

Chapter III

Wood Product Demand and Use of Wood

1. Supply and Demand for Wood

(1) Global Wood Supply and Demand

In 2021, the global consumption of industrial roundwood increased by 2% from the previous year to 2,018 million m³.

The total volume of industrial roundwood imports in the world increased by 3% from the previous year to 143 million m³. China was the world's largest industrial roundwood importer in 2021, accounting for 44% of global imports of industrial roundwood.

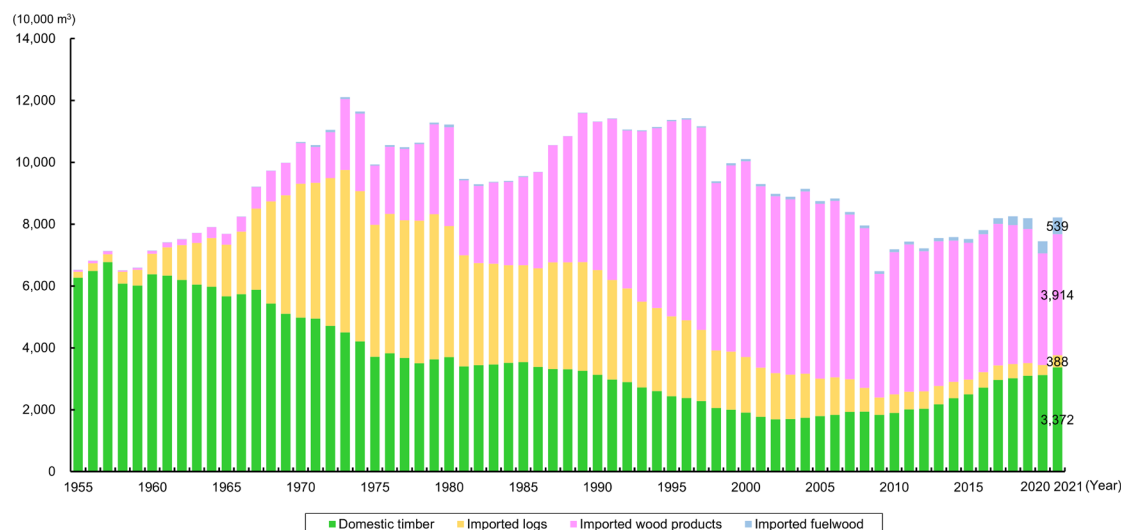
In 2021, the global production of sawn wood increased by 2% from the previous year to 494 million m³. The total volume of sawn wood imports in the world increased by 4% to 150 million m³. China was also the world's largest sawn wood importer in 2021, accounting for 22% of global imports of sawn wood.

(2) Wood Supply and Demand in Japan

Japan's wood demand bottomed out in 2009 and has since recovered. The total wood product demand in Japan in 2021 was 82.13 million m³ (roundwood equivalent), which was a 10.3% increase from the previous year.

The domestic wood supply bottomed out in 2002 and has since recovered. It was 33.72 million m³ in 2021, which was an 8.3% increase from the previous year (Fig. III-1).

The volume of imported wood in 2021 was 48.41 million m³, which was an 11.8% increase from the previous year, due to an increase in the imports of wood products (Fig. III-1).



Source: Forestry Agency "Wood Supply and Demand Chart"

Fig. III-1 Wood supply in Japan

(3) Wood Prices

The prices of domestic roundwood and sawn wood products increased significantly in 2021 due to a shortage of imported materials as the demand recovered with the post-COVID-19

economic recovery. The prices have been declining since 2022. On the other hand, domestic wood chip prices have been flat.

(4) Addressing Illegal Logging

The Clean Wood Act, enforced in 2017, stipulates that all business entities must endeavor to use legally harvested wood and wood products, and that Wood-related Business Entities in particular shall confirm the legality of the wood and wood products they handle.

Wood-related Business Entities that properly and reliably take measures for ensuring the use of legally harvested wood and wood products may apply to a registering organization to obtain registration as a “Registered Wood-related Business Entities”. As of March 2023, 609 entities have been registered.

To further encourage the distribution of legal wood, the GOJ submitted a revised proposal of the Clean Wood Act to the Diet in February 2023, where Wood-related Business Entities engaged in business, such as processing, exporting, and importing wood, are obligated to confirm the legality.

The GOJ supports the establishment of legal and sustainable supply chain in wood producing countries through the contribution to ITTO. Japan has joined the Experts Group on Illegal Logging and Associated Trade (EGILAT) of Asia-Pacific Economic Cooperation (APEC), which shares information and exchanges views regarding measures to combat illegal logging.

2. Wood Use

(1) Significance of Wood Use

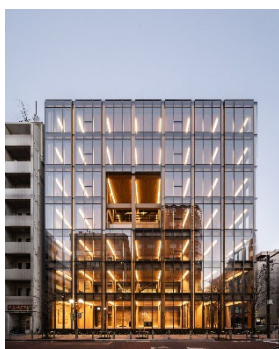
Wood use in buildings can store carbon absorbed by forests for a long time. Wood that is not suitable for material use can be utilized as a carbon-neutral energy source to replace fossil fuels.

Wood use in buildings contributes to reducing construction-related carbon dioxide emissions since wood consumes less energy than other materials during manufacturing and processing. In addition, wood provides a comfortable and healthy indoor environment since it has humidity control function, high thermal insulation properties, and positive physiological and psychological effects.

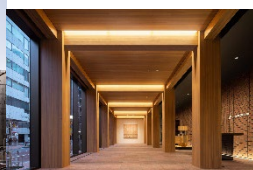
(2) Wood Use in Buildings

In Japan, about 80% of low-rise (up to three stories) residential buildings are wooden on the basis of new building starts floor area. However, wooden buildings account for less than 10% of mid-to-high-rise (four stories and above) buildings and non-residential ones.

In recent years, as the technical and institutional environment for the use of wood has been developed to a certain extent, there is a growing number of leading examples of mid-to-high-rise and non-residential buildings with wooden structures (Fig. III-2). The Forestry Agency has been supporting the development of fire-resistant wooden materials and CLT in collaboration with other ministries and agencies. To further expand the use of wood, the public and private sectors are collaborating in examining challenges and solutions in wood use.



Head office building of JUTEC Corporation
(© JUTEC Corporation)



TOKUSHIMA WOODEN TOY MUSEUM
(© Tokushima Prefecture)

Fig. III-2 Examples of wood use in buildings

(3) Use of Woody Biomass

Use for New Material

High value-added products including lightweight, high-strength cellulose nanofibers (CNF) and heat-resistant, processible glycol lignin are being developed as ways to utilize woody biomass for materials. As for CNF, manufacturing facilities are under operation in various places, and some products using CNF have been put into practical use, including athletic shoes and paint.

Lignin is expected to be utilized for high-value-added materials, and development for applying glycol lignin to products is underway.

Use for Energy

The quantity of woody biomass for energy use has been increasing recently. Japan's fuelwood consumption including wood chips, wood pellets, firewood, and charcoal in 2021 increased by 15.1% from the previous year to 14.74 million m³. The increase was mainly caused by a boom in woody biomass power plants.

The Forestry Agency is promoting the transportation and utilization of low-quality wood that has not been utilized. It is also encouraging heat-use and cogeneration, which has higher energy conversion efficiency.

