue, and the individual strengths of Sumitomo Forestry and its partners. As planned, it has created a new core business through this business expansion, with the establishment of a balanced business portfolio and development of a stable profit structure in the U.S.

Crescent real estate development:
Crescent Atherton Mill project (North Carolina)

Mark III land development site (South Carolina)

(75-year history, Chapter 2, Section 3: Global Housing, Construction and Real Estate Businesses)

1. Sub-prime loans were securitized into financial products and sold to financial institutions around the world to reduce the risk of payment defaults, with this practice leading to a global recession.
2. The Sun Belt is a temperate region of the U.S. that extends south from the 37th parallel and stretches across the south and southwest of the country from California to North Carolina. It has a high concentration and growth of advanced industries, including high tech, aerospace, and leisure.
3. The CEO of Bloomfield, which was established in 2004, grew the company so rapidly that it was named the "Fastest Growing Private Builder in the U.S." by an industry magazine.
4. Gehan integrated its business with CDL Homes, Inc. (Colorado) in 2021 and with Southern Impression Homes Group (Florida) in 2022. DRB Group acquired the spec homes business of Builders Professional Group, LLC (Georgia) in 2020.

Episode 19

"Taking on the Challenge of a Growing Housing Market Driven by a Resources Boom and Population Growth"

——Contributing to Home Development in Australia by Respecting Local Communities

Entering the Housing Business in the Largest Country in Oceania

Sumitomo Forestry first started investigating the potential of an Australian housing business in 2004.

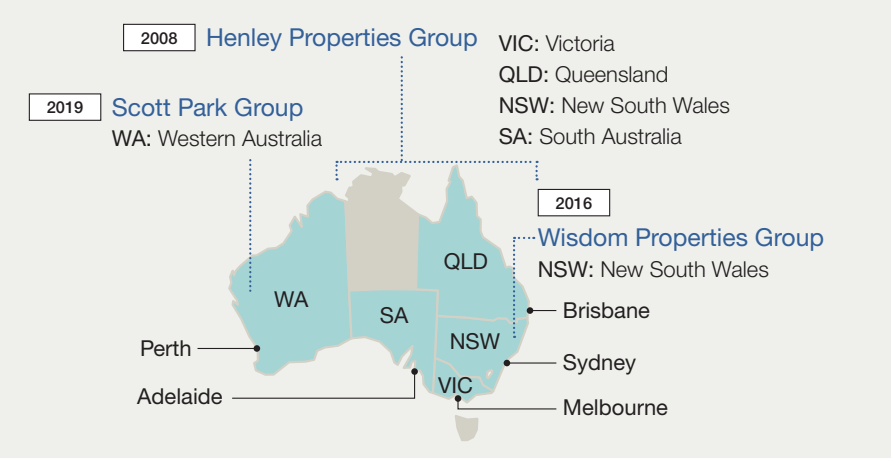
The world's sixth largest country by land size, Australia was home to a wide array of industries, from livestock to resources and tourism. As a key supplier of vast mining resources, it boasted a per-capita GDP on par with G7 countries.[1] With large areas of desert and mountains, it had limited availability of residential land. Although its population in 2004 was about one-sixth that of Japan, at about 20 million, it has continued to grow since then through immigration and other factors, so its housing market was also on a growth trajectory.

Forestry was also a flourishing industry in Australia, with two-by-four wooden construction being the mainstream housing method. While 70 percent of homes were single story, the affluent sector had a preference for two-story homes. For these and other reasons, there was potential for Sumitomo Forestry to leverage construction expertise from its business in Japan. The company already had a degree of knowledge about the Australian domestic market, as well as its business customs, geography and topography, and human networks through operation of Alpine MDF Industries Pty Ltd. (acquired in 2002 and sold in 2017), a medium density fiberboard (MDF) manufacturer in the timber and building materials business. At the same time, it was anticipating establishment of an integrated business, including upstream and downstream businesses, through supply of MDF and laminated veneer lumber (LVL) from Nelson Pine Industries Limited in neighboring New Zealand.

In April 2007, Sumitomo Forestry invited management from Henley Properties Group to visit Japan after narrowing down the top-ranked builders in the industry. As a business centered on custom-built houses, Henley Group had a close affinity with

the Sumitomo Forestry's housing business. Believing it more important to provide a high standard of housing based on a sustainable business model than to just pursue growth, its management policy was also aligned with Sumitomo's Business Spirit. With initiatives such has Henley World of Homes display villages, each showing about 10 model homes with a variety of specifications, mainly across the four states of Victoria, New South Wales, Queensland, and South Australia, it was Australia's fifth largest builder, completing about 1,800 homes annually.

Sumitomo Forestry established Henley-SFC Housing in April 2008 as a joint venture with Henley Group and Sumirin Holdings Pty Ltd. (now SF Australia) and while participating in management, it soon dispatched a full-time representative. Sumitomo Forestry's overseas business, as a priority development area under the Project SPEED long-term management plan, aimed to build around 2,000 single-family homes in fiscal 2016. With the company's U.S. housing business stagnating during the Global Financial Crisis in 2008, its hopes for the Australian housing business increased, placing considerable responsibility on the shoulders of the people involved.



Expansion of Sumitomo Forestry's Australian business development area for single-family homes (plus company acquisition year)

The Shift from "Selling" to "Contributing"

While the global economy took a tremendous blow, the Global Financial Crisis had a much smaller impact on the Australian economy thanks to increasing prices for raw

Henley Group spec home community (circa 2010)

materials and growth of the Chinese economy. Sumitomo Forestry held great expectations for its Australian housing business, but it was not without complications. To start with, there was no need for the company's advanced seismic technologies in Australia, a country where earthquakes seldom occurred. Likewise, there were limited opportunities to make use of its expertise in terms of design freedom in reflecting customers' feedback as much as possible, with standardization of room layouts for bedrooms, kitchens, and living rooms, and the homes facing the road. In other words, reflecting the value of the company in this business in a foreign land was not easy.

On the other hand, Sumitomo Forestry's representative was fortunate to have opportunities for direct interaction with both Japanese and Australian members of management. He received a wide range of suggestions in this way through daily conversations and visits of management to Australia. Henley Group CEO took every opportunity to remind him to put himself in their shoes, while Sumitomo Forestry's management pointed out the need to adopt a perspective of social contribution. As a result, he switched tack for Sumitomo Forestry's Australian business and, instead of thinking about how to leverage the company's technologies and expertise to sell homes, he focused on how to contribute to the housing industry in Australia and provide homes that were high quality, safe, and secure.

The first thing he did was to work on construction times. Eliminating the spare days that were commonplace, he managed to reduce construction time from 23 weeks down to 18 weeks for single-story homes. The reduction was achieved through persistent appeals to refine labor arrangement practices and modularize materials, while convincing the builders that shorter construction times would deliver benefits to

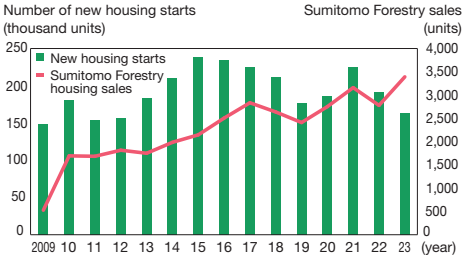
not only the customers but to the construction workers as well. By focusing on traffic flows within the homes, which had previously attracted little attention, and changing layouts of things like hallway walls, he was able to save on building materials while improving ease of living. With direct traffic flows between the garage and inside of the home, and the company's designer who assisted him proposing a unique detailed design that created a greater sense of depth, Sumitomo Forestry created the "Fuwa Model" as a point of differentiation. Taking advantage of Sumitomo Forestry's financial strength, he was also able to introduce a sales method that was accepted by the Australian housing market, with only the deposit required at the time of receiving the order and the remainder paid as a lump sum when moving into the home. He also proposed offshoring as a way of reducing costs when creating the drawings. Although Henley Group management expressed its concerns about sending drawings overseas, he used the company's existing achievements to persuade them and then proceeded to outsource the work to Sumitomo Forestry Group company Dalian Sumirin Information Technology Service. Through this series of measures, Henley Group was able to provide high-quality homes at even more reasonable prices.

A memorable occasion arrived. It was time for Henley-SFC Housing to deliver its first home to a customer. Sumitomo Forestry's representative stayed back to watch with pride as the dining room light switched on and the family sat down to dinner in their new home. Taking on the challenge of building homes in this foreign land, and then taking those courageous first steps, had thus borne fruit. In September 2009, Henley Group became part of the Sumitomo Forestry Group and together made the decision to tackle the U.S. market in 2010.


Henley Group single-family home designed by the Sumitomo Forestry design and development team (2010)

Servicing the Main Markets with Three Companies, and Developing New Businesses

Bringing Wisdom Properties Group and Scott Park Group into the Sumitomo Forestry Group, in 2016 and 2019 respectively, to service areas not covered by Henley Group, the company's Australian business sold a total of 3,169 homes across these three companies in fiscal 2022, which was equivalent to the top of the country's builder rankings. In fiscal 2023, it achieved a record result with sales of 3,402 homes. Considering that the country's population is continuing to grow, it has set itself a target of 5,500 homes in 2030. It is also collaborating with Japanese companies and others to develop housing lots and a 15-story office building constructed with a mixture of wood and reinforced concrete, while making progress in a new landscaping business with the acquisition of Regal Innovations Pty Ltd. (hereinafter Regal) in 2022.



Number of new housing starts in Australia and Sumitomo Forestry housing sales
Source: Bloomberg

Jointly developed 15-story office building constructed with a mixture of wood and reinforced concrete

Regal landscaping business: Barangaroo Reserve

(75-year history, Chapter 2, Section 3: Global Housing, Construction and Real Estate Businesses)

1. Australia had the 20th highest per-capita GDP in 2004, after France and Germany but ahead of Canada and Italy. With a subsequent resources boom, it grew to be the 10th highest in 2022, ranking higher than all G7 countries apart from the U.S.

Episode
20

"Sumitomo Forestry Makes Asia the Third Pillar of its Overseas Housing Business"

—— Opening Growth Markets Through Existing Businesses Being Deeply Connected to People and Regions and a Focus on Living Comfort

Leveraging the Foundations of Existing Businesses to Move into the ASEAN Housing Market

From the 2000s, Sumitomo Forestry took on the challenge of creating a market for midrange and luxury wooden single-family homes in China and South Korea as part of the overseas expansion of its housing business. However, due to differences in the focus of homes, it failed in this endeavor.

In the 2010s, it acquired a number of promising local builders in North America and Australia, and delivered more than 10,000 homes across both regions in fiscal 2019. In light of these achievements, it positioned Asia as the third earnings pillar of its overseas housing and real estate businesses under the 2021 Medium-Term Management Plan formulated in 2018. To achieve this aim, it carefully researched market growth potential, looking at increases in populations, GDP, the middle class, and other factors, and determined that Indonesia, Vietnam, and Thailand were markets for immediate entry. All were member states of ASEAN,[1] had experienced solid growth since the 1980s, and had continued to grow since the Global Financial Crisis (GFC).

Sumitomo Forestry had operated seven wood manufacturing companies and four forestry companies in these three countries since as far back as the 1970s.[2] Through joint ventures and other activities, it had also earned the solid trust of leading local capital providers and the public sector. These leading capital providers had also made inroads into the field of real estate, so the company was able to get information and opinions from them about real estate and housing markets in each of the countries. From its existing track record in business, the providers also fully understood Sumitomo Forestry's policy of promoting regional development and considering the environment when doing business.

The company's personal connections, and vertically integrated businesses utilizing

locally produced logs cut from planted forests and wooden products, became an advantage for its Southeast Asian housing business.

Sumitomo Forestry's business in Indonesia

Spec Home Community Development in Indonesia

While condominium development took the lead in Thailand and Vietnam, partly due to participation in Japanese joint venture projects, Sumitomo Forestry launched a development business for landed houses (single-family homes) in Indonesia. Indonesia had a large population of about 280 million people (making it the world's fourth largest country by population in 2023), and its per-capita GDP had reached 3,000 U.S. dollars in 2010 and was continuing to grow.

The Indonesian housing market was strongly oriented toward landed houses and owner-occupied houses, with spec home community development being the norm. Leveraging expertise in housing and community development fostered in Japan, the U.S., and Australia, Sumitomo Forestry decided to expand its business through concept design, seismic resistance, acquisition of certifications in energy conservation and decarbonization, and through construction oversight and building material proposals.

As its first foray into the market, Sumitomo Forestry participated in a Bekasi City project, launched in 2018, in partnership with PT. Summarecon Agung Tbk (hereinafter Summarecon), a major local real estate company. Established in 1975, Summarecon grew as a company through township development (integrated development of housing, offices, commercial facilities, hotels, and other infrastructure) in the suburbs of the country's capital Jakarta. It also supported the Corporate Philosophy and

quality improvement focus of Sumitomo Forestry. Summarecon had been developing shopping malls, hotels, and high-rise apartment buildings in Bekasi City since 2010. The Bekasi project, in which Sumitomo Forestry collaborated, involved construction of 157 three-story steel-framed reinforced concrete (SRC) landed houses in a site of approximately 44,000 m^2. To make its first business in the country truly significant, the company handled every aspect with meticulous care, from keeping the site clean and tidy to delivering the homes. As a result, in 2021, the project received the Best Premium Housing Award in the housing category of the Golden Property Awards, Indonesia's awards for recognizing outstanding housing and real estate. This led to another collaboration with Summarecon in a project in Makassar City, Sulawesi Island, from November 2021.


Makassar spec home community project (Indonesia)

Contributing to Living Comfort, and Tailoring Construction to Local Needs

Through the Bekasi project, Sumitomo Forestry learned that housing, in Indonesia as well, is a reflection of local culture and living customs. As a result, in its second foray into Indonesia through the Makassar project, it proposed a master plan that, together with other planning, technology, and construction, were attuned to the local community.

In terms of community development, Sumitomo Forestry had to consider mosques and churches in addition to transportation links, education environments, and shopping. (In Indonesia, almost 90% of the population is Islamic and 10% is Christian.) For housing development, there were conventions that were different from Japan. For example, it had to comply with seismic resistance and other criteria of the Standard National Indonesia (SNI), a national standard, and ensure certain numbers of steps in staircases, which is based on feng shui.

Considering the location of the Makassar site, surrounded by a river and mangroves, Sumitomo Forestry decided to apply a traditional Japanese *shakkei* (borrowed scenery) technique. The company's design ideas resulted in homes where

the back garden opened up to enjoy the views rather than being closed in by a wall, which is normal in Indonesia.

With a hot and humid climate, high temperatures inside the homes and the inability to use attic space were issues for housing in Indonesia. For the Makassar project, the company was able to minimize temperature increases from sunlight through measures such as changing the roof angle and extending the eaves. Other ideas such as using roof insulation and installing heat exhausts in the roof cavities also enabled the home attics to be used. The company also aimed to acquire EDGE certification[3] by using improved construction techniques and other measures to reduce CO_2 emissions and water usage during construction.

It was also important to create frameworks and structures that conformed to local work customs. In Indonesia, people do not perform overtime work, and they abstain from eating and drinking from dawn to sunset, during the Islamic fasting month of Ramadan. Enjoying time with family is also important. For these reasons, and based on experience at its manufacturing sites, Sumitomo Forestry moved work start time forward by one hour, shortened the lunch break, and implemented other measures so that the workers could sit down with family to eat their dinner soon after nightfall. Altogether, it was able to devise a construction schedule that avoided delays.

Spec home community project (Bekasi, Indonesia)

Leveraging the Foundations for Rapid Business Development

With deeper experience gained in the Bekasi and Makassar projects, Sumitomo Forestry has been able to rapidly expand its housing business in Indonesia ever since. In 2023, it started developing homes in Depok City on the outskirts of Jakarta. Its partner in this project, local real estate developer PT. Graha Perdana Indah (hereinafter GPI), is a member of the PT. Kayu Lapis Indonesia group (hereinafter Kayu Lapis), formed as a joint venture with RPI, and has interacted with Sumitomo Forestry through three generations of CEOs. In a separate project in Bogor City, the company is partnering with

PT. Olympic Bangun Persada (hereinafter OBP), which is operated by Olympic, a business partner of both KTI and RPI.

Through economic development, Indonesia's upper-middle class (with annual incomes of 10,000 to 35,000 U.S. dollars) and higher, which are the main target customers of Sumitomo Forestry, are continuing to grow. While they accounted for about 0.02% of the total population in 2016, the size of these groups is expected to more than double to about 0.05% by 2026.

In Thailand and Vietnam as well, local company CEOs and other high-income earners who were the targets for luxury condominiums, are expected to grow in number. Based on expertise accumulated in various countries, Sumitomo Forestry will continue proposing community developments that take advantage of its planning and technological strengths.

Sumitomo Forestry's housing business in Asia, starting with Indonesia, is becoming increasingly important for realizing the company's goal of vertical integration, in which its businesses utilize the forest and timber resources of each country, cultivated over many years, to build homes as the final products in the chain.

Hyde Heritage Thonglor condominium project (Thailand)

Midtown condominium project (Vietnam)

(75-year history, Chapter 2, Section 3: Global Housing, Construction and Real Estate Businesses)

1. As of 2023, ASEAN consisted of 10 member states: Thailand, Philippines, Malaysia, Indonesia, Singapore, Brunei, Vietnam, Laos, Myanmar, and Cambodia.
2. In 1970, Sumitomo Forestry established KTI as a plywood manufacturer in Indonesia. From the 1990s, it has been contributing to reforestation of national parks through its conservation forest business, and in the 2000s, it began joint operation of four forestry companies (WSL, MTI, KMF, and BIOS) together with one of the major local companies.
3. EDGE, the abbreviation for Excellence in Design for Greater Efficiencies, is a green building certification introduced in 2014 by the International Finance Corporation, which is currently used in over 170 countries.

Episode
21

"Bringing Schools of the Forest to Children"

—— Fostering Hopes and Dreams in Disaster-Affected Areas Through Medium- to Large-Scale Wooden Constructions

Origins of the MOCCA (Timber Solutions) Business

Sumitomo Forestry's medium- to large-scale wooden construction business had its beginnings in an in-house program for soliciting new business proposals, called the Power for the Future Project. Conducted for the first time in 2007, a Japanese inn management business was proposed to communicate the advantages and value of wood to as many people as possible. The winner of the second program conducted in 2008 was a plan called the MOCCA Declaration, which proposed the launch of a wooden commercial construction business. MOCCA, meaning use of wood/woodification in Japanese, is the company's new global brand concept for promoting greater use of wood and expanding its own knowledge of wood and wooden homes. The brand was created to drive transformation in the same way as "electrification" and "greenification."

In 2010, Sumitomo Forestry established a Special Wooden Construction Development Team[1] within its Real Estate Business Division. The team later became the MOCCA Department under the president's direct supervision, after which it was transferred to the Housing Division in April 2012, to another MOCCA Department in April 2013, and to the Construction Business Sub-Division in January 2022. During this time, it grew as an organization to reflect society's moves toward people- and environment-friendly wood.

Creating Schools of the Forest

The Great East Japan Earthquake struck on March 11, 2011. In Higashimatsushima City, Miyagi Prefecture, one of the areas badly damaged by the subsequent tsunami, a movement was created to rebuild the local spirit and society. Under the government's FutureCity Initiative, woodification, which utilizes the natural restorative power of

wood, became a pillar of the movement. As an initiative to support recovery and restoration of disaster-affected areas through the power of wood, Sumitomo Forestry signed an agreement to work with the city on post-disaster restoration.[2] Sumitomo Forestry agreed to cooperate widely with the city, which was aiming to promote woodification. In addition to designing and constructing a wooden temporary medical clinic, retail facility, and public housing, it also launched the *Kibo no Shiba* (Lawn of Hope) project to enable salt-tolerant grass to be produced on land that had been damaged by seawater. Higashimatsushima City's aim was to create a new model for urban development through collaboration between industry, government, academia, and the local community, and to become an example for restoration of disaster-affected areas, while Sumitomo Forestry took on the role of supporting implementation of the city's plan.

One typical project under the plan was the construction of the new Miyanomori Elementary School to integrate the city's Nobiru Elementary School and Miyato Elementary School. This was Sumitomo Forestry's first construction of a wooden school building, with this one based on the "schools of the forest" concept, but it hoped to start construction in September 2015 and complete it by December 2016. Children in year 5 entered elementary school in April 2011, soon after the earthquake, so they had spent their entire school life in temporary school buildings. The construction period was decided in response to wishes of the local community, who hoped the children could at least enjoy their third term of year 6 in the new school building.

