Long-Term Vision for Decarbonization

Toshiro Mitsuyoshi
Representative Director and President
Sumitomo Forestry Co., Ltd.

Mission TREEING 2030

～Making our planet safer and more secure for future generations～

By providing value for our planet, for people and society, and for the market economy, we at Sumitomo Forestry Group will strive to make our planet safer and more secure for current and future generations of people and all living beings. With our long-held strengths in harnessing and expanding the value of forests and wood, we will create change for a new future.

Value for our planet

×

Value for people and society

×

Value for the market economy

Business Policy

01

Maximizing the value of forests and wood to realize decarbonization and a circular bioeconomy

In addition to reducing operational carbon in all areas domestically and abroad, we will pursue the CO_2 reduction effect of wood resources and contribute to the decarbonization of society through our businesses.

By highlighting the CO_2 sequestration capabilities of forests and HWP, we will revitalize the Japanese forestry industry and expand our **medium- to large-scale wooden architecture** business to dramatically elevate the value of timber resources and realize a circular bioeconomy primarily for domestic timber.

02

Advancing globalization

With our US, Australian and Asian operations as our core platform, we will expand the business areas and scale of our overseas group operations.

03

Striving for transformation and the creation of new value

With business transformation and innovation, such as the promotion of digitalization, we will rebuild the revenue base of our domestic operations.

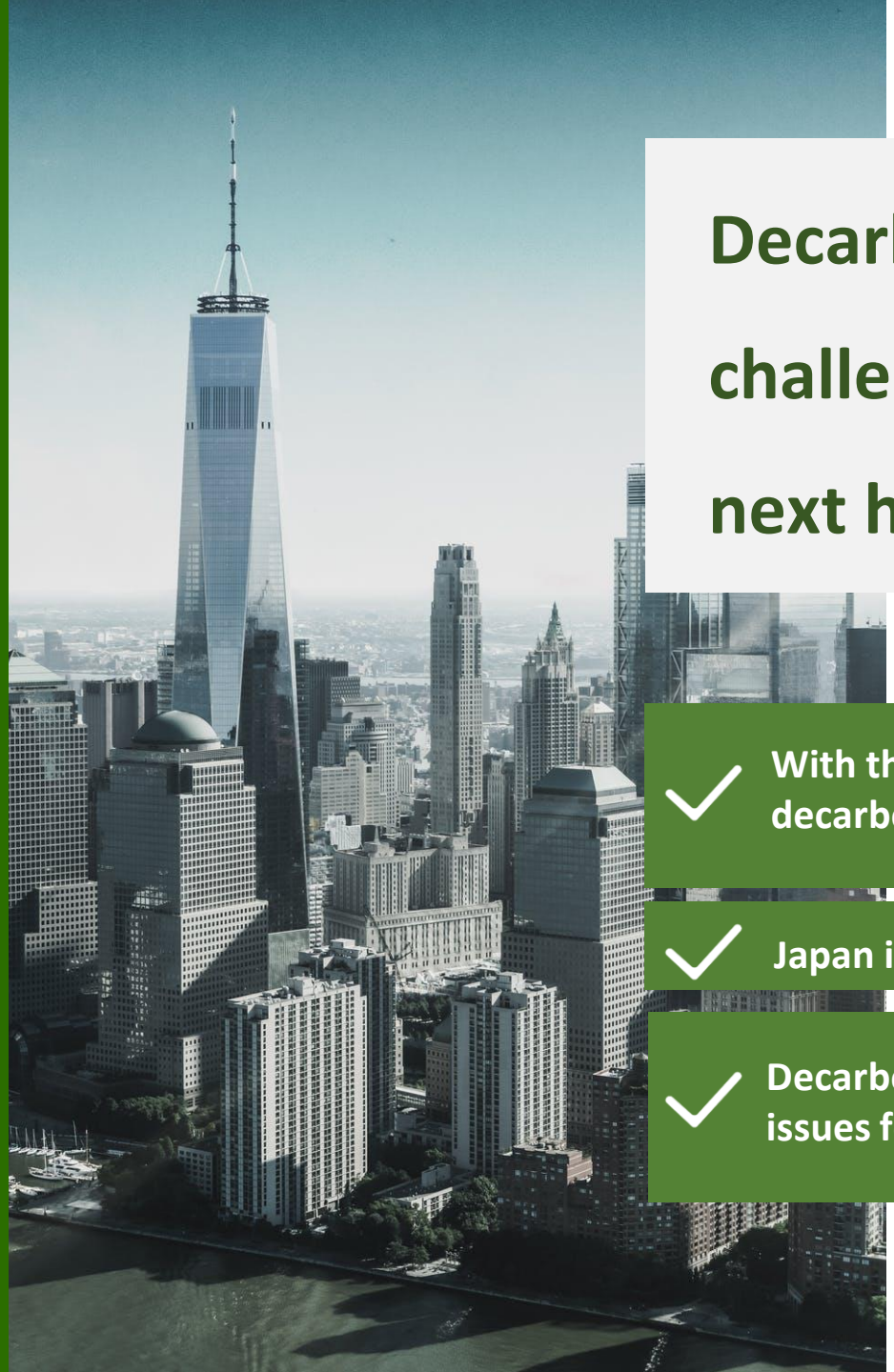
04

Transforming our business foundation for growth

In addition to improving our ability to continually retain, nurture and engage human resources who can respond to globalization and the diversification of our businesses, we will reinforce our risk management system.

Performance target

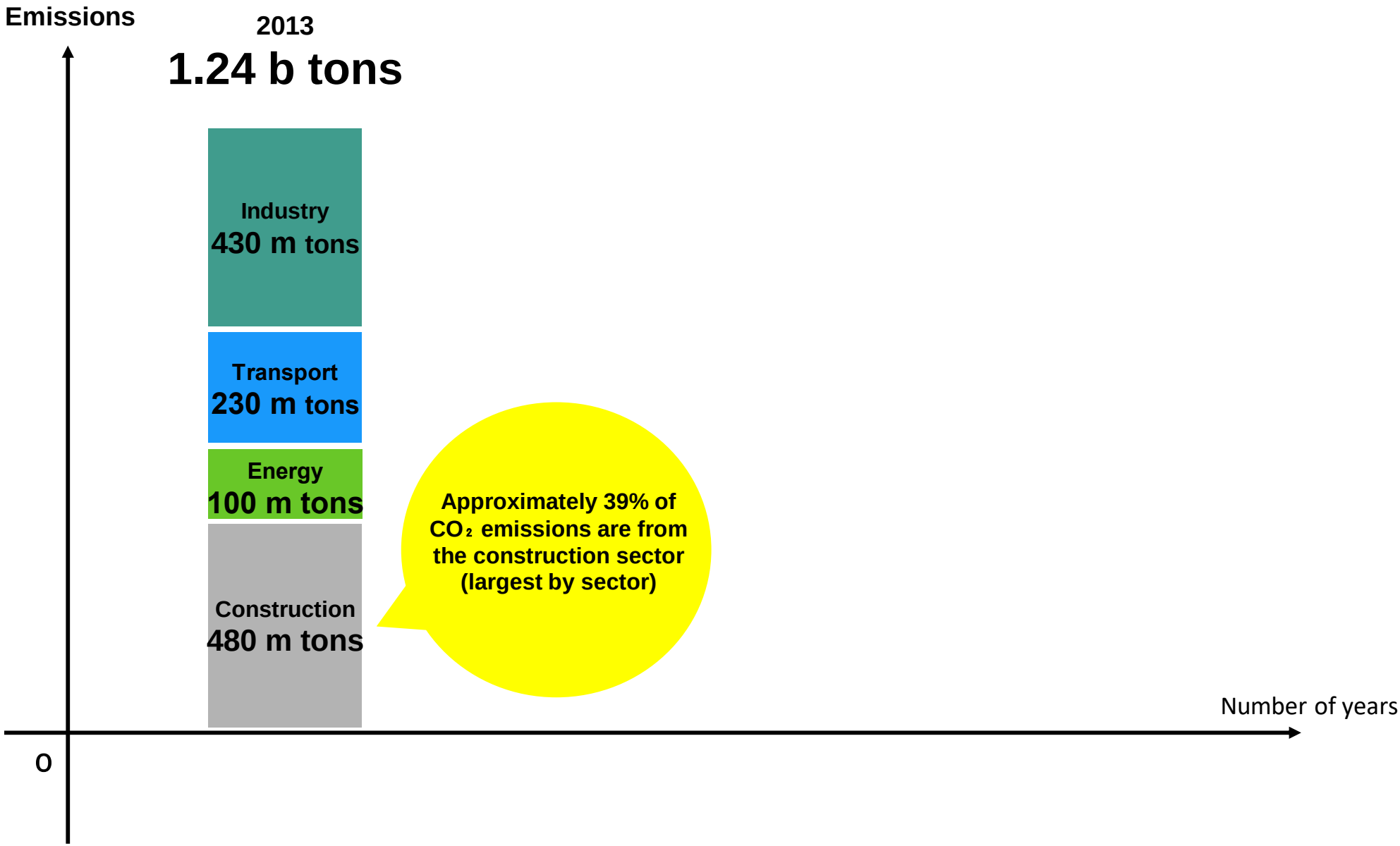
2030 recurring income target ¥ 250 billion



Decarbonization, challenge for the next half century

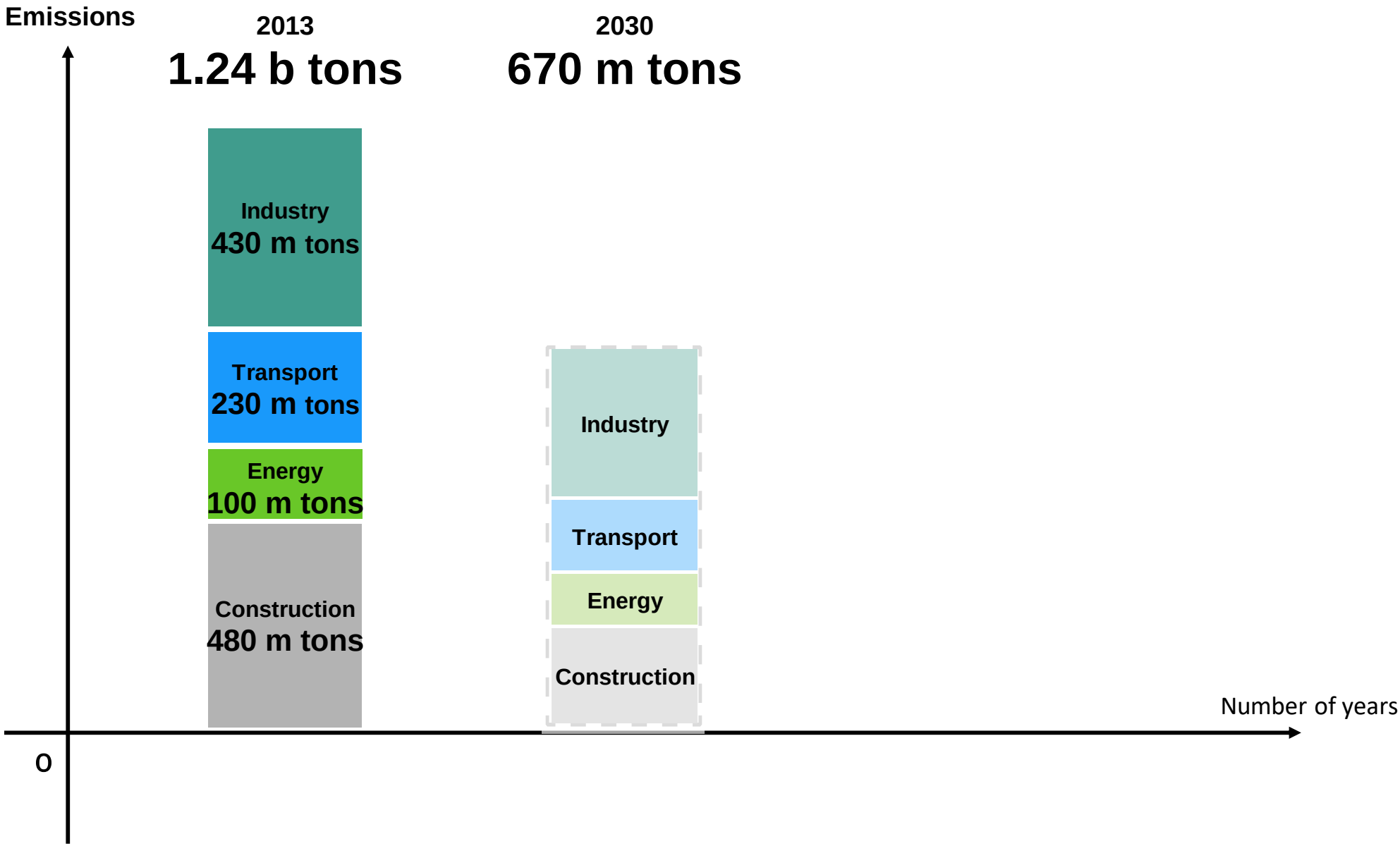
- With the Paris Agreement, the world is on the move toward decarbonization
- Japan is striving for net-zero greenhouse gas emissions by 2050
- Decarbonization has become one of the most important issues for all companies

Japan's CO_2 emissions



Source) Ministry of Economy, Trade and Industry, based on the "Realizing Carbon Neutrality" diagram in "Green Growth Strategy for Carbon Neutrality by 2050," Global Warming Countermeasure Plan (October 22, 2021, Cabinet decision) and the target indices indicated in "Greenhouse Gas Targets/Criteria for Each Category"

Japan's CO_2 emissions



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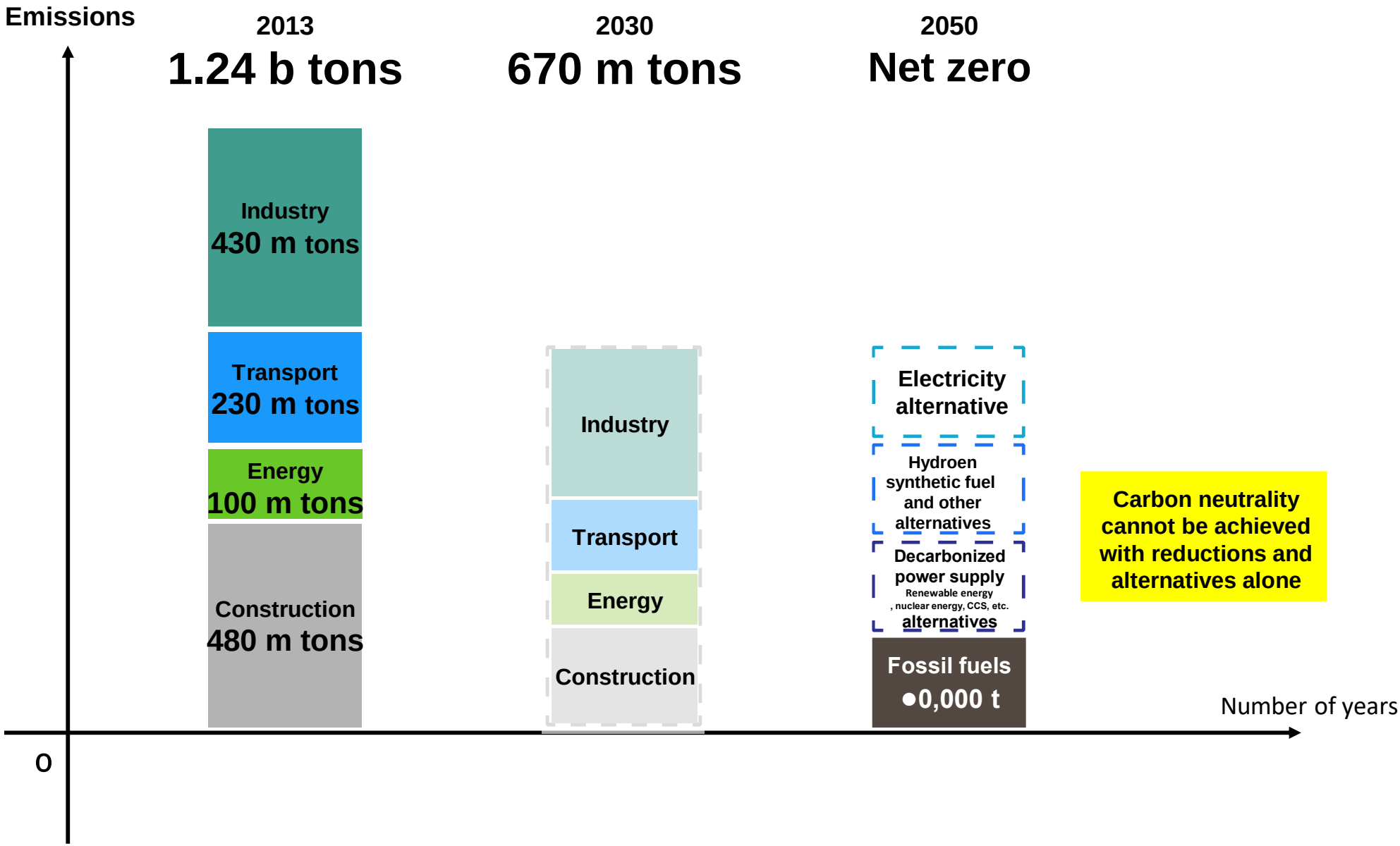

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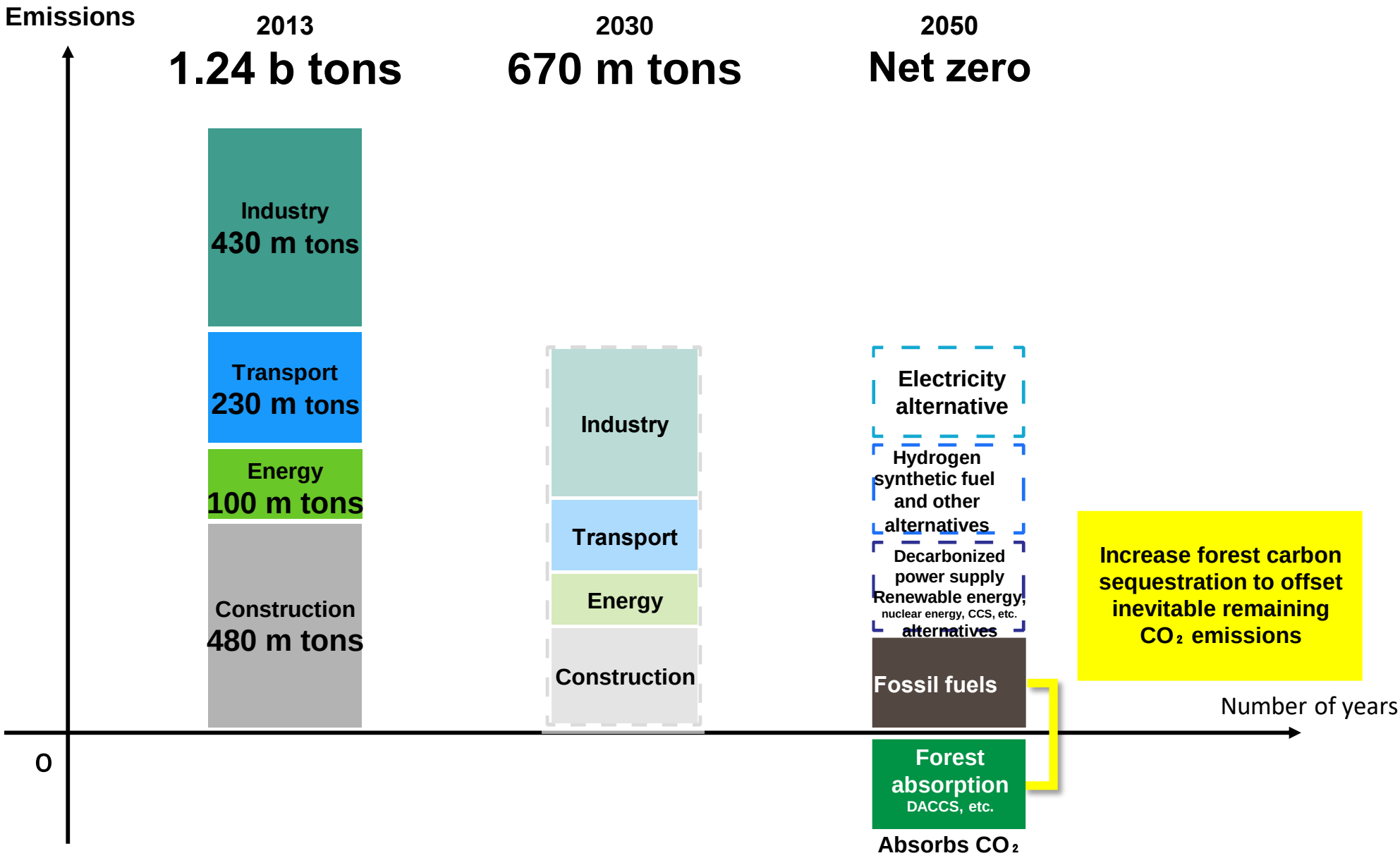
Japan's CO_2 emissions



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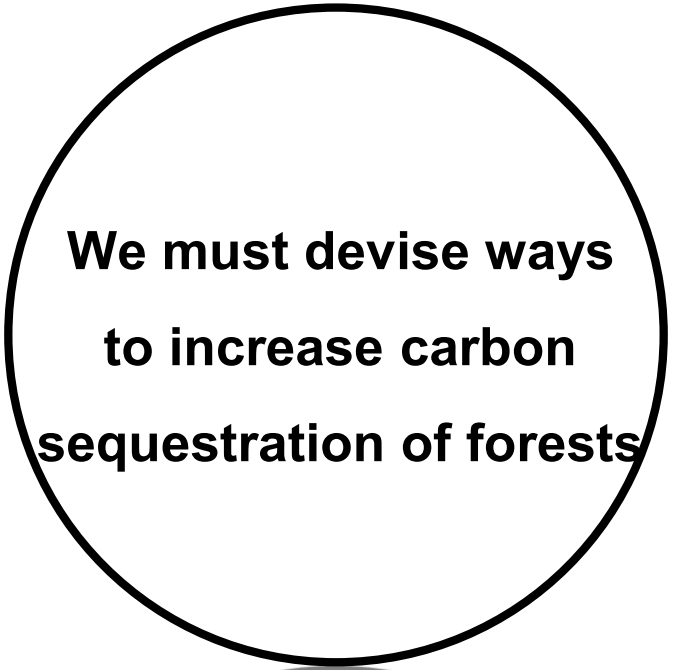
To realize carbon neutrality by 2050



