

About Mitsui's Forests

Forest Management Policy

🖡 Forest Management Policy

Adopted July 17, 2009

1. Guiding Principle

Mindful of its corporate mission, "Strive to contribute to the creation of a future where the aspirations of the people can be fulfilled," we are committed to carefully nurturing our forests to pass them on to the next generation.

2. Management Policy

Mitsui gives its forest the status of "assets with a high degree of public use that benefits the whole of society". As well as providing the reusable natural resource of lumber, forests can fulfill a range of socially beneficial functions if properly managed and enhanced on a consistent basis; for instance, they can purify the atmosphere by absorbing carbon dioxide to produce oxygen, and they can act as a reservoir that stores and purifies rainwater. On the other hand, if forests are neglected and not adequately maintained, they might increase the likelihood of natural disasters and develop into a source of other social problems. Aware of the social value that its forests therefore have, Mitsui regards their long-term ownership and maintenance as an important social responsibility. So as to maximize the socially beneficial functions of our forests, we work to enhance them based on the FSC[®]'s forest management principles and criteria.

3. Policy

In its concrete activities in the context of its forest holdings, Mitsui will act conscientiously on the basis of the management policy outlined above, giving full consideration to their social significance and maintaining a strong awareness of their environmental impact. Accordingly, we will redouble our efforts in the following areas:

- · Offering Forest Environmental Programs to stakeholders
- · Research work and concrete action to preserve biodiversity
- Achieving sustainability in the production of wooden material as a reusable natural resource and promoting its utilization as wood biomass

Outline of Mitsui's Forests

Location of Our Forests

Mitsui owns forests at 74 locations throughout Japan, from Hokkaido to Kyushu, which together total approximately 440 km2 (44,000 hectares). Mitsui's forests thus cover an area equal to approximately 70% of the 23 wards of Tokyo, or 0.1% of Japan's land area. Misui's has cultivated them carefully over the many intervening years.

- Number of forests owned: 74 (in Japan)
- Total area: approximately 440 km² (44,000 hectares)



Social Value of Forests

Mitsui gives its forests the status of "assets with a high degree of public use that benefits the whole of society." As well as providing the reusable natural resource of lumber, forests can fulfill a range of other socially beneficial functions if properly managed and enhanced on a consistent basis: for instance, they can purify the atmosphere by absorbing carbon dioxide to produce oxygen; they can act as a reservoir that stores and purifies rainwater;, they can help to prevent natural disasters through their ability to retain water; and they can conserve the ecosystem. Everyone can enjoy a wealth of benefits from forests.

Aware of the social value of our forests, we see it as an important social responsibility to maintain the forests we own in a healthy condition over the long term.

Mitsui's forests currently absorb and fix approximately 160,000 tons of carbon dioxide absorbed per year (Mitsui estimate). A quantification of the monetary value of this function based on Forestry Agency data indicates a yearly figure of 120 billion yen. Moreover, approximately 130 km² (13,000 hectares) of our forests have been officially designated as "Water Conservation and Water Replenishing Forests," important for safeguarding the water supply and preventing floods and landslides.

In December 2009, Mitsui obtained certification for all of its forests under the FSCTM system of forest certification based on international standards. This was done with the aim of obtaining certification based on an objective evaluation of whether the company was conducting appropriate forest management; that is, whether it was carrying out its forestry operations in a way that factored in biodiversity. Mitsui thus became the largest private corporation with a forest holding in Japan of 100 km² (10,000 hectares) or more to acquire this certification.

Preserving and Utilizing Forests to Benefit the Future

Not content with merely managing our forests appropriately, we have begun initiatives to utilize them for a range of beneficial purposes. As part of our activities to contribute to society and local communities, we utilize our forests as the environmental education. We also take advantage of our forests to support aspects of the culture and traditions of the surrounding area that make use of forest resources.

Additionally, we are considering recycling unused wood fiber from Mitsui's forests into biomass, which would be put to use locally in generating electric power and as fuel for boilers. In this way we are developing new uses of our forests.