Construction of the school required 300 pages of design documents, with total floor area of 4,000 m^2 for all buildings, including the classroom building, indoor sports hall, library, and special-purpose classroom building. A particularly harsh part of the project was the foundation work, which was conducted in the middle of winter. When pouring concrete for the foundations, the workers had water up to their knees in freezing puddles of rain. To prevent the poured concrete from freezing, everyone, regardless of their position, worked in shifts and kept watch throughout the night to cure and manage it in a feat of perseverance. Nevertheless, the mixed team of workers from different companies in the Sumitomo Forestry Group put their whole hearts into the project to bring smiles to the children under the slogan of "giving shape to the dreams and hopes nurtured by wood."

Delivery of the new Miyanomori Elementary School buildings was completed on December 20, 2016. They were used for lessons from January 2017 and played host to the year 6 students' graduation ceremony. Located next to a forest, the new buildings employed a diagonal lattice of beams with posts arranged in a tree-like structure to embody the "schools of the forest" concept and provide interior spaces with clear views through exposed natural wood. The single-story classroom building, administration building, library, and indoor sports hall are linked by connecting corridors to create compact flowing routes for the children to move around. The buildings also surround an inner garden to create a feeling of security, open to and surrounded by nature. The smiling faces of the children, wrapped in the scent of wood, were proof that the hopes of the adults who had worked in various ways on this project had been achieved.

Structural framework of an indoor sports hall, Miyanomori Elementary School, Higashimatsushima City

Extensive use of wood in a large open space with posts arranged in a tree-like structure

Construction of the school on a wide, elevated site: classroom building (back right), special-purpose classroom building (back middle), indoor sports hall (back left), administration building (right front), and library (middle front)

Pouring concrete for the foundations in bitterly cold weather

Buildings surrounding an inner garden and linked by connecting corridors

A New Mission in Decarbonization

In 2022, Sumitomo Forestry announced its “Mission TREEING 2030” long-term vision. With this vision, medium- to large-scale wooden construction will also play a role in expanding the company’s contribution to decarbonization.

To accelerate these activities, Sumitomo Forestry’s MOCCA (timber solutions) business was transferred to the Global Housing, Construction and Real Estate Division in January 2023 as a strategy for expanding the business integrally within Japan and overseas. From its office building achievement in Sapporo City, the company has continued implementing wooden office building projects in the U.S., Australia, and U.K. The U.S. project is employing mass timber[3] construction using engineered wood and laminated wood, which combine multiple types of wood to increase strength, and it is also using technologies to expand the potential of this medium.

Through its MOCCA (timber solutions) business, Sumitomo Forestry is promoting wood change (utilizing recyclable wood resources) to create towns where wooden buildings are commonplace. It is also implementing the Wood Cycle (utilizing trees that wait in the forests for their turn) to provide solutions that help solve global environmental issues.

(75-year history, Chapter 2, Section 3: Global Housing, Construction and Real Estate Businesses)

1. Enactment of the Act for Promotion of Use of Wood in Public Buildings in the same year was another important reason for establishment of the team.
2. With the government’s 2011 public call for urban development proposals in disaster-affected areas, Sumitomo Forestry’s proposal, which centered on using materials from the Tohoku Region, was well received, leading to the company becoming a national discussion partner for business plan formulation with cities, and deepening ties with Higashimatsushima City.
3. Mass timber is a generic name for large-volume building materials made from laminated and compressed wood.

Episode
22

"From a Company Producing CAD Drawings to a Company Supporting the Entire Group"

——Fostering Professionals at Dalian ITS

Sumitomo Forestry's Use of CAD and Establishment of a Specialist Company

Sumitomo Forestry began developing a computer-aided design (CAD) system for housing in 1985. It established the CAD Center the following year and then gradually downsized the system from a large host computer and dedicated terminals, to engineering workstations, and finally to personal computers. By the 2000s, the SAIPS1 presentation CAD system for branches and WiNX design/structure CAD system had become indispensable for housing construction work.

In fiscal 2003, to swiftly meet customer demands, it spun off its CAD division as a separate company to establish a framework for demonstrating "design capabilities and the power of wood," which was the fundamental concept in the housing business at the time. The new company was called Sumirin CAD Systems (now Sumitomo Forestry Archi Techno).

In fiscal 2004, Sumitomo Forestry's domestic custom-built detached housing business had reached the level of 10,000 units per year and it was busy producing the drawings. The solution it came up with involved business process outsourcing (BPO) and offshoring of its CAD drawing production work. In September 2005, it established Dalian Sumirin Information Technology Service Co., Ltd. (hereinafter Dalian ITS) in China for this purpose. With a time difference of one hour and historically deep connections with Japan, Dalian had an abundance of people who were fluent in Japanese, and Sumitomo Forestry's Timber and Building Materials Division had also set up a representative office there in 2001.

Establishing Dalian ITS under its direct control enabled Sumitomo Forestry to strictly control the personal information of customers and its own expertise. It also expected that by systematically developing professionals, it could improve drawing quality and manage work in accordance with its busy housing production schedule. It

set up a tight security environment using dedicated communication lines, with the assumption that it would enable not only CAD drawing production, but BPO of a range of other tasks as well from the entire Sumitomo Forestry Group.

Developing the Carefully Selected Founding Members

As a directly-controlled Group company, human resources recruitment and development at Dalian ITS was of the highest importance.

More than 100 applications were received for the eight or so recruitment positions advertised when establishing the company, with those applicants carefully interviewed by a team including engineers from Sumitomo Forestry. At the time, it was not customary to attach a photograph to resumes in China, so simple portraits of each applicant were sketched at the interviews to help with recall and they were referred to during selection. Considering long-term availability in addition to knowledge, character, and Japanese language capability, the company was launched with a team of over 10 members. Among them was a person who had already studied in Japan and who later became the company's first Chinese national general manager.

Following two months of onsite-training, the new recruits trained in Japan for six months. This not only helped them learn the work, but also helped smooth out differences in perceptions between Japan and China. Manuals were revised and other efforts were made to share values so that the new team could follow Sumitomo Forestry standards (in-house rules) for housing development from the customer's perspective, which went beyond the idea that complying with standards (regulations) was enough.

A sense of solidarity with CAD operators in Japan was also fostered through the training in Japan. Sumitomo Forestry's Housing Division outsourced its CAD drawing production to Dalian ITS via Sumirin CAD Systems, with the completed drawings returning in the opposite direction. It was necessary to build mutual relationships of trust between Japan and China to ensure this work flow functioned perfectly. While the first attempts were initially confusing for all parties, the Japanese side put their hearts and hopes into communicating the knowledge and technologies cultivated by Sumitomo Forestry, and the Chinese side responded with enthusiasm and a sense of responsibility. Before long, the Chinese side became colleagues, learning the

necessary drafting technologies, including Sumitomo Forestry's basic approach and rules for housing development.

After starting actual work as well, Sumitomo Forestry's engineering team visited China once every three months for training and remote meetings were held monthly. Emails were corrected, and Dalian ITS responded to these as well. Dalian ITS currently sends business emails on a daily basis to companies and organizations within the Sumitomo Forestry Group and, without checking who the sender is, you would not believe they were written by Chinese nationals.

Alongside this education on technologies and communication, the instructors and general manager from Japan repeatedly discussed Sumitomo's Business Spirit and feelings about wood and forests, which the founding members of Dalian ITS also shared. From the 2010s, Dalian ITS has been imitating Sumitomo Forestry's "sustainable forestry" approach to timber resources (plant > cultivate > utilize > and plant again) by practicing its own "sustainable education" approach to human resources with the aim of achieving a cycle of teach > develop > apply > and teach again. Founding members who have become company executives since then also acknowledge that their mission now is to ensure their staff understand Sumitomo's Business Spirit and the company's feelings toward customers that were taught to them at the time of founding.

CAD design work

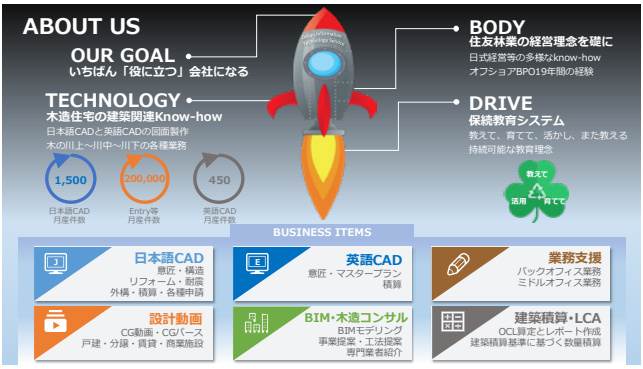
Dalian ITS office

Contributing to the Group Through Rapid Development

Dalian ITS has continued to secure human resources and provide in-depth education through efforts such as internships for people from local universities and Japanese language schools. Since then, the company has expanded its workforce to 200 and

has rapidly expanded its business as well. With many of its employees also able to conduct business in Japanese and English, it started producing CAD drawings for Henley Group in Australia in 2011. It is now responsible for the CAD drawing production of North American builders as well, and has started producing CAD drawings for housing exteriors from 2015. Now conducting outsourced work for all Sumitomo Forestry Group companies in the areas of human resources and sales, it also started accepting orders from outside the Group in 2016.

Dalian ITS executives, who had been with the company since its establishment, played a central role in 2018 in establishing the company's own corporate vision ("to become the most helpful company"), based on Sumitomo Forestry's Corporate Philosophy, and they continue to do their work every day while sharing their vision for the future with their employees and customers. In January 2024, its vice president, who drove the sustainable education approach and corporate vision, was promoted to the position of president. He continues to work with the Japanese chairman to communicate both the founding philosophy of Dalian ITS and Sumitomo's own business philosophy.



Dalian ITS business concept and scope

(75-year history, Chapter 2, Section 3: Global Housing, Construction and Real Estate Businesses)

Housing Business

The Wooden Spaces of Sumitomo Forestry Homes

Episode
23

"Big-Frame Structure Takes Center Stage with the Determination to Sell"

——Strategies for Selling a Superior Structure

To Build Stronger, Better-Quality Wooden Homes with More Design Flexibility

Sumitomo Forestry formally entered the custom-built housing business in 1975 and proceeded to build up the Sumitomo Forestry homes brand by creating for customers their dream homes. Technological development was the foundation that sustained the brand, and it continued uninterrupted. Sumitomo Forestry led the way in the industry with full-scale adoption of precutting, in 1988, and engineered wood, in 1992, to enable higher quality, precision, and efficiency in construction. Original technologies include the Multi-Balance (MB) Construction Method (1997)—fusing wooden post-and-beam and panel construction methods to maximize strength—and Kizure Panel (2000) exterior wall lining, made from domestic timber and realizing high durability and rigidity.

Unlike standardized prefabricated housing, Sumitomo Forestry's new products cannot be introduced overnight. There is a process: a proposal is presented to the customer, who must choose or approve it. Before anything is done, sales personnel at each housing business branch need to be convinced of the advantages of the new technology.

A Slow Start for the BF Structure

It took time even for the Big-Frame (BF) Structure, now the company's primary housing structure, to catch on take hold.

First adopted for the three-story Proudio-BF housing product launched in February 2005, the BF Structure is an original technology developed by Sumitomo Forestry. The columns are large, wide, and made of laminated timber measuring 560 × 105 mm, or the dimensions of more than five lengths of normal squared timber (105 × 105 mm), and are connected by special joints. This made the BF Structure Japan's first beam-dominant rigid Rahmen structure with high

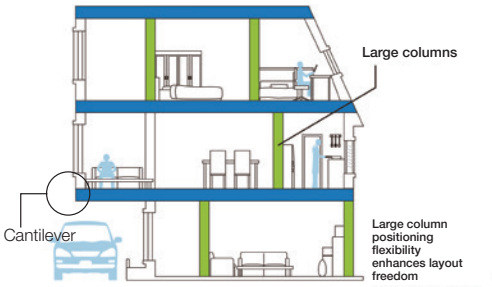
earthquake resistance. Shear resistance[1] (wall strength) is usually indicated within the standard 1-5 range for shear walls. For the BF Structure, the value is equivalent to 16.2. And because it is a Rahmen structure (with rigid connections between columns and beams), there is no need for bracing, allowing a dramatic reduction in the number of columns used. Due to these characteristics, the BF Structure allowed the creation of spaces with enhanced design flexibility, enabling features such as large indoor spaces and cantilevers (e.g. overhangs and balconies). The structure is also divided into a rigid structure (skeleton) and the interior, facilities, and layout (infill). This made layout changes at a future date easier as partitions could be flexibly installed.

The BF Structure was adopted for the two-story MyForest—BF product in 2008. Sales were difficult at first. The reality was that personnel staffing the sales frontline could not see why they had to switch from an already competitive, existing structure to one that not only cost around 20% more than the MB Method, but also required a completely new construction approach.

To break through this impasse, the division started out by convincing housing branch sales personnel that they could recommend the BF Structure to customers

Proudio-BF, the first BF Structure product (2005)

with confidence. Effort went into providing information with the creation of a pamphlet outlining ways to promote the aforementioned advantages of such homes, as well as the reductions that could be achieved in terms of home insurance, due to enhanced earthquake resistance, and remodeling costs. Engineers also visited designers at branches to convey ways to make the most of the high earthquake resistance and durability of the BF Structure to realize both spacious areas and reduce costs. Designers otherwise tended to insert columns and walls as they would under existing methods to ensure structural strength. At the same time, work went into improving parts and materials manufacturing and construction methods that would both lower production costs through scale benefits and heighten cost performance for customers.



Conceptual diagram showing the spatial freedom of a beam-dominant Rahmen structure

Despite these combined efforts, the BF Structure accounted for only 3% of houses sold by Sumitomo Forestry in fiscal 2009.

Hiroshima Branch Success Spurs Sales Expansion

Success achieved by the Hiroshima Branch, after switching its sales strategy in November 2009, was a catalyst for the spread of the BF Structure. Despite big demand for three-story houses and rebuilding in Hiroshima, the branch struggled with lower order values and a falling number of orders. Rather than get caught up in the price competition, the branch decided to redirect its focus onto selling homes with an asset value only the BF Structure could provide. Its target was to make the BF Structure account for 30% of sales. For the first three months, the branch fell short of its budget targets and for a while it was hard to predict what might happen. Not giving up, the branch produced an original manual running to 80 pages and built a canon of success stories that were conveyed to build up faith in the BF Structure and attitudes toward it. The key selling point was its appeal as a long-term asset, having formidable earthquake resistance and large columns allowing for large openings and open

spaces that enhanced design freedom, facilitating changes to lay out later. Designers willingly arranged more opportunities for customers to compare and consider plans for both the existing method and the BF Structure. Production personnel, too, visited sites and made adjustments to construction manuals alongside cooperating building contractors. Thanks to these efforts, orders for BF Structure homes placed with the Hiroshima Branch jumped from the fourth month, March 2010, reaching the 30% target and contributing to an upswing in earnings. Success at the Hiroshima Branch was a major foothold for the establishment of the BF Structure.

Sales promotion activities like those at the Hiroshima Branch were introduced in other areas, bringing secondary benefits in the emergence of a standardized sales pitch about the advantages of the BF Structure with an easy-to-understand explanation. With easy-to-explain features and obvious advantages, BF Structure contracts increased as sales personnel with little or no experience could recommend it without being intimidated by competitors or price differences. It became a prime example of steps taken to raise the standard at the organizational level, for example in research and team composition, and marked a change from sales methods that relied a lot on the skill of individual salespeople.

The true value of the BF Structure has shown through in the introduction of structural models that sprang up at the Sumai Haku housing fair and exhibition spaces and showrooms at each base. This allowed customers to see and experience for themselves the size and strength of the large columns, which also function as shear walls, and to test their robustness, seeing how they did not bend when placed horizontally and mounted.

Commercials were used to make an appeal focusing on strength. Footage of a sumo wrestling champion, soaked in sweat, relentlessly pounding on a large column that does not move at all lent to an impression of resilience.

Large columns, an original wide column of laminated timber

The March 2011 Great East Japan Earthquake reignited interest in the earthquake resistance of houses. By fiscal 2014, the proportion of houses with a BF Structure reached 50%.

Sales Confidence Makes BF Structure the Primary Method

As of 2022, wooden houses accounted for more than 90% of detached housing in Japan and more than half of new housing starts, suggesting they match the nation's climate and mindset. At Sumitomo Forestry, measures enabling sales personnel to confidently pitch a product with value in making customers' dreams come true led to the BF Structure accounting for 97% of houses by construction method in fiscal 2022.

The BF Structure came about because Sumitomo Forestry persevered in its quest for even better wooden houses. It is one answer the company landed upon in its house development activities. Sales teams made up their minds to promote the BF Structure and developed it into a core product. In 2012, Sumitomo Forestry launched the New BF Structure. Since then, the development team has been seeking to enhance earthquake resistance and design freedom further, keeping pace with the successes of sales personnel.

Use of large columns, which function as shear walls, keeps the use of columns and walls to a minimum. Wide openings and expansive ceilings lend to spacious indoor areas.

(75-year history, Chapter 2, Section 4: Housing Business)

1. A measure of the strength of shear walls in supporting a building during an event such as an earthquake, as prescribed under Japan's Building Standards Act. The higher the value, the better walls can prevent building deformation, withstanding stronger forces.

Episode
24

"Are You Putting the Customer First?"

——Customer First—A Corporate Culture Takes Hold

The Housing Business Concept Adopted for All Company Business

Sumitomo Forestry's first Customer Service Department was the one set up by the Housing Division in 1989. Then in June 1994, Hiroto Yamaguchi became president and made "ensuring management is centered on customer satisfaction" his top management policy. He called himself "Mister CS" to clarify his intentions. Improving customer satisfaction was incorporated into the Corporate Philosophy and the Ethical Charter when they were established in 1997. The Customer Service Department was part of the housing business at the time and "customers" exclusively referred to customers of the residential construction business. Customer satisfaction depended on the competency of customers' contacts in sales, design, production, and after-sales maintenance, as

Pocket-sized pamphlet, *Magokoro* (2000)

well as guidance provided by managers in line with division policy.

Ryu Yano, who became president in April 1999, viewed customer satisfaction as the biggest factor differentiating Sumitomo Forestry from other companies. Rather than solely relying on the efforts of sales personnel to provide a meticulous service and attentive consideration toward customers, he believed customer satisfaction needed to be pursued through companywide structures and systems. One year on from his appointment, in April 2000, the Customer Service Department was newly created under the president's direct supervision. To ensure thorough implementation of the Customer First policy, The Customer Service Department relayed issues received directly to senior management and carried out causal analysis from an independent standpoint, provided guidance on formulation of recurrence prevention measures, and supervised the horizontal deployment of activities. Employees in frontline operations who served as contact points for customers also noted that this change in the way things were done relieved them of mental strain as it meant the company would determine the approach to be taken in each circumstance.

[Excerpts from *Jukai*, Including President Interviews]

1999	To strengthen CIS, we will formulate a detailed action plan to be implemented by departments and affiliates. It will include strengthening the Housing Division's after-sales service framework.
1999	Your attitude is important. Show consideration of the standpoints of customers and others. And after a house is handed over, be the extended family of the customer—watch over the house right to the end.
2001	We will consistently put the customer first in all business areas. The Customer First policy aligns perfectly with Sumitomo's Business Spirit, which persists after 400 years. As people of Sumitomo, it is crucial that we stick to the mentality that integrity is synonymous with *Magokoro* (sincerity of heart).
2002	Of paramount importance is that the customer comes first. This aligns with Sumitomo's Business Spirit viewing integrity as synonymous with heartfelt sincerity and entails being consistently sincere at heart, leaving selfish motives behind. In all businesses, we will always put the customer first so that we may fulfill our social mission.
2003	We will establish the perfect business platform for putting the customer first.
2006	Customer First is both part of our Corporate Philosophy, as one of Our Values, and the top priority for the Sumitomo Forestry Group as we go about our business.
2007	Formulation of Our Values and Ideals We take the customer's perspective and devote ourselves to realizing their ideas… We put customer safety and peace of mind first and enhance trust through appropriate explanations and advice… We respond to customer feedback with sincerity.
2012	Our focus as we proceed with our jobs must be directed toward customers. "Customers" refers to everyone we need to satisfy by doing our jobs.
2015	Sumitomo Forestry's existential value shines through and brightens only when we put in the effort to address the needs of society, the market, and customers.