The world and Japan face different issues associated with increasing CO_2 forest absorption

World issue: Deforestation

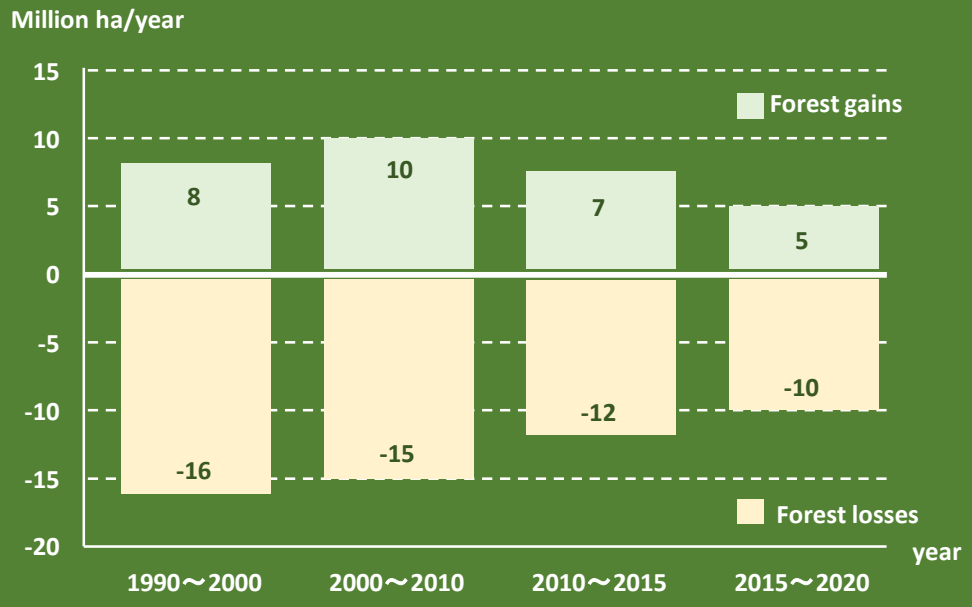
Forest conservation, afforestation

Japan issue: Aging forests
（plantation forests）

Forest harvesting, reforestation

World issue

The world's forest areas are decreasing



Source) FAO Global Forest Resources Assessment 2020

Deforestation is progressing worldwide and CO_2 emissions are greater than CO_2 absorption

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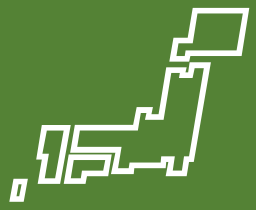
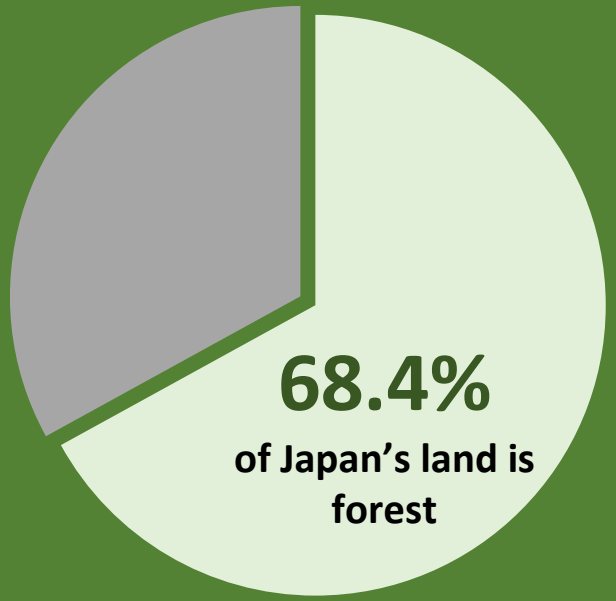
Important to stop deforestation and conserve and expand forests

Japan issue



Japan’s forest areas



About 70 % of the land is covered with forest, making it third among OECD in terms of forest ratio.

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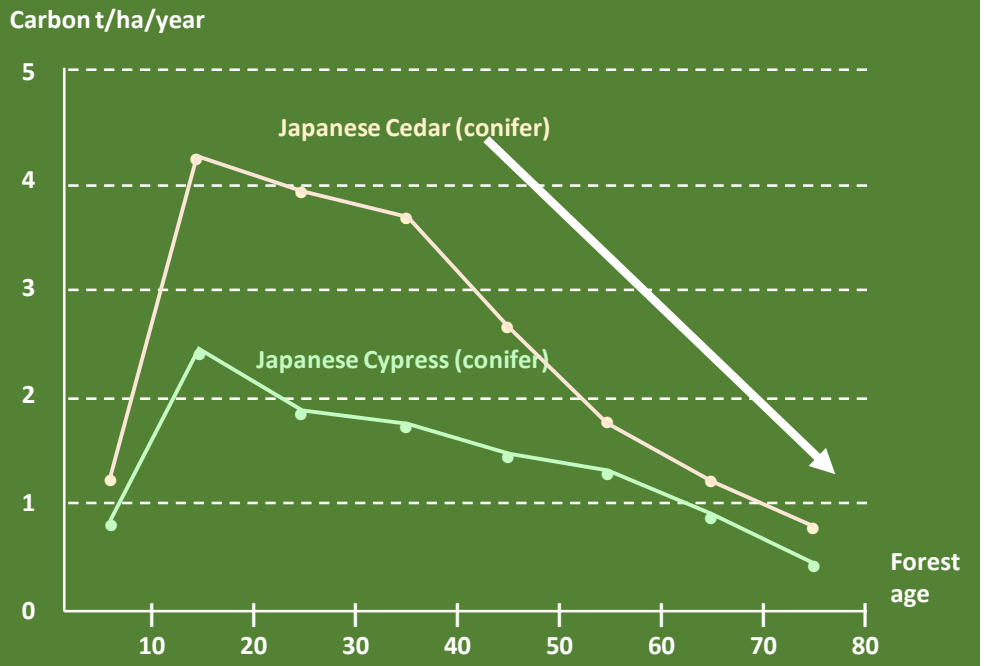
Important to promote the use of wood and harvest/replant trees

Japan issue

Change in CO_2 absorption with forest age

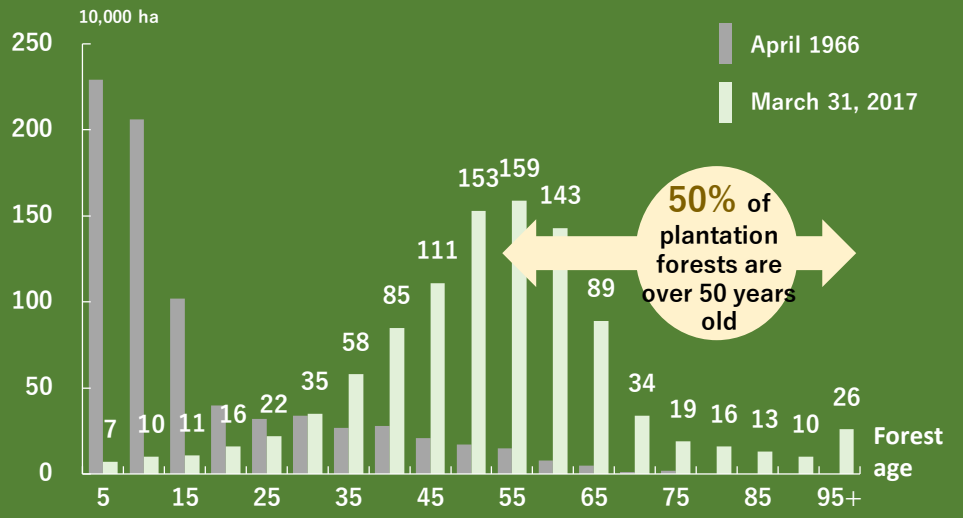


Source) https://www.shinrin-ringyou.com/ondanka_boushi/tanso_kyusyu.php

Most forest trees absorb large volumes of CO_2 when young

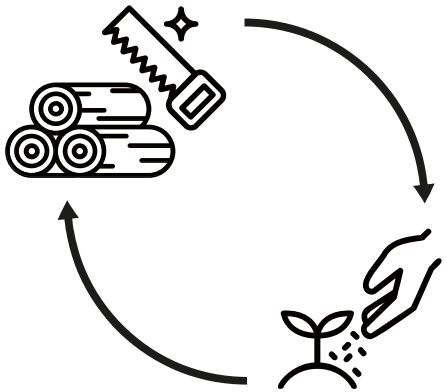
Japan issue

Change in forest age composition of Japan's plantation forests



Source) Forest and Forestry White Paper 2018 Edition, Forest and Forestry White Paper 2017 Edition, Learning Museum of Forest and Forestry

Half of Japan's planted forests are over 50 years old, raising concerns of reduced CO_2 absorption



To increase carbon sequestration in Japanese forests, aging trees that no longer effectively absorb CO_2 need to be harvested and effectively utilized, and then new trees need to be replanted to rejuvenate forests.

Point ①

To increase carbon sequestration, deforestation must be ended and working forests must be rejuvenated.

＜World issue＞

Reduced carbon sequestration with deforestation

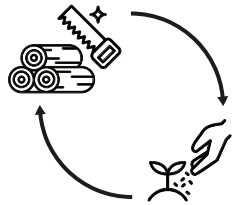
Primarily,

Conserve and increase conservation forests
Manage and expand forests

Conservation forests = Forests with an emphasis on public benefit, such as biodiversity conservation, mountain disaster prevention, health culture and other

＜Japan issue＞

Reduced carbon sequestration with aging forests



Primarily,

Rejuvenate working forests
Harvest and replant forests

Working forests = Forests that are harvested and reforested to secure stable production of building materials, furniture and other

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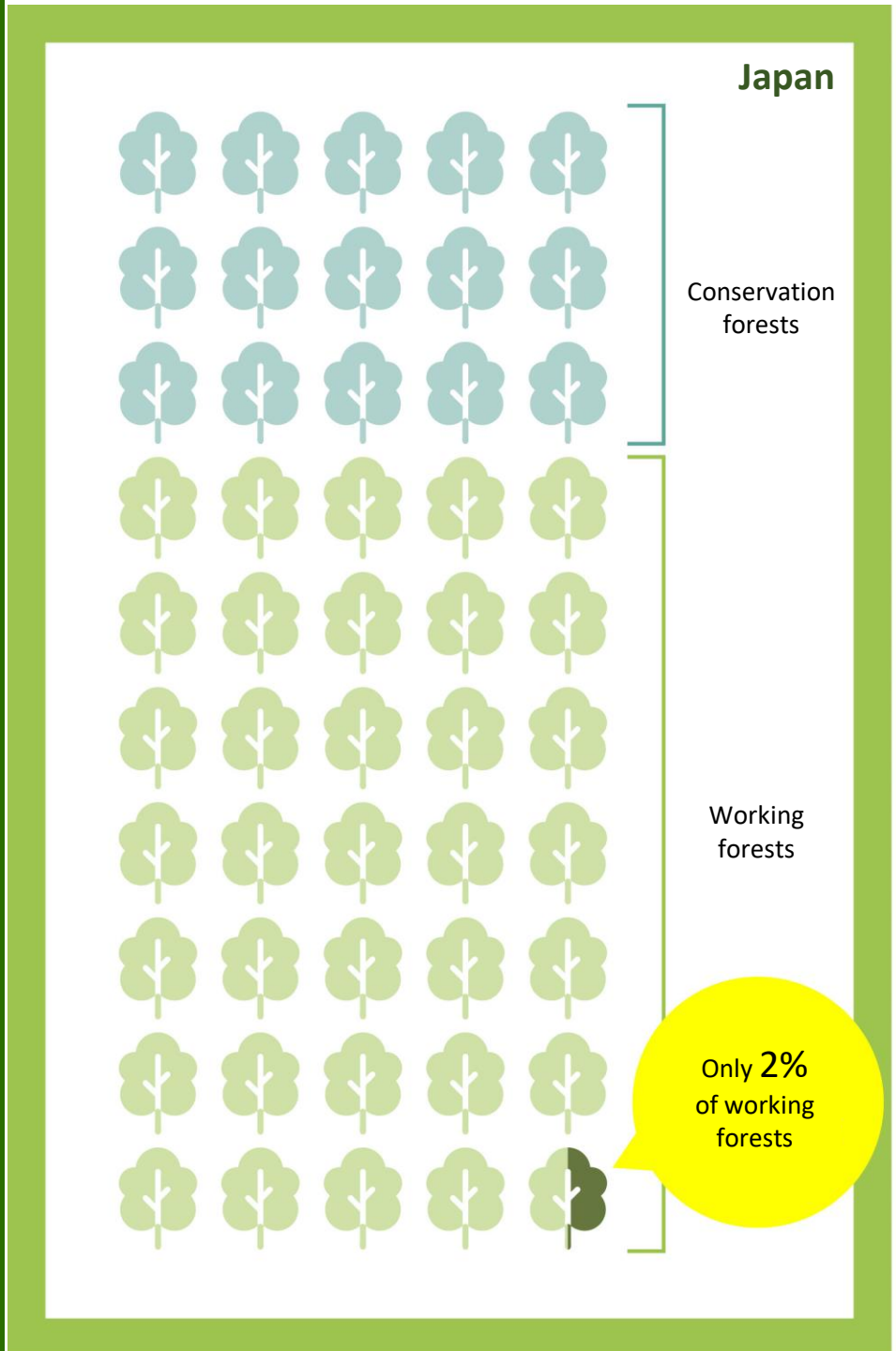
Some of the world's forests are working forests,

just as some of Japan's forests are conservation forests.

Forest management must be conducted optimally with appropriate zoning.



- For example, for Japanese cedar forests, a 50-year rejuvenation cycle to increase CO_2 absorption
- Only 2% of total working forests are harvested and reforested yearly

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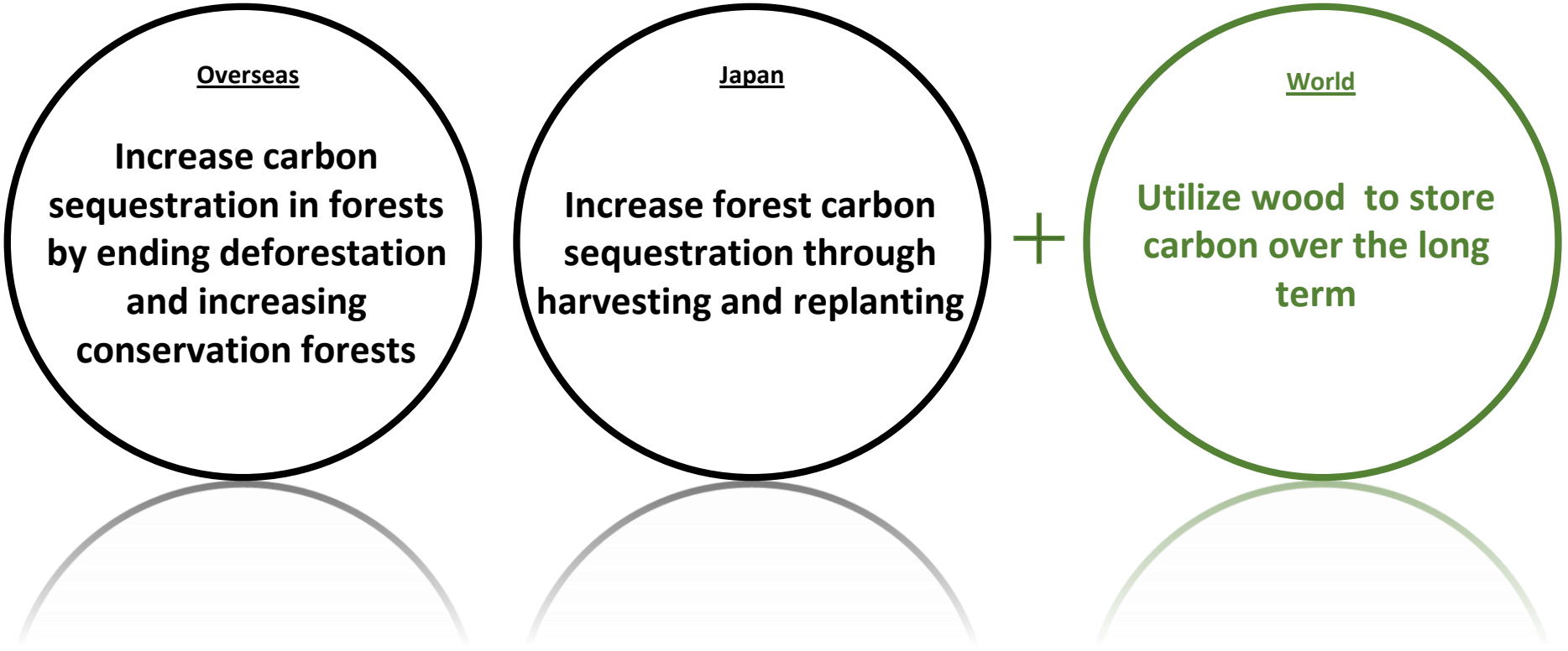
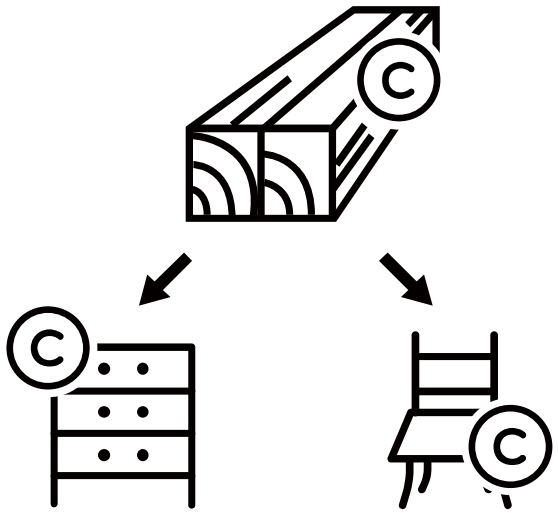
Protect ecosystems while rejuvenating forests to increase carbon sequestration capacity (sustainable forest management)

To realize carbon neutrality by 2050



Point ②

Utilize wood for long-term carbon storage

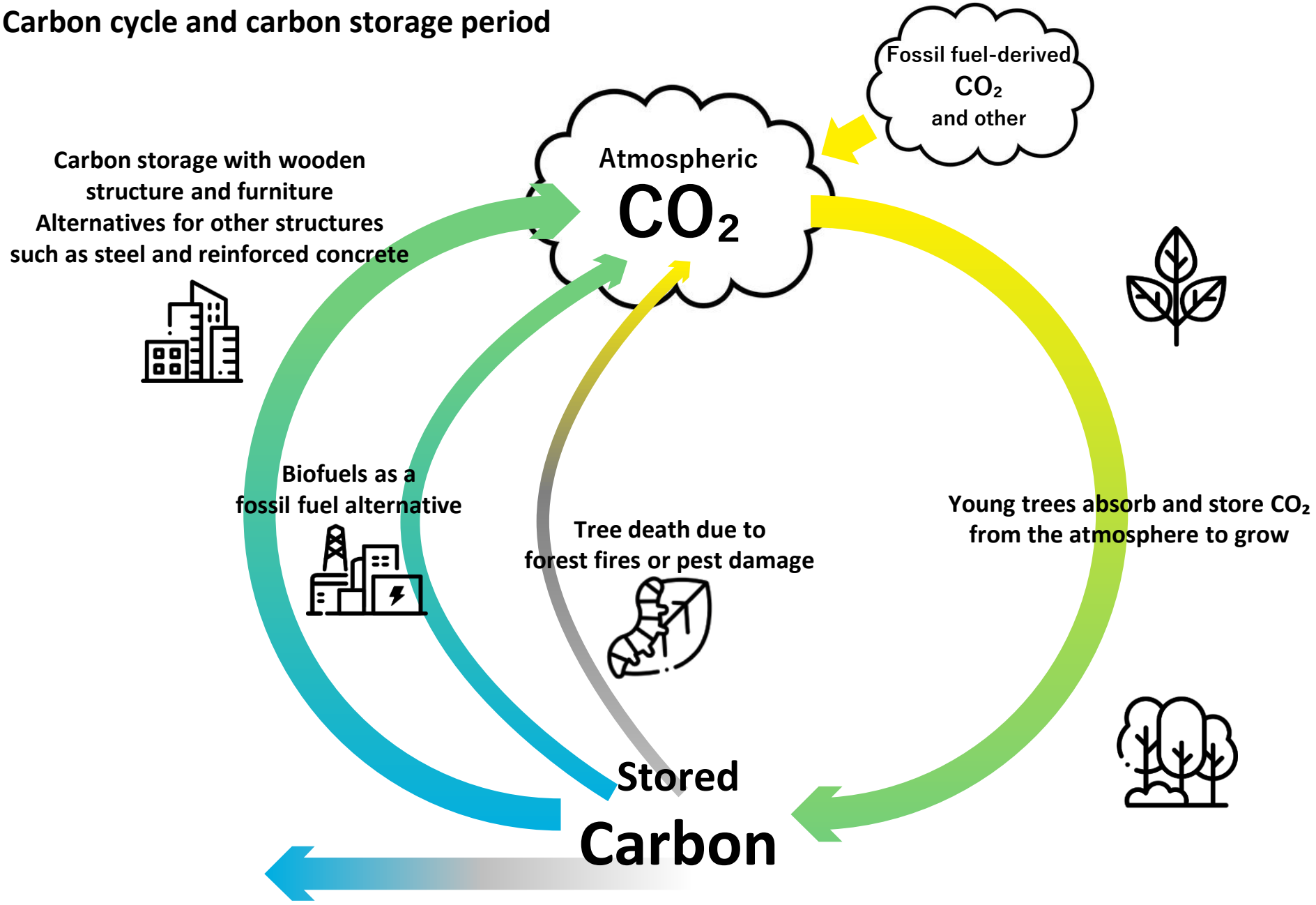


Carbon Storage

Carbon storage refers to the ability of trees to absorb CO_2 and store it internally as carbon. By utilizing harvested wood to produce wood buildings, furniture and other wood products, carbon is stored for long periods of time without being released into the atmosphere.