(4) Spread of the Use of Wood among Consumers

The Forestry Agency has been promoting the Kizukai Undo (attention to wood use) initiative to disseminate the importance of wood use among consumers, including through the Japan Wood Design Award which acknowledges outstanding wood products and related activities that contribute to the re-discovery of the excellence and value of wood from the consumers' viewpoints.

The Forestry Agency has also been promoting "Mokuiku" (wood use education) activities to disseminate the excellence and significance of wood use among both adults and children.

3. Wood Industry

(1) State of the Wood Industry

The added value amount of lumber and the wood industry has been increasing in recent

years. In 2020, the value rose to 888 billion yen, which was an increase of 1.7% from the previous year.

(2) Strengthening the Competitiveness of the Wood Industry

The scaling-up and consolidation of sawmills and plywood mills are progressing to stabilize the supply of products with reliable quality and performance at low cost in order to strengthen global competitiveness.

In order to strengthen local competitiveness of small and medium-sized sawmills, the Forestry Agency promotes their initiatives to produce a wide range of products, as well as to collaborate with local log producers, local builders, and other stakeholders to meet the needs of local communities.

In addition, it is essential to establish a supply system for Japanese Agricultural Standards (JAS) products of reliable quality and performance. The MAFF is working to rationalize the classification and criteria of the JAS in line with actual usage conditions, as well as supporting demonstrative use of JAS structural wood products.

(3) Development and Dissemination of Products and Technologies toward Utilization of Japan's Forest Resources

The Forestry Agency is promoting; 1) the development and dissemination of milling and drying technologies for large-diameter logs, the supply of which is expected to increase as Japan's forest resources grow; 2) the standardization of dimensions of CLT panels and other wood materials and the technological development of fire-resistant wooden materials in order to expand the wood use in non-residential and mid-to-high-rise buildings; and 3) the development of new products, such as softwood floorboards with increased surface hardness in order to increase demand in the fields of renovation and furniture manufacturing.

(4) Each Sector of the Wood Industry

Sawmilling Industry

Shipments of sawn wood products have remained flat in recent years. In 2021, shipments rose to 9.09 million m³, which was an increase of 10.8% from the previous year. The quantity of industrial wood received by sawmills was 16.65 million m³ in 2021.

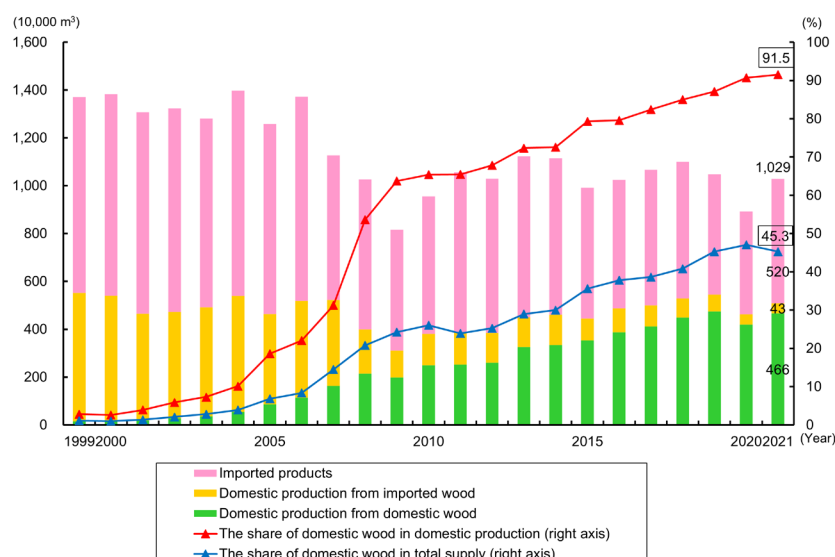
Glued Laminated Timber Manufacturing Industry

Glued laminated timber production in 2021 totaled 1.98 million m³ of which structural use accounted for 1.90 million m³. Japan's import of glued laminated timber products in 2021 stood at 0.97 million m³.

Plywood Industry

Production of plywood in 2021 was 3.17 million m³, which was an increase of 5.8% from the previous year. Most of this - 2.88 million m³ - was for structural use, while 40 thousand m³ was used as concrete formwork.

The share of domestic wood in domestic plywood production in 2021 rose to 91.5% (4.66 million m³). In 2021, the total wood supply for plywood, including imported products, was 10.29 million m³. Domestic wood accounted for 45.3% of total wood supply for plywood in Japan (Fig. III-3).



Source: Forestry Agency "Wood Supply and Demand Chart"

Fig. III-3 Supply of wood for plywood

Wood Chip Manufacturing Industry

Production of wood chips (excluding fuel use chips) in 2021 was 6.07 million tons, which was an increase of 27.7% from the previous year.

Japan's import of wood chips in 2021 totaled 11.00 million tons, accounting for 64.4% of wood chip supply in Japan.

Particle Board and Fiberboard Industry

Production of particle board in 2021 was 1.00 million m³, which was an increase of 4.4% from the previous year. Production of fiberboard in 2021 was 0.72 million m³, which was an increase of 3.6% from the previous year.

Precut Processing Industry

"Precut lumber" refers to lumber that is pre-processed into the required shapes and sizes of building components, such as posts and beams, which enables quick and easy assembling of the components onsite.

The share of precut lumber in the lumber used for the post-and-beam construction method, which is one of the main construction methods for houses in Japan, reached 94.1% in 2021.

Wood Distribution Industry

In the distribution of domestic logs in 2018, 41% was distributed through the timber market, 19% was sold to wood suppliers, while 40% was transported directly from logging sites to mills. The share of direct delivery has been increasing.

1. Roles of National Forests

(1) Distribution and Roles of National Forests

National forests occupy 7.58 million ha of land, which account for approximately 20% of the land area of Japan and approximately 30% of the total forest area. They are widely distributed in the remote mountainous areas and headwaters areas, and they play important roles in fulfillment of the multiple functions of forests, including land conservation and watershed conservation.

National Forests, which have diverse ecosystems such as planted forests and primeval natural forests, are a place for the growth and habitat of various wildlife including rare species. They also provide fields for health and recreation in forests.

(2) National Forests Management

National forests, an important asset of the country, are managed by the Forestry Agency in an integrated manner under the National Forest Management Program.

2. Specific Initiatives under the National Forest Management Program

(1) Further Promotion of Management with Emphasis on Public Benefits

The Forestry Agency manages each national forest in accordance with the five forest types categorized based on the expected functions of “mountain disaster prevention”, “nature conservation”, “recreational use”, “comfortable environment development”, and “watershed conservation”.

Ninety percent of national forests are protection forests such as watershed conservation. The Forestry Agency improves devastated land and protection forests through forest conservation projects in order to ensure safe and secure life.

The Forestry Agency designates and manages “Protected Forests” and “Green Corridors” in order to conserve biodiversity. As of March 2022, Protected Forests were designated at 661 locations covering approximately 981,000 ha of land, which accounted for 12.9% of national forest area. “Green Corridors” were formed as of March 2022 at 24 locations, covering approximately 584,000 ha of land, and accounting for 7.7% of national forest area. The Forestry Agency takes measures to protect rare species of wildlife and prevents deer and other wildlife from damaging forests.