Through other efforts, such as the preparation of a Customer First handbook as an educational tool, the Customer Service Department worked to promote the policy companywide. In the housing business, where personnel have contact with many individual customers, the main essence of the policy was enforced through the establishment of CS groups (Customer Support Centers) at housing branches and the distribution to employees of a pamphlet, *Magokoro* (“sincerity of heart”), explaining philosophy and principles relating to house development. The slogan, “Be the customer’s extended family,” which meant to constantly consider the customer’s standpoint and build long-lasting relationships, caught on within housing departments. As structured activity, measures were carried out in quick succession. They included the administration of a customer service management system involving implementation of the PDCA cycle, seeking improvements in key areas within each unit based on the findings of customer satisfaction assessments and questionnaires, and the communication of especially successful case examples.

Customer First handbook

Unwavering Efforts and Innovations Entrench the Policy

As a framework for introducing successful case examples, a special intranet site, Shining Moments, was set up to share valuable experiences about positive responses from customers. The objective was for Shining Moments to be communicated and passed down as treasures belonging to everyone in the Sumitomo Forestry Group so that it led to a fully genuine and sincere service. From fiscal 2010, a Shining Moments Award was established to recognize the best contributions to the site as voted on by Group employees. As a result of these measures, the business fields from which submissions came expanded from the housing business to care business and beyond.

And in fiscal 2012, President Akira Ichikawa newly established a Customer First category as an annual award open to the entire company.

Successive top executives repeatedly emphasized Customer First in person both at head office meetings and when visiting branches or model homes. There was a shift of focus away from the mindset of individual employees onto the state of the organization itself, and onto everyone with a relationship with the company's business, not just immediate customers. Consistently included in Our Values is the statement, "We provide high-quality products and services that bring joy to our customers (customer satisfaction)," and its essence has been thoroughly communicated.

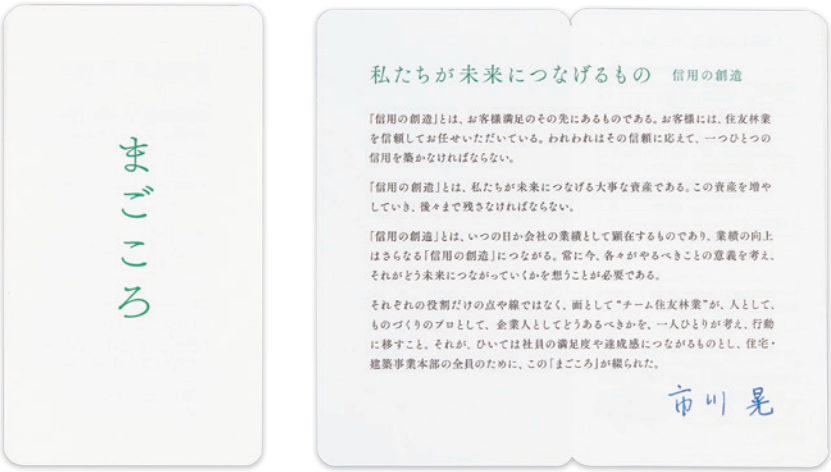
In the housing business, especially, people in charge of the various aforementioned processes needed to engage in communication with customers and work with affiliates to provide customer satisfaction. For this to happen, Customer First needed to be fully embraced within all processes. Progress was made through measures like the holding of branch-wide Customer First conferences and information sharing among different branches, and a culture was developed whereby branch managers were able to assert that any action that would benefit customers was to be pursued. This also fostered reassurance among employees at a personal level.

Dedication to Customer First in Day-to-Day Operations

The spread and entrenchment of Customer First occurred concurrently with Sumitomo Forestry's ongoing establishment of frameworks and systems at the heart of housing business operations.

Structures for being "the customer's extended family" spread across the Group. In addition to strengthening customer service for Sumitomo Forestry homes through the formation of an owners' support group, in 2009, and an all-day, everyday call center service, in 2010, efforts included deployment of businesses spanning from renovation and home resale to elderly care facilities of the Lifestyle Service Division. The establishment of the Customer Relations Department in 2020 served as a declaration of intent by Sumitomo Forestry to continually build ties with all customers. Appropriate information systems were also established in the form of Sumitomo

Forestry Group Customer Relationship Management (SCRM), an integrated owner management platform for the Group.



The revamped *Magokoro* (2018)

After a quarter of a century, the Customer First philosophy has taken root in all businesses and among all employees of the Sumitomo Forestry Group. When considering products, services, and measures, “Are you putting the customer first?” was an often uttered key phrase.

(75-year history, Chapter 2, Section 4: Housing Business)

Episode
25

"Further Enhancing the Sumitomo Forestry Homes Brand with Design Capability"

——Culture Grows from History and Endures in the Creativity of Successive Generations

Formation of the Design Partner Group

Sumitomo Forestry's main advantage in the housing business is one-at-a-time custom design. Generously staffed teams of two sales representatives and usually one designer have consistently given shape to customers' detailed requests and orders. Customer satisfaction with design was most recently measured at 99.2%,[1] attesting to the enormous advantage of the company's design capability. This elevation of the Sumitomo Forestry brand began with the Design Partner Group (DPG).

Japan's economic bubble, from 1986, gave rise to a penchant for authentic items. High-income earners, especially, often sought designs rich in variation for their own homes and tended to enlist the services of an architect. By contrast, while no two Sumitomo Forestry homes were the same, the company excelled with orthodox styles. Numbers of houses and prices kept rising even after the bubble collapsed and design departments were overrun with the task of producing proposals to win orders. They also took to using the SAIPS 1 CAD presentation system facilitating conformance with tighter building regulations and had an acute tendency to subconsciously limit their ideas and designs to the boundaries delineated by the software.

Some designers, lamenting such tendencies, believed a design should first be conceived based on original ideas and then validated using convenient software. They also demonstrated an engineer's pride. Despite the heavy workload, designers seeking to enhance their skills would do tours of house exteriors in a private capacity—this within an internal environment where talented designers traditionally became known by word of mouth. After completing courses in architecture, they chose the residential construction sector on purpose. Bogged down by day-to-day duties, they maintained ambitions of one day creating wooden homes that inspired emotion in many people.

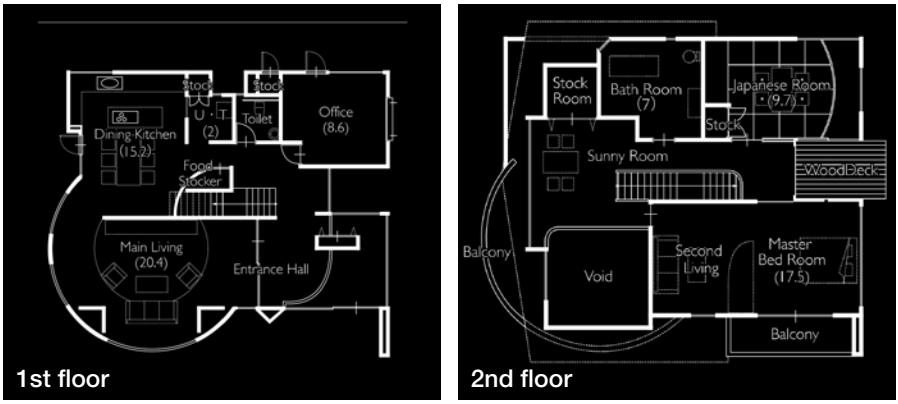
Until April 2000, branch design departments came under the jurisdiction of sales groups. After reviewing the positioning of logistical support for sales activity, design departments were separated to form design groups. The purpose of this was to advance the bolstering of design competency and skills improvement among designers under the guidance and supervision of design representatives assigned to each branch.

Then in April 2001, the DPG was created. As a special-purpose organization for handling highly complex or upscale properties, one designer was assigned to each of the three housing divisions—Eastern Japan, Western Japan, and Tokai. The DPG's establishment came at just the right time in terms of fulfilling the wishes of customers who, thanks to the widespread adoption of the Internet, had come across a wide range of distinctive homes and had access to an enormous amount of information.

Komazawa Model Home and a Design Competition

Like designers, some branch managers lamented the fact that the company's design capabilities and the latest model homes could not be leveraged as advantages of the Sumitomo Forestry homes brand. This was a challenge taken up in 2003 for the rebuilding of a model home at a site in Komazawa, in Tokyo's Setagaya-ku, where many high income earners resided. If it backfired, the consequences of such a pricy investment would come back to haunt them. Model homes were usually designed by a designer attached to the branch. On this occasion, however, it was decided to encourage participation by a wide range of people, including outside designers, and pit them against each other. As a result, it was a proposal by the Tokai Division DPG member that was selected, crossing divisional boundaries.

The Komazawa model home opened in 2004. A waterside (scenery) feature and curves in its form gave it a dignified appearance.



Spacious living and dining areas stand out, as do spaces for fun living, such as a sunroom and a wooden deck on the second floor.

The model home was designed under a “Pure Modern” concept. It had a striking appearance with exterior walls complemented by a large, bold gabled roof, intended to let in natural light, atop the atrium of the cylindrical first-floor living room. This blended into a two-story rectangular wing. Besides fulfilling its intended role as a sales tool appealing to the high-income bracket, the finished model home attracted a lot of attention in-house. Production personnel, on the other hand, had a tough time with specifications far removed from the numerous Sumitomo Forestry homes they had built to date. Acknowledging this as a weakness in construction capability, the company set about gaining the ability to undertake highly complex construction projects.

A housing and interior design competition held since 2004 commends designs for actual contracts, as judged by both in-house and outside experts. It is an opportunity for designers to push one another and learn from each other under the slogan, “Refinement and continuity.” Judges look at not just the entered design, but also the designer’s presentation skills. The best entries are shared with designers across all branches and information is exchanged as a way of mutual encouragement to promote improvements. The launch of the BF Structure in 2005 was another factor that enhanced design freedom and the overall ability of design teams to put forward workable proposals steadily increased.

Making a Statement—The Grand Estate Design Project

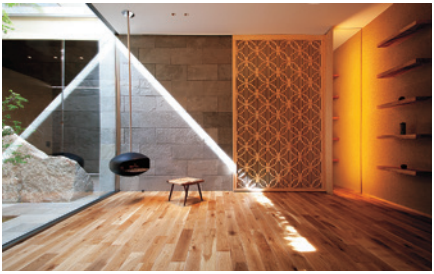
"Refinement and continuity" blossomed with the Grand Estate Design Project in 2014. Sumitomo Forestry now had a greater depth of designers with strong attention to detail in their designs, and the DPG had more members. Around 80 designers handled upscale properties at branches across Japan. The company now had the design proposal capability to accommodate the wishes of customers with high aesthetic appreciation and attentiveness to detail.

The aim, with safety a major premise, was to create homes that were attuned to the climate and culture of Japan—houses that cleverly incorporated aspects like daylight, wind, and greenery, coexisted with nature, and assumed the air of a valuable community asset. From an occupant's standpoint, emphasis was placed on refined and generous spaces, appropriate window placement, flexibility of space, a garden, lighting and air conditioning plans, and furniture placement and color schemes. Mindfulness of detail in each area resulted in comfortable, top-class Sumitomo Forestry homes. The innovation and passion of individual designers had become a source of strength for the Sumitomo Forestry brand.

In July 2014, a BF Structure model home with the Grand Estate Design Project as its key concept was built at the Komazawa site. Its basic theme: refined elegance of Japan built in an urban environment. The masterful techniques of professionals were incorporated throughout in such features as plastered walls, lacquering, application of gold and silver leaf, and sliding doors decorated with wooden fretwork. Trees whose leaves change color in autumn and natural stones were placed in the courtyard in keeping with a "garden and house are one"[2] approach. Similar model homes where the work of the Grand Estate Design Project was put on show were constructed in the major urban centers.

The Komazawa model home built as part of the Grand Estate Design Project, the courtyard visible at center

Refinement and Continuity is Ongoing



Features such as fretwork in the sliding doors are an expression of new Japanese elegance

In April 2015, the Architectural Design Center was established by separating the DPG, the unit within the Technology Division in charge of highly complex housing projects for affluent customers, to position it as a key organization. Staffing it with specialist production and interior design personnel enabled a coordinated response to customer demands by housing branches nationwide.

In July 2022, steps were taken to redefine and formalize titles for talented designers. Four tiers were established: master designer, chief designer, designer, and designer candidate. With screening and certification taking place every two years, this was to be seen as a career advancement in path toward promotion to management. As well as helping to enhance the skills of personnel who drive design capability, which is the source of Sumitomo Forestry's competitiveness, the company visualizes a career vision for those involved and undertakes systematic development of housing and interior design personnel to raise them to the next level.

For the 20th housing and interior design competition in 2023, the Architectural Design Center provided guidance to up-and-coming designers at branches nationwide, while also submitting their own entries to be evaluated by outside experts and making improvements. Their dedication to enhancing their own skills and creativity and communicating their ideas in just one photograph, or one drawing, elevates the value of the Sumitomo Forestry homes brand.

(75-year history, Chapter 2, Section 4: Housing Business)

1. Based on a survey of 10,595 homeowners who chose a Sumitomo Forestry home between January 2022 and December 2023
2. A traditional Japanese architectural approach seeking living spaces that are in harmony with nature. Viewing the garden and the building as one, it entails floor plans and designs allowing the garden to be admired from the inside.

Episode
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"The Keen Eye of Wood Professionals Gives Birth to a Solid Floor Series"

——Unique Stories Tapping Into the Hearts of Individuals

An Eye for Wood Helps to Differentiate the Housing Business

The history of Sumitomo Forestry published in 1999 states that the company's timber and building materials business was good at scrutinizing every single log to determine which contractors excelled at handling the different trees and materials. Sumitomo Forestry had a reputation for the quality of its timber, carefully selected from Japan and overseas. The company made extensive use of coniferous trees for construction and broadleaf trees for furniture and other wooden fixtures. As securing a supply of good-quality logs was a constant challenge, bases for importing and manufacturing were opened. By the 1990s, the infrastructure was in place for procuring timber from all over the world.

In the detached housing business, the long-term management vision of 2001 made being "wood professionals" a key point of differentiation for expanding market share alongside the Customer First policy. Every effort was made to achieve originality of materials right from the manufacturing stage. This required the ability to identify good logs, as well as comprehensive knowledge about processing timber to make the most of its appearance, texture, and strength depending on the tree species and origin. The objectives were to overcome intensifying competition in the housing market with products and services that were carefully selected or conceived by wood professionals; and to strengthen cooperation between the timber and building materials business and the housing business as part of efforts to achieve greater vertical integration.

Enter Oak—King of the Forest

During this time, a Housing Division product development representative began a tour of timber and building materials business bases around the world to inspect the

company's timber-related management resources. The purpose of this was to gain a first-hand feel for procurement networks and to acquire an expanded knowledge of wood, giving developers a larger cache of expertise to draw from. During their tour, the representative visited a building material and furniture manufacturer in China that did business with Sumitomo Forestry's timber and building materials business and came across an operation where wood from end-of-life Suntory whisky barrels was being used to make furniture. Whisky barrels are made from the wood of oak trees more than a century old, the best parts being cut out along the grain. Barrels are used for 50–70 years, aging distilled whisky for periods between three and 20 years and letting constituents in the whisky soak into the wood. On seeing wood from the barrels piled up, the representative immediately conjured up images of customers sipping from a whisky glass in a house incorporating barrel wood, and housing sales representatives explaining the wonders of barrel wood to customers. In Europe, oak is known as the "king of the forest" due to its stately form. A material loved by the likes of Antoni Gaudi and Frank Lloyd Wright, it is premium wood used for interior features and furniture. Excitement grew as the representative saw the potential for creating unique housing products with such rare material—homes that told a story.

After returning to Japan, the product development representative approached Suntory to ask if it would sell Sumitomo Forestry wood from barrels that had served their purpose. Other companies had made similar approaches. Suntory agreed to supply Sumitomo Forestry after an impassioned appeal pointing out that timber from trees more than a century old, after fulfilling their 50 to 70-year whisky-making mission as barrels, would get a second life as part of a Sumitomo Forestry home.

How timber is taken from logs to make barrels

Purchasing of building materials by Sumitomo Forestry followed strict rules, including a procurement policy and quality standards, and at the time, only flooring materials with a plywood base were used. While there was some internal reluctance about using irregular material that was also solid wood, the representative persevered

and managed to commercialize the product after convincing the relevant personnel. The flooring material was named “Pure Malt Floor.”

From the Barrel to the Floor

Several hurdles had to be overcome to achieve commercialization. For use as building material, first curved barrel wood had to be straightened. Four barrels provided only enough wood for one *tsubo* (3.3 m^2) of flooring and it was such valuable material that time was taken to straighten the wood by soaking it in hot water, one piece at a time, a rock placed on top. While special-purpose machinery was developed later to improve efficiency, there was no change in the company’s belief in the toughness of wood or the desire to make adjustments through dialogue and to place importance on wood.

After creating planks, the finest straight-grain boards were chosen. The linear orientation of the straight grain produced superior strength and a refined, clear-cut impression that appealed to high-end sensitivities. In addition, joints between planks were rounded (2.5 mm) so customers could better experience the quality of solid wood with their own bare feet. The process involving repeated trials to check the feel of the wood as it was walked and stepped upon continued until the right solution was found.

This wood was the material used for Super Natural Oak, launched in April 2002 with a limited deployment of 500 homes. At the same time, wood intended for use in barrels was adopted for living room doors, stairs, and staircase handrails, helping to realize spaces filled with the tiger-striped grain feature of oak, as well as whisky-tainted color tones. Coasters made from barrel wood were also created.

Actual feedback from customers stating they had sipped on glasses of whisky while appreciating the floor marked the moment the envisaged scenario had reached the customer. Overwhelmed, the representative nodded in complete understanding.

Living room making use of Super Natural Oak

Expectations Inspire a New Series

Super Natural Oak sold out in a flash. The strength of a product with its own unique story, chosen by professionals with an eye for wood, had been proven. Sumitomo Forestry then went on to create the Super Natural series. Over the space of 10 years, eight products were launched, including the world's three major choice woods—teak, walnut, and mahogany. Each product was not only premium wood, but they also harnessed the characteristics of the tree and a back story, such as a ship deck's resilience to water, and the beauty in the grain of wood used to decorate a royal palace.

The Super Natural Series was a product that Sumitomo Forestry was in a perfect position to conceive, engaged in businesses from upstream to downstream and possessing not only networks for finding and procuring raw materials, but also comprehensive knowledge of wood. The capabilities of our wood professionals, who could fully draw out the appeal of solid wood, its color and luster improving with time, were held in high regard by not only customers, but also the industry.


Teak


Walnut


Mahogany

Additional Vertical Integration of Parts and Materials Manufacturing, and Differentiation of Parts and Materials

In June 2009, PT. Sinar Rimba Pasifik was established through a joint venture with an Indonesian manufacturer of joinery materials. One objective was to enable the manufacturing of interior materials within the group. The same cooperation between the timber and building materials business and the housing business that had come to fruition through the Super Natural series was realized in Indonesia through literal vertical integration of plantations to wood processing, through to housing materials.

Differentiation of interior materials, too, continued in a new format. In 2021, original interior materials came to be collectively branded "PRIME WOOD" to enhance their appeal.

Flooring, for example, had 60 manufacturing recipes comprising different combinations of tree species; types of floor boards, such as solid, sawn, or sliced; processing of surfaces, dimensions, and joints (tongues and grooves); and coating and other finishing procedures. Painstaking machining operations and hand-finishing of the fine detail by professional craftspeople ensured products in the lineup were of a high quality.

The Super Natural series had great success based on a differentiation strategy centered on wood professionals and the strengths of our trading network. At the same time, it indicated that it was the passion of individual employees who implemented company strategy that created opportunities for breaking new ground.