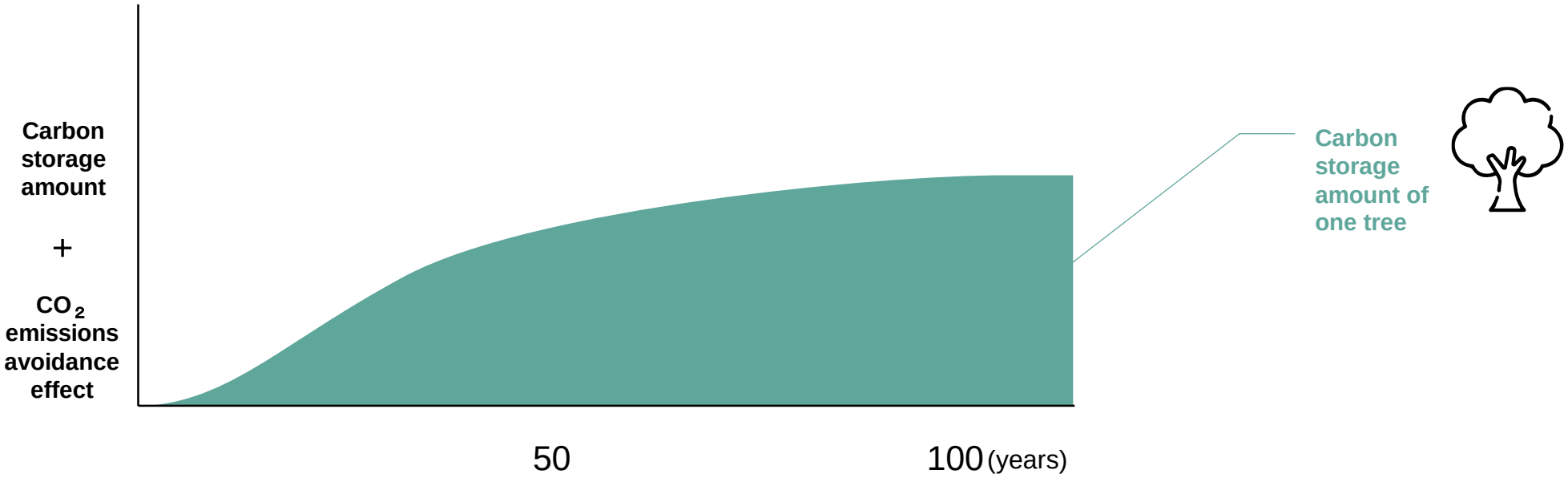
Wooden buildings, which have low CO_2 emissions, and bioenergy also have the effect of suppressing fossil-fuel-derived CO_2 emissions.

Carbon cycle and carbon storage period

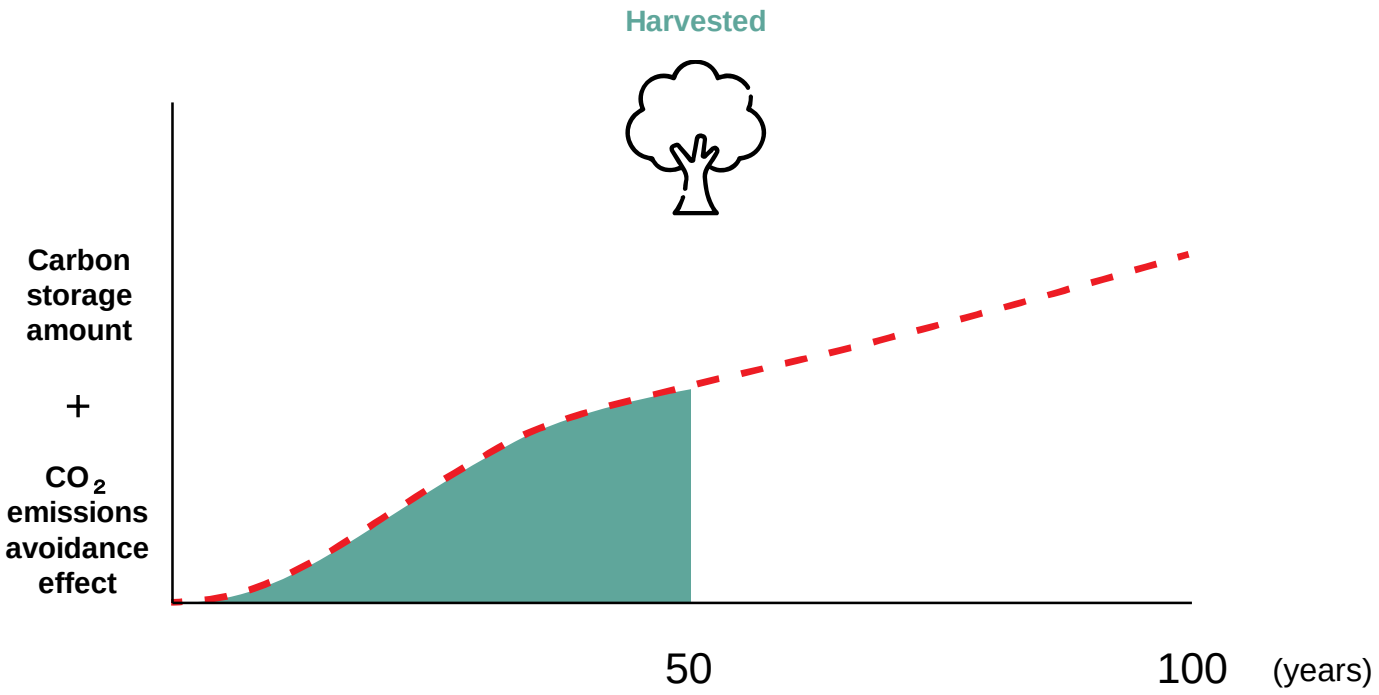


In other words,

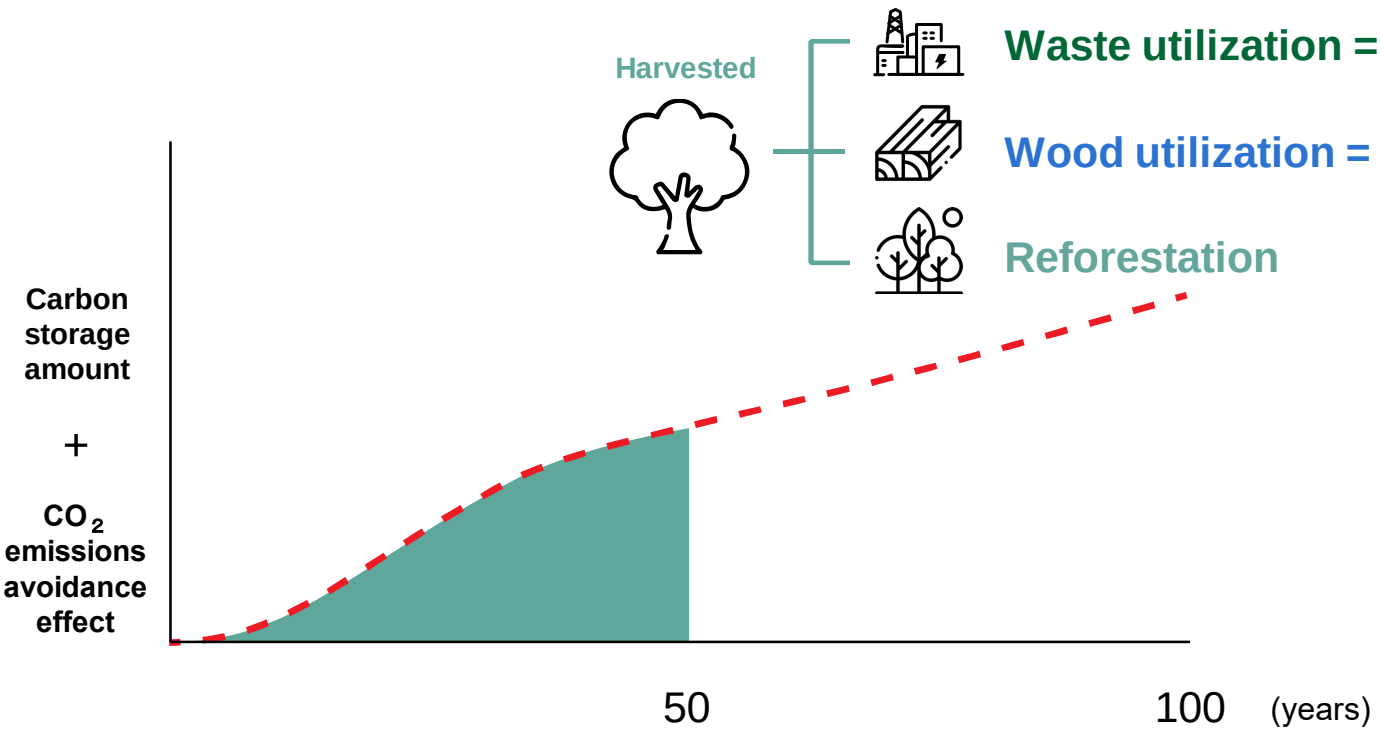
Harvesting and replanting trees and then utilizing wood they produce increase carbon storage and contribute to the decarbonization of society as a whole



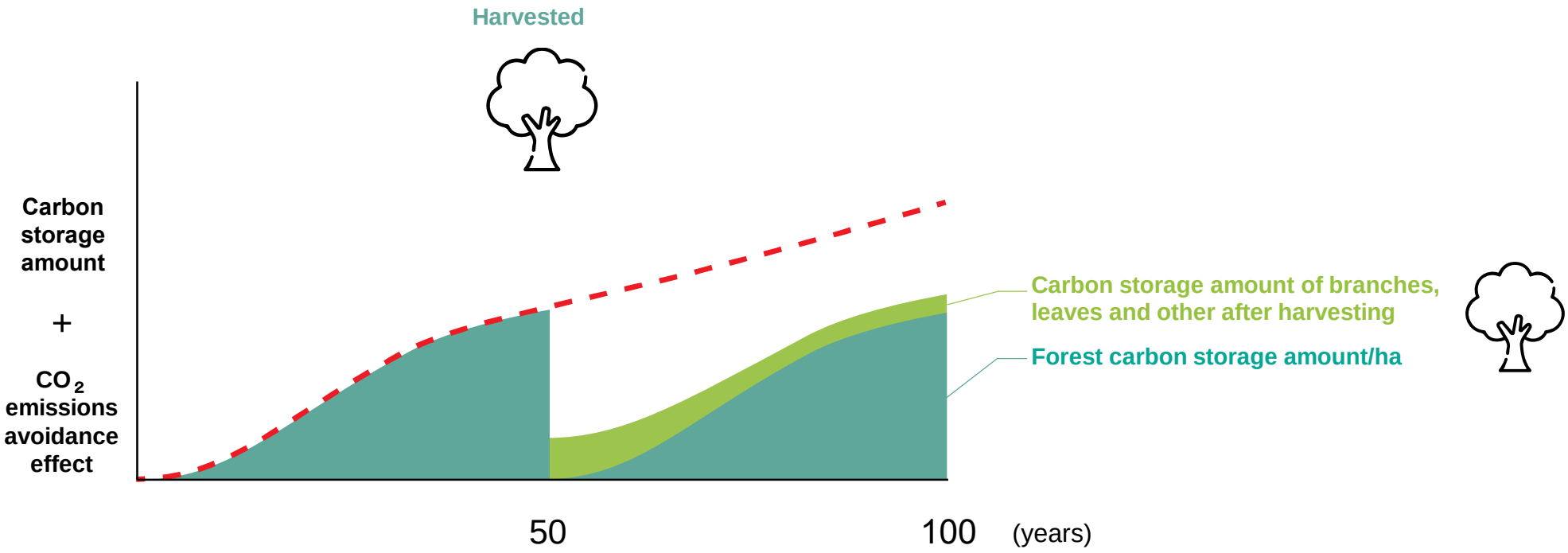
The increase in carbon storage amount of one tree slows after the peak CO_2 absorption period



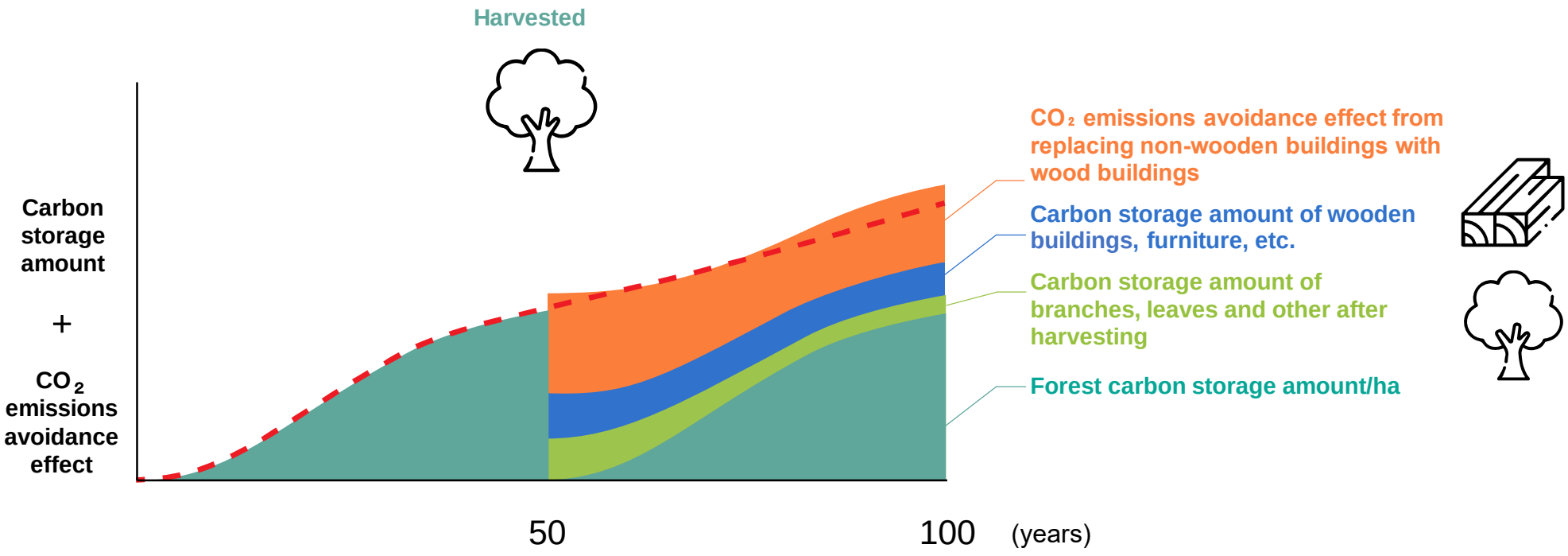
When a tree is harvested, it first appears as if the carbon storage amount has reduced.



However, Sumitomo Forestry replants trees and utilizes harvested wood in a variety of ways.



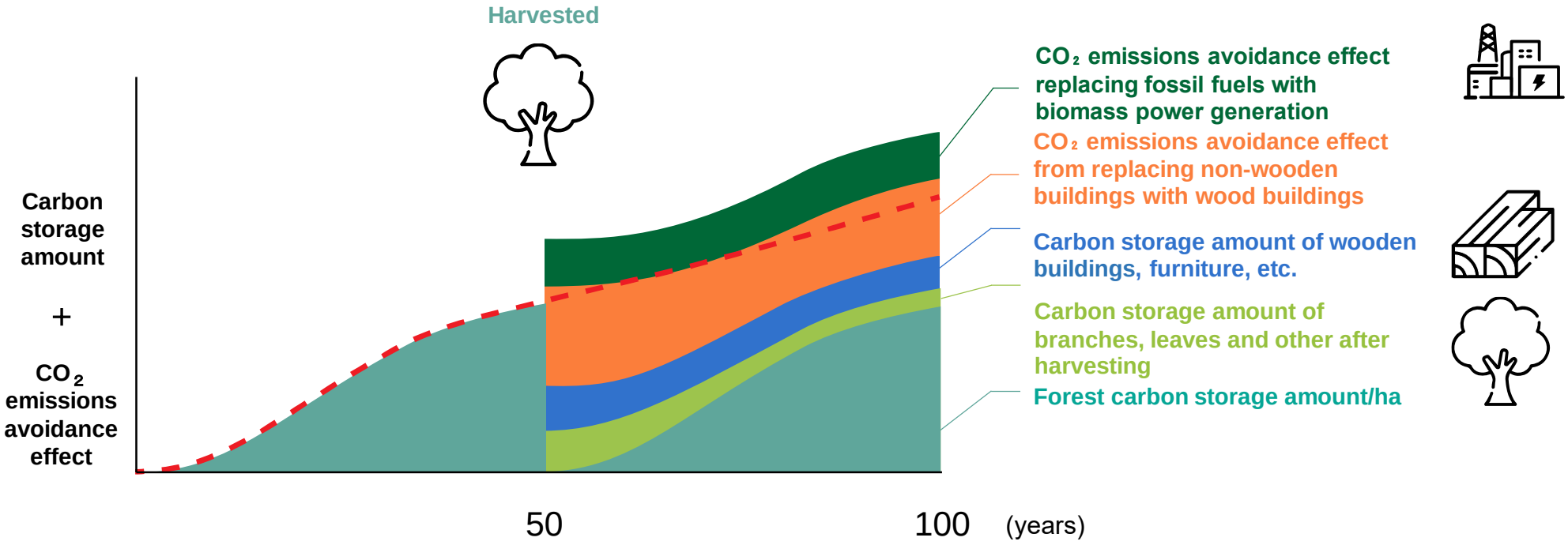
Replanting means that young trees rapidly absorb CO_2 and increase carbon storage amount



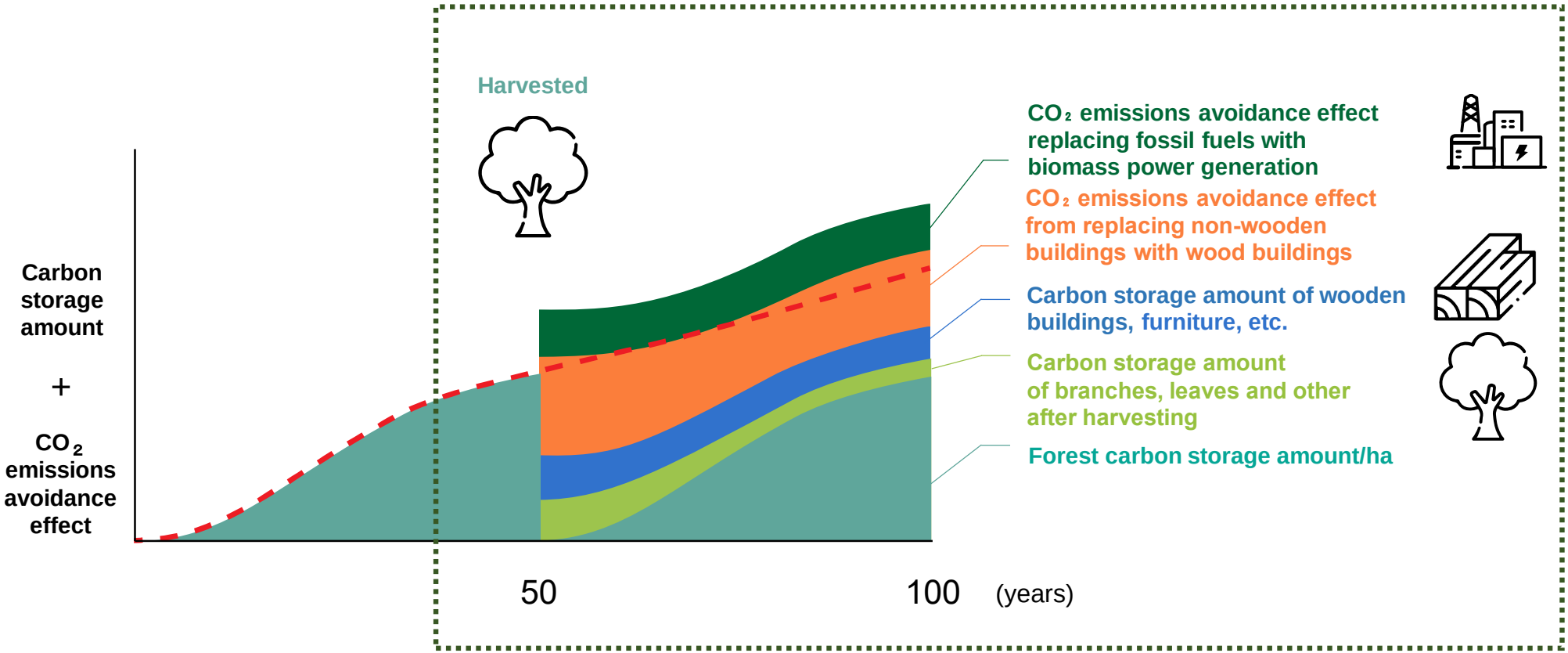
In addition, utilizing wood for wooden buildings, furniture, etc.,

stores carbon and reduces the amount of CO_2

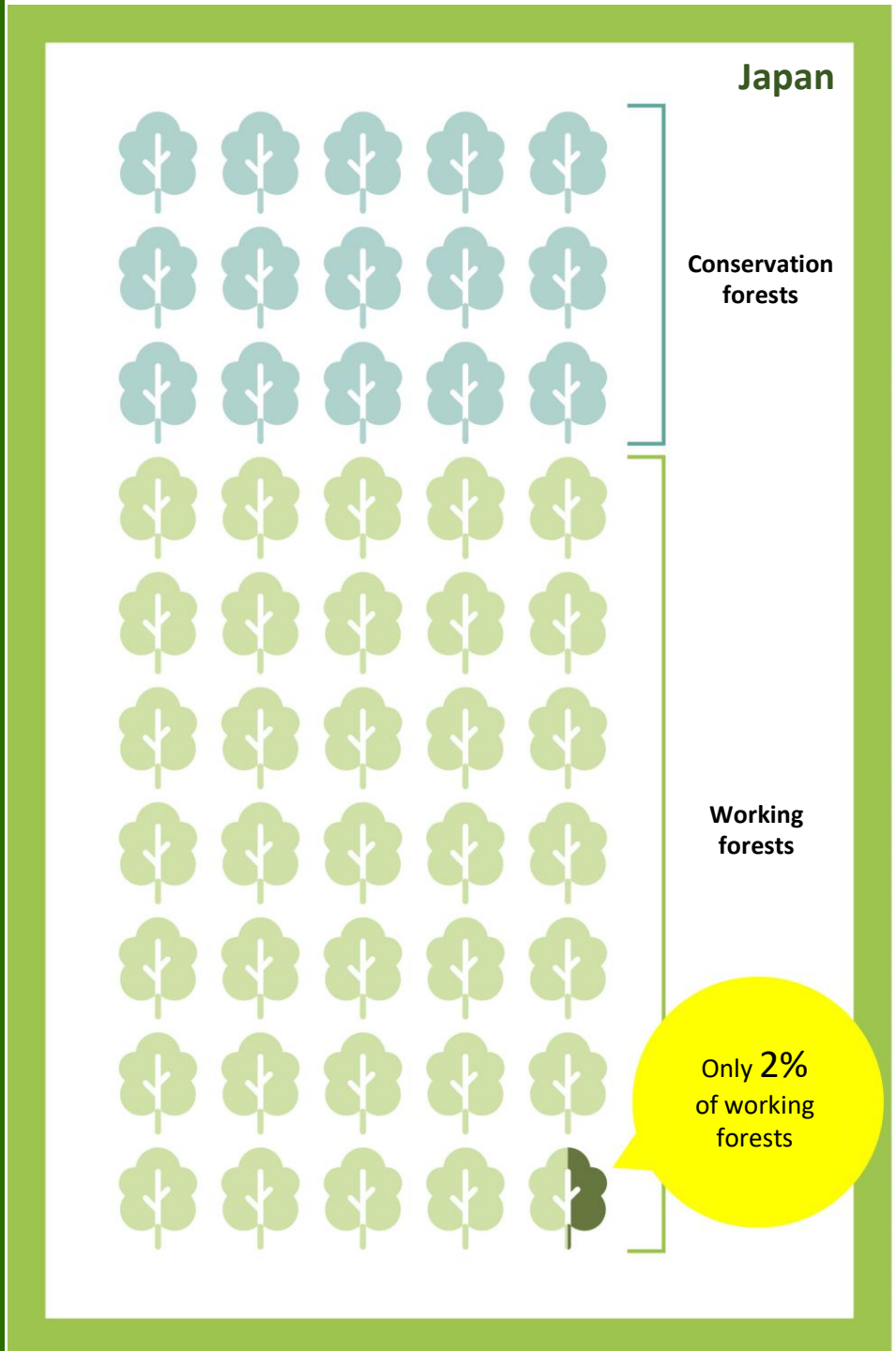
that would have been emitted from reinforced concrete structures