(2) Contribution to Revitalizing Forest and Forestry

Through the organizations, technical capabilities and resources of the National Forest Management Program, the Forestry Agency is (I) developing and disseminating technologies for low-cost and effective forestry practices, such as utilization of containerized seedlings, drones and Information and Communication Technology (ICT) and an integrated harvesting and planting system; (II) establishing cooperative forest management areas to collaborate with private forests to promote development of forestry road systems and forest operations; and (III) promoting stable wood supply to lumber and plywood mills through “System Sales”.

In April 2020, the Timber Harvesting Rights System was enforced. Under this system,

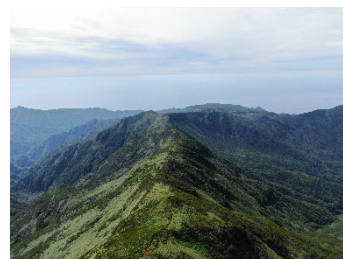
forestry management entities can acquire the right to steadily harvest trees in certain designated areas of national forests for a certain period, while ensuring multiple functions of the forest.



Primeval natural forests mainly composed of beech trees cover widely around the Kariba Mountains on the Oshima Peninsula in the southern part of Hokkaido.

The Forestry Agency designated the part of the area (approximately 2,732 ha) as the Forest Ecosystem Reserve in 1993.

After that, the Protected Forest management committee of Hokkaido National Forest Regional Office proposed to expand Protected Forests to breed black woodpeckers. In response, the Forestry Agency integrated the nearby Protected Forests and primeval beech forests surrounding them and newly designated the "Forest Ecosystem Reserve surrounding Mt. Kariba and Mt. Obira" (approximately 36,483 ha) in 2023.



Mt. Kariba
Hokkaido Shimamaki Village
Odanishikawa National Forest

(3) National Forests as “Forests for People”

The Forestry Agency provides various organizations (e.g. schools, voluntary groups, corporations, traditional woodworkers) with places for field activities such as forest environmental education and forest management practices, by designating forests for such activities within national forests. The Forestry Agency also undertakes “model projects” to manage forests in cooperation with local parties and nature conservation groups.

The Forestry Agency leases national forests to local governments and residents.

“Recreation Forests” are managed and administered in partnership with municipalities and other stakeholders in local communities such as the tourist industry. In FY2021, a total of about 120 million people visited “Recreation Forests”.

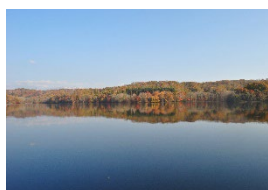
And 93 of “Recreation Forests” that have potential attractiveness as tourism resources were selected as “Japan’s Forests with Breathtaking Views” (Fig. IV-1). To encourage more people to visit these forests, the Forestry Agency has provided information on web sites in English and has improved facilities by posting multilingual signs, and intensive environmental maintenance, such as facility repairs.



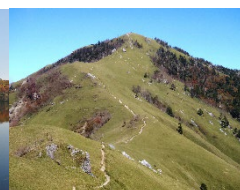
**Recreation
Forests of
JAPAN**



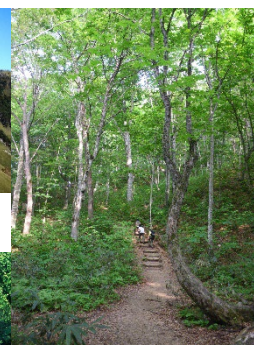
QR Code for “Japan’s Forests
with Breathtaking Views” website



**Poroto
Recreation Forest**



**Tsurugisan
Recreation Forest**



**Shirakami-Sanchi -
Anmon Falls
Recreation Forest**



**Togakushi-Omine
Recreation Forest**



**Kumamoto
Recreation Forest**

Source: Forestry Agency

Fig. IV-1 Examples of “Japan’s Forests with Breathtaking Views”

Chapter V

Reconstruction after the Great East Japan Earthquake

1. Recovery of Forests, Forestry and the Wood Industry

(1) The Great East Japan Earthquake

On March 11, 2011, the Great East Japan Earthquake, the largest earthquake ever recorded in Japan, hit the eastern part of Japan. It caused a strong earth tremor over a broad area and brought a great tsunami which devastated entire coastal communities along the eastern coast of the Tohoku region.

In July 2011, the GOJ developed the fundamental reconstruction policy, titled the Basic Guidelines for Reconstruction in Response to the Great East Japan Earthquake, setting the timeframe for reconstruction at 10 years.

In March 2021, the GOJ established “Basic Guidelines for Reconstruction from the Great East Japan Earthquake After the “Reconstruction and Revitalization Period””.

(2) Recovery of Forests

The Great East Japan Earthquake caused damages to forests and forest conservation facilities and forest roads in 15 prefectures. By FY2021, the recovery works had been completed.

Approximately 164 km of coastal disaster-prevention forests damaged by the tsunami required restoration work. The restoration work was completed on about 160km of them as of the end of March 2023. It is necessary to continue the project for growing the seedlings.

In May 2021, Iwate Prefectural Government and volunteers led by a local NPO completed tree planting in Takata Matsubara, Rikuzentakata City, Iwate Prefecture, which was damaged by the tsunami caused by the Great East Japan Earthquake.

The Prefectural Government and the NPO handle the management. The NPO is taking care of the planted area with its members and volunteers. In 2022, approximately 1,800 junior high and high school students in the prefecture participated in weeding around the growing pine trees.



Weeding in Takata Matsubara by junior high school students

(©The Association for the Preservation of Takatamatsubara)



(3) Recovery of Forestry and the Wood Industry

The Great East Japan Earthquake damaged 115 wood processing/distribution facilities and 476 non-timber forest products facilities. Distribution of plywood materials and wood chips was disrupted as large-scale plywood and paper mills along the Pacific Coast were damaged.

The restoration of 98 wood processing/distribution facilities was completed by the end of March 2014, and their operations have restarted. The production of logs and wooden products has generally recovered to the respective levels before the earthquake.

(4) Promotion of Wood Use for Reconstruction and Contribution by Forests and Forestry

More than 25% (about 15,000) of “emergency temporary houses” were constructed with wood.

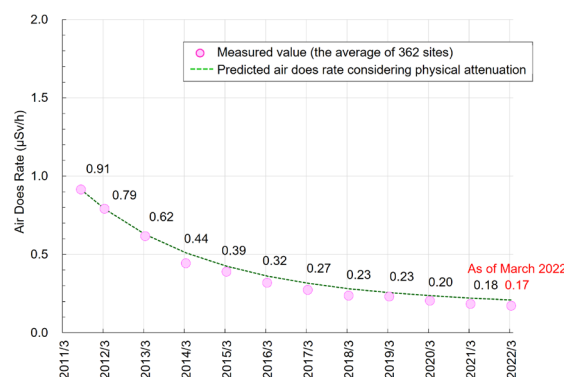
By the end of December 2020, approximately 25% of public housing built for disaster victims had been constructed with wood.

The use of wood has been promoted in the reconstruction of public buildings. Furthermore, woody biomass facilities such as power plants have been introduced in the disaster-affected prefectures, contributing to reconstruction.

2. Reconstruction after the Nuclear Accident

(1) Measures against Radioactive Substances in Forests

Air dose rate in forests in Fukushima Prefecture has been declining year by year (Fig. V-1).