Our wealth of forest resources does not belong to the current generation alone. Mindful of our corporate mission "Strive to contribute to the creation of a future where the aspirations of the people can be fulfilled," we are committed to working closely with the staff of our subsidiary Mitsui Bussan Forest Co., Ltd., which undertakes the management of Mitsui's forests, to carefully nurture our forests and utilize them for future benefit so as to pass them on to future generations.

How We Cultivate Forests at Mitsui



🌲 For Brighter Forests

Approximately 70% of Japan's land area is covered by forests, 40% of which are Forests for Regeneration and Harvest, or forests created and tended by human hands. When considering the benefits of forests in Japan, working out how to maximize the benefits of Forests for Regeneration and Harvest is important.

Forests for Regeneration and Harvest need to be constantly tended by human hands. Forests for Regeneration and Harvest when not managed properly become dark and overgrown. When managed well, Forests for Regeneration and Harvest are bright and open to sunlight.

In such forests, which are bright because they are well-managed, underbrush grows, animals thrive, and new soil is created. The new soil means that water is purified and nutrients are carried to the sea. They also store water, thus preventing floods and other natural disasters. The economic benefit of this is that trees grow well and provide lumber.

When forests are not properly managed and therefore are dark, they not only fail to provide these benefits but end up actively contributing to regional environmental degradation.



 Rivers enrich the ocean with nutrients from the forest

Landslides due to heavy rain

Cultivating Different Types of Forests: Forest Management Zoning

Mitsui's forests are divided into Forests for Regeneration and Harvest (approximately 40%) and Natural Forests and Naturally Regenerated Forests (approximately 60%).

Forests for Regeneration and Harvest are forests that have been planted and cultivated by human hands, and follow a repeated cycle of planting, cultivating, harvesting, and utilization for the production and supply of lumber resources.

Natural Forest are forests that have been cultivated through natural action, while Naturally Regenerated Forests are forests that have grown back mainly through natural action following deforestation due for instance to a natural disaster or tree-harvesting. Forests in these categories are maintained in their natural state.



Areas within these forests which are particularly important from the viewpoint of biodiversity are designated as Biodiversity Conservation Forests (approximately 10% of all Mitsui's forests). Appropriate management is applied to each different category of forest.

Cultivating Forests for Social, Economic, and Environmental Benefits

Protecting and nurturing forests require the investment of large amounts of time, financial resources, and human resources. Because of this, it is important for the forest industry to create a structure which can secure profitability. This can be seen as the key to deciding the future of Japanese forests.

If Forests for Regeneration and Harvest can be made economically viable, the profits generated could also be used for the preservation of Natural Forests and Naturally Regenerated Forests and help to facilitate appropriate management. Natural Forests and Naturally Regenerated Forests likewise cannot simply be left to look after themselves; human intervention is required to recreate the original conditions matching the distinctive character of the region. We believe that initiatives of this kind will increase the level of biodiversity of our forests as a whole. To ensure appropriate management on a continuous basis, it is also important to build up a good relationship with local communities.

To cultivate healthy forests, it is important to maintain a balance between the interests of society, the economy, and the environment, and for these to form an ongoing virtuous circle. The way we cultivate forests at Mitsui is based on these insights.



About Mitsui's Forests

FSC[™]Certification



Mitsui has obtained FSC[™] (Forest Stewardship Council) Certification for adequate management of its 74 forestlands, which constitute the largest holding by a private corporation in Japan.

What Forest Certification Means

Forest certification is given based on assessments regarding whether fixed criteria are met concerning forest management methods. The spread of such certification prevents unregulated deforestation, preserves healthy forests, and helps protect the global environment. There are several certification systems, but the acquisition of FSC Certification based on international criteria verifies that forest management is conducted at an internationally high level.



The Aim of FSC Certification

The FSC certification is a type of certification established by the Forest Stewardship Council (FSC), an international NGO with a membership system that operates an international forest certification system. The goal of FSC is to promote forest management that is appropriate from the standpoint of environmental conservation, co-existing with society, and economic sustainability. Various stakeholders participate in FSC to impartially reflect the views of both advanced and developing countries.