Utilizing wood chips and waste for biomass power generation reduces CO_2 more than fossil-fuel power generation



Harvesting and replanting trees in a planned manner and promoting the use of wood contributes to decarbonization.



- For example, for Japanese cedar forests, create a 50-year rejuvenation cycle to increase CO_2 absorption
- Only 2% of total working forests are harvested and reforested yearly

↓

Protect ecosystems while rejuvenating forests to increase carbon sequestration (sustainable forest management)

Forests, a key element to realizing a decarbonized society by 2050

Point ①

Increased carbon capture through zoning forest management

With deforestation progressing worldwide and planted forests aging in Japan, forest conservation alone will not increase carbon capture.

▼

Japan needs to rejuvenate forests through a cycle of harvesting and reforestation

※Globally, emphasis is placed on forest conservation and afforestation

Point ②

Carbon storage through the use of wood

Both in Japan and abroad, keeping trees in forests is not enough to increase the amount of carbon stored overall.

▼

Promote the utilization of wood to accelerate the cycle of harvesting and reforestation

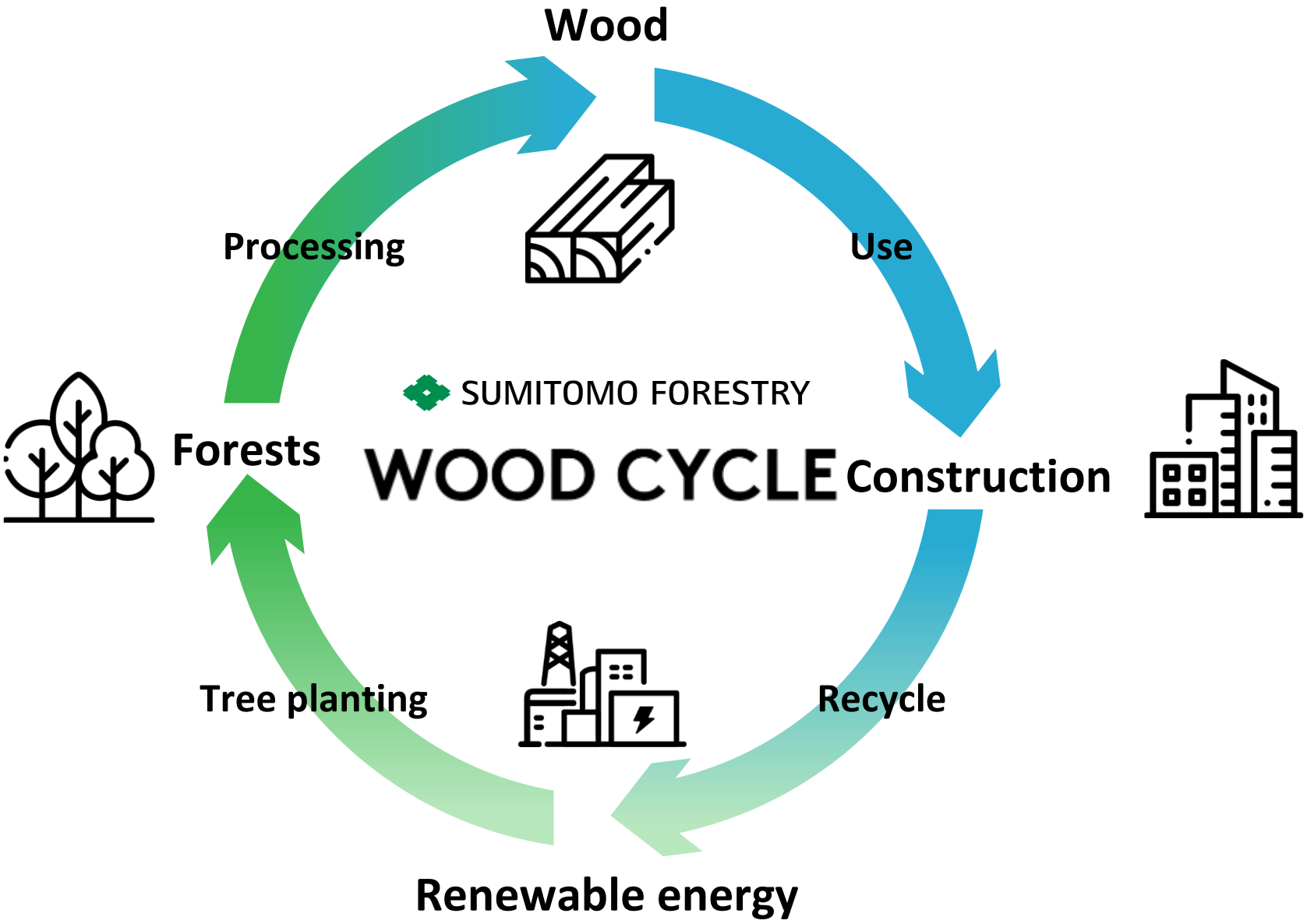
To resolve these issues

and contribute to the decarbonized society,

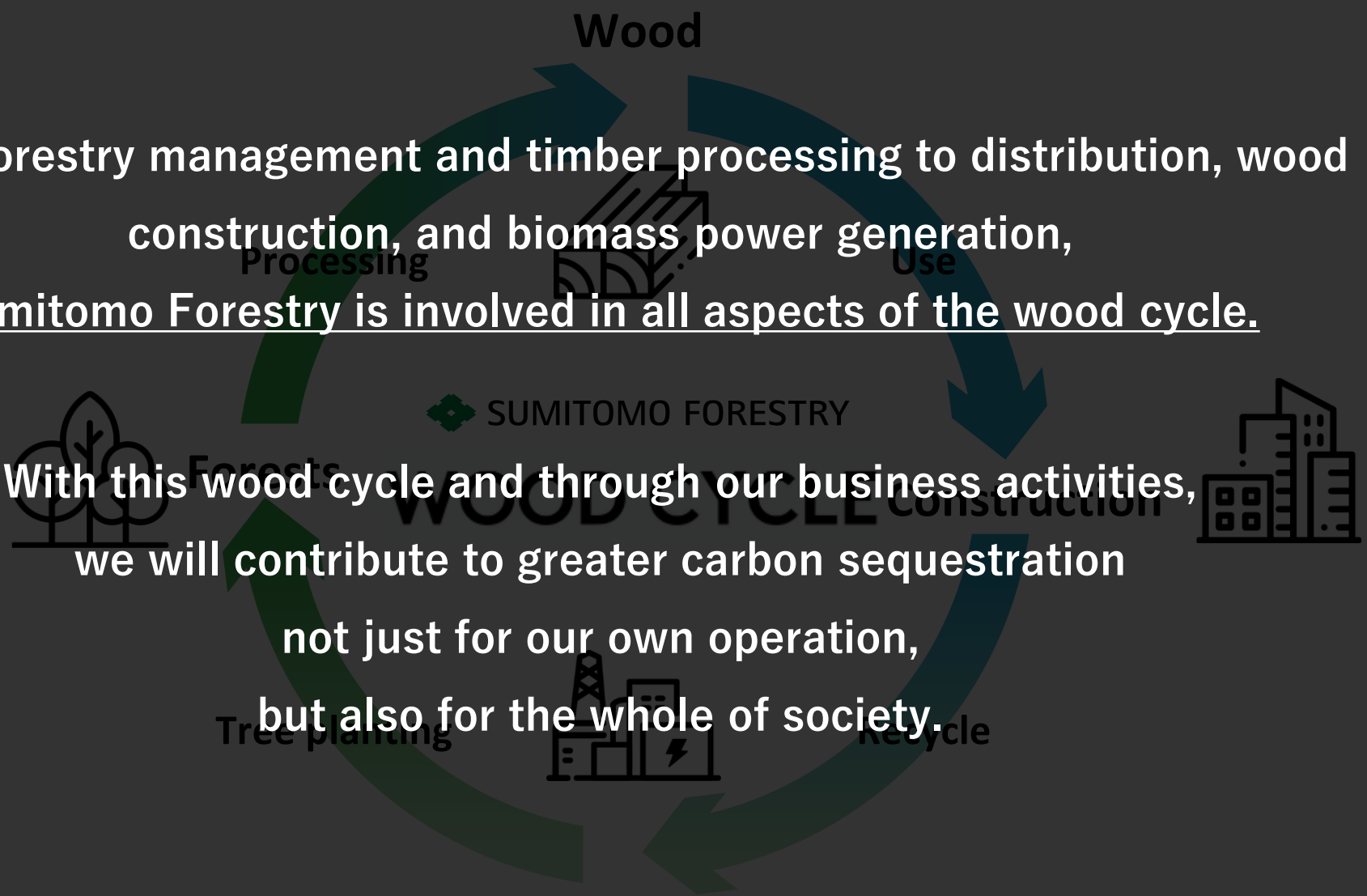
Sumitomo Forestry is promoting businesses

in three fields – forests, wood, construction.

Sumitomo Forestry's Wood Cycle

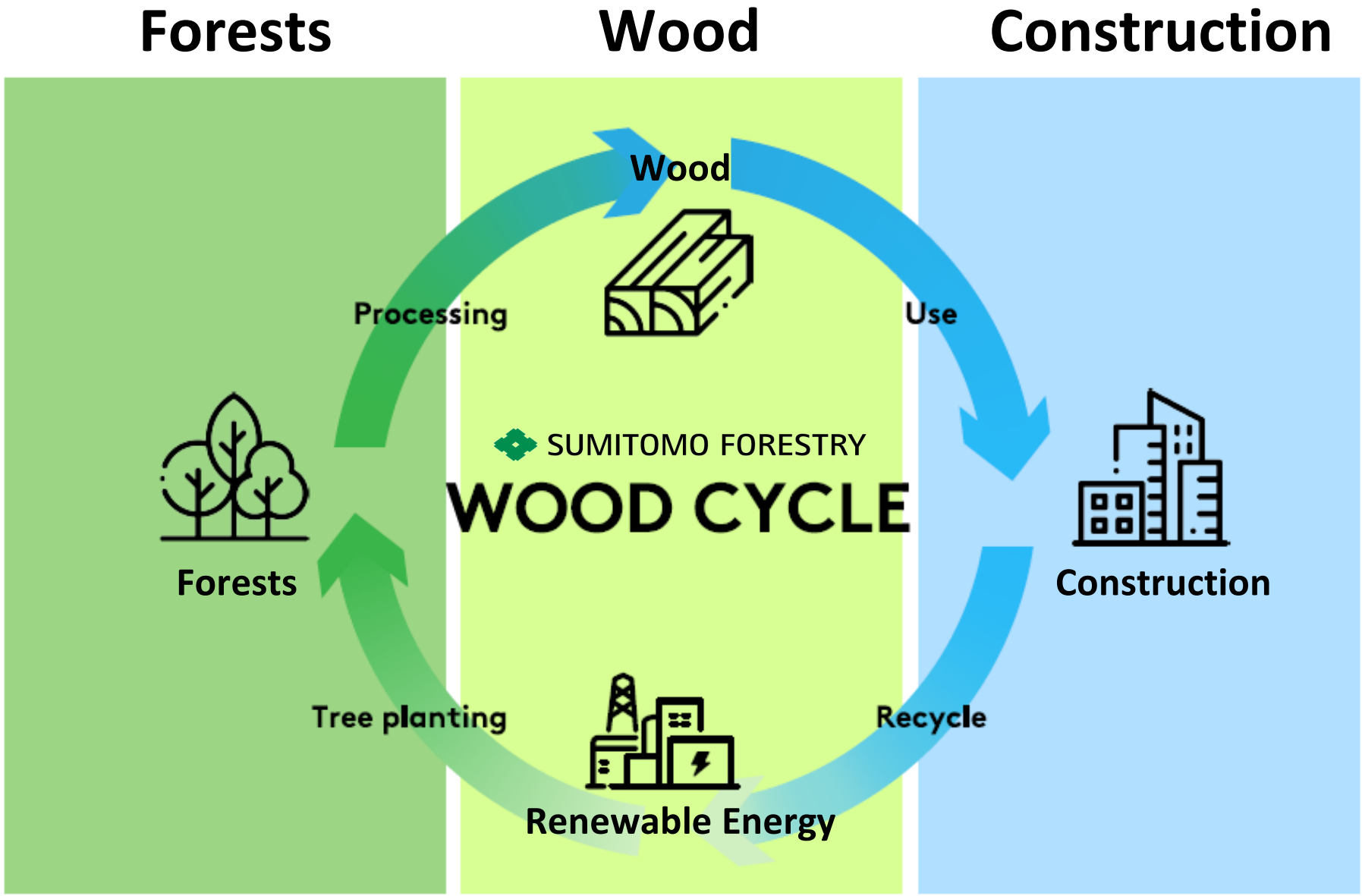


Sumitomo Forestry's Wood Cycle



From forestry management and timber processing to distribution, wood construction, and biomass power generation,
Sumitomo Forestry is involved in all aspects of the wood cycle.

With this wood cycle and through our business activities,
we will contribute to greater carbon sequestration
not just for our own operation,
but also for the whole of society.


Forests
Wood
Construction
Wood
Processing
Use
SUMITOMO FORESTRY
WOOD CYCLE
Forests
Construction
Tree planting
Recycle
Renewable Energy

Forests

Pillar ① of Sumitomo Forestry's decarbonization initiatives

Accelerate the circular forest business

We will promote zoning forest management by increasing conservation forests that absorb CO_2 and by accelerating the harvesting and replanting of working forests that encourage carbon storage. Through carbon offsets, we will contribute to the decarbonization of other organizations and society to realize a sustainable business.

2030	Forestry fund assets under management	100 billion yen
	Owned/managed forest land area target	279,000 ha → 500,000 ha

Plan to accelerate the forestry business

Create a global forestry fund

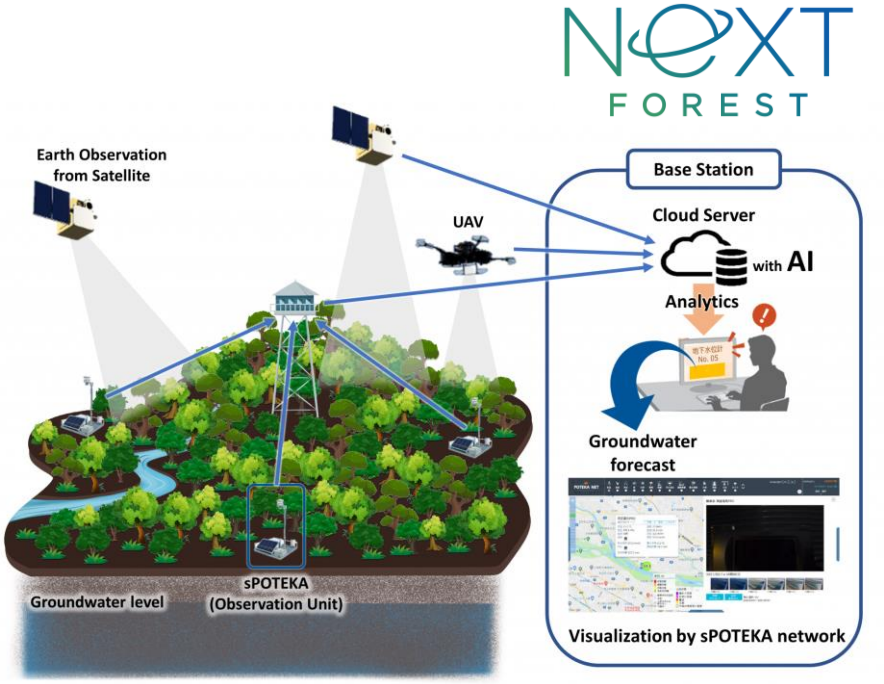
to expand forest area worldwide,

with an emphasis on Asia.

Through carbon offsets,

contribute to other organizations and society.

In collaboration with IHI,
we will manage and protect the world's forests from outer space.
Also, we will expand forest management consulting services.

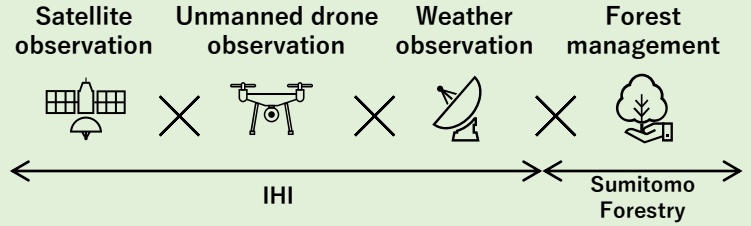


Background

World over, there is a threat of deforestation due to illegal logging and forest fires.
However, tropical peatlands store carbon comparable to more than 10 times the world's CO_2 emissions and contribute to biodiversity.

Solution

NeXT FOREST

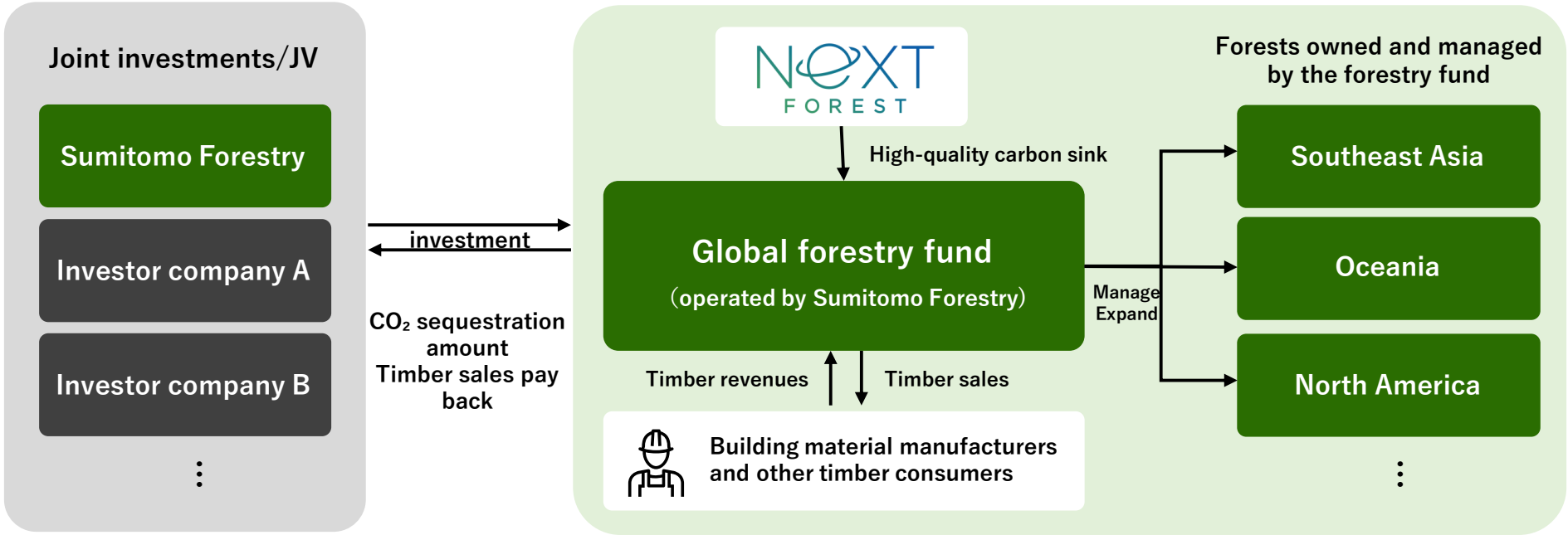


We will manage and conserve the world's forests by bridging IHI's satellite and weather observation technologies with Sumitomo Forestry's forest management know-how.