[Super Natural Solid Wood Flooring Series]

Launch date	Tree species	Characteristics of tree species used in flooring
April 2002	Oak	Straight-grain staves from whisky barrels made from more than 100-year-old white oak were used. A beautiful tiger-stripe pattern added to the solid look.
April 2003	Teak	This used Myanmar teak harvested under government supervision. The elegantly rich luster was a result of the high-quality oil content (wood tar). Known as the "jewel of the forest," its texture became richer over time.
July 2004	Pine	The tight grain of this straight-grained Laos pine made it hard. Its reddish brown and pale yellow tones changed over time to subdued brown. European red pine, Vietnamese pine, and yellow pine were used for joinery and fixtures.
April 2005	Maple	The North American hard maple had a light ash-colored shine and an elaborate texture. Entrance area handrails employed painted maple from the Monbetsu company-owned forest.
July 2005	Bamboo	Thick-trunked, unscratched Chinese moso bamboo was used. As a hard wood, characteristics were its scratch-resistant durability, elegant straight lines, and texture. Taking advantage of the elaborate fiber structure, the wood consisted of rectangular bamboo slices laminated and molded into shape.
July 2006	Walnut	The wood had a distinctive texture with a dark, purplish striped grain. Walnut is a choice wood also used for joinery, as well as for musical instruments, as there is little warping, making it easy to process and craft.
April 2007	Cherry	Characteristics of the black cherry were a composed grain and a pattern of soft reddish tones with darker shades along the grain. A fine-grained texture made the wood smooth to the touch.
November 2013	Mahogany	This used big-leaf mahogany wood from plantations appropriately managed by an Indonesian public forestry corporation. It had a shining gold-like luster characterized by striped patterns of light and dark.

Based on news releases at the time of launch

(75-year history, Chapter 2, Section 4: Housing Business)

Episode
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"One-Stop Shop for Everything from Construction to Management and Operation"

——Land Use Achieved Through Legwork to Develop Information Networks

Sumitomo Forestry's Land Use Business

Sumitomo Forestry's full-fledged entry into the land use business started with the establishment of the Special Construction Department of the Housing Business Department in 1987. In response to the land use needs of landowners due to rapidly rising land prices in the bubble era, the department became involved with the development of multi-family rental housing, such as condominiums and apartments. It became the Special Construction Division in January 1991, and the Collective Housing Headquarters in April 2002.

Rental housing sales are unlike detached house sales in that it is important to provide sophisticated solutions for asset management, related to things like landowner taxes and inheritance. Leveraging the brand power of the Sumitomo Forestry homes, Sumitomo Forestry's main target was people who wanted to build rental housing that they could proudly leave to their children and grandchildren, rather than prioritizing profits while achieving stable yields.

Contact with such customers is the first step in sales activities, but rental housing sales do not use permanent model homes and showrooms like detached house sales do. In addition to contacting existing home owner customers of Sumitomo Forestry and their referrals, and holding land use seminars, sales personnel must seek referrals to owners of unused land by actively visiting financial institutions, tax accountants, local real estate companies and others. This general framework of information collection and networking has remained the same from the days of the Special Construction Department to the present.

Forest Maison rental housing (2009)

Involvement in a Range of Different Constructions

Sumitomo Forestry's rental housing is free plan, meaning the company listens to the requests of customers and then proposes unique multi-family housing solutions for each project, so the Collective Housing Headquarters used a diverse range of construction methods.

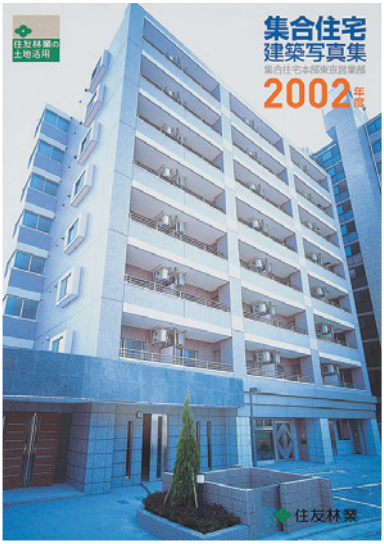
When designing a medium-rise condominium in Tokyo, two-fifths of the site would be devoted to city planning roads, so Sumitomo Forestry emphasized the design from Ring Road No.8 by incorporating curves into the building, while avoiding projected lines. With the business plan for the entire condominium building to be rented to a major corporation as a dormitory for its single employees, the owner of the property was very pleased. For an apartment building in Aichi Prefecture, where the customer was concerned about finding tenants in an area without much other rental housing nearby, Sumitomo Forestry proposed maisonette-type units (multi-family housing with individual dwellings of two or more stories having internal staircases). It utilized its expertise in housing construction to create a staggered design with wooden fences and pillars used as decorative accents across the facade to create a sense of detached houses. And when constructing a private nursing home in Gifu Prefecture, the customer obtained funding after Sumitomo Forestry demonstrated to the financial

institution the significance and stability of a nursing care insurance-based facility that had little social recognition at the time. The quality of the final result, in terms of exterior and private rooms, was obvious to both tenants and the owner of the property.

Business Alliance with Sun Step

With the arrival of the 2000s, there was rapid growth of specialized companies with strengths in apartment management support, providing rent guarantees and subleasing services, in the area of low-rise rental housing. This heralded an era in which construction and post-delivery property management profitability (management fees, renewal fees, etc.) needed to be considered in tandem. Management of rental housing built by Sumitomo Forestry was conducted in partnership with the rental management departments of local construction companies and local rental management companies, was achieving high occupancy rates. However, outsourcing had limitations in terms of customer satisfaction, so the company devised a strategy to expand its business into property management. As a result, in 2003, it acquired the rental management company Sun Step Co., Ltd. (changed to Sumitomo Forestry Residential Co., Ltd. from 2009). At the time, Sun Step was managing 20,000 properties in the Kanto, Chukyo, and Kansai regions.

Collaborating with Sun Step to promote the subleasing concept carried considerable value for Sumitomo Forestry and resulted in an acceleration of the number of buildings managed each year. With comprehensive agreements signed between landowners and management and operation companies, subleasing guarantees fixed rental amounts for fixed terms, which is well received by landowners who want to avoid the trouble of collecting rents each month and restoring properties to their original condition after tenants move out. It is also easy to obtain financing from financial institutions due to the



Collection of land use examples (2002)

realistic nature of business plans. Sun Step also provided a comprehensive support system that handled everything from operations such as finding tenants, renewing contracts, and tenants moving out, including support for leasing entire buildings for company dormitories and other uses, to management of the property itself. This dramatically expanded the scope and appeal of the proposal. A virtuous cycle was also created, with feedback from tenants of properties managed by Sun Step used for rental properties built by Sumitomo Forestry.

Contributing to Management Through Stable Profits and Accumulation of Expertise and Information Networks

In April 2007, Sumitomo Forestry's Collective Housing Headquarters was split into the Real Estate Business Headquarters (centered on reinforced concrete constructions) and the Succeed Business Division of the Housing Business Headquarters. The Succeed Business Division (FOREST MAISON Department from 2009) focused on low-rise wooden multi-family housing based on the two-by-four construction method.

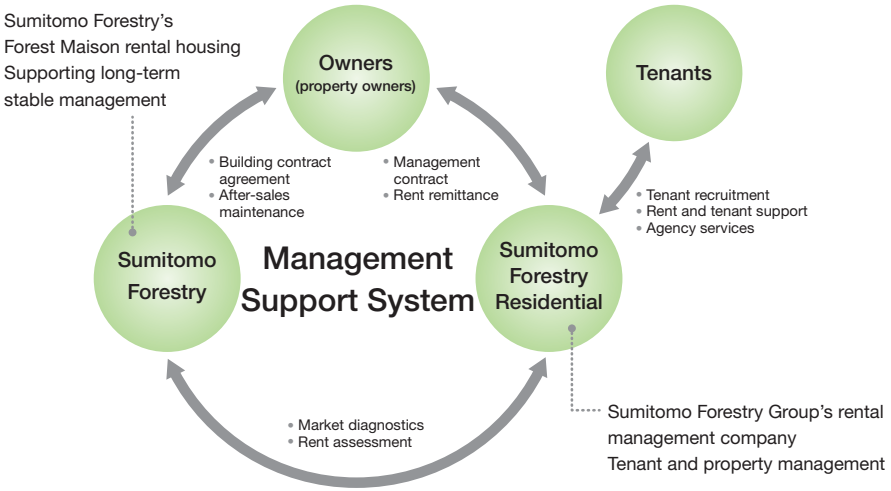
After the Global Financial Crisis in 2008, the company's rental housing business propped up business performance for its housing business. In addition to the rental housing business naturally being less affected by the economy, there was an increase in people renting at this time, including more single-person and two-person

Town Square with model rooms (Tokyo, circa 2022)

households, which created solid demand for rental housing.

While Sumitomo Forestry's rental housing sales were handled by special-purpose organizations mainly in Tokyo, Nagoya, and Osaka at the time, it changed to a concurrent sales model from 2011 to leverage its nationwide housing branch network and 1,300-strong detached house sales personnel. Divisional concurrent sales support personnel visited branches across the country and accompanied the detached house sales personnel to promote orders when visiting customers' homes. They also launched a series of detached house rental products and held rental housing management exhibitions at Sumitomo Forestry's Sumai Haku housing fairs, which resulted in more rental housing buildings and greater sales.

Later on, customers started using the Internet and other channels to gather diverse information for themselves, at which time rental housing sales activities needed to become more specialized. This led to a return in 2019 to the previous model of sales by special-purpose organizations. In 2023, Sumitomo Forestry unified its building structures into the two-by-four construction method, which was then consolidated into its Big-Frame Structure. This enabled it to demonstrate its strengths in tangible things like seismic resistance and use of cantilever structures in addition to differentiation through intangible things like traditional consulting capabilities in the



Collaborative framework between Sumitomo Forestry and Sumitomo Forestry Residential

luxury rental sector. In Tokyo, Nagoya, and Osaka, it borrowed rooms in luxury rental properties it was involved in to create Town Square model houses, thereby launching an initiative where it showed entire properties and individual rooms to owners of unused land and other potential customers. Many people have commented on the low price per tsubo (roughly 3.3 m^3) for the quality of construction offered, which gives the sales personnel considerable confidence.

Sumitomo Forestry has persisted with its rental housing business through a series of restructures. It maintained the special-purpose organizations, even during the period of concurrent sales with detached houses, with the aim of continuing without interruption this method of providing comprehensive solutions and to keep the relationships it had built up through sales with companies, such as financial institutions and tax accountants, who had information on landowners. As such, the company's land use business personnel who had used legwork to develop relationships with these information sources enjoyed such a high level of trust that financial institutions have asked them to give talks on land use through rental management. They have been utilized in the commercial real estate sales business (land and rental housing packages), medium- to large-scale wooden construction business, and other businesses as company assets. These people are the perfect example of using accumulated expertise and personal connections to expand new possibilities.

(75-year history, Chapter 2, Section 4: Housing Business)

Episode
28

"Aiming to Develop Communities of Wooden Houses That Stay Beautiful Forever"

——Unified Townscapes, Abundant Greenery, and Community-Building

Establishment of the Property Development Business Division

Sumitomo Forestry's spec home development business started in 1963 with the establishment of Group company Sumirin Tochi, which conducted housing land development and spec home development work. Since then, a number of related organizations were established, including the Real Estate Division in 1971. With the first oil shock in 1973 and the collapse of the bubble economy in 1990, land prices fell and the Spec Home Department was closed in 1997, with spec home business reduced to the bare minimum at the branch level.

In 2005, after a break of 8.5 years, a new Property Development Business Division was established at Head Office under the president's direct supervision. The division was then moved to the jurisdiction of the Real Estate Business Headquarters when it was established under the Project SPEED long-term management plan launched in April 2007. The aim was to grow the spec home market where Sumitomo Forestry saw considerable scope for development. In 2012, the Real Estate Business Headquarters was integrated into the Housing Division where the community development business has remained a core business up to the present day.

Thoughts on Community Development, and the Machinami Guideline

The business model that Sumitomo Forestry applied to its community development business was to leverage the strength of the Group and develop diverse communities with asset value to create a brand alongside the Sumitomo Forestry homes.

When developing spec homes, the locational factors of transportation, childcare, shopping, environment, and safety are generally considered to be important. However, Sumitomo Forestry added to this list with its own rules, including its Machinami (townscape) Guideline. The company established a general framework for townscapes,

landscaping, greening, and maintenance, as well as detailed rules for each project, to create communities that continue to be easy to live in and beautiful and that maintain high property values.

For townscape planning, Sumitomo Forestry sought to create bright and open spaces without being enclosed by things like uniform concrete block walls. Its landscaping considerations included views from public spaces, such as roads and parks, while its active greening plan included proactively landscaping unused areas of land within sites to create harmony with the surrounding environment. In terms of garden vegetation as well, it covered appropriate maintenance (including pruning, training plants, and conducting pest control) and upkeep to prevent greenery from obstructing traffic.

When designing a town block, the company investigated everything from interrelationships between adjacent buildings, to parks, meeting halls and other public spaces, as well as ponds and other natural environments adjacent to the town block. It also considered how light entered the block, how the wind passed through, the arrangement of greenery, and privacy as well. In terms of housing development, it leveraged its experience in the custom-built detached housing business, and Sumitomo Forestry Landscaping provided the landscaping for the entire block, including exterior landscaping and garden vegetation. Sumitomo Forestry Home Service was then contracted to sell the completed homes, making a wealth of information available while also conducting site tours.

After the project was completed, the Property Development Business Division planned and proposed a variety of networking events and provided community-building support for the residents.

Forest Garden Keio Horinouchi

Forest Garden Keio Horinouchi, which Sumitomo Forestry started to sell in August 2010, consisted of a total of 106 lots, including 91 lots for detached spec homes and 15 lots with building restrictions. At over 100 lots in total, this was the first large-scale residential development project undertaken as an independent development by the Property Development Business Division. Located within a section of Tama New Town,[1] the development was expected to appeal to first home buyers in their 30s and

40s who had been born or spent their school years in the area.

Developed on the concept of a town that fosters and enjoys connections, Forest Garden Keio Horinouchi was based on four themes: links with the earth, links with the community, links with family, and links with the town.

To achieve links with the earth and community, parts of the main structures were built with Japanese cypress from the Tama area to highlight the commitment to live in homes built with wood from the local mountains. This initiative was implemented in response to timber manufacturers who wanted to use local timber in the houses. To achieve links with family, planning for each house envisaged different living scenarios, with the creation of spaces where family could easily gather and chat, such as living and dining rooms

Forest Garden Keio Horinouchi with open exterior landscaping (at time of completion)

Beautiful townscape with mature garden vegetation (2024)

Community welcome gate using natural stone

Japanese cypress from the Tama area used for pillars and foundations

with an emphasis on traffic flows to large sunny garden areas.

To achieve links with the town, signature trees were planted at the approach to each house to create a sense of unity in the townscape, with support structures in place for Sumitomo Forestry Landscaping to do the gardening work and maintenance of vegetation. For the entire town block as well, a welcome gate in the style of the English countryside was constructed with natural stone, and benches were constructed of granite and marble remnants, to create spaces that encouraged daily communication between residents.

Each resident was asked to follow the Machinami Guideline for Forest Garden Keio Horinouchi. It started with maintaining a certain distance from the boundary line of the street when positioning the houses, fences, and gateposts to create a unified, open, and relaxed appearance. It also included planting of a flowering signature tree near the approach of each house, the same finish on entrance porches and staircases, and the design of parking areas.

With unique Sumitomo Forestry touches at every turn, the Forest Garden Keio Horinouchi townscape remains as beautiful as ever more than 14 years after sales started as of 2024.

Ever-Evolving Community Development

Community development in the Property Development Business Division continues to evolve in both quality and quantity.

Technology developments and after-sales services have enhanced security for

residents. These include roof and exterior wall materials developed to highly weather-resistant LS30 specifications, meaning maintenance is not required for 30 years from the date of completion, a termite protection system that prevents infestations by injecting termite repellent into pipes embedded around the property, and a 60-year warranty system equivalent to that for custom-built detached houses.

Forest Garden Hadano, which Sumitomo Forestry started to sell in April 2016, included a wooden-construction daycare center, garden vegetation with Sumitomo Forestry Landscaping's Harmonic Plants,[2] planning by Sumitomo Forestry's Tsukuba Research Institute based on simulations of wind-flow patterns across the entire community, and a housing exterior plan focused on Tanzawa spring water. In 2018, it became the first detached house community in Japan to obtain the *Ikimono Kyosei Jigyousho* certification (Association for Business Innovation in harmony with Nature and Community (ABINC) certification). The development also offered a wide array of community-building events, including pruning workshops and Christmas wreath making lessons.

As of 2023, the Residential Property Development Department was selling spec homes in more than 40 locations, with independent large-scale residential development projects also increasing. Through its community development business, Sumitomo Forestry aims to transform cities into forests by building towns full of wooden homes. In turn, these forests will continue to provide their residents with comfortable lives surrounded by the warmth of wood and a wide variety of communication.

Signature trees located by each house

(75-year history, Chapter 2, Section 4: Housing Business)

1. Tama New Town is Japan's largest new housing development, developed over a period of 40 years, from 1965 to 2006, to open up the Tama Hills that span the four cities of Inagi, Tama, Hachioji, and Machida in Tokyo. It has a total land area of approximately 2,900 hectares with a population of approximately 224,000 people. Tokyo Metropolitan University, Chuo University, Teikyo University, Tama Art University, and other institutions have opened campuses at Hachioji.
2. Harmonic Plants was proposed as a method for selecting greening plants by considering impacts of ecosystems and genetic lines to protect biodiversity in Japan.

Episode
29

"Increasing the Appeal of Sumitomo Forestry Homes Through Integration of Housing with Exteriors and Garden Landscaping"

——Bringing New Forests to Urban Areas by Transforming Cities into Forests

Mou Hitotsu no Mori-zukuri™ (Making One Forest After Another): A Specialist Organization for Greenification of Cities and Housing

Sumitomo Forestry's greening business, which is managed by Sumitomo Forestry Landscaping, started in 1972 with the establishment of the Greening Department, and was fully implemented in 1977 with the establishment of Sumirin-Ryokka. Changing name to Sumitomo Forestry Landscaping in 1984, the business became the industry leader in terms of value of completed garden landscaping projects by the late 1990s.

Sumitomo Forestry Landscaping has grown to become a company with about 700 employees as of 2023, with operations currently covering four business areas. Those businesses are "residential greening" for housing exteriors (gates, fences, garages, etc.) and garden landscaping with a focus on Sumitomo Forestry homes; "environmental greening" for everything from consulting to design, construction, operation, and management of office buildings, condominiums, and public facilities; "materials" for sales of materials and trees for use in housing exterior and garden landscaping work; and "farming" for manufacture and sales of products such as potting mix for seedling cultivation, soil for greening projects, and materials with beneficial microorganisms. It has become a greening specialist organization of architects, tree surgeons, and other professionals, with a focus on management engineers, conducting garden landscaping and civil engineering construction, and exterior planners.

Providing Everything from Housing to Housing Exteriors and Garden Landscaping

While housing exterior and garden landscaping work for Sumitomo Forestry homes

was a main pillar for Sumitomo Forestry Landscaping, it was only working on around 50% of delivered houses as of 2005. This was due to a significant number of orders going to other construction companies due to construction cost comparisons and other reasons such as customers having close ties to local garden landscaping businesses. At times, Sumitomo Forestry Landscaping employees were even frustrated at being unable to meet the customer's budget when applying specifications appropriate to Sumitomo Forestry homes. Sumitomo Forestry housing sales personnel prioritized getting the building orders, and when exterior construction work was a separate order, it could be finished with more quickly. Even when integrated contracts for housing and housing exteriors were addressed in mid-term plans and elsewhere, they never eventuated due to this situation.

However, with a review of the Project SPEED long-term management plan starting in 2010, the housing business switched to a focus on profit rather than quantity in anticipation of a reduction in the number of new housing starts. Sumitomo Forestry started to promote integrated contracts and integrated delivery for housing and housing exteriors as an important measure for increasing added value and improving profits for each Sumitomo forestry home. In an organizational restructure in April 2011, management of the residential greening business moved from the Environment and Resources Division to the Housing Division[1] and a system for promoting integrated contracts was put in place.

Buildings and housing exteriors were essentially integrated units in terms of external appearance. In many cases, garden landscaping was also added to create depth and calm in the design. Since fiscal 2005, design of the total external appearance, meaning the house, housing exterior, and garden landscaping, was consistently the subject of fierce competition between residential greening personnel through internal design contests at Sumitomo Forestry Landscaping. Garden landscaping considerations included use of garden vegetation appropriate to the local ecosystem, otherwise known as Harmonic Plants. Implementation of these elements in Sumitomo Forestry homes became an essential challenge for improving customer satisfaction.

This also presented many practical benefits to the customers. When work on the housing exterior and garden landscaping is conducted separately to the main work, move-in can be delayed, or there can be security or construction-related concerns if

move-in occurs prior to the housing exterior work being completed. This can lead to areas around the completed houses having to be dug up again, which makes it necessary to implement neighborhood considerations again. Use of integrated contracts and integrated delivery has eliminated these issues, with production personnel at Sumitomo Forestry housing branches responsible for managing projects, as the main contact point, until completion of housing exteriors and garden landscaping. It has also provided economic benefits through streamlining of construction work in addition to shortening the length of time that customers stay at their temporary residences and reducing a range of other worries.

