# FORESTRY PRINCIPLES IN JAPAN

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**Keywords:** sustainable forest management, mountain village, Japanese lumber market, World legacy, public functions of forest, leaving wood, watershed management system,Gunma prefecture office, forest co-operative, Japanese redwood, riverhead maintenance tax,sustainable land use

## Contents





**Summary**

Japan has currently taken an international approach to the issues of forest conservation and reproduction. Two aspects become readily apparent – one is the current condition of forests and mountain villages in Japan and the other is the competing interest of forestry consumption promoted by local governments. The eradication of tropical forests will be stopped by the realization of global environmental concerns fueled by world public opinion. World public opinion

overwhelmingly puts the responsibility of reforestation of any developing country by the advanced country responsible for the development. So in this example, Japan should contribute to reforestation of any developing country which experiences negative effects of Japan's policies. After 1980, the majority of wood stocked by the Japanese lumber market was of foreign origin boosted of course by the redevelopment and industrialization of Japan after the end of World War II. This boom in construction came right after the World War II while war effort decimated much of the forest resources in the country. Megalopolises were located near the Pacific Ocean in the 1960s because of commerce and the resulting boom required the construction of many houses to house the workers in these newly built factories. This demand could not be supported inside of Japan; therefore the imports of wood from developing countries during this period skyrocketed. By the year 2000, only 18.2% of the wood demand could be satisfied by indigenous supply by Japanese producers. In addition, the lower costs of wood from foreign countries are attractive to the Japanese market; therefore foreign wood is preferred today for construction. Because of this, wood available for forestation in Japan is not being developed and these mountain villages that supported this enterprise have collapsed. The Japanese Government must work to implement policies that encourage a balance of forestation locally as well as the forestation of foreign countries.

## 1. Introduction

The Forestry Principles announcement was adopted at the UN Conference on Environment and Development in 1992. As the background, the decreasing trend and deterioration of the forests in the world continues to center around developing countries. Japan continues to be one of the developing countries that have decreasing forest area. Therefore, the international responsibility of Japan is heavy, and must contribute to the sustainable forest management of the world. On the other hand, depression for the forestry of Japan is continuing, and the aging and decreasing of the population are occurring in the mountain villages. The following provides information about Japan's correspondence after the forestry principles announcement, and present conditions and problems of the forestry.

## 2. Forestry Principles and Forestry in Japan

The Kyoto Protocol was adopted with COP3 in December 1997 and the forestry principles announcement was adopted with UNCED in June 1992. Both events exerted a strong influence on the forestry policies of Japan. The fundamentals of the forestry principles announcement that were adopted with UNCED were for sustainable forest management. In Japan, the following effort was put forth to contribute to the achievement of the sustainable management of the world forests.

### 2.1. Active Participation in IFF

Japan actively participated in IFF in order to formulate the international agreement for sustainable forest management. The preparation of a national forest plan was agreed upon at the 2nd meeting in 1998. However, an opposing opinion was observed between the countries that export forest products and Japan, and the

discussion centered on establishing harmony with trade and sustaining forest management. A country that exports forest products asserted that customs and subsidies should be abolished because of contribution to the trade and sustainable forest management efforts. On the other hand, Japan asserted that it should be necessary to analyze the influence that the liberalization of a trade exerts on the environment, and that both countries should make only the lumber produced from the sustainable forest as the object of trade so that trade and environmental preservation can stand together.

### 2.2. Setting a Model Forest

Japan chose to utilize the wisdom that has accumulated in the forestry history of Japan to implement the international agreement regarding sustainable forest management. Thereupon, Japan advocated "a model forest" in the "workshop about the synthetic practice of sustainable forest management" which was held in Kochi Prefecture in 1996, and the "meeting about the promotion of the international forest maintenance." A local authority, regional residents, NGOs, and enterprises participate in an object and carry out the preparation/enforcement and monitoring, research development of a forest plan in the manner of a pilot project in the area where a model forest has regular consistency. In 1996, the Ishikari/Sorachi area, Hokkaido Pref., Shimanto River area, and Kochi Prefecture, were set up in a model forest in Japan.

### 2.3. Promotion of Forest and Forestry Cooperation

Japan has been dispatching specialists, accepting trainees, and offering machine parts to a developing country through JICA. Japan is involved in the technology of a project through JICA, for the promotion of social forestry in the field. For example, residents breed seeds for the purpose of stabilizing/improving the welfare of the life of regional residents, forest conservation, natural forest control, and artificial plantation in tropical area. For instance, technical research and development for a forest conservation plan is being carried out in Panama.

The decrease and the deterioration of the forest by the expansion of stock farming and baking field cultivation are occurring in the Republic of Panama. A bad influence to the canal operation associated with these has been apprehended. For this reason, five specialists were dispatched from 1994, to investigate the technology standard improvement of the afforestation and environmental conservation of the entire Panama country.