Announced at COP 26, NeXT FOREST gained worldwide attention and high regard.

Utilizing our know-how, we are expanding into forestry consulting services.

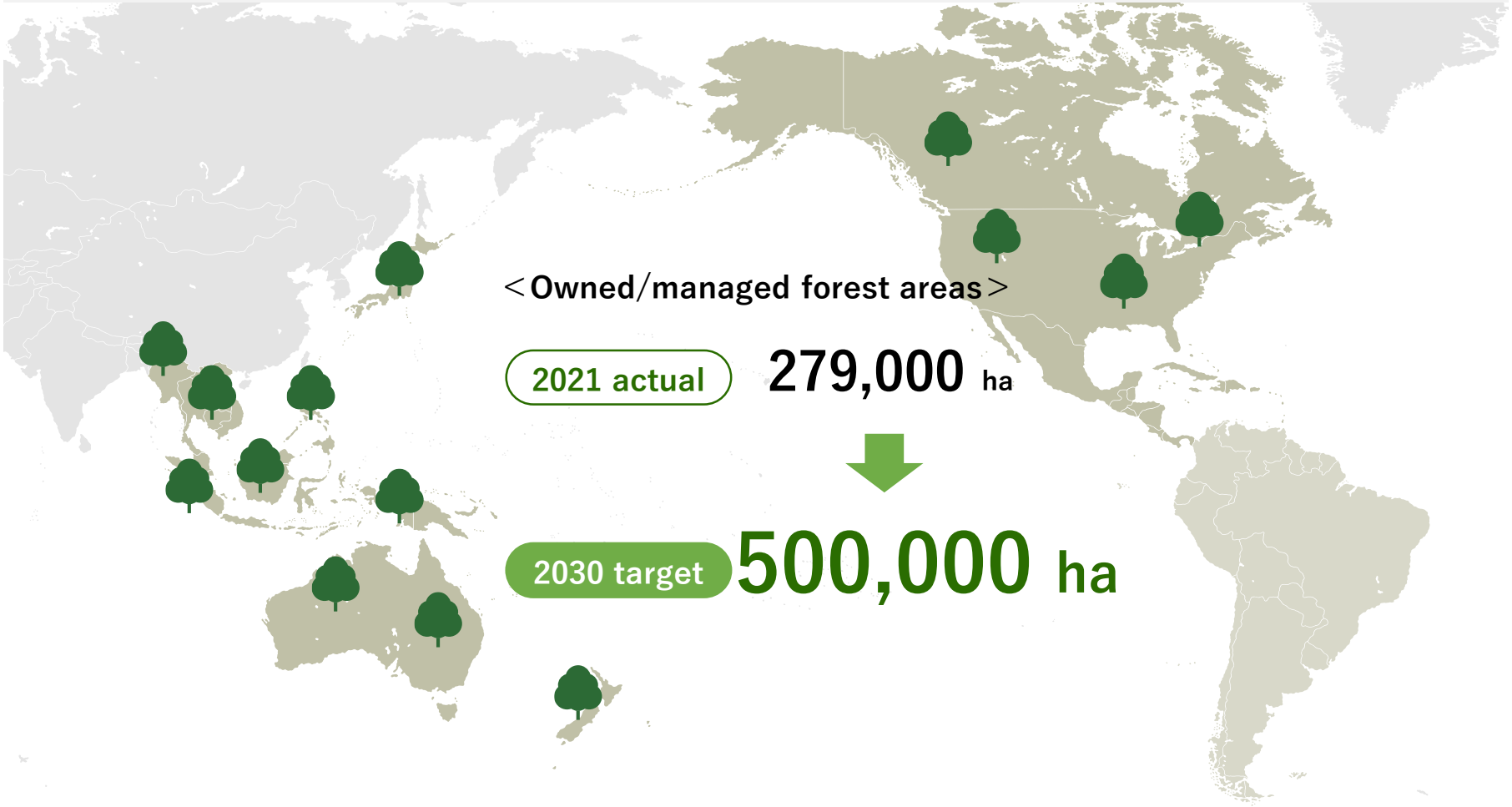
Form a global forestry fund.
Secure new carbon sinks and contribute to carbon offsets for other organizations and society.



Forestry fund assets under management	100 billion yen

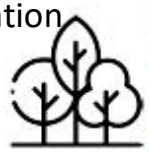
As at the time of preparation of this material, no specific decisions, including details and timing etc., have been made other than those described above.

We plan to increase the forest areas we own and manage primarily in Southeast Asia, Oceania and North America to 500,000 ha by 2030.



Contributing to the decarbonization of society

- ✓ Increase carbon sequestration by expanding forests
- ✓ Contribute to carbon offsetting for other companies through a forestry fund



Forests

Accelerate the circular forest business

- **Establish global forestry funds**
- **Contribute to other organizations and society through carbon offsets**

Sumitomo Forestry’s Wood Cycle

Wood

Pillar ② of Sumitomo Forestry's decarbonization initiatives

Promote wood change

We will enhance competitiveness of Japanese timber while pursuing the value of wood in carbon storage. We will promote the use of wood throughout society to contribute to the decarbonization.

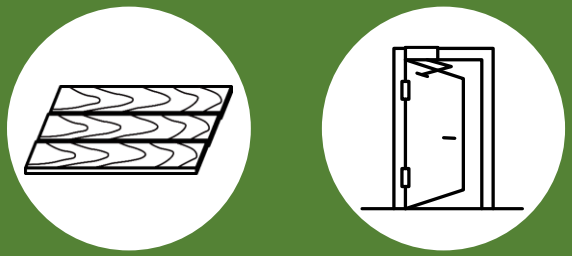
3 years	Timber industrial complex investment target	20 billion yen
2030	Timber industrial complex domestic timber usage target	1 million m^3/year

Plan to promote wood change

Make Japanese forestry and wood product manufacturing more efficient with timber industrial complexes. Promote the transition to wood-derived materials to increase carbon storage amount.

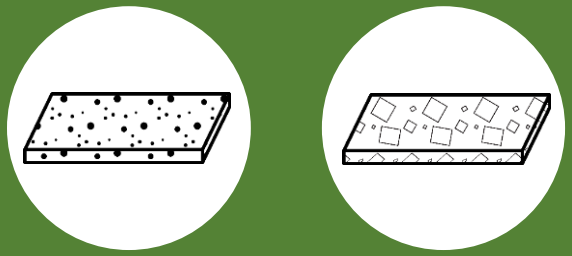
＜Sumitomo Forestry’s wood manufacturing＞

Domestic manufacturing



Flooring material, doors, windows, etc.

Overseas manufacturing



MDF, particle board, etc.

Sumitomo Forestry is the leading company in Japan's domestic timber and building materials distribution markets in terms of transaction amount

We want to promote carbon storage in society by increasing the volume of harvested wood products (HWP) we handle and manufacture

HWP：Harvested Wood Products

Wood products processed from harvested wood. Because trees absorb CO_2 and sequester it as carbon, promoting the use wood products advances the decarbonization of society.

＜Japanese forestry/wood manufacturing challenges＞

Forestry worker shortage

Undeveloped roads

Small-scale saw mills

▼

＜Worldwide comparisons＞

	Japan	US・Australia
the wood self-sufficiency rate	41.8%	Approx. 90%
Wood shock	Soaring prices + timber shortages	Soaring prices

- Japan's domestic timber has low price competitiveness due to a shortage of forestry workers and lack of infrastructure.
- Japan relies on imports for most of its wood products and experienced the wood shock price increase.

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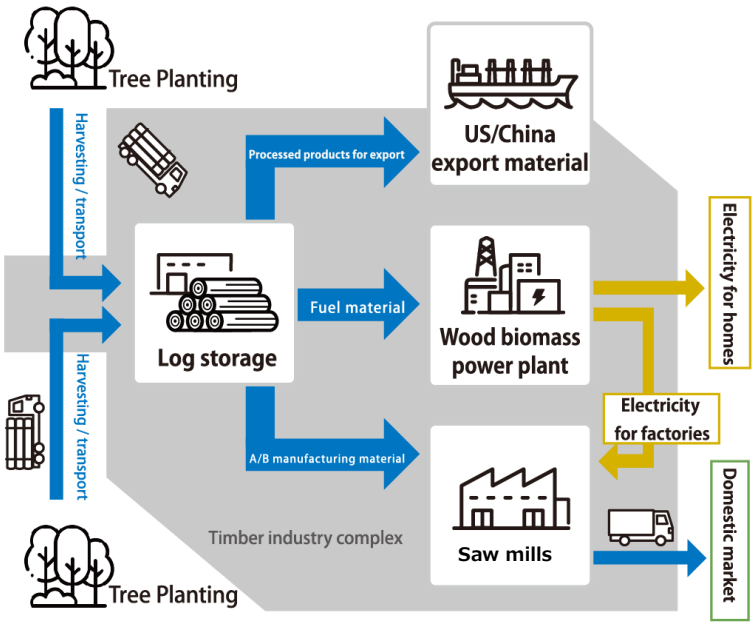
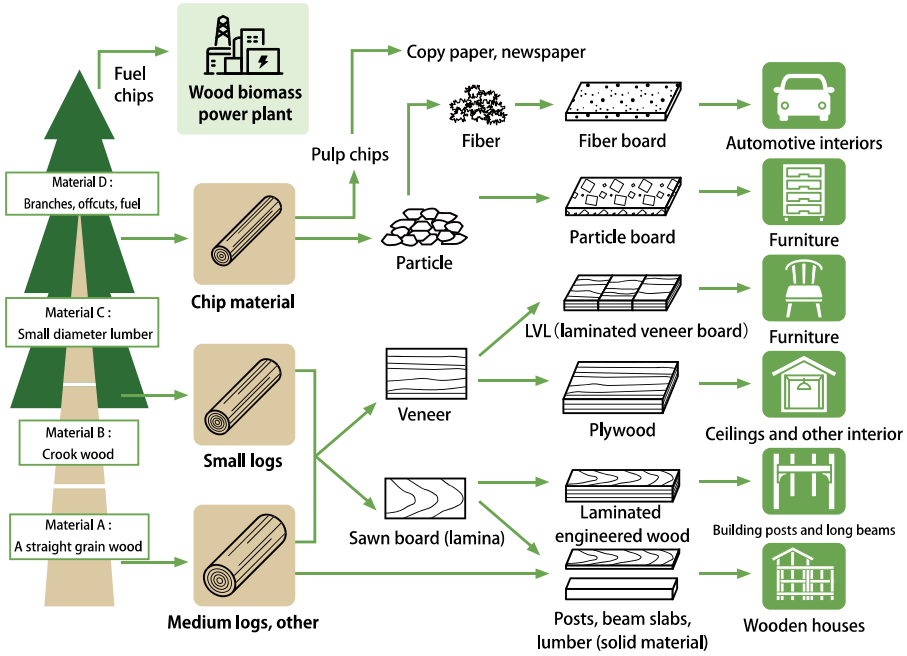
Establish timber industrial complexes, which are built on the premise of cascade utilization of Japanese timber, to raise productivity of wood manufacturing, secure a stable supply of wood products and ultimately, increase price competitiveness.

Striving to create large-scale timber industrial complexes in Japan. With a one-stop solution from sawing to cascading, we aim to increase carbon storage.

▼Timber industrial complex overview



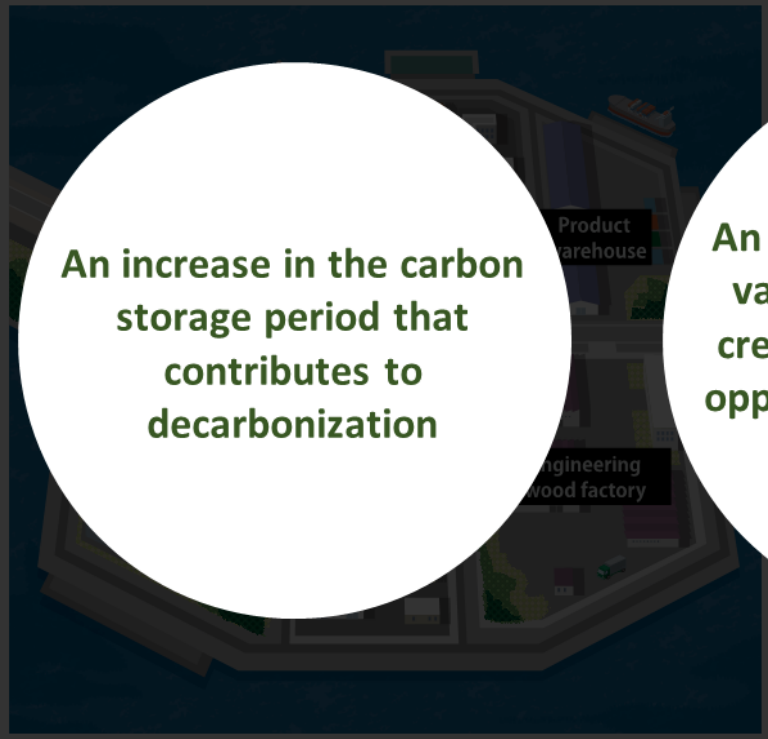
▼Cascading flow



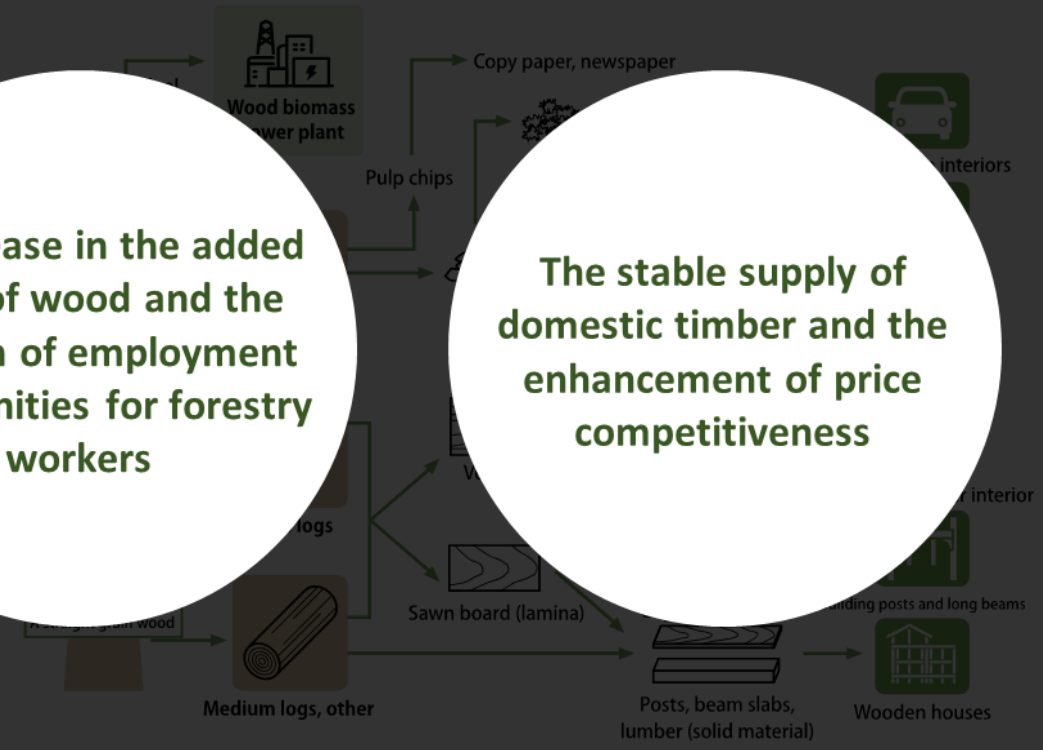
2030 domestic timber usage volume	1 million m^3/year

As a first step to create a timber industrial complex, we have concluded a letter of agreement with Shibushi City, Kagoshima, to build a new factory.
(We have also begun feasibility studies to construct a domestic wood processing factory and biomass power generation plant.)

The ripple effect of creating a timber industrial complex



An increase in the carbon storage period that contributes to decarbonization

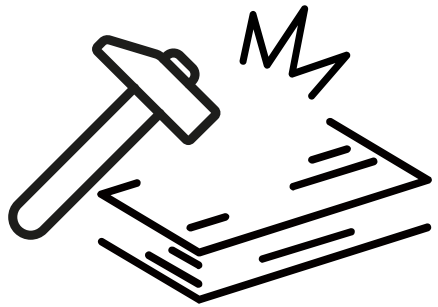


An increase in the added value of wood and the creation of employment opportunities for forestry workers

The stable supply of domestic timber and the enhancement of price competitiveness

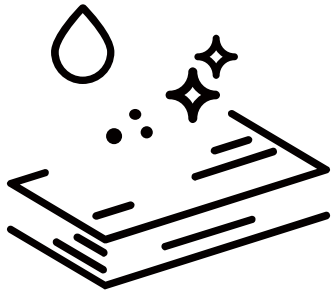
1 million m^3/year

Promote wood as an alternative by highlighting its capabilities.



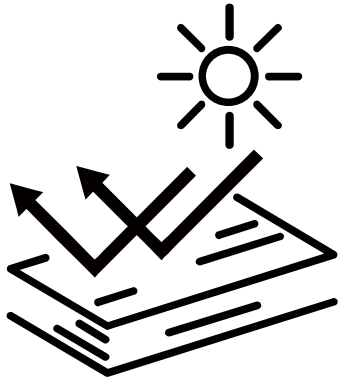
Wood is lighter and stronger than steel

Wood is a strong and lightweight material and at the same weight, about four times stronger than steel and six times stronger than concrete. This also helps contribute to decarbonization during transport.



Wood deteriorates more slowly than steel

Steel deteriorates 1.67 times faster than wood. Even after 100 years of wind and rain exposure, wood surfaces deteriorate a mere 3mm.

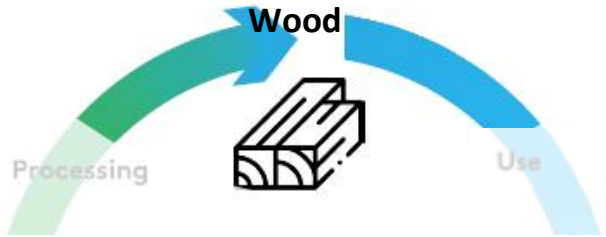


Wood has superior thermal insulation

Because wood contains trapped air, its thermal conductivity is low and its thermal insulation properties are about 10 times higher than concrete and about 500 times higher than steel.

Contributing to the decarbonization of other companies

- Reduce CO_2 emissions through material conversion
- Promote wooden buildings even among other companies



Spread awareness of Japanese timber and promote the transition to wood

- **Create timber industrial complexes**
- **Shift to wood-derived materials**

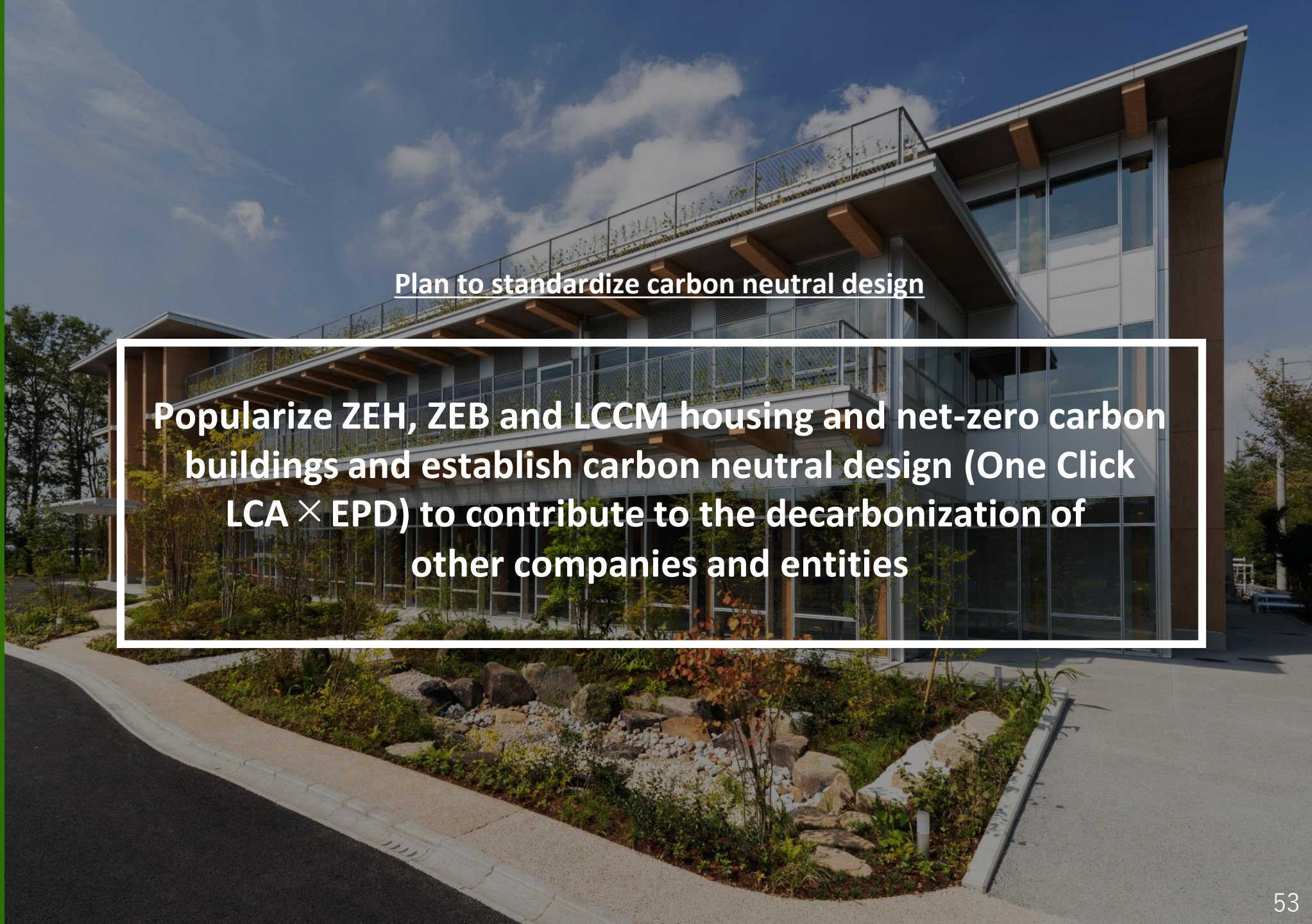
Construction

Pillar ③ of Sumitomo Forestry's decarbonization initiatives

Standardize carbon neutral design

By promoting LCCM housing both in Japan and abroad, and by establishing and standardizing carbon neutral design methods to popularize decarbonized construction, we will contribute to the decarbonization of other companies and entities.