Source: Forest planning division of Fukushima Prefectural Government, *the current state and prediction of radioactive materials in forests (FY 2021)*

Fig. V-1 Changes of Air Dose Rate in forests in Fukushima Prefecture

The GOJ conducts monitoring and research about trends of distribution of radioactive substances within forests.

For decontamination of the forests, the measures in the vicinity of residence had been given top priority. Based on “Comprehensive Efforts towards the Regeneration of Forests and Forestry in Fukushima” (March 2016), the Forestry Agency is undertaking comprehensive projects to implement forest management such as thinning and to deal with radioactive substances, and projects to restore “satoyama forests” around residential areas.

For ensuring safety and security against radiation for forest workers, the Forestry Agency published a guidebook for forest workers in 2016.

To supply safe wood products to consumers, the Forestry Agency supports research and analysis on radioactive materials of wood products and the relevant work environment, and initiatives to develop arrangements for certifying the safety of wood products.

The Forestry Agency has launched the “Restoration of satoyama and hardwood forest project” in cooperation with people in Fukushima Prefecture and promotes the restoration of satoyama hardwood forest for shiitake mushroom logs. Municipalities have created a plan (a restoration plan) for restoring log forests that set out the area of log forests to be regenerated, the implementation system, and other related matters. They have implemented full-scale harvesting of hardwood forests since FY2022.

(2) Supply Safe Forest Products

The GOJ set standard limits for radioactive substances in foods at 100 Bq/kg for general foods. As of March 30, 2023, 22 items of non-timber forest products have shipping restrictions.

The production of shiitake mushrooms on sawdust medium has recovered to almost the level before the Great East Japan Earthquake, but that on logs has not recovered even now.

The Forestry Agency has collected, analyzed, and provided information on the supply and demand of mushroom logs in response to the decrease in production volume in Fukushima Prefecture and other mushroom log production areas, which has affected log procurement in many prefectures.

The Forestry Agency established Guidelines Concerning Management of Log Cultivation of Mushrooms to Decrease Radioactive Cesium. Shipping restrictions on mushrooms are to be lifted when cultivation is managed based on this guideline and it has been determined that no mushrooms are produced whose radioactivity exceeds the standard limits. The Forestry Agency supports the maintenance of simple greenhouses and equipment for measuring radioactive substances, which are necessary for safe mushroom production.

Since 2021, if a system for properly managing and inspecting mushrooms and edible wild plants is developed under the shipping and inspection policy set by prefectures, it can be possible to ship the products which are confirmed not to exceed the limit for general foods by non-destructive inspection. As a result, the shipments of Matsutake mushrooms, unpeeled bamboo shoots have resumed in some restriction areas.

Appendix

1. Forestry-related Fundamental Figures

Item	Unit	2000	2005	2010	2015	2017	2018	2019	2020	2021
i Nominal gross domestic product (GDP)	billion yen	535,418	532,516	505,531	538,032	553,073	556,630	557,911	539,082	549,379
Forestry	billion yen	176	137	196	234	243	249	248	231	263
Forestry / GDP	%	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.05
ii Total number of workers	million	64.46	63.56	62.57	64.01	65.30	66.64	67.24	66.76	66.67
Forestry	million	0.07	0.06	0.08	0.07	0.06	0.07	0.08	0.06	0.06
Forestry / Total # of workers	%	0.11	0.09	0.13	0.11	0.09	0.11	0.12	0.09	0.09
iii Land area of Japan	million ha	37.79	37.79	37.80	37.80	37.80	37.80	37.80	37.80	37.80
iv Forest	million ha	25.15	25.12	25.10	25.08	25.05	25.05	25.05	25.05	25.05
Forest / Land area	%	67.5	67.4	67.3	67.3	67.2	67.2	67.2	67.2	67.2
v Protection forest	million ha	8.93	11.65	12.02	12.17	12.20	12.21	12.23	12.25	12.26
Protection forest / Forest	%	35.5	46.4	47.9	48.5	48.7	48.7	48.8	48.9	48.9
vi Growing stock of forest	billion m ³	3.5	4.0	4.4	4.9	5.2	5.2	5.2	5.2	5.2
vii Total wood supply/demand	million m ³	101.01	87.42	71.88	75.16	81.85	82.48	81.91	74.44	82.13
Domestic production	million m ³	19.06	17.90	18.92	24.92	29.66	30.20	30.99	31.15	33.72
Import	million m ³	81.95	69.52	52.96	50.24	52.19	52.28	50.92	43.29	48.41
Self-sufficiency rate	%	18.9	20.5	26.3	33.2	36.2	36.6	37.8	41.8	41.1
viii New housing starts	million units	1.23	1.24	0.81	0.91	0.96	0.94	0.91	0.82	0.86
Proportion of wooden structure	%	45.2	43.9	56.6	55.5	56.5	57.2	57.8	57.6	58.7

Sources i: Cabinet Office "Annual Report on National Accounts for 2021"

ii: Ministry of Internal Affairs and Communications "Annual Report on the Labour Force Survey"

iii: Geospatial Information Authority of Japan "The Report of Statistical reports on the land area by prefectures and municipalities in Japan"

iv, v, vi: Forestry Agency

vii: Forestry Agency "Wood Supply and Demand Chart"

viii: Ministry of Land, Infrastructure, Transport and Tourism "Housing Starts"

Note "Total wood supply/demand", "Domestic production" and "Import" in "vii" refer to the volume in roundwood equivalent.

2. Forestry Output

(Unit: billion yen)

Item	2000	2005	2010	2015	2017	2018	2019	2020	2021
Forestry output	531.15	417.05	425.70	454.47	486.02	501.73	497.28	483.06	545.66
Wood production	322.18	210.50	195.29	234.08	256.09	264.83	270.00	246.43	325.41
Softwood	265.33	177.41	170.16	198.19	206.06	209.99	213.01	179.02	251.70
Sugi (Japanese cedar)	123.78	87.53	93.50	118.09	122.68	126.44	127.43	107.39	147.26
Hardwood	54.72	31.71	23.76	19.51	18.40	18.42	16.95	15.82	15.25
Firewood and charcoal production	6.16	6.09	5.08	5.31	5.44	5.54	5.81	5.96	6.23
Grown mushroom production	196.89	198.50	218.91	210.52	219.76	225.37	216.67	225.96	209.16
Minor forestry products production	5.92	1.96	6.42	4.55	4.74	5.99	4.80	4.71	4.86
Forestry income produced	351.91	245.78	229.22	251.02	269.40	266.45	264.35	253.57	286.45

Source Ministry of Agriculture, Forestry and Fisheries (MAFF) "Forestry Output"

Notes 1. "Wood production" includes the output of wood chips for fuel since 2011.

2. "Softwood" in wood production includes output of other softwood and wood for pulp.

3. "Firewood and charcoal production" includes the output of bamboo charcoal and charcoal dust since 2001.

4. "Grown mushroom production" includes the output of eryngii mushrooms and other varieties of grown mushrooms since 2001.

5. "Minor forestry products production" includes the output of Japan wax and Japanese lacquer since 2002,

the output of wild grass (wild vegetables and wild herbs) since 2010 and the output of gibier since 2016.