Garden vegetation adds color to the natural modern buildings and horizontal design of the facades

Efforts to Implement Integrated Contracts and Integrated Delivery, and Their Results

Nevertheless, Sumitomo Forestry had to overcome a range of challenges in its efforts to implement integrated contracts and integrated delivery.

To start with, Sumitomo Forestry Landscaping had to coordinate its housing exterior and garden landscaping meetings, presentations, designs, and quotations

with Sumitomo Forestry's marketing activities. The common mindset of housing exterior and garden landscaping being a downstream process of housing construction had to be changed because of the need to consider a sense of unity in house and garden design, and to provide complete proposals covering functions, safety, and costs, from an early stage. A new construction system was also developed to quickly deliver houses that achieved customer satisfaction, while accelerating the speed and reducing the costs of construction through increased use of simultaneous certification applications for the building itself and the housing exterior, as well as integrated construction of the entrance area and approach, and parallel work.

Sumitomo Forestry's housing branches enhanced cooperation with Sumitomo Forestry Landscaping as well to smoothly advance projects, and that resulted in a greater percentage of integrated delivery of houses. On the other hand, the company was able to concentrate on design and construction of housing exteriors and garden landscaping because it could entrust various jobs to the housing sales personnel, including acting as the main contact point, contracting, and collection. This also made the business more competitive and achieved the hoped for increases in per-unit net sales for Sumitomo Forestry homes.

A mansion and courtyard, with small and large buildings linked by a connecting corridor. Integrated contracts brought the dreams of the property owner, to live a life overlooking the greenery of a courtyard, to reality.

Total Greening Planner

The History of Sumitomo Forestry (published in 1999) included a comment that, during the initial struggles of Sumirin-Ryokka, it was proud to be moving into the field of its greatest expertise. Sumitomo Forestry Landscaping also states at the top of the home page of its website that it is "making one forest after another," boasting that it is a company practicing "planting and cultivation" in urban areas.

With such pride, Sumitomo Forestry Landscaping employees have conducted a wide range of greenification projects. In addition to detached housing, their work has included developing spec home communities with greenery, as well as roads, office buildings, public and commercial facilities, and designated management of parks. Conducting technology exchanges and collaborative work with Regal, an Australian landscaping company within the Sumitomo Forestry Group, Sumitomo Forestry Landscaping has become a total greening planner taking business to a broader and higher level.

Masonry focal point positioned at the end of an approach with modern tiles among natural materials to create a refined space

(75-year history, Chapter 2, Section 4: Housing Business)

1. Sumitomo Forestry Landscaping was jointly managed by the Environment and Resources Division and the Housing Division in 2011.

Episode
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"Protecting Local Treasures by Understanding the Minds of Generations of Residents"

——Renovation of Traditional Japanese-Style Houses to Rejuvenate Houses That are Decades or Centuries Old

Sumitomo Forestry Home Tech and the Renovation Business

Sumitomo Forestry's renovation business started as an extension of the hardware store business of company subsidiary Tom House, which was established in 1981. The business was inherited in 1991 by Sumirin Maintenance (established in 1988), with a name change to Sumitomo Forestry Home Tech Co., Ltd. With calls to enhance its housing stock business when the Sumitomo Forestry Corporate Philosophy and Vision were formulated in 1997, Sumirin Maintenance was spun off again that year and Sumitomo Forestry Home Tech started to operate entirely as a dedicated renovation company. The aim was to move away from a reliance on new custom-built houses, and to respond to the need for extensions, alterations, and retrofitting in consideration of the 20-plus years since Sumitomo Forestry made its entry into the housing business. With the renovation business positioned as a priority development area under the Project SPEED long-term management plan of 2007, Sumitomo Forestry Home Tech has since grown to more than 2,400 employees as of 2023.

Over this period, resource and energy conservation became important issues for society, and people reevaluated the importance of using good quality products for longer. With concerns about their pensions in their old age, middle-aged and older people were also less willing to build new houses, which conversely increased the significance and demand for renovations. Sumitomo Forestry Home Tech was able to add new value to existing houses through enhanced functionality, including seismic resistance and thermal insulation, and the added comfort of wood.

Passing on Culture with the Renovation Traditional Japanese-Style Houses

One area of Sumitomo Forestry Home Tech's renovation business where Sumitomo Forestry Group's unique abilities can shine is in renovation of traditional Japanese-style houses.

With a long history of emphasis on the value of the home, it is more than just a living space to Japanese people. It represents the history and bonds of family and relatives. Traditional Japanese-style houses in particular, built many years ago, are engraved with the history of the family that lived there. These houses were built with their roots in the local culture, using locally-produced wood, thick beams leveraging their natural form as is, and featuring detailed *ranma* transom panels. They are also time assets[1] for the local area and their existence itself brings cultural enrichment.

Sumitomo Forestry Home Tech defines a traditional Japanese-style house as one built before establishment of the Building Standards Act in 1950. It has been rejuvenating these houses through renovations that take advantage of the accurate construction techniques, traditional designs, and craftsmanship that were unique to old houses in Japan.

While the drawings for traditional Japanese-style houses were often inadequate, with a variety of structures and conditions, the company conducts surveys and

Rejuvenation of a traditional Japanese-style house takes advantage of roof trusses that express 130 years of history

Sumirin ARC Construction Method, an original Sumitomo Forestry Home Tech renovation technology

House exterior with retiled roof

diagnostics of the buildings to make use of the original materials as much as possible, while reinforcing parts that have aged. In terms of functional characteristics of the houses, including seismic resistance, thermal insulation, floor plans, and natural lighting, it brings them up to modern specifications and comfort levels. This requires knowledge in a wide range of disciplines, but the wooden construction technologies and expertise of Sumitomo Forestry has been passed down to overcome these hurdles.

A range of methods are employed when renovation of traditional Japanese-style houses, including traditional house relocation (moving the building laterally), lifting (jacking up the building), thatching, and aligning (correcting distortion of pillars). New life is breathed into these old homes through a combination of seismic reinforcement technologies developed by Sumitomo Forestry Home Tech, including energy-absorption dampers, composite bonded beams,[2] the Sumirin ARC Construction Method (foundations), Sumirin CEM Construction Method (vibration control), and rigid joint beam load-bearing walls.

One traditional Japanese-style house in Kumamoto Prefecture, originally built over 300 years ago, had suffered termite damage that risked collapse within 10 years. The property owner was spurred on to renovate by his grandchild who wanted to keep the house. In addition to improving thermal insulation, changing plumbing to the latest equipment, and retrofitting the *doma* earthen floor to create an entrance hall, seismic resistance was reinforced by correcting the building's distortion and lean and redoing the foundations. These renovations enabled it to survive the subsequent Kumamoto earthquake that occurred in 2016. Many traditional Japanese-style houses apart from this one have also endured a range of natural disasters, proving the technical capabilities of Sumitomo Forestry Home Tech.

Stately entrance hall with retrofitted *doma* earthen floor

Adjoining rooms that retained and used the *ranma* transom panels

In addition to rejuvenating the buildings themselves, Sumitomo Forestry Home Tech established the Century-old Home Club in 2013 to provide opportunities for interaction between people living in traditional Japanese-style houses. The intention was to expand the affinity group because, to protect these old houses, there is nothing more important than the minds of the people living in them. The six-volume *Onkochishin No Reform* book series (renovating by learning from the past) was published for this very purpose.

Onkochishin No Reform book series (renovating by learning from the past)

Again 100 Years From Now

Sumitomo Forestry Home Tech has rejuvenated as many as 7,000 rundown traditional Japanese-style houses as of 2023, with many of those houses being over one hundred years old. Sumitomo Forestry's renovation of traditional Japanese-

style houses has realized comfortable lifestyles through a range of work, from eliminating the cold to removing barriers, updating equipment, and changing traffic flows within the houses while maintaining the feeling of history in their vintage pillars and beams.

Attic with penetrating tie beams and vertical struts, and glass tile skylight

These worksites offer glimpses of the activities of people who have lived there over the years, and a chronicle of their daily lives. The old trees that supported the houses, together with the furniture and fixtures, contain many lessons of the craftsman's skills in using wood. Sumitomo Forestry Home Tech has great respect for all of these elements in its renovation of traditional Japanese-style houses. These renovations also have the job of communicating years of culture to the next generations.

In the words of a carpenter to the customer at one construction site; "No other company does this much." This perfectly explains the attitude of Sumitomo Forestry Home Tech employees to the task of renovation of traditional Japanese-style houses. While the greatest compliment received was the customer's joke in reply: "We hope to work with you again 100 years from now."

(75-year history, Chapter 2, Section 4: Housing Business)

1. Like trees, time assets have value that improves with age and that can be passed across generations.
2. Composite bonded beams are a reinforcing method. They are created by using epoxy resin adhesive to attach engineered wood to the bottom side of existing beams, with plywood bonded to the sides of those beams to create an integrated structure.

Episode 31

"Over 500 Temporary Emergency Housing Units Completed After Great East Japan Earthquake"

——Living Comfort Considered in Demonstration of Usual Housing Development Capabilities, Even Under a Demanding Schedule

Major Earthquake and Sumitomo Forestry's Response

The Great East Japan Earthquake of March 11, 2011, caused an unprecedented level of damage, with 22,222 people killed or missing (as of March 2023) and about 405,700 houses completely or partially destroyed. The subsequent accident at Fukushima Daiichi nuclear power plant added to the disaster, forcing about 470,000 people to evacuate.

Sumitomo Forestry's Tohoku base was also affected, but it proceeded to check on its house owners and business partners. Over 10,000 housing business-related properties were damaged, so the entire Group mobilized for recovery work and support, with customers given highest priority.

All-Out Battle for the Group to Complete Emergency Works

As a home builder, the whole Sumitomo Forestry Group responded by constructing temporary emergency housing. Approximately 52,000 of these units were eventually constructed, mainly in the three prefectures of the Tohoku region (Iwate, Miyagi, and Fukushima), of which Sumitomo Forestry constructed 504 units across 89 buildings built the residents in mind.

Needing to complete the units within 25 days of starting construction as a rule, the company was in a race against time to provide housing as quickly as possible to the disaster victims forced to live in evacuation shelters. The Housing Division stood up the company's Great East Japan Earthquake Restoration Office on April 1, and Home Eco Logistics Co., Ltd., in charge of material distribution, opened a logistics center in Gunma Prefecture to prepare materials for procurement and dispatch in cooperation with the Timber and Building Materials Division. Work on the emergency housing was started at four locations in Miyagi Prefecture, and one location in Fukushima Prefecture, from the middle

of April. Handover of units to the government, which required complicated procedures, reached its peak in June with five handovers in an extremely busy month for the company.

A large unit, comprising seven members of the Housing Division and 196 members of Sumitomo Forestry Home Engineering, was formed to accomplish this, while cooperative building contractors were also added to combine all available resources. Some employees visited the Tohoku region several times. At the Sumitomo Forestry School of Professional Building Techniques in Chiba Prefecture, where new high school graduate employees at Sumitomo Forestry Home Engineering study, people started saying soon after the earthquake that they wanted to help in the disaster-affected areas. The minute that the graduation ceremony at the end of March was over, a line of graduates jumped on chartered buses and headed off to work sites in Tohoku. In fact, the entire Group, working as usual, had the same passion for going to Tohoku, from Sumitomo Forestry's housing branches nationwide to Sumitomo Forestry Home Engineering, cooperative building contractors, and other contractors.

Overcoming On-Site Struggles and Providing Comfortable Housing

Construction on the temporary emergency housing continued even on holidays and when weather conditions would have normally stopped work. Because of their temporary nature, wooden piles were used for the foundations instead of concrete. In the middle of the confusion, the Timber and Building Materials Department procured and supplied many necessary materials, including 8,500 wooden piles, and provided support against a tight schedule.

The work itself differed significantly from normal in many aspects. In areas where it was difficult to find accommodation facilities near the construction sites, people would commute an hour-and-a-half each direction for days on end. In the disaster-affected areas, gasoline was in seriously short supply from soon after the earthquake, causing some trouble with people and material transportation and operation of equipment.

There was one standard type of floor pan for the temporary housing, with two rooms and a dining kitchen (2DK) covering approximately 30 m^2. With the construction type different from Sumitomo Forestry homes, there were differences in work preparation that resulted in work not going according to the conventional manual. One of the differences was the pile head treatment that is never done at normal Sumitomo

Forestry work sites. This required the heads of piles driven into the earth to be cut off to improve accuracy of the floor levels. Many of the other companies were using chainsaws, but Sumitomo Forestry sawed off each pile by hand to improve surface contact and ensure sufficient strength for the residents to live with peace of mind. Thanks to the workers actively communicating onsite, there was no confusion despite their inexperience with such work.

Even the students who had come directly from their graduation ceremony kept going with all their might, starting by carrying materials and gradually expanding the work they could do. The work also offered opportunities to learn the skills of craftsmen from around Japan as they demonstrated their superior workmanship, and the sight of the students growing with the joy of being able to contribute to the restoration work brought energy to the worksites.

While this construction project required basic housing performance to be ensured, companies were allowed to apply their own specifications, resulting in considerations of residents' feelings and incorporation of unique ideas even under the demanding schedule. One such idea was the wooden entrance ramps, with handrails for the elderly, which were designed to allow the residents to appreciate the warmth of wood. Another was to add a screen door to the sliding entrance door to allow residents to open their doors in the hot summer. To ensure durability even though they were temporary housing, ramps and sliding entrance doors were also treated with a preservative agent, etc. And while the basic floor plan called for 2DK, walls were deliberately left out to create connected spaces that increased air conditioning efficiency and enabled effective use of limited space. Shelves were also provided above floor-level windows as another user-friendly idea for creating storage space. When constructing housing in the Aizu area of Fukushima Prefecture, space for brushing off snow when residents returned home was provided as well.


Wooden piling work


Erecting the frame


Entrance ramp

The temporary emergency housing constructed by Sumitomo Forestry had a great reputation among residents due to the company's housing development ethos to pursue, to the maximum extent possible, comfortable living spaces despite the demanding construction schedule and construction costs that were set.

Importance and Pride in Housing Development

Sumitomo Forestry and Sumitomo Forestry Home Engineering employees who participated in construction of the temporary emergency housing, and above all the future generation of builders who came to the unusual construction sites straight from their graduation ceremony at the Sumitomo Forestry School of Professional Building Techniques, got to realize the importance of building housing from the perspective of people who would live there. Being able to deliver the housing within the specified construction period became yet another source of pride for them.

Immediately after the earthquake, Sumitomo Forestry then-president Akira Ichikawa's said that if the company returned to Sumitomo's Business Spirit and each and every employee worked diligently every day, it would help overcome the crisis and lead to future development. This message was consistently put into practice at the time, and in many different ways it is still being followed even today.

Sumitomo Forestry Home Engineering employees and other production personnel, carpenters, and craftsmen gathered from all over Japan

(75-year history, Chapter 2, Section 4: Housing Business)

Lifestyle Services Business

Private nursing home Grand Forest Denenchofu

Episode
32

“Hospitality Creates Smiles and Reveals the Radiance of Life”

——Contributing to the Creation of a Society Where Experienced Senior Citizens Can Continue to Live Comfortably by Pursuing a Life for Them to Shine Even Brighter through the Warmth of People and Wood[1]

Security, Warmth, and Comfort

Sumitomo Forestry’s nursing care business began in response to the urgent housing and lifestyles needs of an aging society. As physical and mental faculties decline, elderly individuals require support from others. In each of its businesses, the company strives to “become like family to its clients with pride” by offering attentive care services and final residences, with the corporate stance of delivering “security, warmth, and comfort” to accompany residents throughout their lives.

In 2005, a town development project was initiated on a 2.4-hectare site, formerly occupied by Sumitomo Forestry Crest’s Shizuoka factory, centered around a private nursing home. This initiative led to capital participation in Fill Care, an operator of six nursing homes in the Tokyo metropolitan area, in March 2007. In 2013, Fill Care became a wholly owned subsidiary. In April 2017, Shinko Care Life, based in Kobe, was also incorporated into the Group. Under Sumitomo Forestry’s leadership, both companies expanded their facilities, and in 2018, rebranded with “Sumirin” in their names. As of February 2023, Sumirin Fill Care and Sumirin Care Life operate a total of 20 private nursing homes, seven in-home

The “Promise of Sumirin Fill Care” brochure

long-term care service stations, and three senior daycare service providers, with a workforce of approximately 1,300 staff members. The nursing care business has grown into a 10-billion-yen enterprise.

"This is a place that individuals who would in truth rather spend their time with family have selected as their final home on a long life's journey. That is precisely why it is important to treat them like family, so both the residents and their loved ones can feel glad they chose this facility," staff members say. "The key is to speak from the stomach with a clear voice, and greet everyone with a smile." With these convictions, care staff interact with residents daily.

An assisted living, Elegano Nishinomiya (Sumirin Care Life) which welcomed its first residents in May 2020

Grand Forest Denenchofu (Sumirin Care Life) providing the warmth of wood

One Challenge After Another

The nursing care business has grown remarkably over the past 15 years, but the journey has not been without its various challenges.

One major challenge has been securing staff. Labor shortages and high turnover rates are serious issues in the caregiving industry. The company's nursing care business has maintained staffing levels that exceed the standards set by the Ministry of Health, Labour and Welfare. The dominant strategy[2] of concentrating bases in a certain area was adopted in part to create an environment that would allow staff to be transferred flexibly. Additionally, efforts to recruit talented overseas personnel and the implementation of ICT-based monitoring systems have been instrumental in overcoming such difficulty.

Another significant challenge came in 2020 with the onset of the COVID-19 pandemic. Given the nature of nursing care, avoiding direct contact with residents was impossible. The company took extensive precautions to prevent infections, such as disinfection, mask-wearing, installing clear curtains in transport vehicles and partition panels in dining areas, and introducing negative pressure devices. These measures ensured the well-being of residents with minimal disruption to their daily lives.

Fulfilling Wishes Only Possible at the Nursing Home

Supporting the dignity of experienced seniors and providing care with the closeness of a true family is central to the philosophy of the nursing care business. However, the most challenging aspect is providing end-of-life care. Care staff approach each resident with a mindset of hospitality—not merely offering "services" but considering the individual circumstances and preferences of each person to ensure satisfaction. Even while grappling with difficulties, staff maintain their smiles and face residents with kindness. The wish is to offer a unique end-of-life experience that only a nursing home can provide, avoiding a mere dwelling where both capabilities and desires must be abandoned. The aim is for residents to spend the final chapter of life with satisfaction, and for family members to feel reassured.

The internal web portal, Shining Moments, which shares moments of gratitude from residents and the joy of meaningful work, includes the following story: A certain resident, a former company executive with dignity and strength, always presented a

brave front to his family, saying, “I will never lose, no matter what.” However, when interacting with staff, he sometimes showed vulnerability, saying, “I feel lonely” or “Please hold my hand.” When the time came for him to pass, staff encouraged the family to speak to him. His grandson gently said, “Grandpa, you look so cool, staying strong until the end.” At that moment, his labored breathing eased, and he passed away peacefully, surrounded by loved ones. His daughter later expressed gratitude, saying, “I’m glad my father had a place where he could show weakness.” Her words left a lasting impression on the care staff.

There is also a commitment to supporting the wishes of residents and their families until the very end. One example of this was the realization of a “final family trip.”

A woman, nearing her 10th year as a resident, had begun to experience pain in her right foot and a sudden loss of appetite. Her family had been informed that she only had a few months left to live. Seeing the family’s distress, her caregiver recalled that the woman had once shared, “I love traveling, and I’ve been to many places, but Hakone was my favorite.” With this in mind, a trip to Hakone with her family was proposed. It was explained to her that the facility manager, care manager, and

Internal web portal, Shining Moments, 2023, No. 62

caregiving staff would coordinate closely with her primary physician and nurses, preparing for emergencies with 24-hour support. Thanks to these efforts, a one-night, two-day trip became possible. During the trip, the woman enjoyed lunch at her favorite restaurant and spent joyful moments with her family.

The Brilliance of Life Sustains the Work

Parting forever from someone with whom you have shared many years is inevitable and brings profound sorrow. At the same time, those left behind receive many gifts from the passing of their loved one. By standing with residents during their final moments and supporting families through their grief, care staff are deeply touched by lessons on how to live, along with heartfelt gratitude—experiences that cannot be found in other lines of work.