Japan has been carrying out some research and development work in the training course regarding forest conservation and appropriate technology of afforestation in the field of a seedling field, afforestation, agro-forestry, and natural forest management. Also, Japan has been cooperating in the valley control plan survey of the Mantasua and Chiazonpaniri area in Madagascar. These areas are the sources of a river of the capital of Madagascar, and these sources are used for waterpower generation and water irrigation.

Around the valley of Mantasua and Chiazonpaniri lakes, the forest has been devastated by the use of the new charcoal material, excessive pasturage, and the baking field associated with the increase in population. The quantity of water has decreased due to the outflow of topsoil and a flood has occurred as well. Therefore, the watershed management plan by the inhabitant participation included the production of a topographical map, a vegetation map, a land use map, and to graph the life conditions of the inhabitant and their needs.

Furthermore, gratuitous funds and supplied funds through OECF are provided to Madagascar. The gratuitous funds are used for seedling fields, research, training establishments, and machine parts for forest development. In 1998, gratuitous funds were used in China and Laos.

The supplied funds (yen credit) through OECF have already been used in the Philippines, Indonesia, India, and Mexico. Funds loaned after 1997 were under the condition that they would be treated well against the yen credit issue such as afforestation. After the loan, repayment was deferred for 10 years, repayment period was set at 40 years, and the interest rate was set at 0.75%. Through the above cooperation, Japan established a system of sustainable forest management early and continues to promote self-sustained development in other developing countries.

On the other hand, the JICA has been supporting the promotion of a program of reforestation in Philippines since 2004. In 1900, the ratio of forest to area of country in the Philippines was 70%, and by 1999 it was 18%. The factors that lead to this excessive deforestation include forest fires, burnt fields, and an excessive pasturing and agricultural land development, etc.

In addition, Japan's rise in imported wood from the Philippines – motivated by sudden price increases for wood in the 1960s – has also contributed to these phenomena. Industry's rapid development was concentrated in the 1960s near the coast of the Pacific Ocean and the population increased in these regions proportionally. Along with this population growth came the demand for housing, the demand for lumber, and all in the aftermath of huge deforestation during World War II.

This resulting market effect of supply and demand increased the price of wood dramatically in Japan during this period. Japanese laws that protected the lumber industry were abolished in 1950, and the liberalization of all wood imports was completed in 1964. By 1964, Japan was importing a large % of their demand from foreign countries and in particular the Philippines.

The large stocks of imported wood were used for furniture, construction, and the processing of plywood. Japan's insatiable demand contributed to the rapid deforestation and the decline of forest resources in the Philippines. The rate of forest of the Philippines was reached 70% in early twenty century. However, the rate became 18% at end of twenty century. The factor is commercial deforestation for export. Present condition of many of mountain in the Philippines are meadow by forest fire.(Figure 1).