Certification criteria focus not only on whether the forest manager is carrying out appropriate management from an economic standpoint, but also look at consideration for the environment, maintaining favorable relationships with regional communities near the forest and other factors. When Mitsui completed the certification procedures, a survey was given to a total of 330 stakeholders in our 74 forestlands across Japan. This survey confirmed that Mitsui and our subsidiary Mitsui Bussan Forest Co., Ltd., which manages the forestlands, have built a favorable relationship with all regional communities.

Mitsui's Forests and FSC Certification

Among the different types of FSC certification, Mitsui has received Forest Management (FM) certification. At the same time, Mitsui Bussan Forest received Chain of Custody (CoC) certification for the processing and distribution of cut lumber. Mitsui is also the largest Japanese supplier of domestic FSC-certified wood, which has led to a large supply of FSC-certified wood from the forests of Mitsui being distributed throughout Japan.

The commercialization process of FSC-certified lumber



FM certification

Mitsui



Mitsui Bussan Forest



Final products made by manufacturing and processing businesses with CoC certification

The Forest Industry and the Economy



Present Situation of Japan's Forest Industry

A survey by the Forestry Agency in FY2011 found that Japanese forest industry was in a depressed situation, with total demand for lumber at less than 74 million m^3 a year, of which only around 27% was supplied from domestic sources.

In response to this finding, the Japanese government introduced a strategy to regenerate the Japanese forest industry. This consisted of stimulation of downstream demand combined with measures to improve upstream efficiency, such as the 2010 Act for the Promotion of the Use of Wood in Public Buildings and measures to promote the use of biomass. Progressing alongside these reform measures is a policy aimed at increasing the forestry industry workforce, which has fallen to fewer than 70,000 nationwide and is also affected by the problem of aging. To regenerate Japanese forests requires above all the regeneration of the forest industry; to that end there is an urgent need for the private and public sectors to work together in wide-ranging action.

Balancing Environmental Preservation with the Forest Industry

In the Forests for Regeneration and Harvest at Mitsui's forests, we combine the appropriate cyclical operation of harvest, use, planting, and cultivating with attention to biodiversity, at the same time introducing measures that promote the preservation of the surface soil and increased absorption of carbon dioxide absorbed. At present, with the aim of balancing environmental preservation with the forest industry, we are working to build an economically viable structure so that the profits generated are not only used in the cyclical management of Forests for Regeneration and Harvest, but can also be plowed back into cultivating Natural Forests and Naturally Regenerated Forests.



Mitsui is not only committed to efficient cyclical forestry operations in its Forests for Regeneration and Harvest, but also considers it important to

increase the use of domestic timber resources by developing applications for lumber, and is working on relevant new initiatives.

Promoting Wood Biomass and Using the J-VER System

An urgent priority for the forestry and lumber industry is to make sure that lumber is used for a wide range of applications so that no material goes to waste. As part of its efforts to develop uses in areas other than construction, furniture, and paper manufacture, Mitsui has begun working to promote the use of wood biomass as an alternative to fossil fuel. An example of this is collecting branches and other parts of the tree that are left in the forest and cannot be used as lumber and converting them to wood chips as an auxiliary fuel for thermal power generation or to pellets for use as boiler and stove fuel.

Meanwhile, a Mitsui's forest-thinning project in Hokkaido and Mie-prefecture has been registered under the Ministry of the Environment's J-VER system, resulting in the award of certification for the amount of carbon dioxide absorbed fixing achieved by the appropriate management of



Remaining materials in the forest to wood chips

Mitsui's Hokkaido and Mie-prefecture forests. Mitsui was granted an offset credit for approximately 6,600 tons from Hokkaido in March 2011, and approximately 1,330 tons from Mie-prefecture in January 2012 of carbon dioxide absorbed, which is now being sold. In this way, we are taking active steps to include environmental value in the monetary cycle in the form of profits from the forest industry. Going forward, Mitsui will work in concert with Mitsui Bussan Forest Co., Ltd., to which we outsource practical forestry and upkeep operations, to manage our forests in a way that contributes to the regeneration of Japanese forest industry, an important step toward addressing environmental issues.