"I believe the reason I've been able to continue working in nursing care is that the residents help me grow and I receive love from them" (quoted from aforementioned Shining Moments).

The final chapter of life deserves respect and celebration. Those who support it grow by being relied upon by the senior residents they serve, who are life's great mentors, through the connection with their radiance. The company's elderly care services business is carried out day by day by such individuals.

(75-year history, Chapter 2, Section 5: Lifestyle Services Business)

1. Quoted from the "Promise of Sumirin Fill Care" brochure
2. A strategy involving opening multiple facilities and stores within a defined area (within a 10 km radius for Sumitomo Forestry's nursing care business) to promote stable operations

Episode
33

"To Build a Top-Class Golf Course in Niihama"

——Becoming the Prefecture's No. 1 Country Club, Loved by All Amid a Challenging Business Environment

Effective Use of the Kawanokita Forests

Overlooking the Seto Inland Sea to the north and the Shikoku Mountain Range to the south, Takinomiya Country Club (Takinomiya CC) is located in Niihama City, Ehime Prefecture, the birthplace of the Sumitomo Group.

Opened in 1987, the primary purpose behind the establishment was to ensure regional safety. The forests in the Kawanokita area, where Takinomiya CC now stands, are close to urban areas, and small forest fires caused by cigarette butts from people foraging for wild plants in spring were a frequent issue. Thus, the decision was made to create a golf course that would both utilize the forest's greenery and serve as a way to give back to the local community. At the time of its opening, the club featured innovative architectural elements, such as a clubhouse built using large laminated

timber beams/columns. The building showcased these architectural elements openly in its design, including a spacious restaurant. As the project owner, Sumitomo Forestry leveraged this opportunity to explore the benefits and possibilities of timber construction to the fullest.

The course was designed to cater to intermediate and advanced players, with the renowned golf course architect Shunsuke Kato commissioned for the task. In August 1990, nine holes were added, resulting in a total of 27 holes, offering a diverse playing experience. The course's sections are named "Akaishi," "Besshi," and "Ishizuchi," after local mountains. Memberships quickly sold out, and during the economic bubble, the club saw 75,000 visitors annually, marking a smooth and promising start to its journey.

Takinomiya CC also serves as a venue for interaction among executives and employees of various Sumitomo affiliated companies, given its location in Niihama. Additionally, each time members of the company's management—who have served as successive club chairmen—visit Takinomiya CC, they pay close attention to the facilities and hospitality, steadily enhancing the golf course's quality. The club's operational policy of "High Status," "High Quality," and "High Hospitality" has been cultivated in this environment.

View of the Shikoku Mountain Range from Takinomiya CC

Formulating and Executing Strategies to Overcome Adversity

Entrance to Takinomiya Country Club

However, with the collapse of the economic bubble and the decline in the golfing population from 1995 onwards, Takinomiya CC was forced into a difficult situation. The number of golfers in Japan fell from 14.5 million in 1994 to below 10 million by 2006, reaching just 8.9 million.[1] Many golf courses resorted to selling their operations to foreign investment funds or outsourcing their management.

Amid these deteriorating market conditions, Takinomiya CC re-examined the fundamentals of both golf and golf course management, conducting a detailed analysis of factors such as play fees and utilization rates. The club closely monitored metrics like the ratio of members to visitors, attendance rates of members, and play statistics by gender and age group, as well as the booking channels used by different demographics to identify specific challenges. Goals were then set: attracting new customers, preventing member withdrawals, increasing visit frequency, and boosting revenue from services and dining. In devising its strategies, the club gathered opinions by visiting other golf courses, thoroughly studied competitive strategies and various marketing techniques, and committed to implementing all findings.

On the facilities side, the club made the course accessible to players beyond intermediate and advanced levels, including seniors, women, and juniors. It developed a unique formula to determine appropriate distances for PAR 3, 4, and 5 holes, taking into account expected driving distances for these groups. Based on these calculations, the number of teeing areas was increased from four to eight,[2] ensuring that players of different ages, genders, and skill levels could enjoy the course.

On the operations side, Takinomiya CC adopted revenue management by adjusting pricing based on factors such as the season, day of the week, and booking

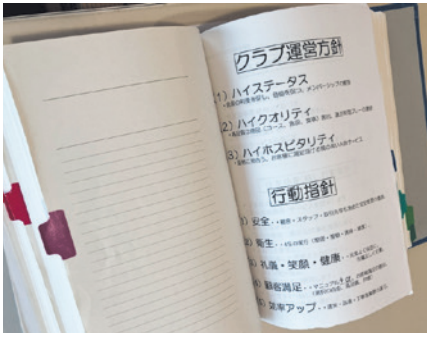
date. It also planned year-round events and open competitions, promoted direct reservations via the club's website and phone to reduce reliance on third-party booking sites, and actively sought to host prominent tournaments such as the Japan Mid-Senior Golf Championship.

At the same time, efforts were made to increase profitability by cutting staff and costs without compromising quality. Initiatives such as offering free drinks at the on-course cafe, making post-competition party drinks self-service, and introducing GPS-equipped carts to allow for self-guided rounds without caddies were well received, aligning with the changing times.

Through these efforts, Takinomiya CC achieved continued stable management, support from the community, and high customer satisfaction by becoming a reliable presence and providing a hassle-free experience. The club created a golf course where all visitors could enjoy high-quality service and has maintained the No. 1 spot in visitor numbers in Ehime Prefecture since 2016. Moreover, it achieved its first operating profit in 24 years in fiscal 2021.

Takinomiya CC's revival was built on comprehensive analysis and research, which has been documented and archived. These records cover every aspect of golf course management, ensuring that the knowledge is passed down to the next generation. From macro-level elements such as business characteristics, revenue factors, and management challenges (e.g., dealing with declining player numbers, cost reduction, and deposit refunds) to day-to-day operations and personnel development, the documentation provides comprehensive and specific analyses and efforts.

Even today, the general manager, with a smile, says, "I'm just a janitor," working on-site, maintaining the clubhouse.



Files containing all aspects of golf course management

(75-year history, Chapter 2, Section 5: Lifestyle Services Business)

1. According to "Leisure White Paper 2022" by Japan Productivity Center, the number of golfers had dropped to 5.5 million by 2010.
2. A back tee for advanced players, regular tees No. 1 and 2, a front tee for juniors, and tees for women (Ladies, Ladies GS, and Ladies Senior), along with a Mid-Senior tee

Episode
34

"Smiles on the Frontline Fuel Regional Revitalization"

——Launching the Company's First Accommodation Business from Scratch

Accommodation Business to Support Regional Revitalization

In the 2010s, Sumitomo Forestry sought to provide added value that could contribute to enhancing local life and culture, aligning with the national strategies of regional revitalization and tourism nation policies. Among various possibilities, the company turned its attention to the accommodation sector. The company identified the accommodation business as one approach to invigorate local communities, positioning it as a new business that combined proposals for wood-based facilities—leveraging the Group's strengths—and operations.

In 2021, the company embarked on the management of HOTEL VISON (featuring 155 rooms in the hotel building and six villas) and Hatago VISON (40 rooms across four buildings). These are the accommodation facilities of VISON, a hotel-type resort complex being developed as part of the Aquaignis Taki Project, which has opened in Taki-cho, Taki-gun, Mie Prefecture.[1] VISON primarily caters to visitors to the nearby Ise Shrine, offering both food and healing through a collaborative effort involving the public, private, and academic sectors. At the same time, VISION serves as a multifaceted, practical example of regional revitalization and urban development in a mountainous area by implementing cutting-edge technologies such as autonomous driving and local currency under the concept of "regional-wide DX."

HOTEL VISON—Hotel Building

A Rough Start Amid the Pandemic and Lack of Preparation

The accommodations at VISON marked the company's first venture into the accommodation business. The employees assigned to lead the project had primarily worked in general affairs and accounting, entering this new field driven only by hope and determination.

However, the project encountered challenges both in its external environment and within the company. The facilities opened in 2021, at the peak of the fifth wave of the COVID-19 pandemic—an event referred to as a "once-in-a-century" crisis—coinciding with Japan's fourth state of emergency. People were urged to refrain from non-essential outings, international tourists were barred from entering the country, and visitors to the resort sharply declined.

Moreover, the project initially suffered from a lack of experienced staff, insufficient personnel, and incomplete operational manuals, falling far short of achieving customer satisfaction. Harsh comments filled the review sections of online booking sites, starkly revealing the difficulties of B2C business. As the company's first accommodation venture, there were no experienced mentors to offer guidance, and it seemed impossible to find even a glimmer of hope.

HOTEL VISON—Hotel Building with Open-Air Bath Terrace

Committing Fully, Starting at the Front Desk

Telling themselves, “It is darkest before dawn,” the team resolved to push forward. They began by standing at the hotel’s front desk, where they could hear customer feedback directly, striving to provide sufficient hospitality worthy of a stay-centric resort. The sluggish business conditions, exacerbated by the pandemic, were turned into an opportunity to enhance staffing, thoroughly promote core principles, and improve service skills through comprehensive training. Gradually but steadily, they elevated the quality of operations. Efforts were made to address issues raised in guest feedback, such as providing special care for elderly guests and those traveling with infants, ensuring smooth check-in procedures, and offering attentive responses to questions about meals and services. One reason for the initial inconsistencies in service was that most of the staff had been recruited locally. However, this challenge was transformed into a strength. The significance of VISON and the essential role of accommodations in tourism were communicated to the staff, helping them understand that each task not only impacted their individual performance but also influenced the future of the entire region. Through this process, they gradually developed a professional mindset toward hospitality. The service at HOTEL VISON and Hatago VISON improved day by day.

These improvement measures proved effective, and the ratings on accommodation websites for both facilities rose significantly. Reviews included comments such as:

Hatago VISON

“The front desk staff were very polished, responsive, and made us feel truly valued, leaving us deeply satisfied.” “The hotel called to alert me about a forgotten item, which arrived the next day thanks to their swift response. I was extremely grateful.” “Whenever I seemed to need help, someone immediately approached with a smile, making the experience pleasant.” “I can sense the process of creating something new throughout VISON, and interacting with the staff gave me energy.”

With the COVID-19 pandemic subsiding, pilgrimages to Ise Shrine increased, and inbound tourism began to recover. Encouraged by these positive reviews, the staff continued striving to deliver even better hospitality. As guests enjoyed their stay with smiles and staff worked joyfully, the business turned profitable. The long-awaited dawn had arrived. Watching guests check out with smiles against the backdrop of the morning sun, the team became confident that the two VISON accommodations were gradually realizing the company’s vision of regional revitalization.

HOTEL VISON—Villa Building

Villa Building—Guest Room

(75-year history, Chapter 2, Section 5: Lifestyle Services Business)

1. VISON consists of nine areas: Marché VISON, Sweets Village, Atelier VISON, Wood Play Area, Wa-VISON, San Sebastián Street, Hotel Area, Honzo Area, and Farm.

Episode
35

"The Unsung Hero Adapting to Changing Times"

——Achieving Group Cost Reduction Through Expertise and Consolidation

Supporting the Group's Business with a Three-Pillar Approach

Since its founding in 1979, Sumirin Enterprise (SEP) has operated in three sectors: insurance, leasing, and office services, consistently generating stable revenue. As the Sumitomo Forestry Group expanded, SEP has served a key function in consolidating various general administrative tasks across different Group companies and locations, contributing to overall efficiency and cost reduction on a daily basis.

SEP has adjusted its business structure in response to changes of the Group and the times. In fiscal 1998, the leasing business accounted for more than 80% of revenue, but by fiscal 2022, insurance (21%) and office services (39%) had grown in share, joining leasing (37%) to form the three pillars of SEP's business model.

Improving Insurance Coverage Rates Through Customer-Centric Sales

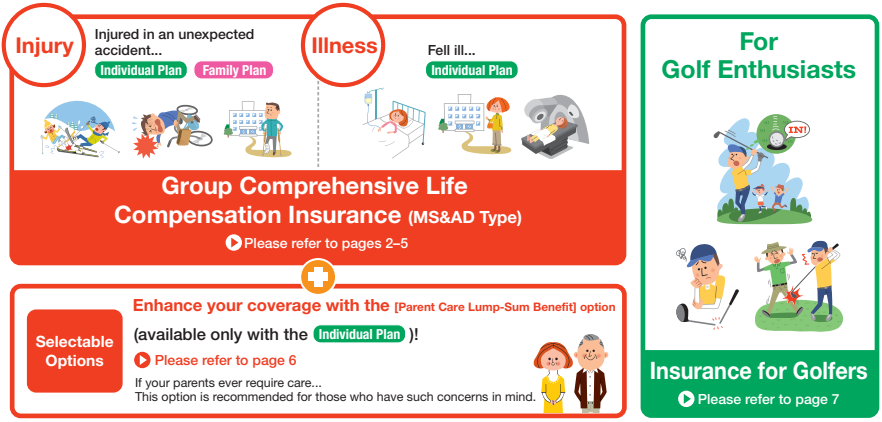
The growth of the insurance business[1] clearly reflects SEP's business evolution. Starting with marine insurance for the Group's import-export operations, SEP expanded into fire insurance, life insurance, and pet insurance for owners of Sumitomo Forestry houses. The company leveraged regulatory changes—such as the 1996 reforms that allowed cross-entry between life and non-life insurers and the 2001 deregulation of the "third sector" (medical and private nursing care insurance, previously limited to foreign and small and midsize domestic insurers)—as opportunities for business growth.

Particularly in fire insurance, the reorganization of the Japan Housing Loan Corporation in March 2007 removed restrictions on housing loan corporation special fire insurance with a specified property insurance clause, prompting SEP to enhance sales efforts. As a result, the new fire insurance coverage rate for the owners of Sumitomo Forestry houses, which had remained around 40%, rose to 85% by fiscal

2020. SEP achieved this high coverage by proposing and explaining “why this insurance is necessary now” to customers. In response to the growing importance of pets as family members, SEP also enhanced the coverage of pet insurance products to actively meet diverse customer lifestyle needs.

Furthermore, in the aftermath of the Great East Japan Earthquake, SEP processed over 1,200 earthquake insurance claims within 10 months, ensuring quick payouts and strengthening trust in the company’s housing business among affected customers.

This has led to the development of professionals who take pride and joy in tirelessly seeking the best for customers. It is their individual dedication that upholds quality.



Group Comprehensive Life Compensation Insurance & Insurance for Golfers

Price Advantages Through Consolidated Purchasing

In office services, SEP is responsible for investigating the performance of products and the needs of each location within the Group, covering everything from company vehicles, copiers, office furniture, office supplies, and even novelty items used for campaigns. Based on the selection by the head office and each division, SEP delivers the most suitable products. The selection process considers not only cost but also environmental compliance and specifications tailored to each location, ensuring the best procurement through comparisons under the premise of bulk purchasing.

The price benefits of bulk procurement are clearly demonstrated in the fueling of company vehicles and construction vehicles. Previously, each office had separate

contracts with nearby gas stations, but SEP secured a direct contract with a petroleum wholesaler to purchase fuel by the gallon, offering a fixed discount based on the previous month's government-published price. By using distributed fuel cards, employees can refuel at any gas station nationwide at the same low price, eliminating cost increases due to regional price disparities. Consolidating fuel consumption also allows SEP to provide data for calculating the Group's CO_2 emissions. Similarly, company vehicles and office automation equipment such as copiers—once individually purchased or rented by Group companies—are now centrally purchased by SEP, considering environmental and human rights aspects throughout the supply chain. These products are leased to each company within the Group, with the system of returning the cost reduction benefits in the form of selling prices offered to them having been established. A streamlined system for model and vendor selection, purchase applications and approvals, and invoice processing/payment ensures operational efficiency. Additionally, the offsetting of accounts within the Group's accounting system further contributes to improved administrative efficiency.

enpraSTORE launched on the intranet

During the COVID-19 pandemic, SEP secured and supplied disinfectants and masks to prevent infections, along with contactless thermometers for the Group's nursing care business. In 2022, SEP launched enpraSTORE on the intranet to provide various business-related consumables, further increasing convenience.

Contributing Through Professional Knowledge and Consolidation

Today, employees across the Group companies are not particularly aware of SEP's role in operational efficiency or the benefits it provides. Whether it is the contributions from the insurance business or the advantages of centralized purchasing, once these systems and mechanisms are established, their convenience becomes taken for granted. For employees who joined after these processes were implemented, they become as natural and ubiquitous as the air around them. However, all these outcomes are the result of SEP employees' continuous efforts—planning in response to changes in the times and legal reforms, acquiring and mastering the necessary expertise, negotiating with suppliers, establishing internal rules, and leveraging information systems.

SEP identifies and realizes new business opportunities and green procurement initiatives with an eye on the Group's future business expansion. Through these activities, it supports the growing foundation of the Group and continuously increases its own value. In the insurance business, customers' happiness lies in their safety and security, while in office services and leasing operations, creating a stress-free environment for peripheral tasks allows Group employees to focus fully on their core responsibilities. A daily routine without dramatic successes or failures—this is the true essence and pride of being the "unsung hero."

(75-year history, Chapter 2, Section 5: Lifestyle Services Business)

1. The term "insurance business" refers to the handling of insurance products from various insurers as an insurance agent.

Head Office Organizations

Mt. Fuji Manabi no Mori

Episode
36

"Made to Rethink the Purpose of Work by Total Added Value"

——Shifting from Thinking Based on Subtraction to Thinking Based on Addition

Advocating Value Up Instead of Volume Up

Since 2012, in performance management, Sumitomo Forestry has been using the term "total added value" to refer to the figure equivalent to the accounting item "gross profit." Originally, gross profit is an accounting item in corporate accounting. It is the amount obtained by subtracting cost of sales from net sales and was traditionally also stated as "primary profits" at Sumitomo Forestry.

Total added value, however, is not an item in corporate accounting, but is a concept unique to Sumitomo Forestry. Added value is defined as the profits obtained through the provision of services to customers, and it was decided that gross profit would be called total added value. This was to let all employees share the awareness that profits are obtained by providing added value that impresses customers and is not found in other companies. As a result, it became necessary to always think about how to raise added value.

Companies purchase raw materials, add value to produce products and services, and sell these in the market. Being recognized, selected, and purchased by customers leads to sales for the company. This relationship can be expressed in the following equation.

Customer evaluation (excitement) = net sales = cost + added value

Increasing the added value on the right-hand side of the equation will also raise customer evaluation. The purpose of replacing gross profit with total added value was to switch to a thinking based on addition in the sense of accumulating more added value instead of thinking based on subtraction in the form of subtracting costs of sales from net sales. Sumitomo Forestry advocated "Value Up" instead of "Volume Up." The

company worked on transforming awareness toward growing profits by increasing added value instead of by selling more.

This movement was implemented immediately and thoroughly, and any meeting materials stating the traditional terms of gross profit and primary profits were ordered to be redone. At first, such orders were given after the materials had reached high levels of the management, and the creators of these materials ended up pressured by the work—which they thought they had already completed—returned to them. The doubt of "why are we going so far?" instead encouraged the transformation of awareness up to middle management and persons-in-charge.

"Revenue is the result of customer evaluation"

Advocating total added value became an opportunity for employees to recognize the source of their profits. In the case of the Housing Business, excitement does not come from acting as per contracts, promises, or expectations. It is only by acting above expectations that excitement is born.

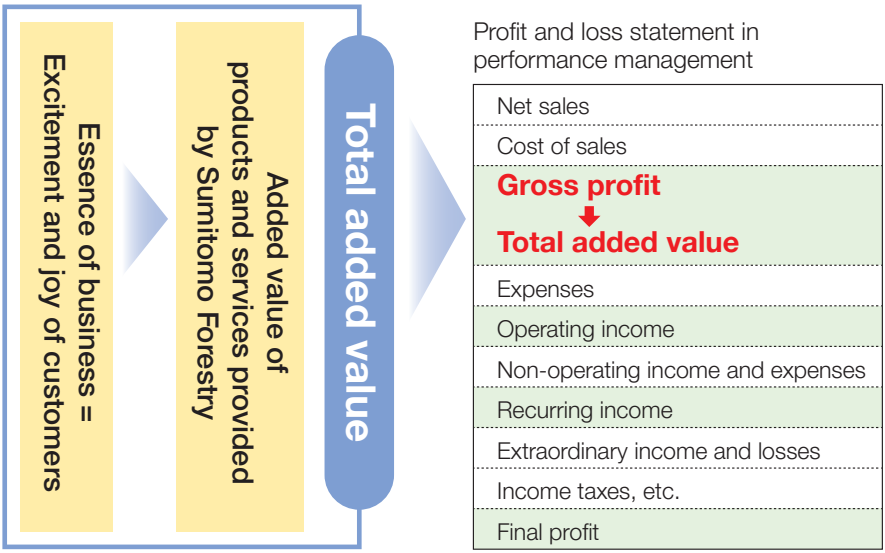
Market value (price) is born only after being evaluated by customers. There is no revenue as long as there is no evaluation. This obvious principle was explained in the following manner.

