

FOREST COOPERATIVES AS A POLICY MEASURE FOR SMALL WOODLANDS

SHIGERU TANAKA

National Federation of Forest
Cooperatives Associations, Japan

1. CHARACTERISTICS OF ORGANIZATIONAL STRUCTURE OF FOREST COOPERATIVES

In Japan, there are 2,990,000 forest owners within the scope of the Forest Cooperatives, 60 % of which are members of forest cooperatives. Forest Cooperatives are one of the largest functional organizations concerning private forest in Japan, and have been established under the Forest Cooperative Law which is the sole legislation for the forestry organizations. There are 47 federations of Forest Cooperatives at the secondary level, one in each prefecture, and the National Federation of Forest Cooperatives at the national level in Tokyo, forming the so-called pyramid or 3-tier system.

The ratio of affiliation to forest cooperatives is shown from 2 sides in Table 1, i.e. number of members and forest area. From these figures, a widely accepted view here in Japan is demonstrated, i.e. that the forest cooperative has dual characteristics, i.e. concerning a group of persons and the land association. This view is derived from the concept that the motivation for organizing a forest cooperative is based on the fact that persons own their forest within the given area, in other words, the forest cooperative units persons by means of substance.

The regular member of the Forest Cooperative is the forest owner, and in most cases the minimum area for eligible regular member is set at one ha. The majority of members are small woodlandowners with less

than 20 ha. per person, and 90 % of the regular members are at the same time members of agricultural cooperatives. Some members own more than 100 ha. of forest. Municipalities which own municipal forests are also members of the Forest Cooperative.

Such variety of membership is one of the reasons why it is difficult for forest cooperatives to strengthen its solidarity which would derive from homogeneity of membership. However, Forest Cooperatives are now performing such essential functions such as ensuring the livelihood of all inhabitants within a community including non-members. This is based on the fact that forest cultivation and logging are expanding rapidly with the increasing employment of small forest owners and non-forest owners by the Forest Cooperatives.

The legal basis for the Forest Cooperatives in Japan was given by the enactment of the Forest Law in 1907. The predecessors of such Forest Cooperatives were Forest-owners associations established by private forest owners, common owners of forests with the objective to protect and regulate cutting, but the number of such associations in Japan was extremely limited.

In the 1910's, Government assistance was introduced when forest-owners associations were established in order to deal with the restoration of denuded forest land, and

Table 1. Organization of Forest Cooperatives.

	Number of Cooperatives Surveyed	Members		Forest owned by members	
		Number of members (thousand)	Affiliation ratio (%)	Area (1,000 ha.)	Coverage ratio by Cooperatives (%)
1952	4,995	1,709	65	10,138	...
1960	3,776	1,764	59	11,254	74
1965	2,968	1,776	58	11,535	73
1975	2,139	1,784	59	11,660	71
1976	2,066	1,783	59	11,697	71
1977	2,005	1,785	59	11,659	70
1978	1,970	1,781	58	11,677	70

between the second half of 1920's and the latter half of 1930's, subsidies were granted to forest-owners associations which were engaged in forest road construction work. The number of forest-owners associations and their associated works in forests under common ownership were on the increase, and the total number of forest-owners associations also increased markedly. By the end of the 1930's, there were more than 2,600 forest-owners associations in Japan. At that time, many forest-owners associations had a membership of less than 200 persons, and with an operational area of less than 1,000 ha., mainly restricted to within a hamlet or small basin. Unfortunately, however, most of forest-owners associations at that time were not fully engaged in their business.

Since the latter half of the 1930's, the import of timber was interrupted, and forest-owners associations were encouraged to work out forest work plans to increase the productivity of domestic forests in general and the private forests in particular. For this purpose, the Forest Law was revised in 1939 to enable the making of workplans for private forests. Furthermore, under the war economy during the World War II, controls on the supply of timber were gradually tightened, and forest-owners associations were being established as the subsidiary organizations to the state controlled companies for the procurement of timber. Positive administrative guidance at this time was given to establish a forest-owners association in areas of more than 500 ha. of private forests.