6. Due to rounding, some totals may not correspond with the sum of the separate figures.

3. Current State of Forest Resources

(Unit: 1,000 ha, million m³)

Classification			Total		Standing timber area (canopy cover more than 30%)				Treeless land (canopy cover less than 30%)		Bamboo groves
					Planted forest		Natural forest				
			Area	Growing stock	Area	Growing stock	Area	Growing stock	Area	Growing stock	
Total			25,048	5,241.50	10,204	3,308.42	13,481	1,932.45	1,197	0.64	167
National forest	Subtotal		7,659	1,225.93	2,288	513.04	4,733	712.45	637	0.44	0
	Under the Forestry Agency's jurisdiction	Subtotal	7,593	1,220.72	2,282	512.03	4,682	708.24	629	0.44	0
		State-owned	7,508	1,201.28	2,208	492.83	4,680	708.01	620	0.44	0
		Government reforestation	85	19.44	73	19.21	2	0.23	10	0	-
		Other	0	0	-	-	-	-	0	0	-
	Under other Agencies' jurisdiction		65	5.21	7	1.00	51	4.20	8	-	0
Private and public forest	Subtotal		17,389	4,015.57	7,916	2,795.38	8,747	1,220.00	560	0.19	167
	Public forest	Subtotal	2,995	615.56	1,334	397.05	1,531	218.36	124	0.15	6
		Prefecture	1,292	252.69	529	145.59	709	107.01	53	0.09	1
		Municipality/Property ward	1,702	362.87	804	251.47	822	111.35	71	0.06	5
	Private forest		14,347	3,394.33	6,569	2,395.55	7,188	998.74	431	0.04	158
	Others		48	5.68	13	2.78	28	2.90	5	0	3

Source Forestry Agency

Notes 1. Data cover the forests defined in Article 2 of the Forest Act.

2. "Others" refers to forests that are not subject to the "Regional Forest Plans" for non-national forest under Article 5 of the Forest Act, and for national forest under Article 7-2 of the Forest Act.

3. Figures are as of March 31, 2017.

4. Symbol of "-" means "not applicable".

5. Due to rounding, some totals may not correspond with the sum of the separate figures.

4. Planted Area by Tree Species

(Unit: ha)

	Total	Softwood					Hardwood
		Sugi (Japanese cedar)	Hinoki (Japanese cypress)	Matsu (Pine)	Karamatsu (Japanese larch)	Other	
2000	(31,316)	(8,223)	(11,574)	(233)	(2,524)	(4,954)	(3,808)
	28,480	7,967	10,745	223	2,493	4,014	3,038
2005	(25,584)	(5,216)	(7,096)	(226)	(3,534)	(5,728)	(3,784)
	22,498	5,011	6,307	183	3,423	4,611	2,963
2010	(18,756)	(4,132)	(2,820)	(247)	(4,604)	(4,265)	(2,688)
	16,388	3,844	2,262	237	4,418	3,381	2,246
2015	(19,429)	(5,537)	(2,039)	(185)	(4,467)	(5,250)	(1,950)
	16,607	5,390	1,930	168	4,027	3,450	1,642
2017	(22,069)	(7,102)	(1,979)	(406)	(5,388)	(5,423)	(1,771)
	19,866	6,845	1,874	388	5,179	4,110	1,471
2018	(21,568)	(6,899)	(1,845)	(277)	(5,486)	(5,106)	(1,956)
	19,340	6,597	1,760	272	5,165	3,799	1,747
2019	(22,788)	(7,189)	(1,821)	(311)	(6,466)	(5,046)	(1,954)
	20,562	7,005	1,745	308	6,139	3,692	1,673
2020	(22,777)	(7,571)	(1,894)	(309)	(6,681)	(4,412)	(1,910)
	20,686	7,359	1,738	294	6,198	3,445	1,653
2021	(23,015)	(8,207)	(2,230)	(249)	(6,662)	(3,760)	(1,906)
	20,266	7,477	1,798	210	6,271	2,901	1,609

Source Forestry Agency

Notes 1. Figures do not include national forest.

2. Figures in parentheses refer to the total area which includes area planted as lower layer of multi-layered forest.

5. Planted Forest Area by Age Classes

(Unit: 1,000 ha)

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
1985	604	895	1,263	1,691	1,762	1,569	947	337	240	205	178	137	111	83	148					
1989	436	700	943	1,351	1,691	1,746	1,413	777	270	224	183	151	118	93	79	52	62			
1994	278	421	699	937	1,336	1,686	1,719	1,388	735	262	213	172	139	112	86	67	105			
2001	131	226	350	589	874	1,149	1,599	1,677	1,522	946	353	204	171	144	112	89	62	52	70	
2006	88	168	227	352	593	873	1,143	1,582	1,649	1,500	918	345	200	168	141	106	90	62	120	
2011	73	114	159	231	347	584	852	1,111	1,565	1,631	1,473	921	345	194	164	138	105	87	174	
2016	68	102	114	164	224	348	582	846	1,108	1,529	1,592	1,428	893	340	190	162	135	104	86	172

Source Forestry Agency

Notes 1. Figures are as the end of each fiscal year.

2. For the year 1985, the class XV contains forests older than that class. For the years 1989 and 1994, the class XVII contains forests older than that class. For the years 2001, 2006 and 2011, the class XIX contains forests older than that class. For the year 2016, the class XX contains forests older than that class.

3. Data cover the forests defined in Article 5 or Article 7-2 of the Forest Act.

6. Thinned Area and Use of Thinnings

(FY)	Thinned area (1,000 ha)			Volume of thinnings used (million m ³)					
	Total	Private and public forest	National forest	Total	Private and public forest				National forest
					Subtotal	Sawnwood	Roundwood	Others	
2010	556	445	110	6.65	4.43	2.70	0.42	1.31	2.22
2012	488	368	121	7.59	5.21	3.00	0.36	1.86	2.38
2013	521	400	121	8.11	5.65	3.23	0.44	1.97	2.46
2014	465	339	126	7.69	5.21	2.91	0.33	1.97	2.47
2015	452	341	112	8.13	5.65	2.97	0.35	2.32	2.48
2016	440	319	121	8.23	5.76	2.95	0.30	2.51	2.47
2017	410	304	106	8.12	5.56	2.75	0.28	2.53	2.56
2018	370	269	101	7.46	4.94	2.37	0.25	2.32	2.52
2019	365	268	98	7.68	5.21	2.53	0.30	2.37	2.47
2020	357	261	96	7.29	4.79	2.26	0.28	2.25	2.50
2021	365	269	96	7.82	5.00	2.45	0.30	2.25	2.82

Source Forestry Agency

Notes 1. Volumes are in roundwood equivalent.

2. "Sawnwood" means the wood such as wood building materials and wood packaging materials.

3. "Roundwood" means the wood such as scaffolding timber and stakes.

4. "Others" includes the wood such as wood chip and wood powder (sawdust).

5. Due to rounding, some totals may not correspond with the sum of the separate figures.

7. Forest Area by Owners

	2015		2020	
	Forest area (ha)	Proportion of total area (%)	Forest area (ha)	Proportion of total area (%)
Total	17,626,761	100.0	17,616,863	100.0
Private	13,563,827	77.0	13,560,696	77.0
Public	3,370,380	19.1	3,407,898	19.3
Prefecture	1,271,571	7.2	1,310,110	7.4
Public corporation	391,189	2.2	351,519	2.0
Municipality	1,406,063	8.0	1,434,838	8.1
Property ward	301,557	1.7	311,431	1.8
Incorporated Administrative Agencies	692,554	3.9	648,269	3.7

Source MAFF "Census of Agriculture and Forestry"

Notes 1. Due to rounding, some totals may not correspond with the sum of the separate figures.