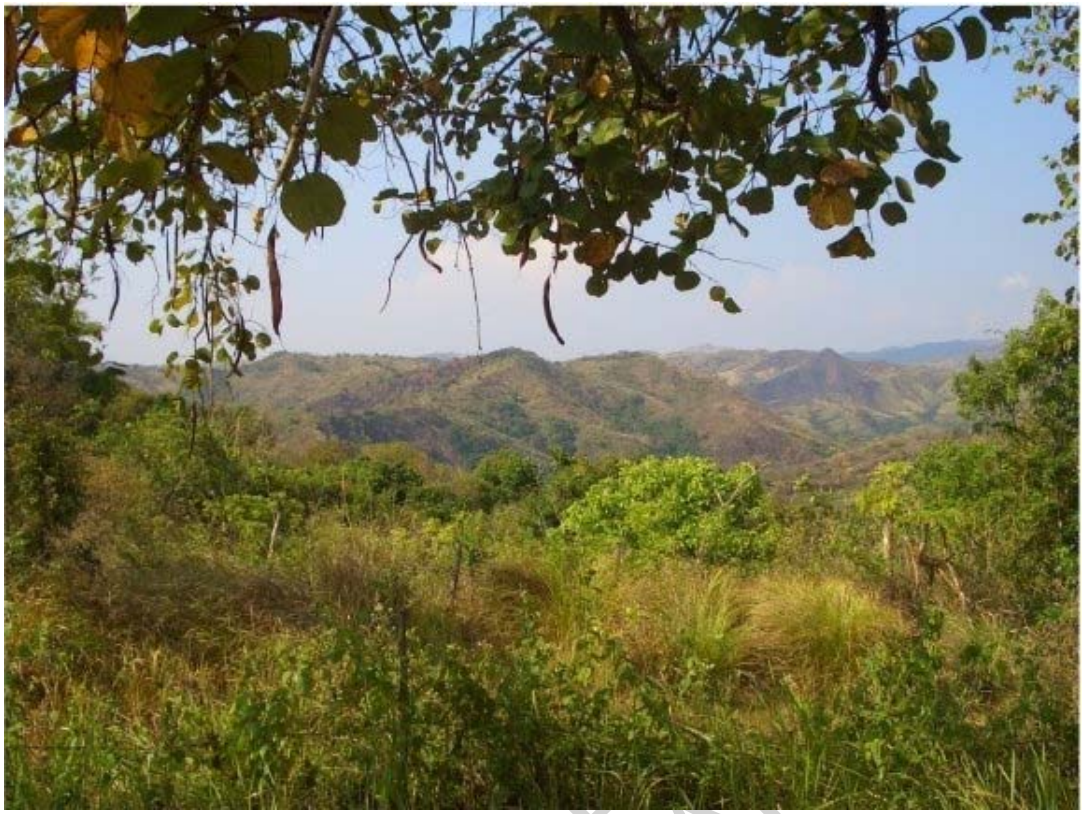

Figure 1: The mountain is central part of Luzon in the Philippines

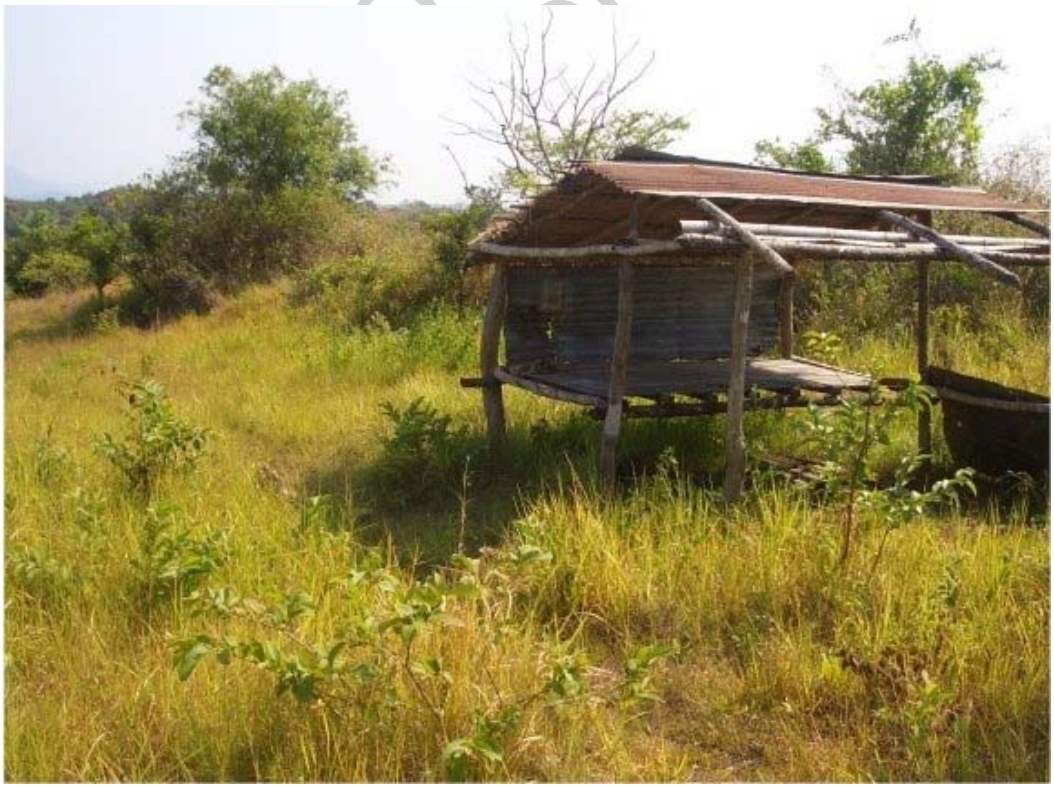

Figure 2: Model site of the CBFM.

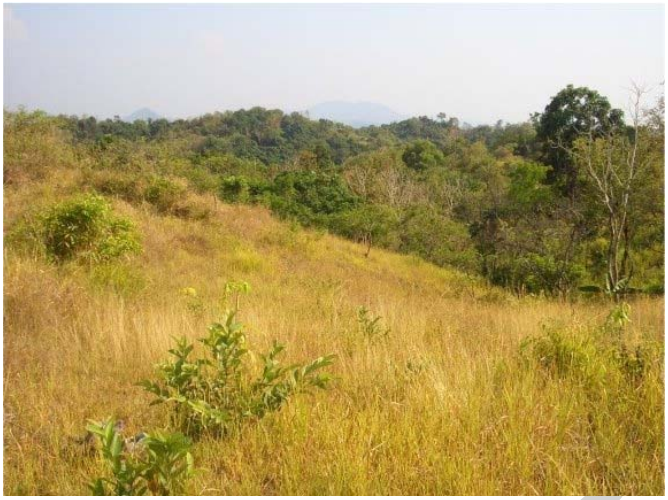

Figure 3: Model site of the CBFM.