3 years	Overseas non-housing wood building investment target		30 billion yen
2030	Housing units supplied yearly	27,000 units →	50,000 units



Plan to standardize carbon neutral design

Popularize ZEH, ZEB and LCCM housing and net-zero carbon buildings and establish carbon neutral design (One Click LCA × EPD) to contribute to the decarbonization of other companies and entities

Operational Carbon and Embodied Carbon - reduce two types of CO_2 emissions –

＝Reduction of CO_2 emitted during occupancy　＝Reduction of CO_2 emitted before and during construction

operational carbon

embodied carbon

Offset

Renewable energy

Energy creation

Renewable energy procurement

Woodification using low-carbon building materials

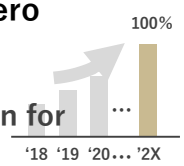
Residual emissions

Offset

Carbon storage

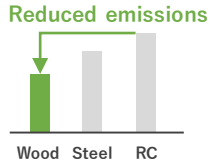
Reducing operational carbon to zero

- Promote ZEH, ZEB
- Renewable energy power generation for non-fossil certificates



Reducing embodied carbon

- Reduction through use of wood
- Design, construction that takes into consideration CO_2 emissions
- Use of low-carbon building materials



Additional reduction measures

- Provide forest carbon credits

Carbon storage through wood (HWP)

- Carbon storage with the use of wood

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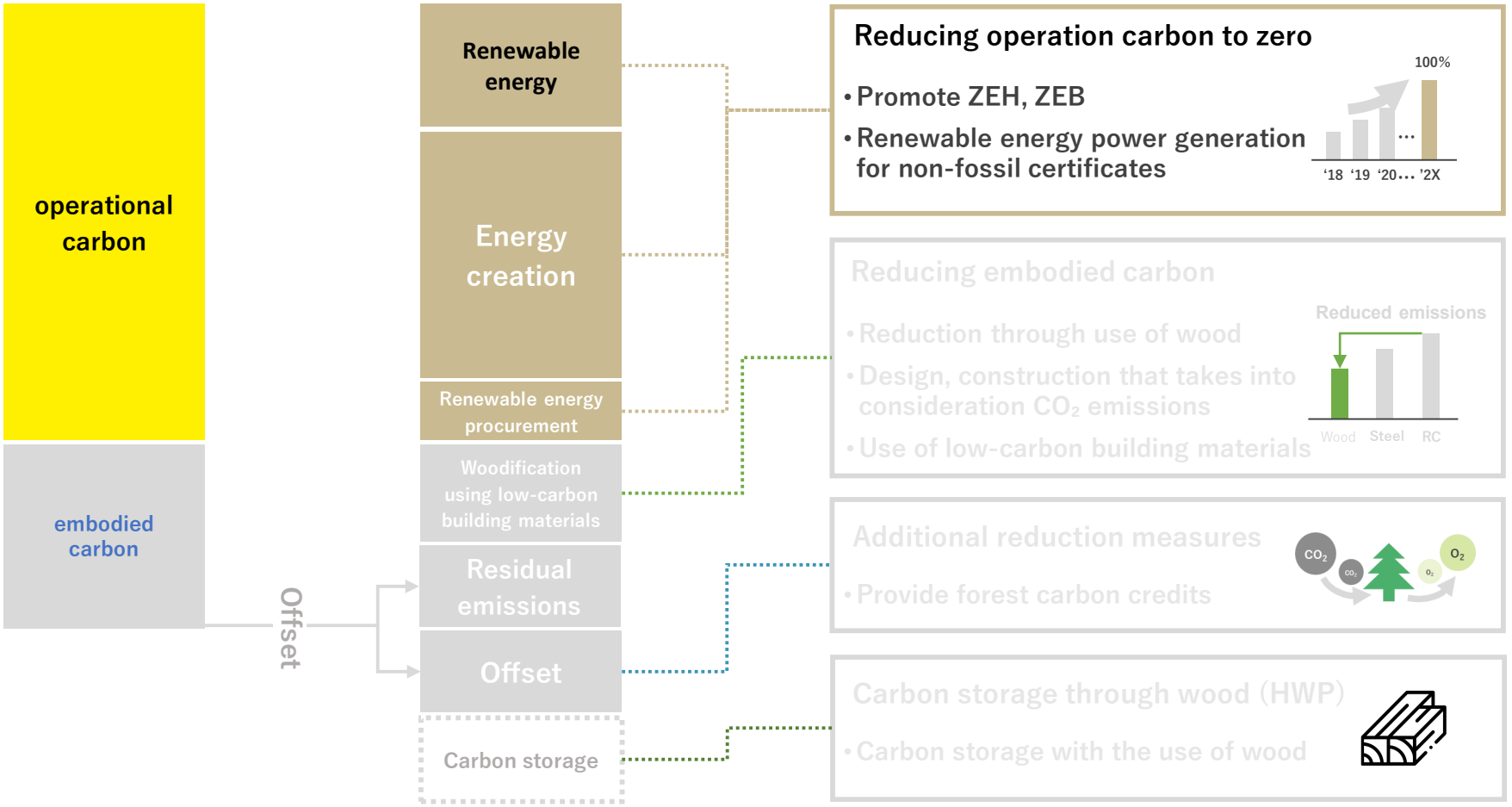

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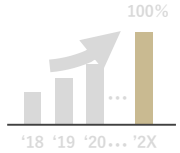

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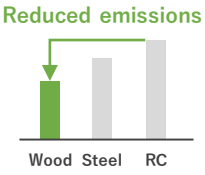


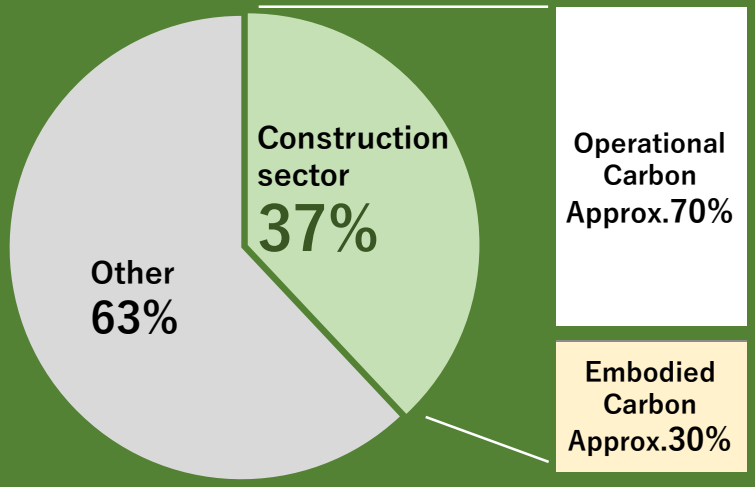
Additional reduction measures

- Provide forest carbon credits

Carbon storage through wood (HWP)

- Carbon storage with the use of

＜World's CO_2 emissions ratio by industry sector＞



Source) Global Alliance for Buildings and Construction（2021）

✓ 37% of the world's CO_2 emissions come from the construction sector, of which about 70% is during occupancy, which can be reduced with the popularization of ZEH and ZEB.

↓

With the popularization of wood construction,

Reducing embodied carbon, emission from before and during construction will become an important issue.

Our environment flagship lineup of LCCM houses for the Japan market reduces two types of CO_2 emissions for “operational carbon” and “embodied carbon.”

Image diagram: One-story exterior design

Embodied carbon approx. 40% lower and carbon storage amount 3.7 times higher than steel frame

LCCM housing = Housing specifications that realize negative CO_2 emissions during occupancy

1
BF construction method’s long-term carbon storage amount is 20% higher than conventional methods

2
Biomass powered kiln dry lumber reduces embodied carbon

3
Passive design that controls light and heat for greater comfort

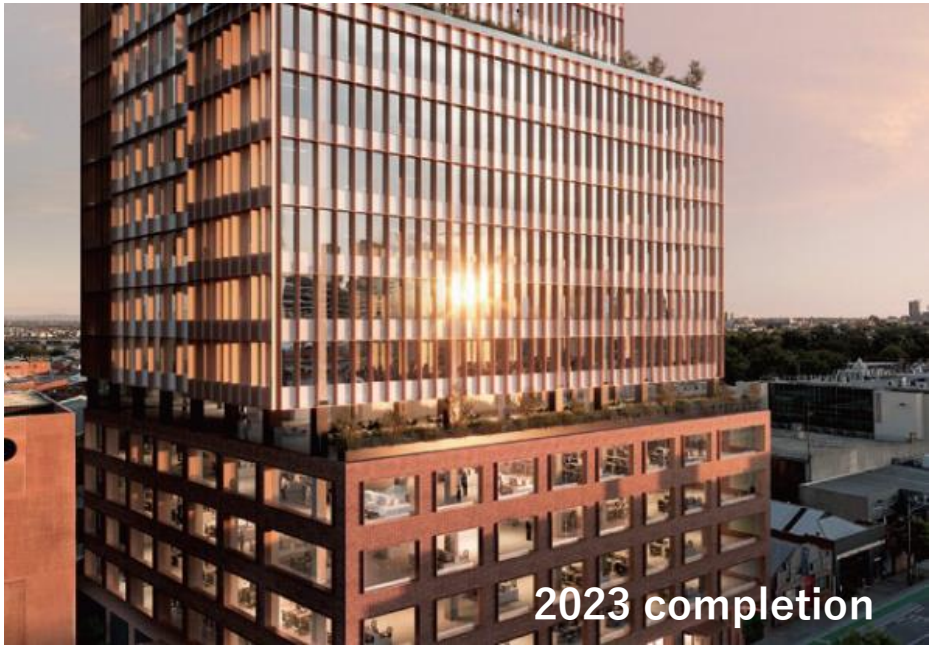
4
Greater adaptability with SI partitioning for long-term occupancy from generation to generation

5
Uses solar power, high-efficiency hot water systems, and other environmentally friendly equipment

6
Also contributes to revitalizing the Japanese forestry industry with the addition of domestic timber specifications

Overseas, we reduce embodied carbon through promoting “net zero carbon buildings” to contribute to the realization of a decarbonized society.

▼15-floor wooden office building in Melbourne



▼6-floor wooden office building in London

Shifting to wood buildings reduces embodied carbon. With wood carbon storage, it also contributes to further CO_2 emission reductions.

Both in Japan and overseas, One Click LCA enables visualization of CO_2 emissions of construction. Promote the standardization of carbon neutral design.

Environmental load data of each material used in construction

Structural material

30kg-CO_2e/m2

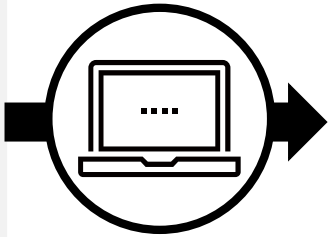
Concrete

100kg-CO_2e/m2

Gypsum board

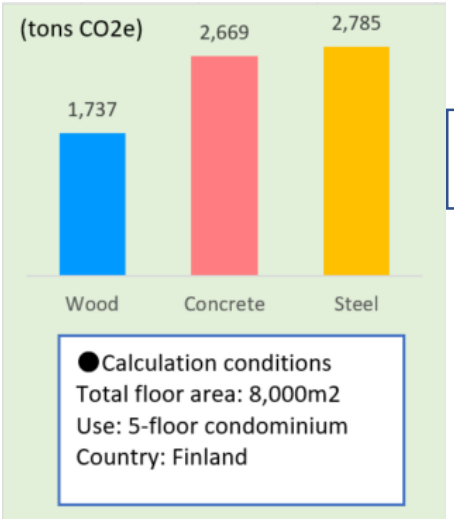
100kg-CO_2e/m2

⋮

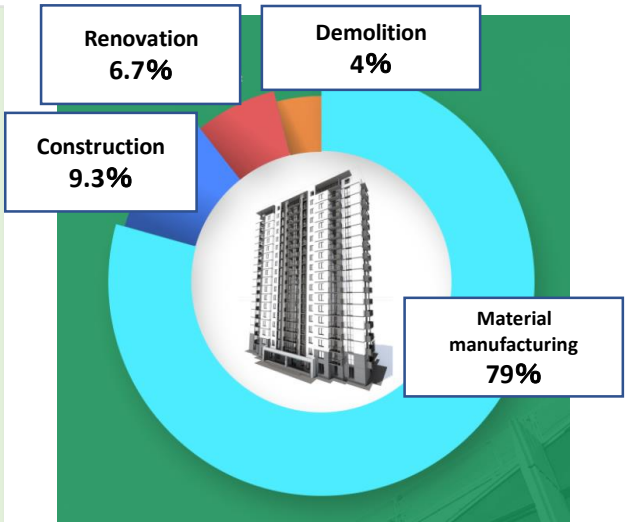


Calculated with One Click LCA

▼CO_2 emissions by building type



▼Ratio of CO_2 emissions by building lifecycle stage



Visualization of building CO_2 emissions

Signed an exclusive agency agreement for Japan with One Click LCA, a software that enables the visualization of a building's CO_2 emissions for its entire life cycle. This will help promote carbon neutral design as well as popularize environmentally friendly buildings that have net zero CO_2 emissions.

Promote the use of EPD certified labeling, which indicates the CO_2 emissions of each building, to enable the visualization of embodied carbon.

Environmental load data of each material used in construction

Structural material

30kg-CO_2e/m2

Concrete

100kg-CO_2e/m2

Gypsum board

100kg-CO_2e/m2

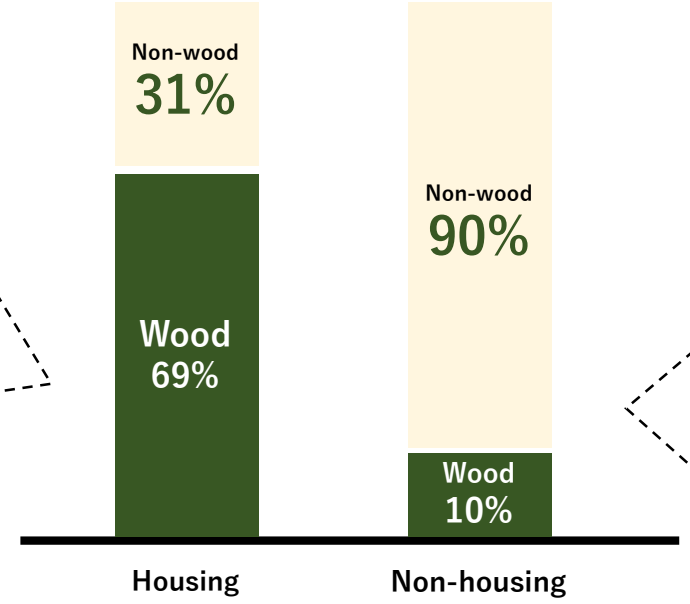
⋮

The Eco Leaf Environment Label, one form of EPD. Users can confirm environmental load data by inputting the number of the material.

Work with timber and building materials manufacturers to popularize EPD (Environmental Product Declaration) certified labeling, which is already widely used in Europe and North America. In addition, link this with One Click LCA to provide consulting services aimed at reducing CO_2 emissions of buildings.

Wood structures account for 69% of the domestic housing market and 10% of the non-residential market (on a floor area basis). Maintain and expand this ratio of wood structures to contribute to reduced CO_2 emissions.

- Maintain the already high ratio of wood structures in the housing market.
- Further promote ZEH and popularize LCCM housing for reducing operational carbon and embodied carbon



- Further promote ZEB for reducing operational carbon
- Use One Click LCA to visualize CO_2 emissions and expand wood building market share.
- Woodification of non-residential buildings = Reduces embodied carbon

▼

Aim to expand share with an annual target of 10,000 units of housing orders and sales. Proactively seek out non-residential orders, such as roadside stores, public facilities, nursing homes, etc.

Expand market share in the world's largest wooden housing markets, the US and Australia.
Promote wood buildings to transform cities into forests.

	2021 → 2030
USA	11,230 units → 23,000 units
Australia	3,169 units → 5,500 units
Other	2,534 units → 11,500 units

2030 Housing units supplied overseas
40,000 units

▼

In the housing market, aim to supply 40,000 units annually, approximately 23,000 units up from current figures.
In the non-residential market, accelerate the development of medium- to large-scale wooden commercial, office and other types of building.

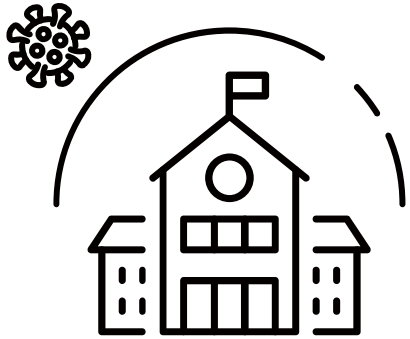
Wood interiors enhance well-being.

Wood interiors cause less fatigue

Compared to reinforced concrete, children studying in wooden school buildings report less fatigue. The sense that “wood is gentle” is proven in actual data.

Wood interiors improve focus

Subjects were asked to take math tests in a wide variety of rooms, and it was found that wood-grained rooms have a higher ratio of β waves, which indicate a state of concentration, proving that wood interiors improve focus.



Wooden schools suppress influenza

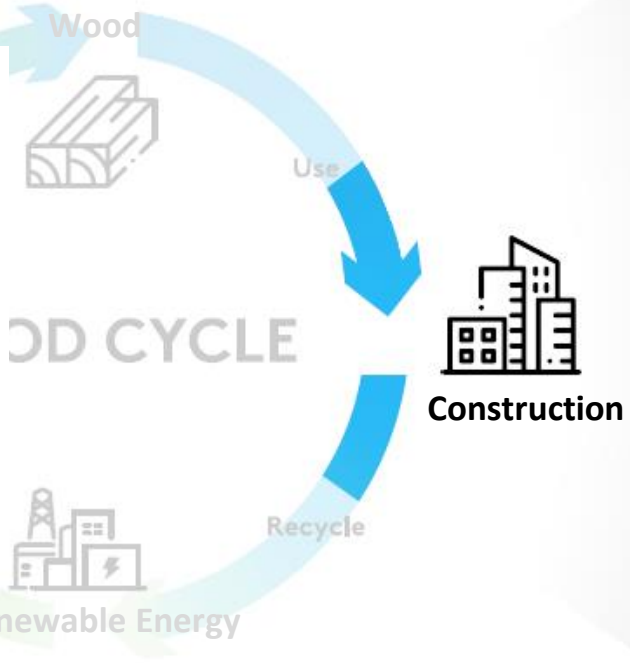
A study says that closures due to influenza outbreaks in wooden school buildings are about 1/3 that of reinforced concrete schools.

Standardize carbon neutral design

・Popularize ZEH, ZEB, LCCM housing,

net zero carbon buildings

・Establish carbon neutral design (One Click LCA × EPD)



Contributing to the decarbonization of other entities, companies

<Housing>

✔ Contribute to carbon storage

✔ Enhance living comfort and reduce environmental burden at the same time

<Non-residential>

✔ Decarbonization for building owner

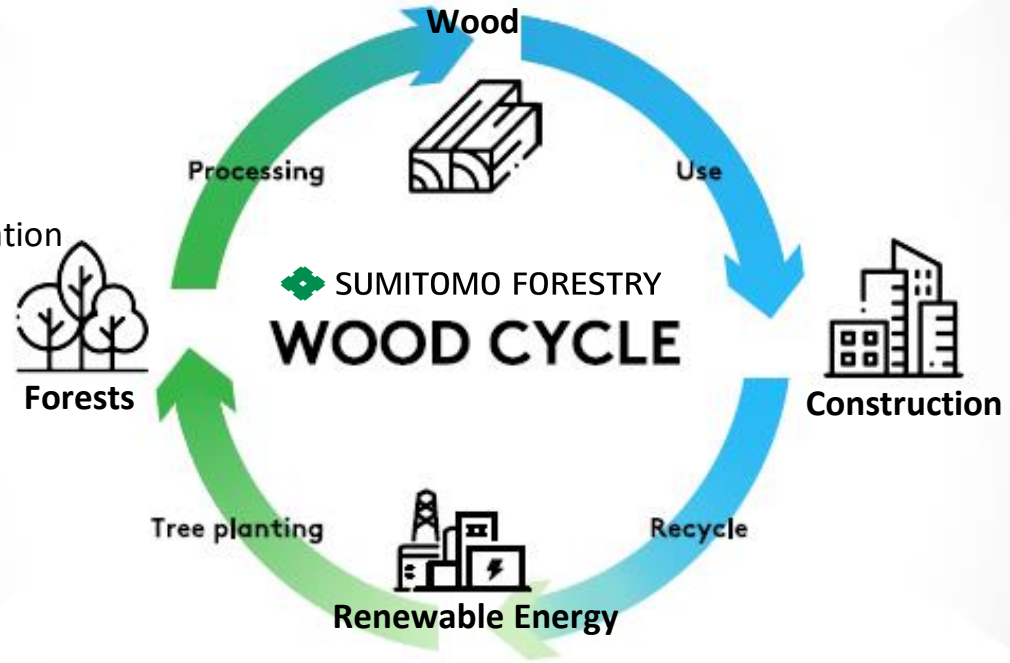
✔ Contribution to Scope 3

Contributing to the decarbonization of other companies

- ✓ Reduce CO_2 emissions through material conversion
- ✓ Promote wooden buildings even among other companies

Contributing to the decarbonization of society

- ✓ Increase carbon sequestration by expanding forests
- ✓ Contribute to carbon offsetting for other companies through a forestry fund



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- ✓ Promote decarbonization through the use as alternatives for fossil fuel
- ✓ Contribute to regional revitalization

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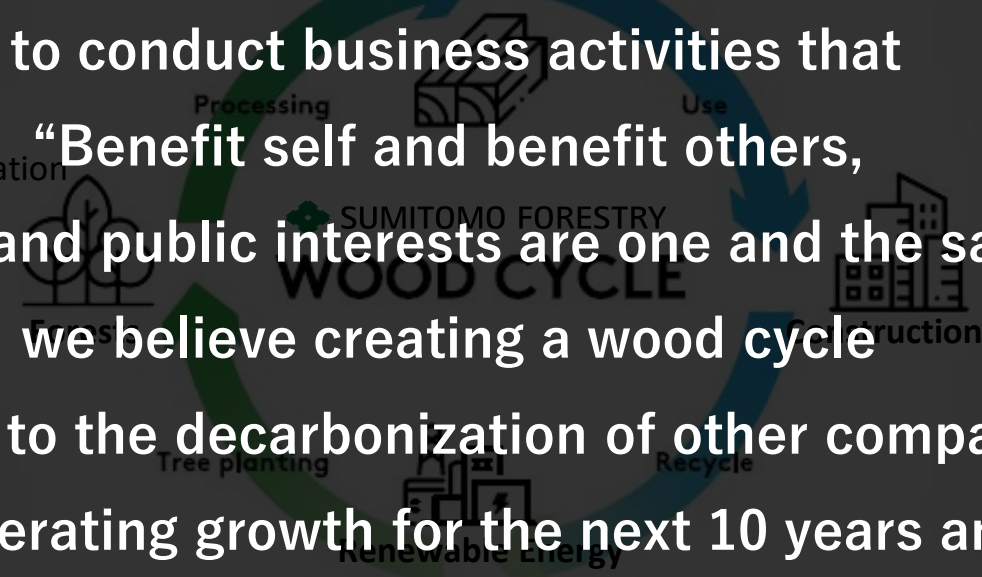

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Contributing to the decarbonization of other companies

- ✓ Promote decarbonization through the use as alternatives for fossil fuel
- ✓ Contribute to regional revitalization

In line with the Sumitomo's Business Spirit to conduct business activities that "Benefit self and benefit others, private and public interests are one and the same," we believe creating a wood cycle that contributes to the decarbonization of other companies is key to accelerating growth for the next 10 years and achieving carbon neutrality by 2050.