2. "Incorporated Administrative Agencies" include Independent Administrative Agencies, National University Corporations and Special Corporations.

8. Number of Forestry Management Entities and their Forest Areas (Unit: entity, ha)

	Total		Less than 3 ha		3-5 ha		5-20 ha		20-50 ha		50-100 ha		100 ha or more	
	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area	Number	Area
Total	34,001	3,322,691	1,520	628	6,236	22,979	15,220	148,280	6,045	176,477	2,151	142,598	2,829	2,831,728
Corporation	4,093	1,245,256	983	210	201	757	765	8,398	611	19,542	423	29,441	1,110	1,186,908
Private company	1,994	663,822	656	114	90	322	372	3,868	270	8,221	143	9,562	463	641,736
Cooperative	1,608	314,120	271	87	65	256	268	3,229	267	8,842	229	16,117	508	285,588
Agricultural cooperative	47	15,354	-	-	1	3	4	40	8	298	4	283	30	14,730
Forest owners' cooperative	1,388	212,763	238	87	51	198	229	2,751	234	7,702	209	14,682	427	187,343
Other cooperatives	173	86,003	33	-	13	55	35	438	25	842	16	1,152	51	83,516
Other corporations	491	267,314	56	8	46	179	125	1,301	74	2,480	51	3,763	139	259,583
Non-corporation	29,080	723,038	536	417	6,031	22,207	14,399	139,244	5,374	154,949	1,648	107,263	1,092	298,959
Individual	27,776	616,223	494	398	5,883	21,634	13,940	134,299	5,093	146,131	1,484	95,694	882	218,067
Public	828	1,354,397	1	1	4	15	56	638	60	1,986	80	5,894	627	1,345,862

Source MAFF "2020 Census of Agriculture and Forestry"

Notes 1. The symbol "-" means "not applicable".

2. "Forestry management entities" corresponds to one of the followings. The entities (I) own more than 3 hectares of forest, and also have conducted forestry or have established a "Forest Management Plan" for the past five years, (II) have been entrusted with forestation or (III) have harvested more than 200 m³ of logs for the past one year through the entrustment and the purchase of standing trees.

9. Roundwood Production (Unit: 1,000 m³)

		2000	2005	2010	2015	2017	2018	2019	2020	2021	Relative change from the previous year (%)
Total		17,034	16,166	17,193	20,049	21,408	21,640	21,883	19,882	21,847	9.9
By tree species	Subtotal	13,707 (80)	13,695 (85)	14,789 (86)	17,815 (89)	19,258 (90)	19,462 (90)	19,876 (91)	18,037 (91)	20,088 (92)	11.4
	Sugi (Japanese cedar)	7,671	7,756	9,049	11,226	12,276	12,532	12,736	11,663	12,917	10.8
	for sawnwood	7,258 <57>	6,737 <58>	6,695 <63>	7,869 <66>	8,200 <65>	8,237 <66>	8,582 <67>	7,841 <68>	8,630 <67>	10.1
	Hinoki (Japanese cypress)	2,273	2,014	2,029	2,364	2,762	2,771	2,966	2,722	3,079	13.1
	Akamatsu (Japanese red pine), Kuromatsu (Japanese black pine)	1,034	783	694	779	641	628	601	570	529	▲ 7.2
	Karamatsu (Japanese larch), Ezomatsu (Yezo spruce), Todomatsu (Sakhalin fir)	2,410	2,910	2,816	3,268	3,380	3,366	3,405	2,940	3,183	8.3
	Other	319	232	201	170	198	165	168	142	380	167.6
	Hardwood	3,327 (20)	2,471 (15)	2,404 (14)	2,236 (11)	2,153 (10)	2,178 (10)	2,007 (9)	1,845 (9)	1,759 (8)	▲ 4.7
	Sawnwood	12,798 (75)	11,571 (72)	10,582 (62)	12,004 (60)	12,632 (59)	12,563 (58)	12,875 (59)	11,615 (58)	12,861 (59)	10.7
By use	Plywood	138 (1)	863 (5)	2,490 (14)	3,356 (17)	4,122 (19)	4,492 (21)	4,745 (22)	4,195 (21)	4,661 (21)	11.1
	Chips	4,098 (24)	3,732 (23)	4,121 (24)	4,689 (23)	4,654 (22)	4,585 (21)	4,263 (19)	4,072 (20)	4,325 (20)	6.2

Source MAFF "Wood Supply and Demand Report"

Notes 1. Figures in parentheses refer to the percentage of each to total volume.

2. Figures in angle brackets refer to the percentage of Sugi for sawnwood to the volume for sawnwood of all species.

3. Roundwood Production excludes forest residue.

4. Total figures is the sum of "Sawnwood", "Plywood", and "Chips".

5. Due to rounding, some totals may not correspond with the sum of the separate figures.

6. Production of roundwood for LVL is added to "Plywood" since 2017.

10. Wood Supply and Demand Chart (roundwood equivalent)

(Unit: 1,000 m³)

Demand Supply		Demand						Domestic consumption						Export																																										
		Industrial use			Wood for mushroom production			Fuel wood			Total			Subtotal			Sawnwood			Plywood			Pulp and chips			Other			Subtotal			Roundwood			Sawnwood			Plywood			Pulp and chips			Other			Subtotal			Charcoal			Firewood			Wood chips for fuel
Supply	Total	(20,065)	(7,210)	82,130	67,142	(7,210)	28,743	1,926	246	(12,855)	14,742	(12,855)	(20,065)	(7,210)	78,879	63,895	25,844	10,056	27,529	466	246	(12,855)	14,738	725	62	(12,855)	3,251	3,247	1,459	335	237	1,214	2	4	2	0	2																			
		Industrial use	(7,210)	(7,210)	27,845	27,845	5,093	4,600	1,877				(7,210)	(7,210)	24,598	24,598	15,941	4,856	3,385	416						3,247	3,247	1,459	335	237	1,214	2																								
			Forest residue	161	161									161	161																																									
	Wood for mushroom production	39,136	39,136	9,903	5,201	23,983	49						39,136	39,136	9,903	5,201	23,983	49																																						
		Import	246							246			246																																											
	Fuel wood	(12,855)											(12,855)																																											
		14,742											14,742																																											
	Domestic production	Total	33,721	24,127	12,861	4,661	4,744	1,862	246	9,348	30,476	20,886	12,526	4,430	3,529	401	246	9,344	50	57	9,237	3,241	3,241	1,459	335	231	1,214	2	4	2	0	2																								
			Industrial use	23,966	23,966	12,861	4,661	4,583	1,862			20,725	20,725	12,526	4,430	3,368	401										3,241	3,241	1,459	335	231	1,214	2																							
				Forest residue	161	161							161	161																																										
Wood for mushroom production		246						246									246																																							
		Fuel wood	9,348							9,348	9,344							9,344	50	57	9,237	4	6	6	0	6																														
Import		Total	48,409	43,015	13,318	5,633	24,000	65		5,394	48,403	43,009	13,318	5,627	24,000	65		5,394	676	4	4,714	6	6	0	6																															
			Industrial use	3,879	3,879	3,415	432	17	15			3,873	3,873	3,415	426	17	15																																							
				Subtotal	39,136	39,136	9,903	5,201	23,983	49			39,136	39,136	9,903	5,201	23,983	49																																						
		Sawnwood	9,903	9,903	9,903						9,903	9,903																																												
			Plywood	5,201	5,201		5,201					5,201	5,201		5,201																																									
	Wood products	Pulp	4,799	4,799			4,799				4,799	4,799		4,799																																										
		Chips	19,184	19,184			19,184				19,184	19,184		19,184																																										
Fuel wood	Other	49	49					49		49	49		49																																											
		5,394								5,394	5,394							5,394	676	4	4,714																																			