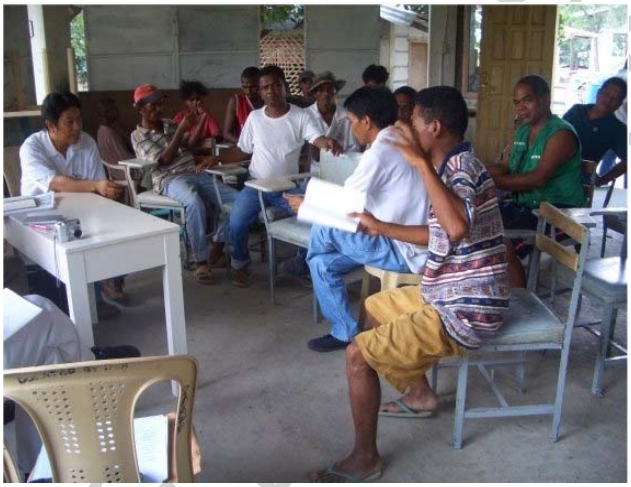

Figure 4: Meeting in one of model sites of the CBFM.

In response, the Government of the Philippines has been developing the CBFM program which aims to regenerate the forests in the Philippines – their efforts have been in effect since 1995. In this program, the resident organization which contracts to DENR can manage a government-owned forest and uncultivated field for 25 years. At the end of the contract, the resident organization can then contract again for another 25 years. The number of resident organizations which currently participate in the CBFM program is 1570, and the target area as of April 2006 was 1,570,000 hectare. JICA is actively working on four components that will support and promote the goals of the CBFM Program – Model sites, Training, Information, and the formation of a comprehensive policy. The Model site component develops the technology and technical guidance needed by the CBFM participation resident. The Training component is the Orientation of CBFM, guidance concerning applicable law, and training of forest fire responses. The Information component is program management of the JICA program which includes distributing information concerning CBFM, and establishment of home page on the CBFM. The Policy component is a proposal for continuous improvement of CBFM program. This hut is

for resident who does the work of afforestation. This model site is away from CBFM participant's village. Therefore, the resident stays in this hut (Figure 2). A lot of mountains are meadow due to deforestation and the forest fire (Figure 3). The target of the CBFM program is that forest is managed by the community. The Government of the Philippines is repeatedly explaining the idea of the policy of CBFM to the resident (Figure 4). However, a long way is necessary for realization of target of this policy.

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**Bibliography**

Forestry Agency in Japan: Annual report after 1968.[Explanation of present conditions of forest in Japan of every year]

Roderick Peattie (1936):Mountain Geography-A Critique and Field Study-, Japanese edition, 1956, translated by Iku Okuda and Fukuo Ueno, Norinkyokai, Tokyo, Japan.[The overall explanation of mountainous district in Europe]

Toshiaki Nishino (1998): Development of mountain village in Japan, Taimeidou, Tokyo, Japan.[History of development of mountain villages in Japan after World WarII]

Yoshihisa Fujita (1981): Mountain Villages in Japan, Chijin Shobou, Kyoto, Japan.[The history and economic structure of mountain villages in Japan]

Yoshihisa Fujita (1984): Wood resource of modern Japan, Chyoubunsha, Tokyo, Japan.[History and present conditions of forest in Japan until 1980]

**Biographical Sketch**

**Toshiaki Nishino** is professor of geography at Takasaki City University of Economics, Gunma Prefecture, Japan. He received his master's degree in management at Aichi University, Aichi Prefecture, Japan. He joined Takasaki City University of Economics in 1988 as a reader in geography, becoming an associate professor in 1993, and then professor of geography in 2000. Prof. Nishino has been researching mountain villages in Japan. The first theme of his study is the influence of the dam construction in mountain villages. After World War II, Japan constructed several dams for development of hydroelectric power plants and for water management. He thinks that there is a problem in the concept of regional development in Japan. The second theme is development of forestry in Japan. After 1980, the lumber market in Japan came to be dominated by wood from foreign countries. As a result, prices of wood produced in Japan became too low, and forestry in Japan became recessional. He researched the method of reproducing regional forestry. He thought about reproduction of Japanese forestry from the consumer's viewpoint. Nishino proposed to the Gunma Prefecture office the foundation of subsidy to new houses which had been constructed by using local trees. On the other hand, Nishino guided the establishment of a cooperative composed of forest owner's association, sawmill, architect office, and construction company. And the third theme is elucidation of establishment condition of electricity supply businesses by public management in mountain villages before World War II.