About Nitsui's Forests

Initiatives for Biodiversity

Growing Forest to Protect Biodiversity

Biodiversity means rich diversity and variety at the respective levels of gene, species, and ecosystem. If an area retains the original rich variety of its indigenous animals, plants, insects, microorganisms, and so on, and provides the physical requirements for their existence, it can be said to have high biodiversity.

But today, many animals and plants around the world are dwindling in number or gradually becoming extinct. With the habitats of a wide range of living organisms rapidly disappearing, businesses today need to take initiatives for the preservation of the biodiversity which is the foundation of our survival. Through appropriate management of its forests, Mitsui is committed to making the social contribution of nurturing biodiversity and passing on a rich forest environment to the future generations.



🖡 Growing Forest to Protect Life

Mitsui's forests are made up of approximately 40% Forests for Regeneration and Harvest and approximately 60% Natural Forests and Naturally Regenerated Forests. These forests are divided into the following categories: Harvest – oriented Sustainable Cycle Forests; Natural Restoration Forests; Biodiversity Conservation Forests; Productive Naturally Regenerated Forests; General Naturally Regenerated Forests; and Other Naturally Regenerated Forests. Each category has its own set of management policies. Biodiversity Conservation Forests – areas particularly important from the viewpoint of biodiversity – form a new category created in 2009 and account for approximately 10% of Mitsui's forests.

Biodiversity Conservation Forests are further divided into the following four categories: Special Conservation Forests; Environmental Conservation Forests; Water and Soil Conservation Forests; and Cultural Conservation Forests. By conducting management appropriate to the special characteristics of each category, we aim to grow forests that are more strongly oriented toward the preservation of biodiversity.

Forest Management Zoning

Mitsui's approximately 440 km² (44,000 hectares) of forests at 74 locations nationwide is managed according to the following categories:

	Category		Definition	Area (km²)
Forests for Regeneration and Harvest	Harvest-oriented Sustainable Forests		Forests for the production and supply of lumber resources through the repeated cycle of harvesting, planting, and cultivating.	8,500
	Natural Restoration Forests		Forests to be restored as Naturally Regenerated Forests consisting of coniferous and broad-leaved trees.	9,100
Forests for Regeneration and Harvest, Natural Forests and Naturally Regenerated Forests	Biodiversity Conservation Forests	Special Conservation Forests	Forests judged to have irreplaceable biodiversity value at the regional and national level and requiring stringent protection.	324
		Environmental Conservation Forests	Forests confirmed to support a large number of rare creatures whose habitat requires protection.	876
		Water and Soil Conservation Forests	Forests with plentiful water stocks that form a water resource, reduce the risk of natural disasters, or have other major socially beneficial functions which contribute to the safeguarding of the water supply and the preservation of ecosystems.	3,163
		Cultural Conservation Forests	Forests requiring protection due to the particularly high value of their "cultural services" – functions that nurture traditions and culture and form part of the "ecosystem services" that are dependent on biodiversity.	117
Naturally Regenerated Forests	Productive Naturally Regenerated Forests		Forests to be cultivated for tree species useful as a source of lumber.	1,400
	General Naturally Regenerated Forests		Forests not composed of productive species but to be cultivated for increased social value.	18,713
	Other Naturally Regenerated Forests		Naturally Regenerated Forests other than in the above categories.	1,900

Biodiversity Conservation Forests



Four Biodiversity Conservation Forests

Areas with high significance from a biodiversity perspective are designated as Biodiversity Conservation Forests (which account for about 10% of Mitsui's forests) and further classified into four categories: "Special Conservation Forests," "Environmental Conservation Forests," "Water and Soil Conservation Forests," and "Cultural Conservation Forests."

This category classification allows for the more appropriate and carefully tailored conservation of biodiversity in specific forest areas.

Special Conservation Forests

Forests deemed to possess invaluable biodiversity at a regional and national level and will be closely protected.



Tashiro Forest, Fukushima Prefecture: This forest is part of Mt. Tashiro, which is located in Minamiaizu Town. It contains high-altitude moorlands in the mountain summit regions which have great academic value, and a portion of the forest including the wetlands is designated as part of Oze National Park.