Source Forestry Agency "Wood Supply and Demand Chart", 2021

Notes 1. Figures in parentheses of the volume of pulp and chips and fuel wood, for example wood chips from mill residue or construction waste, are not included in the "total" and "subtotal".

2. "Forest residue" refers to branches or roots carried into mills for use.

3. Due to rounding, some totals may not correspond with the sum of the separate figures.

11. Wood Supply/Demand (roundwood equivalent)

(Unit: 1,000 m³)

	Wood supply/demand				Wood demand for industrial use by sector				Wood supply for industrial use by source	
	Total	Wood for industrial use	Fuel wood	Wood for mushroom production	Sawnwood	Plywood	Pulp and chips	Others	Domestic production	Import (roundwood and wood products)
1955	65,206	45,278	19,928	...	30,295	2,297	8,285	4,401	42,794	2,484
1960	71,467	56,547	14,920	...	37,789	3,178	10,189	5,391	49,006	7,541
1965	76,798	70,530	6,268	...	47,084	5,187	14,335	3,924	50,375	20,155
1970	106,601	102,679	2,348	1,574	62,009	13,059	24,887	2,724	46,241	56,438
1975	99,303	96,369	1,132	1,802	55,341	11,173	27,298	2,557	34,577	61,792
1980	112,211	108,964	1,200	2,047	56,713	12,840	35,868	3,543	34,557	74,407
1985	95,447	92,901	572	1,974	44,539	11,217	32,915	4,230	33,074	59,827
1990	113,242	111,162	517	1,563	53,887	14,546	41,344	1,385	29,369	81,793
1995	113,698	111,922	721	1,055	50,384	14,314	44,922	2,302	22,916	89,006
2000	101,006	99,263	940	803	40,946	13,825	42,186	2,306	18,022	81,241
2005	87,423	85,857	1,001	565	32,901	12,586	37,608	2,763	17,176	68,681
2010	71,884	70,253	1,099	532	25,379	9,556	32,350	2,968	18,236	52,018
2015	75,160	70,883	3,962	315	25,358	9,914	31,783	3,829	21,797	49,086
2017	81,854	73,742	7,800	311	26,370	10,667	32,302	4,403	23,312	50,430
2018	82,478	73,184	9,020	274	25,708	11,003	32,009	4,465	23,680	49,505
2019	81,905	71,269	10,386	251	25,270	10,474	31,061	4,464	23,805	47,464
2020	74,439	61,392	12,805	242	24,597	8,919	26,064	1,812	21,980	39,412
2021	82,130	67,142	14,742	246	26,179	10,294	28,743	1,926	24,127	43,015

Source Forestry Agency "Wood Supply and Demand Chart"

Notes 1. "Others" includes items such as roundwood for export.

2. The symbol "..." means "unknown or lack of investigation".

3. Due to rounding, some totals may not correspond with the sum of the separate figures.

4. "Fuel wood" includes wood chip for fuel utilized by woody biomass power plants since 2014.

12. Trend of Domestic and Imported Wood Supply/Demand (roundwood equivalent)

(Unit: 1,000 m³)

		2000	2005	2010	2015	2017	2018	2019	2020	2021	Relative change from the previous year (%)
Total wood supply/demand		101,006	87,423	71,884	75,160	81,854	82,478	81,905	74,439	82,130	10.3
Wood for industrial use		99,263	85,857	70,253	70,883	73,742	73,184	71,269	61,392	67,142	9.4
Fuel wood		940	1,001	1,099	3,962	7,800	9,020	10,386	12,805	14,742	15.1
Wood for mushroom production		803	565	532	315	311	274	251	242	246	1.7
Domestic production		19,058	17,899	18,923	24,918	29,660	30,201	30,988	31,149	33,721	8.3
Import		81,948	69,523	52,961	50,242	52,194	52,277	50,917	43,290	48,409	11.8
Self-sufficiency rate (%)		18.9	20.5	26.3	33.2	36.2	36.6	37.8	41.8	41.1	▲ 0.7
Wood demand for industrial use by sector	Total	99,263	85,857	70,253	70,883	73,742	73,184	71,269	61,392	67,142	9.4
	Domestic production	18,022	17,176	18,236	21,797	23,312	23,680	23,805	21,980	24,127	9.8
	Import	81,241	68,681	52,018	49,086	50,430	49,505	47,464	39,412	43,015	9.1
	Self-sufficiency rate (%)	18.2	20.0	26.0	30.8	31.6	32.4	33.4	35.8	35.9	0.1
	Subtotal	40,946	32,901	25,379	25,358	26,370	25,708	25,270	24,597	26,179	6.4
	Domestic production	12,798	11,571	10,582	12,004	12,632	12,563	12,875	11,615	12,861	10.7
	Import	28,148	21,330	14,797	13,354	13,738	13,145	12,395	12,982	13,318	2.6
	Self-sufficiency rate (%)	31.3	35.2	41.7	47.3	47.9	48.9	51.0	47.2	49.1	1.9
	Subtotal	13,825	12,586	9,556	9,914	10,667	11,003	10,474	8,919	10,294	15.4
	Domestic production	138	863	2,490	3,530	4,122	4,492	4,745	4,195	4,661	11.1
	Import	13,687	11,723	7,066	6,384	6,545	6,511	5,729	4,724	5,633	19.2
	Self-sufficiency rate (%)	1.0	6.9	26.1	35.6	38.6	40.8	45.3	47.0	45.3	▲ 1.7
	Subtotal	(6,537)	(7,974)	(6,192)	(6,667)	(7,107)	(6,792)	(6,258)	(5,634)	(7,210)	28.0
	Domestic production	42,186	37,608	32,350	31,783	32,302	32,009	31,061	26,064	28,743	10.3
	Import	4,749	4,426	4,785	5,202	5,193	5,089	4,651	4,420	4,744	7.3
	Self-sufficiency rate (%)	37.437	33.181	27.565	26.581	27.110	26.920	26.410	21.644	24,000	10.9
	Subtotal	11.3	11.8	14.8	16.4	16.1	15.9	15.0	17.0	16.5	▲ 0.5
	Domestic production	2,306	2,763	2,968	3,829	4,403	4,465	4,464	1,812	1,926	6.3
	Import	337	316	379	1,061	1,365	1,536	1,534	1,750	1,862	6.4
	Self-sufficiency rate (%)	1.969	2,447	2,589	2,767	3,038	2,930	2,931	62	65	4.8
	Subtotal	14.6	11.4	12.8	27.7	31.0	34.4	34.4	96.6	96.6	0.0

Source Forestry Agency "Wood Supply and Demand Chart"

Notes 1. Self-sufficiency rate is calculated by domestic production divided by total or subtotal in each category.