"Corporate revenue can be said to be the result of evaluation by various customers. By impressing customers, they evaluate the value of the products and services being provided."

Companies receive compensation by providing customers with satisfaction and excitement. Work must be undertaken while placing a focus on customers.

For example, Sumitomo Forestry and Sumitomo Forestry Landscaping started implementing integrated contracts and handovers of homes and housing exteriors (such as gates, fences, and garages), achieving improvement in net sales per building. Integrated contracts and handovers refer to a manner in which the two companies collaborate and jointly undertake the design, construction, and management of building the house itself and the works for the housing exteriors and landscaping. This allows customers to complete dealings related to all aspects of construction through a single point of contact. It also brings economic advantages from the streamlining of construction work.

The key point here is that integrated contracts and handovers came as a result of seeing from the customers' perspectives and pursuing greater excitement and satisfaction. It is truly an idea that seeks to increase added value.



Concept of total added value

Value of One's Work

Placing the focus on customers leads employees to reexamine the meaning of their own work. Sumitomo Forestry's Timber and Building Materials Business is a trading company for building materials, including timber. The typical channel is to purchase from manufacturers and sell to wholesalers, and earn money by brokering transactions. It is difficult to seek differentiation from competitors in such a business. Here, it becomes necessary to think about how to bring excitement to customers. For customers being sold products, employees have to think about providing valuable information and proposing new businesses. From the perspective of manufacturers who are the suppliers, they will of course select trading companies that will expand the trading areas of their products. Sumitomo Forestry will have to think about how trading areas can be expanded.

To create value unique to Sumitomo Forestry, there is no other way but to deeply

examine and think about the value of one's work. This approach is applicable to all businesses of the Sumitomo Forestry Group. Whether building homes or producing building materials, the value of one's work is born only when customers are impressed. Improving the value of one's work is to increase added value.

Placing the Focus on All Stakeholders

Amid the trend of tighter log export regulations in the United States, Sumitomo Forestry's Timber and Building Materials Business opened import routes from Europe, a region where it had previously not done business before. Instead of logs, timber products and raw materials for laminated engineered wood were imported from Europe. Understanding who was using imported logs for what purpose and how they were being used meant it was no longer necessary to be fixated on the source of imported logs. Anticipating that laminated engineered wood would be widely used in housing construction sites, Sumitomo Forestry switched to the import of raw materials for laminated engineered wood from Europe ahead of the industry. As a result, the company was able to expand the business for laminated engineered wood in Japan.

The first key point is that it solved issues from customers' perspectives. Instead of attempting to solve the issue in the purchasing stage—the log export regulations of the United States—within the framework of purchasing (in the United States), a new supply chain was developed by retracing back up to the purchasing stage from the question of "What do customers want?" It was a solution derived by placing the focus on customers who use wood products—including building materials—and the market. At the same time, a supply chain based on relationships of trust cannot be built without considering the kind of business desired by suppliers. It is only with the shared awareness of seeking a long-term, stable business that the foundation for developing added value can be born.

When talking about placing the focus on customers, the customers being referred to are not solely those to which products are sold. They also include all parties in the course of work. Carrying out work while placing the focus on all these stakeholders and giving birth to added value through this process is common across of businesses of the Sumitomo Forestry Group.

Cost Down and Speed Are Also Important Elements of Total Added Value

The factors that determine total added value are added value and “Cost Down,” the reduction of costs stated on the right-hand side of the aforementioned equation. Cost Down refers to positive activities to supply customers with the same value in a more rationalized and efficient manner. Impressing customers even in the aspect of price and receiving compensation for efforts put in as part of the result is an act that can be said to be aligned with the concept of total added value.

The same can be said about time. Providing value at a faster speed will raise the evaluation from customers. In turn, compensation is received for achieving speed. Speed is also an important element of total added value.

Breaking down the elements of total added value one by one in this way to think about them serves as opportunities to create added value in all processes of work. How to impress customers, how to build relationships of trust with business partners, how to achieve Cost Down, and how to raise speed—these are all opportunities to increase added value.

Achieve Value Up and Cost Down by implementing the three D’s with Imagination and Creativity as the foundation

The mission of the Sumitomo Forestry Group is to study the regions and provide added value that helps protect the safety and security of people living there and improve lives and cultures through wood as a healthy and environmentally friendly natural resource. Contributing to society through corporate activities that provide such value is the pride shared by all employees.

(75-year history, Chapter 2, Section 6: Head Office Organizations)

Episode
37

"Using Biotechnology to Pass On the Lives of Trees with a History"

——The Forest and Landscape Research Center Meets the Diverse Needs of Society Regarding Forests and Trees

Starting from Daigoji Temple in Kyoto

Sumitomo Forestry's project to grow saplings of heritage trees began with weeping cherry trees at Kyoto's Daigoji Temple, which is the Head Temple of the Daigo Branch of Shingon Buddhism. Daigoji Temple is the place where Toyotomi Hideyoshi held Daigo-no-Hanami, the blossom viewing party of Daigo. There arose the possibility that the descendants of the cherry trees beloved also by Toyotomi Hideyoshi would wither and die. In 1998, a request was received from Daigoji Temple, hoping to use biotechnology to preserve these descendants, and Tsukuba Research Institute came to work on this effort.

Since being established in 1991, Tsukuba Research Institute has been carrying out research and development related to the propagation of trees using tissue culture and gene transfer. In 1998, the institute succeeded in the development of mass propagation technology for clone saplings of trees from the *Dipterocarpaceae* family—which are major native tree species of tropical rain forests—under the Tropical Rain Forest Regeneration Project being undertaken by the Sumitomo Forestry Group in Indonesia. There was progress in research on coniferous trees, which has been used in Japan since old as structural members—such as pillars and beams—of buildings. However, research on growing broad-leaved trees had remained relatively underdeveloped. Like cherry trees, trees from the *Dipterocarpaceae* family are also broad-leaved trees, and it was thought that the experience gained in their tissue culture could be applied. A young researcher who shuttled between Indonesia and Japan was singled out to carry out this endeavor.

The propagation technology using tissue culture is broadly as follows.

(1) The winter buds are collected and the tissue at the tip of each bud (shoot apex) is removed

(2) The shoot apexes are cultivated in a culture solution to produce a large quantity of shoots (multiple shoots)
(3) The multiple shoots are cultivated on a solid medium to grow long shoots
(4) The large quantity of long shoots is divided into individual shoots and transplanted into artificial compost to encourage the shoots to take root and regenerate into saplings

In this process, the culture solution was the key to success in the mass propagation of clone saplings from the *Dipterocarpaceae* family. The sugar to be used in culture solutions was established as sucrose, and the established theory back then was that it was taboo to change the sugar used. Breaking this taboo, several types of sugar that could be used for plants were tried, resulting in the discovery of a culture solution that was conducive to growth.

Thinking that the culture solution would also be a key point for weeping cherry tree tissue culture, the researcher tried changing the types of plant hormones, amount of nitrogen, and types of sugar used in the culture solution, but things did not go well. After much trial and error, they made a breakthrough by using a type of sugar not created within plant tissues for the culture solution. After doing so, green buds finally appeared after three months.

Taikou Shidare Zakura (weeping cherry tree) at Daigoji Temple

Six Years for Weeping Cherry Tree Propagated Using Biotechnology to Bloom

Just as the researcher thought that they had succeeded, the buds stopped growing and the leaves turned yellow. When the researcher then switched to coconut water extracted from coconut meat to supplement nitrogen in the culture solution, roots appeared, and the buds grew.

Having overcome two obstacles, the buds were moved from the culture room to a greenhouse, where the third obstacle was to wait. New leaves should have appeared after moving to the greenhouse, but instead, they wilted and fell. However, cutting the

stem showed that it was green. It did not wilt; it was hibernating. Failure in this final stage was not expected, and development was put on hold.

After about a month of anguish, one day, the words of a rose farmer in Gifu—who had helped with the breeding of roses in the past—came into mind. "Japanese trees don't grow if they don't experience the four seasons, so roses are taken out of the greenhouse during winter." Cherry trees also belong to the rose family. The researcher thought that something may happen if cherry tree saplings that grew in the culture room kept at 25°C were made to experience winter. With this hope in mind, they moved the saplings from the culture room into a refrigerator. Two weeks later, they took them out of the refrigerator and moved them to the greenhouse, where they grew into saplings that were 20 cm to 30 cm tall. The researcher thought that whether cherry tree, rose, or human, a period of winter is necessary.

In this way, the clone saplings of Daigoji Temple's weeping cherry trees were created and planted in a field successfully. All that remained was to wait for flowers to bloom in spring, but no one knew when the flowers would bloom, or if they would bloom at all. After discussing with the relevant parties, these clone saplings were named *Taikou Chiyo* weeping cherry trees and raised with care together with Sumitomo Forestry Landscaping.

Six years after development started and four years after the saplings were planted in a field, in March 2004, flowers bloomed on one out of the 35 planted saplings. The saplings had grown to approximately 5 m tall. This was the first time in the world that weeping cherry trees grown from tissue culture had bloomed. In November, the cherry tree was replanted within the premises of Daigoji Temple, and in March the next year, flowers bloomed again.

Despite succeeding in a world's first, Tsukuba Research Institute kept its composure. First, to prove that the successfully cloned sapling was genetically the same tree, the institute embarked on the development of a clone appraisal technique for cherry trees using DNA. Using the microsatellite method, which is an identification technique using DNA sequences, the institute successfully developed its original appraisal technique in 2007. This appraisal technique can also be applied to other plants besides cherry trees. Currently, it is used in many areas,

including analyzing the backgrounds of trees and identifying species and individual trees.

Cultivation of multiple shoots
(left: third month;
right: sixth month)

Miracle Pine Passed On Through Grafted Saplings and Seedlings

A researcher who would play a key role in the future joined Tsukuba Research Institute in 2009. Immediately, the researcher was tasked with the tissue culture of *Tobi-Ume* ("Flying Plum"), a heritage tree in Kitano Tenmangu Shrine and said to be loved by Sugawara no Michizane. Although the institute had succeeded once, like with the cherry trees, it took seven continuous years of trial and error for this plum tree before the institute finally succeeded at propagating *Tobi-Ume* saplings. This was truly the moment when the successors of tissue culture technology were born.

Overcoming the differences in tree species in this way, a track record was built in passing on the lives of heritage trees and precious trees, drawing significant expectations about this technology. The Miracle Pine—which survived the Great East Japan Earthquake—in Iwate Prefecture's Rikuzentakata City was struggling to stay alive. Receiving a request to at least grow saplings to succeed this tree, a site visit was made in April 2011. Given the feelings and thoughts of people regarding this sole surviving pine tree, it was a project that must definitely succeed.

Having been soaked in sea water for ten-plus hours, the roots of this sole surviving pine tree had started to rot. It was unlikely to see the next winter. There was little hope of collecting winter buds, and the only way to propagate the tree was by grafting instead of tissue culture. For grafting, 100 stocks were prepared and clefts were grafted. Only three grew into grafted saplings.

In September 2012, when the sole surviving pine tree was felled, approximately 1,000 pinecones were harvested and broken down, collecting 75 ungerminated

seeds. Nine seedlings were successfully grown from these seeds. The three grafted saplings and nine seedlings grew well, and in September 2019, some of them were planted for the opening ceremony of the Takatamatsubara Memorial Park for TSUNAMI Disaster, returning them to their homes in Rikuzentakata.

Miracle Pine

Sumitomo Forestry's Mission of Passing On Trees

The researcher who successfully propagated weeping cherry trees became the first manager of the Forest and Landscape Research Center in 2014. The manager became the point of contact for requests from society to Sumitomo Forestry regarding forests and trees, including the proposal of garden vegetation plans with consideration for biodiversity, preservation of gardens that are Important Cultural Properties, and identification of tree species of heritage trees and precious trees using DNA. Without being tied down by the existing organizational chart of Sumitomo Forestry, the manager's mission is to be well versed in the developmental capabilities of Tsukuba Research Institute as well as the knowledge and networks of the business divisions, find the best solutions as Sumitomo Forestry, meet the requests from society, and turn them into seeds for new businesses. The tissue culture technology for trees delegated to younger staff also succeeded in tissue culture of many species and propagation of saplings,[1] continuing to meet requests without interruption.

The cultivation of successor saplings is not just about leaving a tree's life for future generations. It is an undertaking that passes on the history, culture, and memories encapsulated in that tree. It is Sumitomo Forestry's social contribution related to forests and trees, an area that the company is very particular about. This passion must also be passed on.

(75-year history, Chapter 2, Section 6: Head Office Organizations)

1. Tsukuba Research Institute has succeeded in clone propagation of camellia, dogwood, and *Rhododendron* subg. *Hymenanthes*, among others.

Episode
38

"Sumirin Wood Peace Builds Workplaces Beaming with Individuality in Local Communities"

——Seeking to Expand Opportunities for People with Disabilities to Apply Themselves with Peace of Mind

Establishment of a Special Subsidiary Company in Niihama City

In July 2015, Sumirin Wood Peace[1] (SWP) was established in Niihama City, Ehime Prefecture as a subsidiary paying special attention to ensuring employment opportunities for people with disabilities.

Under the Act to Facilitate the Employment of Persons with Disabilities, companies with more than a certain number of employees are obligated to maintain the ratio of people with disabilities against the total number of employees at or above the legally mandated employment rate.[2] Since fiscal 2009, Sumitomo Forestry had been meeting the legally mandated employment rate unconsolidated, but there were companies in the Group where the number of employees was small and it was difficult to ensure working opportunities for people with disabilities. It was thus decided to enhance the employment rate as a corporate group by using a system[3] based on the aforementioned law that allows a special subsidiary company to be established and the people with disabilities employed to be considered as being employed by the Group.

Respecting diversity is stated in Our Values. Sumitomo Forestry had already been actively promoting the employment of people with disabilities, giving top priority to the matching of individual characteristics with workplaces and job scopes. Expanding employment opportunities for people with disabilities through the establishment of SWP was also a manifestation of Sumitomo Forestry's policy of developing a pleasant work environment for a diverse range of employees.

Unstable Revenue and Expenditure

SWP planned to engage in three businesses: (1) bed log shiitake mushroom cultivation, (2) production and processing of wood products, and (3) printing. Five persons with disabilities matching the job scopes were employed, and business started in fiscal

2016 with a total of eight employees.

For bed log shiitake mushroom cultivation, an environment advantageous to the business was in place, including being able to use Sumitomo Forestry's company-owned forests as bed log laying yards (cultivation farms). Work training could be received with the cooperation of the company supplying shiitake spores and such. Mushrooms are products representative of the blessings of the forests, and Sumitomo Forestry also thought about supporting this business through the purchase of dried shiitake mushrooms by Group employees. As the production of wooden products is a business befitting a company of the Sumitomo Forestry Group, it was expected that orders, mainly for wooden novelties, would come from Group companies supporting SWP. For the printing business, in addition to orders for the printing of seasonal greetings, name cards, and such for the Group, an idea was to show distinctiveness through the printing of wooden postcards. Technical guidance was received with the cooperation of the company supplying printers.

However, in the first and second years of business, only the printing business received stable revenue. Printing orders—including producing half of the name cards being used by approximately 20,000 Group employees—were as expected, but the absolute volume of work for other business were insufficient for the business to perform.


Bed log laying yard (after relocation)

President and Employees Struggled to Find New Customers

For the employment of people with disabilities to be sustainable, it is necessary to build a framework that ensures profitability. Thus began the struggles of SWP, led by its president, to protect the employment of staff with disabilities ("challenged staff").

In bed log shiitake mushroom cultivation, the bed log laying yards in company-owned forests were severely damaged by monkeys. The yards were thus relocated near an office in an urban area to increase harvest volumes and improve labor efficiency. The meticulous maintenance and management of the yard were highly evaluated and even received the Chairperson's Award of the Ehime Prefecture Shiitake

Mushroom Production and Sale Council in May 2023. However, mass production was not achieved as expected and production efficiency was poor, and it was difficult to achieve product differentiation. Therefore, it was decided that SWP would exit from the business of shiitake mushroom cultivation at the end of 2024.

A challenged staff member working on a wooden product

Collaboration became the breakthrough for the business of producing wooden products. SWP decided to specialize in work that challenged staff were good in and outsource the rest. Going around and visiting local companies producing wooden products in search of partners for collaboration, all of them listened with a cooperative attitude. Agreements for collaboration were reached with two local wooden product workshops, and SWP came to carry out secondary processing. SWP also brought in the latest 3D cutting machines and high-performance laser cutters. Production capabilities improved dramatically and the number of products in its lineup exceeded 100. In 2018, when Niihama City launched the Wood Start Project to give wooden toys using locally produced timber to local families raising children, SWP was selected as a project partner and the wooden toy “Copper Mine Building Blocks”[4] was selected as a present for celebrating new births.[5]

The next theme toward further expanding the business of producing wooden products was “upcycling.” Due to higher demand for environmentally conscious products, efforts were put into the development of products that maximize the use of

thinnings, offcuts, and scrap wood. Collaborating with a major manufacturer of Japanese sake, items such as signboards, small advertising signs, and plates attached to high-class Japanese sake were made using Japanese sake barrel materials which were previously thrown away. SWP collaborates with various companies to produce many upcycled products, including Japanese cedar photo frames, ballpoint pens and mechanical pencils made using wood, and lunch boxes. Wooden upcycled products gather attention for their product value not only in the environmental but also ethical aspect, and currently, SWP receives many inquiries for business negotiations.

The printing business saw a sudden decrease in orders for the printing of name cards when economic activities came to a standstill due to the COVID-19 pandemic. To overcome this crisis, SWP designed wooden award certificates made using Japanese cypress to increase orders. These certificates were very well received, and today, they have come to be used in various awards of the Sumitomo Forestry Group, forming the next business pillar after name cards.

Copper Mine Building Blocks with minecarts and railroads as the design motif

Laser cutting of Copper Mine Building Blocks

Increasing Diverse Opportunities for Work

Challenged staff perform in their respective areas with job satisfaction, and everyone in the company support their work.

One challenged staff member received the President's Commendation Award at the Disability Employment Support Month Poster Painting Exhibition organized by Japan Organization for Employment of the Elderly, Persons with Disabilities and Job Seekers (JEED). The next year, in 2021, another challenged staff member received the President's Effort Award as an excellent working person with disabilities at the Good Employment Practices for Persons with Disabilities Awards organized also by JEED. Challenged staff

whose skills are honed through working on wooden products took on the challenge of participating in Ehime Abilympics. In Ehime Abilympics 2024, SWP's challenged staff swept the gold, silver, and bronze prizes in the wooden product category. Two of them won prizes for three consecutive years. There are also members who like physical activities, and an employee of SWP was selected to be an athlete of the Ehime delegation for the National Sports Festival for the Disabled in 2023.

Whenever there are events, such as Abilympics or preliminary rounds of para-sports, friends and employees of SWP would go and show their support. SWP is one big family.

The local community also watches over this family lovingly. Niihama is the birthplace of Sumitomo Forestry, and the region has strong trust in the Sumitomo Forestry Group. Amid such trust, SWP has built a good relationship with the local government and undertakes various collaborations with local companies. Including cooperating with The Iyo Bank's special subsidiary company Iyogin Challenge & Smile to produce novelty products, SWP continues to expand its circle of work rooted in the region and carry out work that brings joy to the region.

Approximately eight years after starting business, SWP has increased the number of people with disabilities being employed from five to 12. Work from the Sumitomo Pavilion at Expo 2025 Osaka, Kansai, Japan has also been confirmed, further raising morale. The employees of SWP are depicting a future where challenged staff members polish their skills, become independent as woodcraft artists, and further expand opportunities to apply themselves. To turn this into another target for people with disabilities, SWP creates new potential to expand employment. Hoping to create such a virtuous cycle for the employment of people with disabilities, SWP carries out information exchange with local schools for special needs education, employment transition support offices, and other such parties.