With CO_2 sequestration from our company-owned or managed forests, we are carbon negative (Scope 1, 2) as of 2020.

＜Forest＞

Annual CO_2 sequestration volume (2020)

778,000 t

Owned/managed forest area
279,000 ha

Domestic forests 48,000 ha: 136,000 t
Overseas forests 231,000 ha: 642,000 t

>

＜Sumitomo Forestry＞

Annual CO_2 emissions volume (2020)

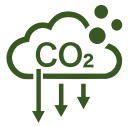
370,000 t

Scope 1 and 2 total

Scope 1:	262,000 t
Scope 2:	108,000 t

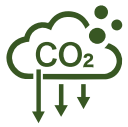
For scope 3 emissions, help realize decarbonization for our customers and suppliers. Actively propose new products and services to reduce CO_2.

Scope 3 , category 1: Purchased goods and services



Work with timber and building material manufacturers to popularize EPD environmental certification labeling

Scope 3 , category 11: Use of sold products (housing that Sumitomo Forestry sells)



Promote ZEH, ZEB, LCCM housing and net zero carbon buildings

＜Value Chain＞ Annual CO_2 emissions (2020)

9.119 m t

Scope 3

The volume of CO_2 emissions that houses (including TV, AC, etc.) typically release in 60 years, converted to one year. Because this figure includes emissions from other players in the value chain, cooperation is essential.

We will continue to maintain and expand the forests we own and manage, not only for their CO_2 absorption, but also for their high levels of carbon storage.

＜Forests＞

Annual CO_2 absorption (2020)

778,000 t

Owned/managed forest area
279,000 ha

Domestic forests, 48,000 ha: 136,000 t

Overseas forests, 231,000 ha: 642,000 t

＜Forests＞

Carbon storage (2020)

65.593 m t

Owned/managed forest area 279,000 ha

Domestic forests, 48,000 ha: 13.476 m t

Overseas forests, 231,000 ha: 52.117 m t

In addition, there is a great potential given the cumulative total of the annual carbon storage amount from wooden structures and wood products that we sell.

＜HWP＞

Annual carbon storage (2020)

1.032 m t

Total carbon storage of domestic and overseas housing/manufacturing

---

Domestic housing increase: 137,000 t
Overseas housing increase: 340,000 t
Manufacturing increase: 555,000 t

＜HWP＞

Cumulative carbon storage (2020)

23.623 m t

Total carbon storage of domestic and overseas housing/manufacturing

---

Domestic housing cumulative: 7.187 m t
Overseas housing cumulative: 1.515 m t
Manufacturing cumulative: 14.921 m t

2030 targets

＜Forests＞

Owned/managed forest area

500,000 ha

＜Wood＞

Domestic timber usage at timber industrial complex

1.0m m3/year

＜Construction＞

Housing units sold

50,000 units/year

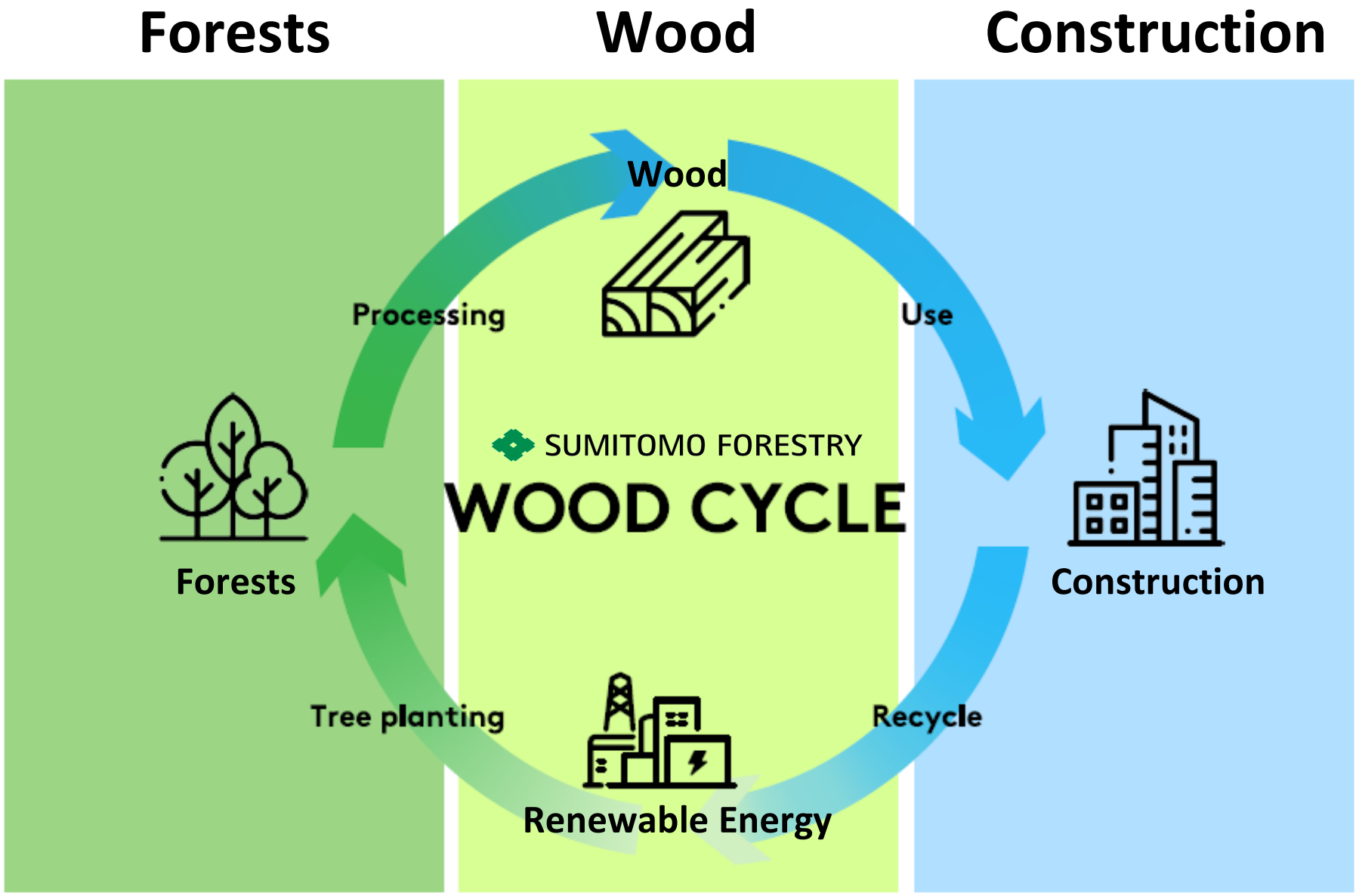
Sumitomo Forestry, to the next stage

As a partner in helping the world shift to decarbonization,

we will strive to create a sustainable society

Sumitomo Forestry’s Wood Solution

Summary of decarbonization initiatives


Forests
Wood
Construction
Wood
Processing
Use
SUMITOMO FORESTRY
WOOD CYCLE
Forests
Construction
Tree planting
Recycle
Renewable Energy

Three pillars: Accelerate the cyclical forest business, promote wood change and standardize carbon neutral design

Sumitomo Forestry's Wood Solution

The three pillars of Sumitomo Forestry's decarbonized initiatives

	＜Forests＞	＜Wood＞	＜Construction＞
Summary	**Accelerate the cyclical forest business** Promote zoning forest management to expand conservation forests, which absorb CO_2, and accelerate harvesting/replanting of working forests, which encourage carbon storage. With carbon offsets, contribute to the decarbonization of other companies and society and realize a sustainable business.	**Promote wood change** Enhance competitiveness of domestic timber while pursuing the value of wood in carbon storage. Promote the use of wood throughout society to contribute to decarbonization.	**Standardize carbon neutral design** Promote carbon neutral construction by popularizing LCCM houses both in Japan and abroad, and by establishing and standardizing carbon neutral design methods to contribute to decarbonization of other companies and entities.
Concept	Establish a global forestry fund and expand the world's forest areas, with an emphasis on Asia. Contribute to the carbon offsets of other companies and society.	Create timber industrial complexes to make domestic forestry and timber manufacturing more efficient and promote the transition to wood-derived materials to increase carbon storage.	Popularize ZEH, ZEB, LCCM houses and net zero carbon buildings and establish carbon neutral design (One Click LCA×EPD) to contribute to the decarbonization of other companies and entities.
Beneficiaries	New customers who look for value of CO_2 sequestration	Supply chain partners	Building owners (general consumers, companies))
Contribution	CO_2 sequestration	Reduced CO_2 (Scope 3, Category 1)	Reduced CO_2 (Scope 3, Category 11)

Three pillars: Accelerate the cyclical forest business, promote wood change and standardize carbon neutral design

Sumitomo Forestry's Wood Solution

The three pillars of Sumitomo Forestry's decarbonized initiatives

	＜Forests＞	＜Wood＞	＜Construction＞
Summary	**Accelerate the cyclical forest business** Promote zoning forest management to expand conservation forests, which absorb CO_2, and accelerate harvesting/replanting of working forests, which encourage carbon storage. With carbon offsets, contribute to the decarbonization of other companies and society and realize a sustainable business.	**Promote wood change** Spread awareness of the benefits of transitioning to wood, expand the carbon storage value of trees and increase the scale and efficiencies of timber manufacturing to promote wood change that contributes to decarbonization.	**Standardize carbon neutral design** Promote carbon neutral construction by popularizing LCCM houses both in Japan and abroad, and by establishing and standardizing carbon neutral design methods to contribute to decarbonization of other companies and entities.
2024 investments	2024 forestry fund-related investments (~2024) **12.0 billion yen**	2024 timber industrial complex investments (~2024) **20.0 billion yen**	2024 overseas non-housing investments **30.0 billion yen**
2030 targets	2030 owned/managed forest area **500,000 ha**	2030 timber industrial complex domestic timber usage **1.0 million m^3/year**	2030 no. of housing units sold yearly **50,000 units**


If more of society embraces forest utilization,
unkempt forests would be appropriately harvested and
replanted, and lush nature would expand.
Wooden buildings in urban areas would become the norm,
and cities would be transformed into “forests.”
The overall well-being of society would be enhanced.
Businesses that contribute to decarbonization for all,
including other companies and people, can help realize
something entirely new – a warm and giving economy.

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Medium-Term Management Plan
(FY12/2022 - FY12/2024)
Mission TREEING 2030　Phase 1

Positioning of the new Medium-Term Management Plan

The new Medium-Term Management Plan is Phase 1 of Mission TREEING 2030
Three years for creating a foundation aimed at future growth and contribution to decarbonization

Basic policy

(1) Efforts to address decarbonization challenges using timber resources

- Expand new businesses in Japan and abroad marketing the value of forests as a CO_2 sink
- Promote measures to boost competitiveness of domestic timber
- Expand medium- and large-scale wooden architecture business

(2) Promotion of more resilient earnings base

- Restore earnings power of Housing and Construction business and Timber and Building Materials business as well as promote reforms based on future market changes
- Boost asset efficiency

(3) Acceleration of global expansion

- Expand Housing and Real Estate business in the US and Australia and establish earnings base in Asia

(4) Strengthen management base for sustainable growth

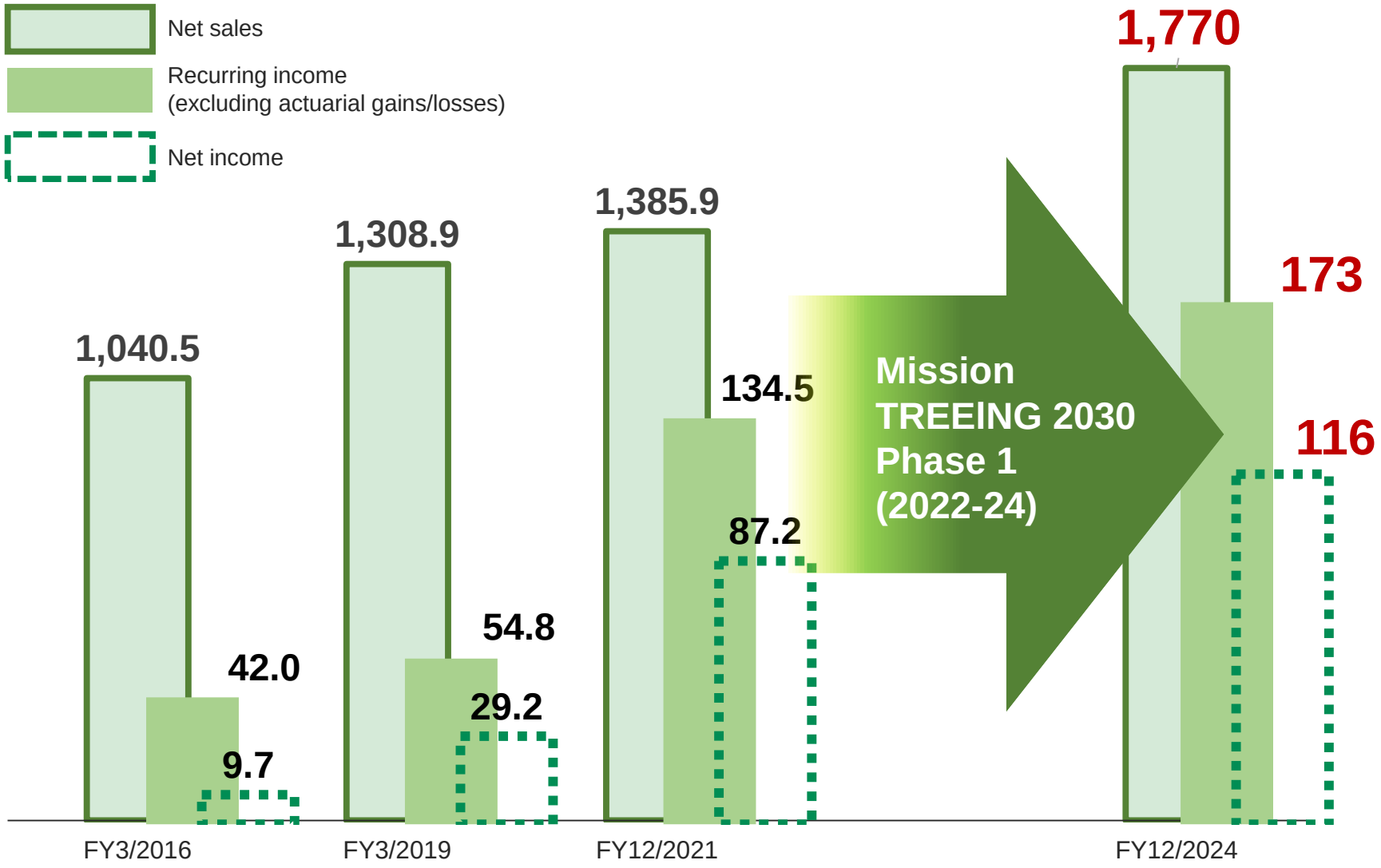
- Promote digitalization
- Secure human capital and enhance HR development, and increase employee engagement
- Reinforce risk management

(5) Further integration of business operations and ESG

- Steady implementation of measures aimed at achievement of RE100/SBT (Science Based Targets)

Performance Targets

(¥ billion)



Targets by Segment

(billion yen)	Net sales			Recurring income		
	FY12/2021	FY12/2024	YoY (%)	FY12/2021	FY12/2024	YoY (%)
Timber and Building Materials	216.9	264.0	+21.7%	10.0	11.5	+15.2%
Housing and Construction	510.9	547.0	+7.1%	19.6	32.0	+62.9%
Overseas Housing and Real Estate	644.6	954.0	+48.0%	104.3	129.0	+23.6%
Environment and Resources	22.3	26.5	+18.8%	3.9	4.0	+1.8%
Other	23.9	29.0	+21.1%	3.0	5.0	+66.0%
Adjustment	(32.7)	(50.5)	—	(3.1)	(8.5)	—
Total	1,385.9	1,770.0	+27.7%	137.8	173.0	+25.6%
Note: Excluding actuarial differences				134.5	173.0	+28.6%

Targets by Segment

Timber and Building Materials

- Rebuild overseas Manufacturing business
- Invest in new businesses that can become a future pillar of our business portfolio (domestic timber manufacturing including timber industrial complex, decarbonization business, and DX, etc.)

Overseas Housing and Real Estate

- Continue to grow the Housing and real estate development business in the US, Australia and Asia
- Commercialize medium- and large-scale wooden architecture business in non-residential segments in all markets including Europe

Housing and Construction

- Increase market share and streamline construction in custom-built housing business
- Expand spec homes business, non-residential business, and renovation business

Environment and Resources

- Expand forest management area in Japan and abroad

Other

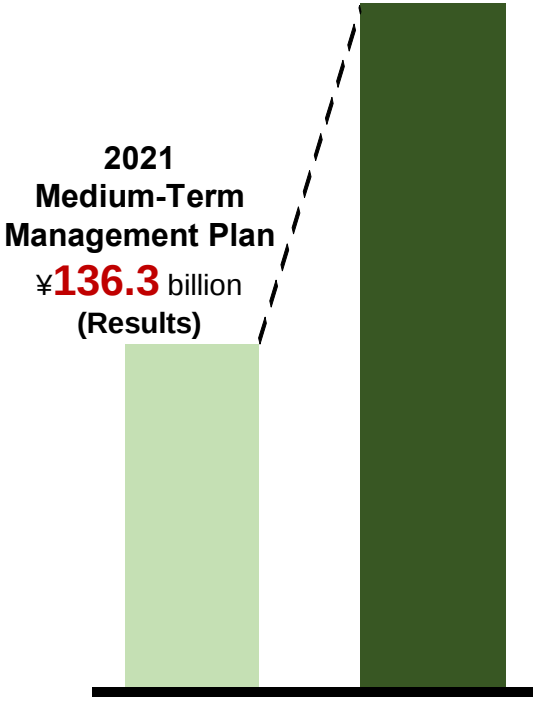
- Continue stable operation of nursing care business, etc.