Environmental Conservation Forests

Forests where biological value is concentrated, i.e., rare species, are identified. The habitat of these rare species is protected.



Soya Forest, Hokkaido: Mitsui's most northerly forest containing extensive stands of the Yezo spruce, one of Hokkaido's commonest coniferous trees, and home to the Ito fish, Japan's largest freshwater fish.

Water and Soil Conservation Forests

Forests with plentiful water stocks that form a water resource, reduce the risk of natural disasters, or have other major socially beneficial functions which contribute to the safeguarding of the water supply and the preservation of ecosystems. The 21st century has been referred to as the Water Century, indicating the increasing concern regarding the world's water resources. Recognizing the need to nurture forests that provide rich sources of water, Mitsui has designated 31.63 km² (3,163 hectares) of its holdings as Water and Soil Conservation Forest, which is managed with attention to protecting water supplies.



Nanba Forest, Niigata Prefecture: The gateway to the Myoko Mountain Range, located in the municipality of Joetsu. With extensive beech woods that store water, the forest serves as a water resource that provides water to the region.

Cultural Conservation Forests

These forests are deemed to have high traditional or cultural significance to a region as a result of the ecosystem services from biodiversity. Mitsui will continue to take measures to protect these forests and to make the most use of them.



Saru Forest, Hokkaido: This forest is located in the Hokkaido municipality of Biratori, which legend holds to be the birthplace of the indigenous Ainu culture. Mitsui has concluded an agreement with the Biratori Branch of the Hokkaido Ainu Association to protect and foster the Ainu culture.



Kiyotaki Forest, Kyoto Prefecture: This forest is located in Saga, Kyoto City. To allow the Kyoto Modelforest Association to undertake action to protect and nurture Kyoto's forests, Mitsui has concluded an agreement with the association and Kyoto Prefecture under which part of the forest is made available free of charge for a ten-year period from 2008. The forest will provide wood needed for torches and other materials used in traditional festivities such as the Daimonji Bonfire and the Kurama Fire Festival.

Initiatives for Biodiversity

Scientific Evaluation



The Convention on Biological Diversity stressed the importance of addressing the preservation of biological diversity by undertaking quantitative evaluation of the level of attainment on the basis of scientific findings and principles. Mitsui carries out quantitative evaluation of biological forests.

Quantitative Evaluation of Biodiversity (HEP)

In 2009, a quantitative evaluation of biodiversity was carried out under the Habitat Evaluation Procedures (HEP) by the Ecosystem Conservation Society – Japan at five model forest locations in Mitsui's forests, using animals as an index.

HEP is a method of quantitative evaluation of biodiversity used mainly in the United States. A number of wild animal species to serve as indices are selected in line with the surface area of the target site, the environmental conditions, the geographical location, and the rarity of the species. The level of biodiversity, including the past and future biodiversity, of the target site is then quantified in the form of a numerical value indicating the quality of the habitat for these index species, known as the habitat suitability index (HIS).

In the survey, the brown bear, Asiatic black bear, mountain hawk eagle, marten, and badger were chosen as index species. A prediction was then made of the change in the level of biodiversity from the past to the future, and a numerical value was assigned.

The results of the survey allowed the level of biodiversity for each model forest to be assessed, and additionally provided basic data for forestry operations contributing to biodiversity, which indicated for instance which areas of Forests for Regeneration and Harvest should be prioritized for restoration as Naturally Regenerated Forests.

Examples of zoning: (1)(2)(3)(4) indicate zones in order of priority for restoration as Naturally Regenerated Forests. The deeper the red, the higher the priority for restoration as Naturally Regenerated Forests.



AA⁺ Awarded in JHEP Certification

JHEP certification is a certification system established in December 2008 by the Ecosystem Conservation Society – Japan. This certification system makes a quantitative evaluation of the level of biodiversity from the viewpoint of animals and plants in a ten-level ranking system from AAA to D. The evaluation quantifies biodiversity in the 30 years before the base year (the year of acquisition of the land or the year in which the application for evaluation is made) and in the 50 years after the base year and compares the two periods. This allows scientific proof to be given of the contribution of an enterprise or other agent to the preservation and enhancement of biodiversity.