The unlimited potential of wood also expands the potential for applying diverse individual characteristics. This is what SWP teaches us.

(75-year history, Chapter 2, Section 6: Head Office Organizations)

1. The word "peace" in the company's name in Japanese can also mean 'piece' as in "piece of a puzzle."
2. In May 2017, the Ministry of Health, Labour and Welfare decided to raise the legally mandated employment rate for companies from the existing 2.0% to 2.2% from April 2018, and further raise it to 2.3% by the end of March 2021.
3. This measure can only be applied if certain requirements are met and approval as a special subsidiary company is obtained from the Minister of Health, Labour and Welfare. SWP received approval as a special subsidiary company in April 2017. SWP's scope of approval covers SWP, Sumitomo Forestry, and Sumirin Business Service.
4. Primary processing was carried out by BESSHIMOKUZAICENTER while SWP undertook secondary processing.
5. When the second Wood Start Project was launched by Niihama City in 2021, SWP's shape sorter toy was again selected as a present for celebrating new births.

Episode
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"The W350 Plan: Aiming to Realize a Timberized Eco City That Transforms Cities into Forests"

——Tackling Technological Development with Ambitious Goals and a Backcasting Approach

A Wooden Skyscraper as a Design Model

On February 8, 2018, Sumitomo Forestry announced the W350 Plan in advance of the 70th anniversary of its establishment.

The W350 Plan is a research and technological development initiative aimed at realizing a 350-meter-tall, 70-story wooden skyscraper by 2041, the 350th anniversary of the company's establishment. The wooden skyscraper[1] (hereafter referred to simply as W350 when referring to the building) envisioned in the W350 Plan features a hybrid structure combining wood and steel, with an interior constructed entirely of wood. The building's exterior is designed as a corridor encircling all four sides (a perimeter core structure). Utilizing the exterior corridor from ground level to the upper floors, greenery will be seamlessly connected (landscape design), creating a space that fosters biodiversity within urban environments. The building is planned to have a building area of 6,500 m^2, a total floor area of 455,000 m^2, and an estimated timber usage of 185,000 m^3.[2] The total construction cost is projected to be approximately 600 billion yen—several times the cost of a steel-reinforced concrete structure.[3] The conceptual design for W350 was created with the cooperation of Nikken Sekkei, resulting in a design model for the project.

This design model serves as a symbol of the concept, not a finalized rendering of the completed structure. The essence of the W350 Plan lies in developing the technologies required for W350's construction. Through these technologies, the future that the Group aims for is one in which it advances woodification in high-rise buildings, promotes this shift across society and collaborates broadly to achieve a Timberized Eco City that transforms cities into forests.

A bird's-eye view of the concept expanding from the completion of the W350 building to urban development

Perimeter corridors and steel vibration control braces

Coexistence with the Environment and Society

The "Timberized Eco City that transforms cities into forests" envisioned by the Group involves a transformation where cities become abundant with greenery, featuring wooden buildings like W350, interconnected with ground-level greenery to create urban forests. By changing cities into forests, the appearance and dynamics of cities, societies, and human lifestyles would undergo significant changes.

As the woodification of buildings advances in urban areas, planting trees in mountains to replenish what is used would simultaneously promote CO_2 fixation in cities and fresh CO_2 absorption in mountains. If W350 were realized, it is estimated that CO_2 emissions during construction could be reduced by 22% compared to conventional steel structures. Additionally, approximately 100,000 tons of CO_2 per building could be fixated as carbon. This approach would facilitate the connection and circulation between cities and forests, reducing environmental impact and achieving carbon neutrality by functioning as a CO_2 storage reservoir.

Furthermore, the timber used in high-rise buildings is designed to be maintained

by replacing certain portions over time. Replaced materials can be reprocessed and used as residential components such as columns and beams and later processed into raw material for new wooden building materials, enabling it to be recycled within the city. Ultimately, any scrap wood would serve as biomass fuel for power generation, with additional use of the heat generated during power production, enabling the comprehensive circulation and cascading use of wood.

Realizing a Timberized Eco City would expand demand for wood, revitalize the forestry industry, and invigorate local economies. Moreover, the spaces created would not only provide comfort for people but also form networks connecting habitats for wildlife such as birds and insects, contributing to urban biodiversity. The W350 Plan embodies a vision of coexistence with both the environment and society.

Identifying Challenges for Technical Research and Development Through Backcasting

The construction of W350 requires more than just building on existing technologies; it necessitates the research and development of new technologies. To address this, backcasting was applied starting from the design model, leading to the creation of a technical model for realizing W350. This model identified challenges to be addressed and anticipated technologies, forming a research and development technical roadmap that specifies what must be resolved and by when to achieve the target. This roadmap envisions technical advancements in individual fields—resources, materials, and architecture—culminating in their integration for the realization of W350.

Through this process, 108 challenges emerged, just to count the larger issues alone. These challenges include construction methods, environmentally conscious technologies, and the development of trees to serve as resources and materials. These spawned medium- and small-scale challenges, bringing the total number of issues that need to be addressed to over 1,000. Research and development efforts are now underway following the roadmap to address these challenges.

The six most critical challenges identified are as follows:

The first factor is cost. Initial estimates suggest the total construction cost would be several times higher than that of reinforced concrete structures, making W350 economically unviable at present. The goal is to bring costs to within 10% to 15%

higher than steel construction. This involves tracing back to the distribution of wood to research and examine how to enhance productivity and achieve cost reductions.

The second is the structure of the building. W350's vibration control braces ensure greater seismic resilience than steel structures, with simulations indicating it would not collapse in magnitude 8-class earthquakes from sources such as the Nankai Trough or Sagami Trough. The challenge now is to further enhance seismic resistance by incorporating technologies such as base isolation systems that decouple the building from the ground.

The third is fire resistance. The W350 Plan set an initial goal to develop wooden fire-resistant components capable of self-extinguishing without the use of noncombustible materials or chemical treatments, achieving a three-hour fire resistance rating. In 2021, the proprietary material Kigurumi CT received Ministry of Land, Infrastructure, Transport, and Tourism certification for three-hour fire resistance in beam components and two- or three-hour ratings in column components, enabling medium- to large-scale wooden structures exceeding 15 stories. The next objective is to develop original fire-resistant materials with self-extinguishing properties.

The fourth is weather resistance. The primary causes of wood deterioration are ultraviolet rays and water exposure. If these factors are mitigated, wood can endure for a millennium. In 2018, the company launched S-100, a silicone-based, super-water-repellent, highly weather-resistant coating to protect exterior wood from UV and rain-induced degradation, laying the groundwork for further advancements.

The fifth challenge focuses on cultivation. Efforts are being directed toward developing and cultivating "elite trees" with superior characteristics such as higher strength, resistance to decay, and reduced flammability. Recognizing that even within the same species, individual trees may exhibit variation in strength, research is also underway to establish genome selection cultivation technology, which enables the identification of strong individuals at the seedling stage.

Wood treated with S-100; the natural grain remains visible while durability is significantly enhanced

The Most Critical Challenges for Advancing the W350 Plan: Human Resources and Collaboration

The sixth and most vital challenge is that of human resources and collaboration. Solving all 108 challenges identified to date is beyond the capacity of the Group alone. Consequently, the project is being advanced through partnerships with external companies and research institutions. The integration of the diverse technology development and problem-solving initiatives into the single process of realizing W350 relies on people, along with engaging various stakeholders and sharing the resulting achievements.

The target year of 2041 is not the end goal but rather a milestone. Through the W350 Plan, the development of human resources that share the philosophy and vision of changing cities into forests will contribute to the advancement of wooden architecture technologies and the Group's sustainable growth.

Globally, companies and research institutions are independently engaging in research and development within their specialized fields, producing results. This represents a competitive race to acquire new technologies with the future of the planet in mind. From this competition, collaborations and innovations emerge. The W350 Plan is also a declaration that the Group is committed to playing a role in this effort through the realization and promotion of wooden high-rise architecture.

Tsukuba Research Institute serves as both a research hub for W350 and a site for implementing its elemental technologies

(75-year history, Chapter 2, Section 6: Head Office Organizations)

1. At the time of the plan's announcement, the tallest building in Japan was the 300-meter ABENO HARUKAS (Abeno-ku, Osaka City).
2. The projected timber usage is equivalent to that used in the structural components of approximately 8,000 Sumitomo Forestry homes.
3. The trial design of W350 considered the vicinity of Marunouchi, Chiyoda-ku, Tokyo to facilitate practical design discussions, including ground strength.

Episode
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"The Theme of the 50th Anniversary Project: 100-Year Comprehensive Forest Management Plan"

——Natural Forest Restoration at Mount Fuji's "Manabi no Mori"

A Forest for Environmental Education, Created with Stakeholders

As Sumitomo Forestry's 50th anniversary approached in 1998, the company considered launching a social contribution initiative as part of its commemorative projects. Following a call for themes from employees, "social contribution through comprehensive forest management" garnered widespread support, leading to detailed discussions that began in the spring of 1996.

The foundation for this initiative was the Forestry Agency's "Comprehensive Forest School Development Project" program. With guidance and cooperation from the agency's Forest Management Department and the Tokyo Regional Forest Office (at the time), the "Manabi no Mori" concept for utilizing national forests to create a lifelong learning space and facility that would promote youth development and awareness of forests and forestry began to take shape.

In May 1997, the site for the project was determined to be an area of national forest on Mount Fuji that had suffered typhoon damage. The national forest on the southern foothills of Mount Fuji had experienced severe windthrow[1] from Typhoon No. 17 in September 1996 (Typhoon Sally). Sumitomo Forestry, under the aforementioned program, leased approximately 90 ha of national forest (located in Fujinomiya City, Shizuoka Prefecture) situated at an altitude of 1,095 to 1,250 m (the second station on the Omote-Fuji trail).[2] This area comprised 35 ha of typhoon-damaged land, along with undamaged artificial forests of Japanese cypress and a natural forest with large trees over 100 years old. From an aerial perspective, the patchwork-like pattern is the forest's distinctive feature. Named "Mt. Fuji Manabi no Mori,"[3] the project was launched with the goals of restoring the natural forest and promoting programs that encourage familiarity with forests and learning from nature. A "Manabi no Mori Executive Committee" was established, guided by the principle that the project should serve as

a lasting commemorative initiative. Its philosophy was defined as follows:

"As a project that can be passed on to future generations, we will contribute to society by cultivating forests, protecting the natural environment, and conducting environmental education and awareness activities."

Based on this philosophy, it was decided that the Mt. Fuji Manabi no Mori project was to be entirely driven by volunteer activities. In this way, the initiative took shape as a social contribution project befitting the company's 50th anniversary.

The light blue line indicates the Manabi no Mori boundary, while the shaded area represents the afforestation zone [left diagram]. The background shows the natural broadleaf forest, while the foreground depicts the afforested area starting in 1998 [right diagram]. The dark green areas in both images are planted conifer forests.

Implementing the Project with the Motto "Naturgemäß – Aligned with Nature"

The restoration of a forest that has been destroyed requires many years. At Mt. Fuji Manabi no Mori, a long-term plan spanning 100 years was adopted, with the fundamental philosophy of "sustaining the total functions of the forest ecosystem." The themes for the project, including the establishment of an activity base, were defined as follows.

The most important keyword was "Naturgemäß – Aligned with Nature." Unlike planted forests aimed at timber production, the restoration of natural forests adheres to forestry practices that respect the natural order. This approach emphasizes minimal human intervention to maximize and harness nature's inherent capabilities. Based on this philosophy, the project adopted for the first time in Japan a technique called "group planting." This method involves planting and nurturing 10 to 20 trees of native species from Mount Fuji's foothills in clusters, ensuring that the same species form a

group within a radius of several tens of meters.

The second theme was recycling. For facilities within the project area, materials from old houses, abandoned school buildings, and other reclaimed wood were actively utilized. The same architect who designed the Forester House in Niihama in 1993 was commissioned for this effort.

To achieve zero emissions—the complete elimination of waste—a system was introduced to treat toilet waste using bacteria.[4] Additionally, the facilities incorporated solar and wind power generation systems and constructed a reservoir using rainwater for fire protection purposes.

To ensure that the project was rooted in the local community, collaboration with local society was essential for the planning and implementation of specific initiatives. Partnerships were forged with the Shizuoka Forest Office (at the time), local government forestry and environmental agencies, nature conservation organizations, volunteer groups, local media, and related academic societies. A "Planning Advisory Meeting" was formed, and the first meeting was held in September 1997. A lot of guidance and advice regarding operations were obtained during this meeting. The Planning Advisory Meeting has been held annually since then and continues to this day.

In November of the same year, forest surveys and forest management planning began alongside the design of activity base facilities. The next year, in April 1998, reforestation finally commenced.

The natural forest restoration activities began with planting. With the cooperation of volunteers, including employees of the Sumitomo Forestry Group, their families, former employees, and local residents, 5,000 to 10,000 trees such as Japanese beech, Japanese zelkova (Zelkova serrata), and oak (Quercus mongolica) were planted annually.[5] By October 1999, a year and a half after the planting started, the "Forest Ark" facility was completed within the site as a base for volunteer activities, significantly improving operational efficiency. Nearly 1,000 volunteers participated annually, and over five years, approximately 30,000 broadleaf saplings were planted across the planned 35 ha. To protect the saplings from wind and animal damage until they matured, tree shelters—cylindrical protective devices—were installed.

After planting, the next phase was cultivation. Five times a year, activities such as undergrowth clearing, additional planting, and in the borrowed national forest's

planted forest areas, forestry experiences like pruning and thinning were conducted. Beyond tree planting and cultivation volunteering, the site was widely opened to the community, and used for activities like local Girl Scouts' programs, nature school events, and training sessions organized by the architects association.

Reference) Natural regeneration at Manabi no Mori

The progress of natural regeneration. The white cylindrical object is a tree shelter.

Launch of the Environmental Education Program

As the forestry efforts moved to the cultivation stage, the project encountered a significant challenge. Delivering the sunlight essential for saplings to grow required clearing undergrowth during summer, a task that left participants drenched in sweat. However, compared to the more visible and rewarding planting activities, these tasks were less appealing, resulting in a sharp decline in both participants and visitors.

The new activity focused on cultivating people. Mt. Fuji Manabi no Mori is a project with a 100-year perspective, requiring the continuity of activities across generations. To safeguard Mt. Fuji's natural environment for the future, environmental education for the region's children, who will be responsible for its future, was deemed essential. In 2006, the Environmental Education Program was launched to provide environmental education that allows local elementary and middle school students, primarily from Fujinomiya City, to experience and learn about Mount Fuji's natural environment with all their senses. This initiative became possible through collaboration with the Whole Earth Nature School, a longstanding local organization. Starting with 600 participants annually, the program has since expanded to accommodate 1,200 participants. Over the 18 years leading up to fiscal 2023, more than 14,000 children have participated. Some former participants, now in roles such as officials at the Shizuoka Prefectural Board of Education, actively recruit schools to join the project, demonstrating that its objectives are gradually being realized.

A scene from the Environmental Education Program; the building in the background is the Forest Ark

From Forests for Work to Forests for Learning

The restoration of natural forests through planting mainly of broadleaf, an uncommon practice, was accompanied by a strong emphasis on research from the early stages at Sumitomo Forestry. In 2000, the company commissioned the Minami Fuji Branch of the Wild Bird Society of Japan to conduct wildlife surveys. Monitoring the status of bird populations in the planting areas serves as an indicator of forest growth, holding significance beyond simply observing birds. Additionally, vegetation surveys were conducted in three areas affected by windthrow—locations where zelkova was planted, where beech was planted, and where no planting occurred—by Tokyo University of Agriculture and Technology. The transition from an abundance of grassland birds, such as pheasants and bush warblers, in the early stages to an increase in forest-dwelling species, such as narcissus flycatchers, showed a fascinating correlation with tree growth observed through the vegetation surveys.

The growth of the saplings progressed smoothly, allowing the removal of tree shelters to begin in less than 15 years after planting. With 30,000 trees planted, there were 30,000 tree shelters, and removal efforts continued until 2017. In 2018, the 20th anniversary of the project, the degraded tataki earthen flooring of the Forest Ark was repaired. This task was managed by Sumitomo Forestry Home Tech, which has overseen the restoration of more than 7,000 traditional Japanese-style houses. Nearly 200 volunteers participated in the restoration, completing the 200 m^2 floor within ten days.

With this, the comprehensive forest management of the area affected by windthrow

reached a significant milestone. The project had transitioned to its third caretaker by then, and from 2019 onward, entered its second phase, focusing on tree surveys. Specific sections of the forest, each representing a distinct year of planting, were designated for measurement and data collection, including diameter at breast height, tree height, species, and location. The plan is to rotate through three sections every three years, with the goal of presenting the cumulative results of three full cycles at an academic conference to mark the 30th anniversary in 2028 as a record of broadleaf forest restoration through planting.

Mt. Fuji Manabi no Mori has reached a quarter-century since the start of its reforestation efforts. In addition to the trees' growth, the composition of plant species has become closer to that of a natural beech forest, and the overall species composition of the forest has been recovering. As of fiscal 2023, over 12,000 volunteers have participated in comprehensive forest management activities, and when including participants in environmental education programs and other visitors, the total number of people who have visited the site is around 35,000. While the forest has grown thanks to the cooperation of these individuals, it can also be said that the forest itself has nurtured people. It is, indeed, a true Manabi no Mori ("Forest of Learning"). If this initiative leads to more people developing a love for trees, it would, without question, be a profound source of joy for the company.

Comprehensive forest management efforts reached a milestone in June 2017

Exterior of the Forest Ark. Its design concept emphasizes harmony with nature. When viewed from above, the building resembles the shape of a leaf.

(75-year history, Chapter 2, Section 6: Head Office Organizations)

1. The area affected by Typhoon No. 17 on the southern slopes of Mount Fuji covered 1,100 ha, including both national and privately-owned forests. The forest damage, primarily to planted cypress forest that was growing well, amounted to 160,000 m^3.
2. When leasing the national forest, the company entered into an agreement with the Forestry Agency titled "Comprehensive Forest School Development Project: Mt. Fuji Manabi no Mori."
3. Before the name was decided, the area was referred to as "Memorial Forest."
4. The "bio-toilets" in the facility use cedar chips, which house bacteria that break down organic matter. The bacteria decompose both waste and odors. After use, a stirring mechanism is activated, eliminating the need for water.
5. Saplings grown from seeds of native species or naturally occurring seedlings from the Omote Fuji area were exclusively used.

Afterword

This book is a collection of 40 episodes that highlight only a small portion of the valuable stories uncovered from the research and compilation process for Sumitomo Forestry's 75-Year History. Sumitomo Forestry's 75-Year History is available through internal and external web platforms. For further details, refer to the relevant chapters of the 75-Year History at the end of each episode.

The path that has led the Group to where it stands today is marked by numerous twists and turns, each shaped by the sentiments of real individuals. This book was created to focus on those aspects—stories that could not be fully conveyed in Sumitomo Forestry's 75-Year History—and to pass them down for future generations.

With external readers in mind, we allocated space to provide overviews of each business segment. This approach was also deemed beneficial within the company, as it allows colleagues to gain insight into each other's workplaces. While each episode leads to specific achievements, personal sentiments were kept modest. This is because the book is not intended as a heroic account of someone's accomplishments but rather as a guide to inspire readers to see their own challenges reflected in these stories.

In the creation of this book, we not only received invaluable insights from those who generously shared their experiences but also benefited from the help of all related departments and group departments in various stages, including interviews, data collection, and review. We would like to take this opportunity to express our sincere gratitude to everyone involved for their invaluable support.

December 2024

Tatsumi Kawata
Vice President
Sumitomo Forestry Co., Ltd.
Chairman of the Corporate History Compilation Committee

[Corporate History Compilation Department]
General Manager: Akira Kanamori
Members: Rie Hashizaki, Michiko Watanabe
Senior Supporters: Takanori Umeki, Akira Sekimoto,
Yoshihiro Yoshioka, Toshiaki Watanabe

Stories That Leave a Mark

75 Years of Sumitomo Forestry

Published in December 2024

Publication details	**Sumitomo Forestry Co., Ltd.** Keidanren Kaikan, 1-3-2 Otemachi, Chiyoda-ku, Tokyo
Editing	Sumitomo Forestry Co., Ltd. Corporate History Compilation Committee
Production cooperation	DNP Communication Design Co., Ltd.
Printing and binding	Dai Nippon Printing Co., Ltd. 1-1-1 Ichigaya Kagacho, Shinjuku-ku, Tokyo