Investment Plan

Aim for greater business growth by promoting growth investments including in decarbonization related sectors

Medium-Term Management Plan 3-year total

Approx. ¥300 billion



Main decarbonization related investments

Forest funds Related investments	Timber industrial complex Investments	Overseas wooden non-residential Investments
¥12 billion	¥20 billion	¥30 billion

Timber and Building materials	Manufacturing, etc.	**Approx. ¥35 billion**
Overseas Housing and Real Estate	Overseas real estate and residential land development, etc.	**Approx. ¥130 billion**
Housing and Construction	Model homes, offices, etc.	**Approx. ¥25 billion**
Environment and Resources	Forest and afforestation investment, etc.	**Approx. ¥30 billion**
Other	System investments (promotion of DX), etc.	**Approx. ¥15 billion**

Capital policy and return to shareholders

Efficiency

ROE

Consistently

15% or higher

(Trailing 3-year average: 12%)

Stable

Equity ratio

40% or higher

(Result for FY12/2021: 37.7%)

Return to shareholders

Dividends per share (annual)

FY12/2021 full-year (planned)

80 yen

FY12/2022 full-year (forecast)

80 yen

	FY3/2017	FY3/2018	FY3/2019	FY3/2020	FY12/2020 *1	FY12/2021	Forecast for FY12/2022
Dividend (yen)	35	40	40	40	35	80	80
Net income (billions of yen)	34.5	30.1	29.2	27.9	30.4	87.3	86.0
Investments (billions of yen) *2	79.3	84.7	92.8	46.3	55.6	107.5	-
Net income per share (yen)	194.95	168.49	160.80	153.54	167.54	458.33	430.30

*1: FY12/2020 is an irregular nine-month fiscal year due to changes in the fiscal year-end
*2: Investment amount equals investment CF plus change in inventories balance

Overview of plan for the Housing and Real Estate Business in Japan and abroad

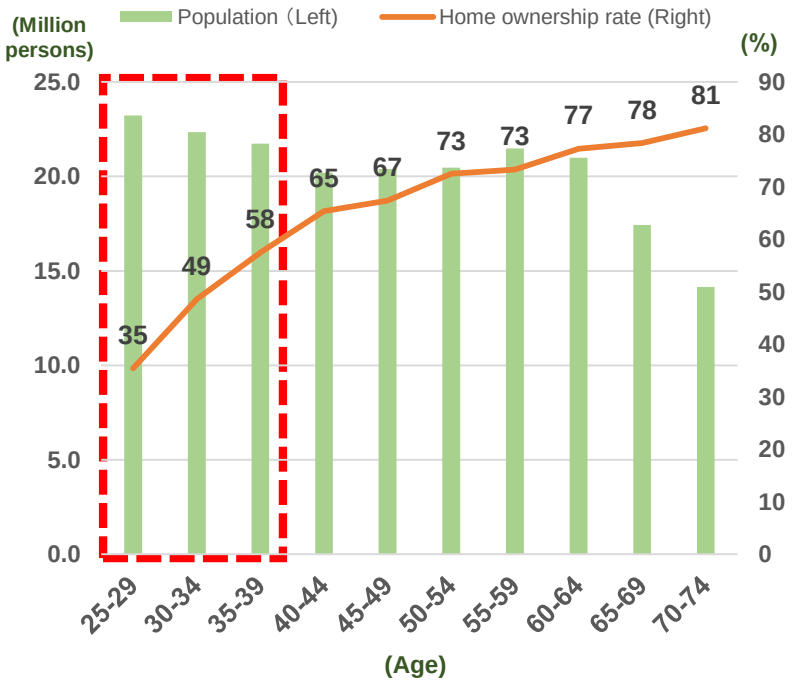
- Acquire dominant market share in custom-built detached houses in Japan using sales powered by DX
- In the US and Australia, plan to greatly increase units sales by expanding product offerings based on carefully selected land and area characteristics
- Promote development of mid- and large-scale non-residential wooden buildings in the US, Australia and Europe

Sales volume	FY12/2021 Results		FY12/2024 Target
Housing in Japan (units)	9,711	⇨	9,750
Housing in the US (units)	11,230	⇨	16,000
Housing in Australia (units)	3,169	⇨	4,000
Total (units)	14,399	⇨	**20,000**

US market environment

The US housing market is expected to see stable and continuous demand underpinned by a rising population of new home buyers, such as Millennials and Generation Z, and inventory shortages of resale homes

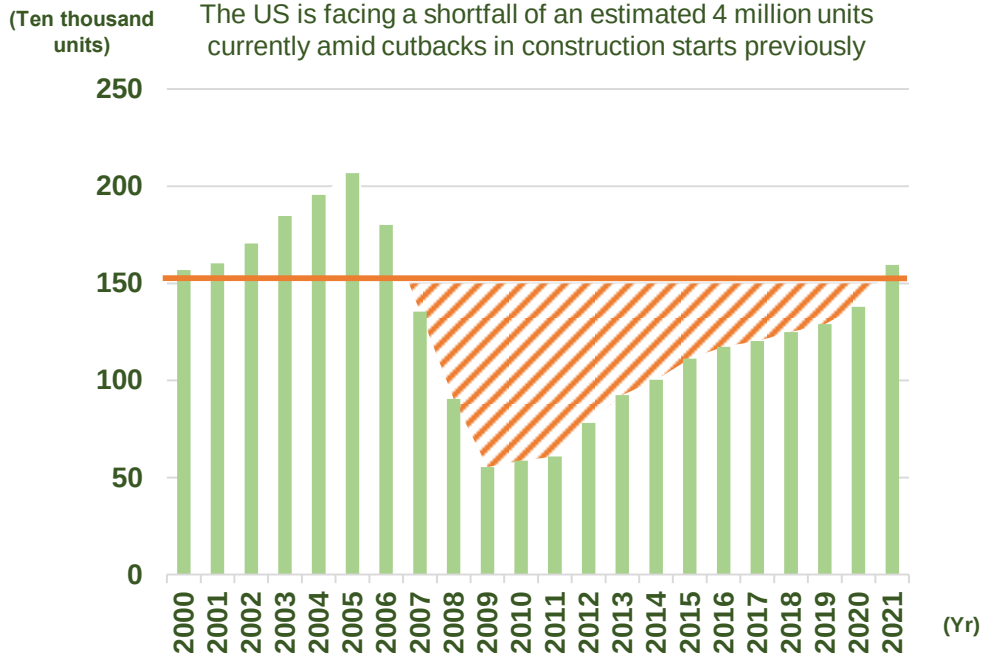
US population by age and home ownership rate



Source: U.S. Census Bureau Population: 2019 Home ownership rate as of Q4 2021

New housing starts in US

The US is facing a shortfall of an estimated 4 million units currently amid cutbacks in construction starts previously



Source: U.S. Census Bureau

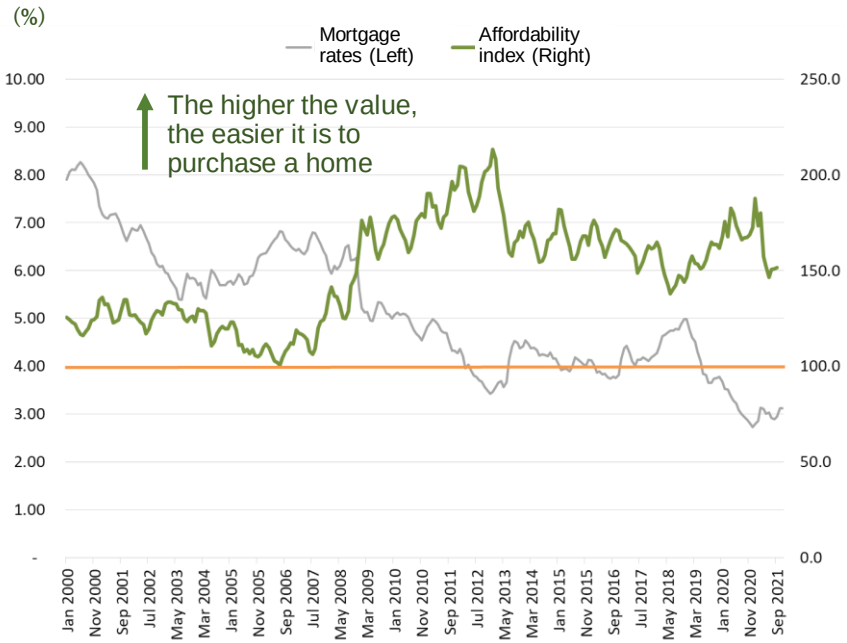
US market environment

Affordability remains sufficiently sound

* 100 represents an equilibrium between household income and annual income required to pay the mortgage

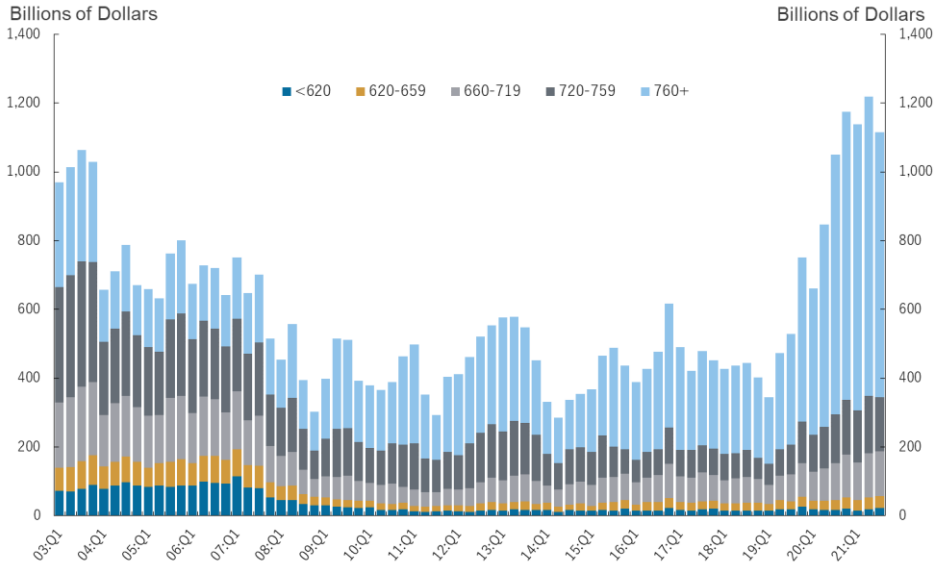
Generally a sound market as the ratio of subprime loans (credit score under 670) is very small

Mortgage rates and Housing Affordability Index



Source: NAR

Executed mortgage volume by credit score

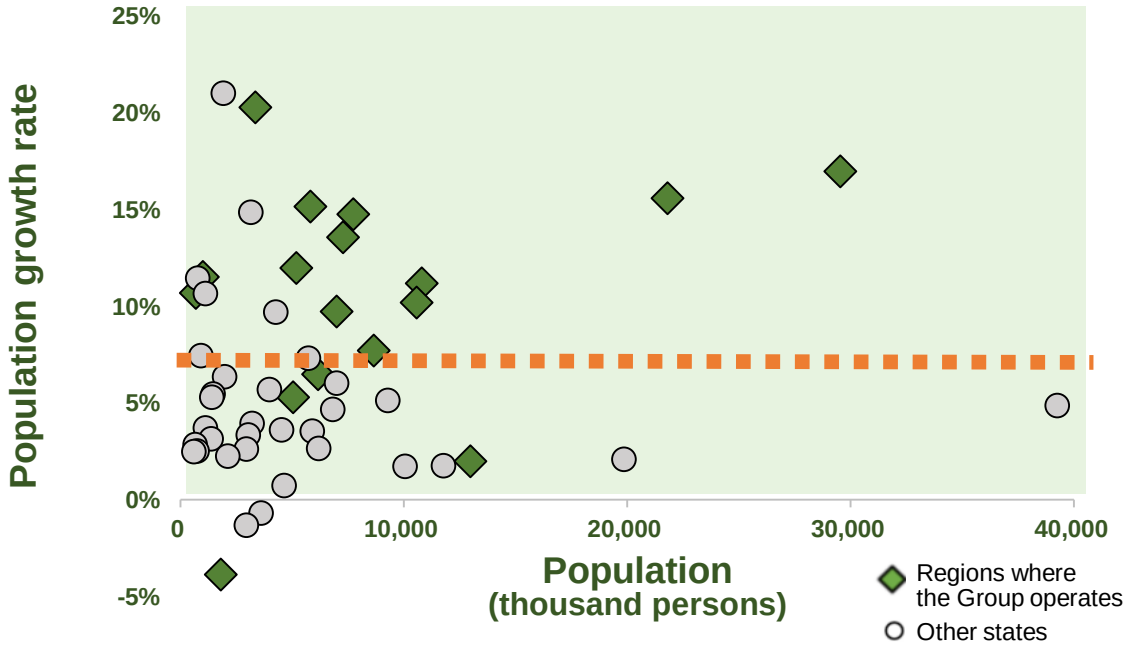


Source: New York Fed Consumer Credit Panel/Equifax

US market environment

The population growth rate of regions where the Group operates is higher than the national average and these markets are expected to grow going forward

Population growth rate of regions where the Group operates in the US (*1)



*1: Population growth rate comparing 2010 to 2021 (estimates as of April 2020)

Source: Prepared by the Company based on U.S. Census data

Detached housing business coverage (*2)
(14 states and Washington D.C.)
11.5%

Real estate development business coverage (*3)
(9 states and Washington D.C.)
14.6%

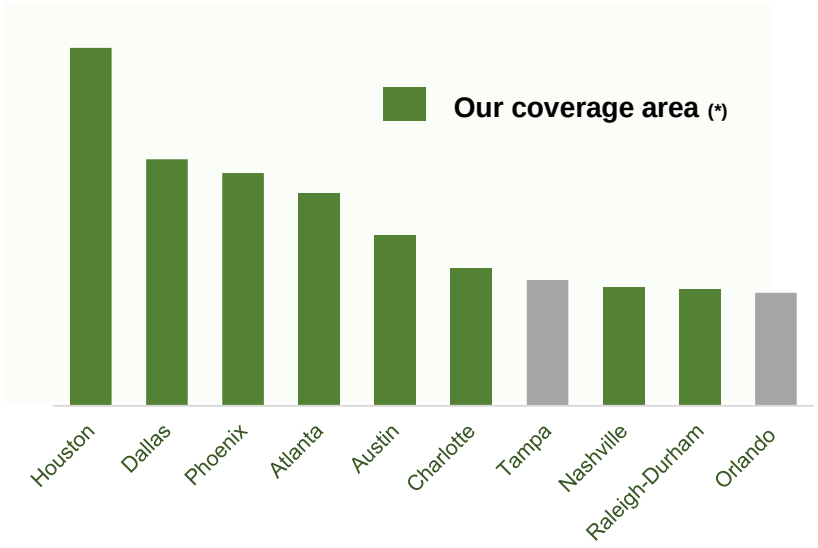
National average: 7.5%

*2: 5 detached homebuilders' coverage
*3: Crescent's coverage
(As of December 31, 2021)

US market environment

Presence in 8 of the top 10 cities in building permits

Top 10 in building permits (by US city)

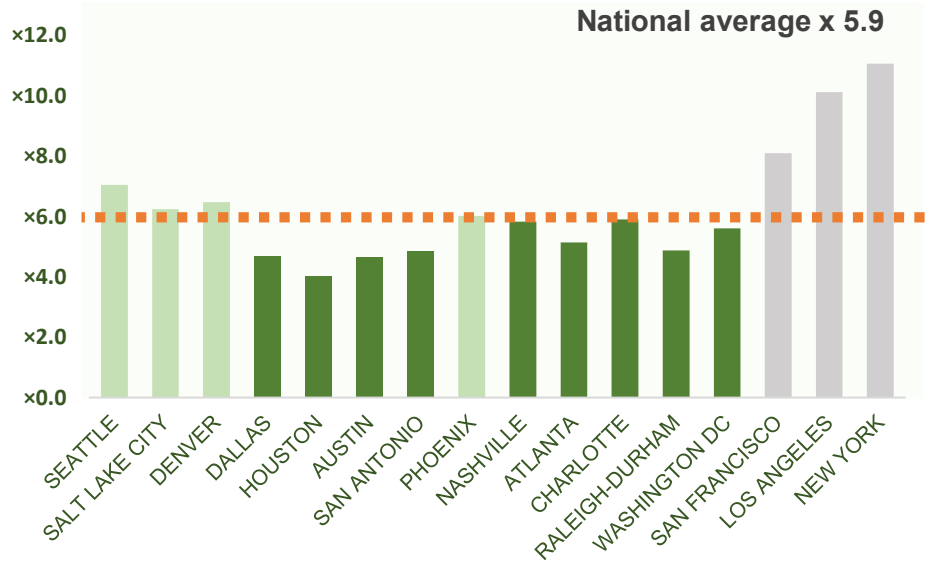


* 5 US detached homebuilders

Source: Prepared by the Company based on U.S. Census data
November 2021 (trailing 12-month running total)

High affordability in coverage area

Detached house price to income ratio in our coverage area (*)



* 5 US detached homebuilders and Crescent

Source: Prepared by the Company based on U.S. Census data
As of December 2021

Strategy of detached housing business in the US

Growth strategy

- Moving assets off balance sheet using joint ventures and land banks, etc.
- Enter integrated business spanning from manufacture of structural panels to framing work
- Grow contract business for detached houses for rent

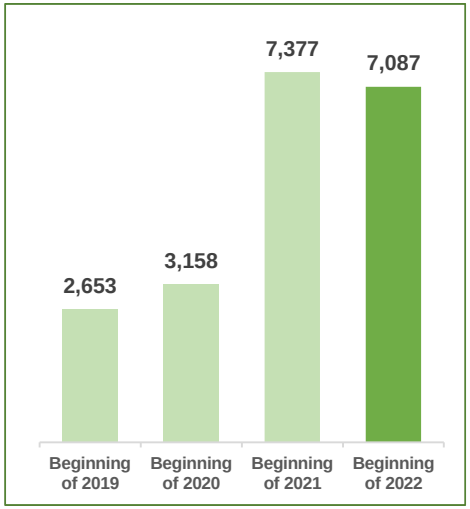
Balance of real estate for sale in the US

¥333.4 billion → ¥550 billion

Maintain ROA* of 20 % or higher

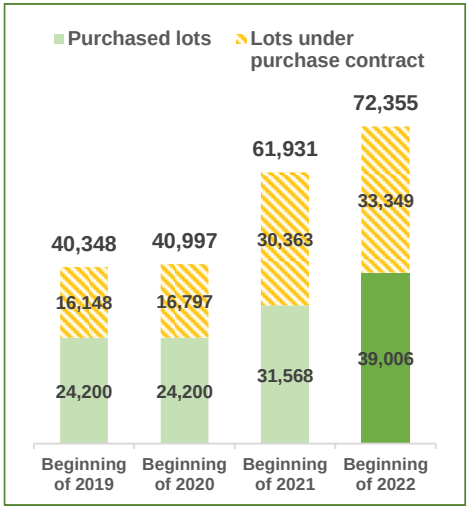
*Simple total for 5 US homebuilders

Abundant beginning-of-period backlog of orders(units)



Purchased lots and lots under purchase contract land type

(Total for purchased lots and lots under purchase contract)



<Reference>

	Simple total for 5 US homebuilders		Simple average for 4 largest listed homebuilders in US
	FY12/2020 results	FY12/2021 results	FY2021 results
ROA	24%	29%	23%
Real estate investment turnover (days)	197	178	197

* Real estate investment turnover (days) equals average balance of real estate for sale for two periods divided by net sales for the current year multiplied by 365 days

* ROE equals profit before income tax and other adjustments divided by average total assets for two periods

Strategy of real estate development business in US

Growth strategy

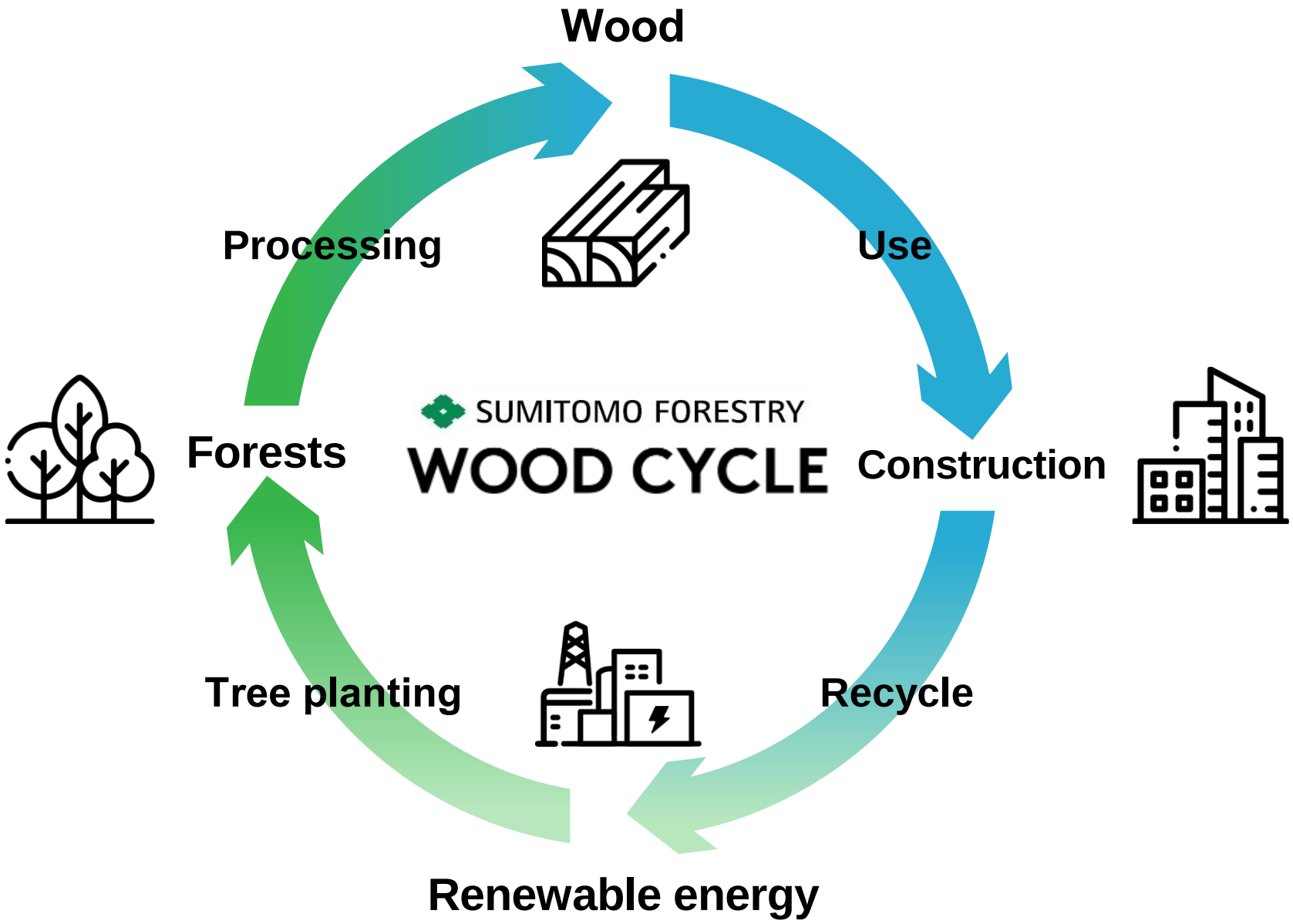
- **Full-fledged expansion of Build-to-Rent development business**
- **Acquire environmental certifications and continue development considerate of local communities**

Crescent's new build-to-rent units

3 year running total (2022-24)

1,700 units

Sumitomo Forestry's Wood Cycle



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Happiness Grows from Trees

SUMITOMO FORESTRY