In September 2010, an evaluation was carried out in the Kiyotaki Forest in Kyoto which covered not only the Asiatic black bear and other animals (evaluated species) but also

plants. As a result, the second highest ranking possible (AA⁺) was awarded. This represented the first such ranking for a Japanese forest under this certification system and gives scientific proof that in the approximately 30 years of Mitsui's ownership of the Kiyotaki Forest, the level of biodiversity has been raised in keeping with the characteristics of the region. Going forward, we will continue with the management policy implemented so far, preserving the remaining native vegetation of the area and gradually restoring the Forests for Regeneration and Harvest areas of Japanese cedar and Japanese cypress to Naturally Regenerated Forests.

At COP10 (Convention on Biological Diversity), effective and urgent action was called for to halt the loss of biodiversity by 2020. Further, the convention emphasized the importance of quantifying and monitoring the level of biodiversity on the basis of scientific findings and principles. Given this background, we believe that our acquisition of this certification demonstrates the beginning of a new model of forest management for Japan in the future.



Japan's forests are deeply entwined with Japanese culture. It should be remembered that among the major functions of forests is that of nurturing human culture. Mitsui is actively engaged in ensuring that the preservation of forests also contributes to the preservation of regional cultures and traditions.

Using the Forest to Protect Ainu Culture

The Saru Forest, which is Mitsui's second largest forest, is located near Nibutani, a locality in the Hokkaido municipality of Biratori which legend holds to be the birthplace of Ainu culture. Ainu people have inhabited and made use of the forest for many generations. In April 2010, Mitsui concluded an agreement with the Biratori Branch of the Hokkaido Ainu Association under which action is being taken to stimulate the preservation of the culture of the Ainu people, who are the original inhabitants of the Saru Forest.

Specifically, because of a declining trend in the Manchurian elm, which provides the material for the attus, the traditional dress of the Ainu people made of tree bark, it has been decided to plant and nurture Manchurian elm in the Saru Forest.

Meanwhile, to restore the chise, which is the traditional Ainu dwelling, the lumber needed to build it is to be supplied from the Saru Forest. A further major aspect of the agreement is the protection of Ainu places of worship located in the Saru Forest and cooperation in surveys of cultural relics.

In September 2010, a further agreement was concluded with the municipality of Biratori under which Mitsui will cooperate in a municipal project to recreate an iwor (traditional Ainu living territory) and will collaborate in measures to stimulate industry.









The chise, the traditional Ainu dwelling

Using a Forest to Protect Kyoto Traditions

The Kiyotaki Forest, situated at Saga in the north of the city of Kyoto, is in a much-visited area famous for its colorful foliage in autumn and its beautiful cherry blossom in spring.

To allow the Kyoto Modelforest Association to engage in action to protect and nurture Kyoto's forest, Mitsui concluded an agreement in 2008 with the association and Kyoto Prefecture under which part of the Kiyotaki Forest is made available for a ten-year period free of charge. As part of the agreement, Mitsui supports two traditional Kyoto festivities, the Daimonji Gozan Okuribi (Daimonji Bonfire) and Kurama no Hi-Matsuri (Kurama Fire Festival), by providing firewood and supplying Japanese red pine and azalea to make torches. Mitsui will also make a site available for the Forestry Experience Workshops organized by the association for the benefit of the regional community.

As part of the Forestry Experience Workshops, members of the association participate in forest maintenance for cultivation of the Japanese red pine and azalea, while members of the Daimonji Preservation Committee and the Kurama Fire Festival Preservation Society, which are affiliates of the association, volunteer in the felling of deciduous trees and Japanese red pine. Thanks to these activities, in 2010, materials from the Kiyotaki Forest supplied all the pine needles and one-tenth of the firewood needed for the Daimonji Bonfire and one-tenth of the torches used in the Kurama Fire Festival.



Daimonji Gozan Okuribi (Daimonji Bonfire)



Japanese red pine to make torches with



Kurama no Hi-Matsuri (Kurama Fire Festival)