2. "Others" includes items such as roundwood for export.

3. Figures in parentheses refer to the volume of wood chip from mill residue or construction waste. They are not included in the "total" and "subtotal".

4. Due to rounding, some totals may not correspond with the sum of the separate figures.

5. "Fuel wood" includes wood chip for fuel utilized by woody biomass power plants since 2014.

6. Among "relative change from the previous year", "self-sufficiency rate" field is the difference from the previous year.

13. Wood Supply by Country (roundwood equivalent)

(Unit: 1,000 m³, %)

			2000	2005	2010	2015	2017	2018	2019	2020	2021
Imported wood	North America	Subtotal	(28.9) 28,700	(18.8) 16,129	(19.2) 13,506	(17.5) 12,415	(16.8) 12,352	(16.3) 11,898	(15.3) 10,893	(14.8) 9,068	(14.6) 9,835
		U.S.A	14,460	6,844	5,838	6,057	6,233	6,273	5,754	5,488	5,590
		Canada	14,240	9,285	7,668	6,359	6,119	5,625	5,139	3,580	4,245
	Southeast Asia	Subtotal	(13.7) 13,569	(12.2) 10,511	(8.9) 6,287	(8.3) 5,848	(7.8) 5,751	(7.4) 5,421	(6.9) 4,949	(6.9) 4,215	(6.7) 4,504
		Malaysia	6,690	5,888	3,773	2,917	2,778	2,514	2,213	1,771	1,820
		Indonesia	5,858	4,137	2,304	2,804	2,887	2,759	2,548	2,333	2,625
		Others	1,021	486	209	127	85	148	187	111	59
	Russia Federation		(7.5) 7,429	(8.6) 7,411	(3.3) 2,343	(2.9) 2,081	(3.3) 2,398	(3.3) 2,411	(3.5) 2,459	(3.3) 2,050	(3.3) 2,202
	Europe		(4.7) 4,675	(6.9) 5,937	(7.1) 4,967	(7.6) 5,374	(8.7) 6,450	(8.0) 5,880	(8.4) 5,974	(9.3) 5,695	(7.9) 5,311
	Others	New Zealand	(4.4) 4,374	(3.4) 2,878	(3.9) 2,720	(2.3) 1,638	(2.1) 1,545	(2.0) 1,484	(2.0) 1,393	(1.8) 1,086	(1.9) 1,291
			Chile	(3.8) 3,795	(4.6) 3,952	(6.7) 4,726	(5.6) 3,987	(5.7) 4,236	(5.5) 4,055	(4.9) 3,479	(4.9) 2,994
		Australia	(8.7) 8,604	(10.2) 8,729	(11.0) 7,722	(6.6) 4,662	(6.4) 4,684	(6.3) 4,604	(6.0) 4,271	(4.3) 2,628	(5.1) 3,432
		China	(2.5) 2,445	(3.0) 2,544	(3.0) 2,084	(2.8) 1,967	(2.7) 1,982	(2.6) 1,901	(2.5) 1,777	(2.6) 1,591	(3.2) 2,144
		Viet Nam				(7.6) 5,418	(6.7) 4,917	(8.1) 5,939	(9.0) 6,446	(9.5) 5,840	(11.0) 7,364
		Other	(7.7) 7,651	(12.3) 10,591	(10.9) 7,663	(8.0) 5,696	(8.3) 6,116	(8.1) 5,911	(8.2) 5,823	(6.9) 4,245	(6.7) 4,476
	Subtotal		(81.8) 81,241	(80.0) 68,681	(74.0) 52,018	(69.2) 49,086	(68.4) 50,430	(67.6) 49,505	(66.6) 47,464	(64.2) 39,412	(64.1) 43,015
Domestic wood		(18.2) 18,022	(20.0) 17,176	(26.0) 18,236	(30.8) 21,797	(31.6) 23,312	(32.4) 23,680	(33.4) 23,805	(35.8) 21,980	(35.9) 24,127	
Total		99,263	85,857	70,253	70,883	73,742	73,184	71,269	61,392	67,142	

Sources Ministry of Finance "Trade Statistics of Japan", Forestry Agency "Wood Supply and Demand Chart"

Notes 1. Figures refer to the sum of domestic/imported roundwood volume and imported products volume (sawnwood, plywood, and pulp and chips) converted into roundwood equivalent.

2. "Others" of "Southeast Asia" includes Philippines, Singapore, Brunei, Papua New Guinea, and Solomon.

3. "Others" of "Others" includes African countries.

4. "Others" of "Others" includes Viet Nam until 2014.

5. Figures in parentheses refer to the percentage of each volume to the "total" volume of each year.

6. Due to rounding, some totals may not correspond with the sum of the separate figures.

14. Number of Mills/Factories and Production Volume

		Unit	2000	2005	2010	2015	2017	2018	2019	2020	2021
Sawnwood	Number of mills	mill	11,692	9,011	6,569	5,206	4,814	4,582	4,382	4,115	3,948
	Arrival of logs	1,000 m ³	26,526	20,540	15,762	16,182	16,802	16,672	16,637	14,851	16,650
	Shipment	1,000 m ³	17,231	12,825	9,415	9,231	9,457	9,202	9,032	8,203	9,091
Plywood	Number of mills	mill	354	271	192	185	181	180	176	173	158
	Arrival of logs	1,000 m ³	5,401	4,636	3,811	4,218	5,004	5,287	5,448	4,626	5,093
	Surface-untreated plywood production	1,000 m ³	3,218	3,212	2,645	2,756	3,287	3,298	3,337	2,999	3,172
	Surface-treated plywood production	1,000 m ³	1,534	1,037	647	524	623	580	562	488	620
Glued laminated timber	Number of factories	factory	281	259	182	157	165	165	162	148	132
	Production	1,000 m ³	892	1,512	1,455	1,485	1,971	1,923	1,920	1,740	1,982
Cross laminated timber	Number of factories	factory	...	...	...	...	7	9	9	11	11
	Production	1,000 m ³	...	...	...	...	14	14	13	13	15
Wood chips	Number of mills	mill	2,657	2,040	1,577	1,424	1,364	1,303	1,250	1,196	1,082
	Production	1,000 tons (1,000 m ³)	...	6,005	5,407	5,745	5,954	5,706	5,266	4,753	6,070

Sources MAFF "Wood Supply and Demand Report", Japan Laminated Wood Products Association

Notes 1. "Sawnwood" excludes sawmills with output power less than 7.5kW.

2. Figures of LVL are added to figures of "Plywood" since 2017.

3. Figures of glued laminated timber are based on the data from Japan Laminated Wood Products Association until 2016.

4. "Wood chips" excludes chips for fuel.

5. The symbol "..." means "unknown or lack of investigation".

Full text (in Japanese) of the “Annual Report on Forest and Forestry for FY2022” is available on the website of the Forestry Agency:

<https://www.rinya.maff.go.jp/j/kikaku/hakusyo/r4hakusyo/index.html>

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