During World War II, more than 5,000 forest-owners associations were established, and the conspicuous change observed during this period was that reforestation subsidies were granted, and seedlings for planting were supplied through forest owners associations and their federations. In addition another important change to be noted here was the retreat of wholesalers and dealers who enjoyed the dominant power in the distribution of timber up until the 1930's. During this period, the logging carried out by the forest-owners association reached as much as 10 million cubic meters, because the forest-owners associations were acting as subsidiaries to state controlled companies, as mentioned above. The increase of business had dual meanings, i.e. on the positive side; this was the starting point for further development of the business activities of the forest-owners associations, and on the negative side; this was a bottleneck for the future. There is no denying the fact that forest-owners associations seemed like an auxiliary body of the state, for example, in dealing with the business of passing forestry subsidies on to members.

In the revision of the Forest Law in 1951, forest-owners association with compulsory membership was changed into new a organization based on the democratic Rochdale principles with voluntary membership, democratic control through the one member on vote principle, and election and recall system of directors. However, Forest Cooperatives and their federations were

suffering from the deficit accumulated through the time of economic control on timber, firewood and charcoal, and in addition, working plans for forests which had been mapped out by forest owners associations were transferred to the forest planning system of the state in compliance with the recommendation of the GHQ. At the initial stage of development the economic business activities of the Forest Cooperatives remained stagnant. To remedy that situation, a plan for improving the Forest Cooperatives has been implemented since 1957 on the national scale as an autonomous cooperative campaign. In this campaign, Forest Cooperatives initiated the thinning which had not been dealt with by the traders concerned. On top of this, especially since 1960, the marketing of logs by the federations of Forest Cooperatives has been increased, and members, who were forest owners and had sold their logs at the price set out by traders unilaterally, have become more sensitive to the trend of the market. Thanks to this campaign, trade on conditioned volume is now on the right track, and sawmill operations have changed their purchases from standing trees to logs. All these changes caused an increase of log production by the Forest Cooperatives.

2. CHARACTERISTICS OF BUSINESS

The activities of the Forest Cooperatives are diversified, as in the case of other cooperatives in Japan. However, in most cases the provisions of the law stipulate such limitations as "... necessary to forestry" or "relevant to forestry". In Japan, legislation concerning cooperatives are enacted by the activity in question, and this is one of the reasons why cooperatives can be readily adapted as the means through which national policies are implemented. In the case of Forest Cooperatives, this trend is conspicuous indeed.

Steady expansion of the main activities of the Forest Cooperatives, i.e. logging, marketing and reforestation, has been seen during the past 20 years. Logging and marketing have been taken over from the timber-dealer, and reforestation has been

After the War, in the 1950's and 1960's, reforestation in the private forests increased markedly, and most of the reforestation was carried out by small-scale forest owners whose holdings were less than 20 ha. The ratio of reforestation done by this lower stratum of forest owners has decreased from about 80 % down to about 60 %, but was still 67.2 % in 1970. However, during this period, the energy revolution, symbolized by the increase of oil imports and drastic decrease in the demand for firewood and charcoal, was going on, and consequently reforestation was carried out on the cut areas which was fuelwood forest until cutting for pulp was made, and in this process the exodus of rural and mountain villagers to urban areas also progressed rapidly. As a result, medium and small scale forest owners, who played an important role in reforestation, encountered difficulties in planting by their own labor, and reforestation consigned by members to the Forest Cooperatives was increased. In this case, the Forest Cooperatives employ laborers. This type of consigned reforestation has now reached about 50 % both in cases of planting and tending.

expanded by the Forest Cooperatives on the members' behalf. As mentioned above, developments in logging and reforestation were seen in many parts of Japan by planting such coniferous trees as Japanese cedar, Japanese cypress, and Japanese larch in the cut area which was formerly fuelwood forest before cut for pulpwood. However, after the War, reforestation has been carried out in such cut areas to promote logging and reforestation. This may be considered a turning point.

In Japan, it is difficult for forest owners to engage in continuous forest production individually due mainly to the following 2 factors. First of all, the majority of private forest owners' holdings are small, with less than 20 ha. per owner. Secondly, more than 40 years are required for silviculture. For

Table 2. Turnover by sectors and by years.

Year	Gross earning (1 million yen)	Handling Amount					
		logging marketing (1 million yen)	purchase (1 million yen)	timber (1,000 m ³)	nursery (1 million plants)	planting (ha)	tending (ha)
1935	15,565	11,013	3,217	1,414	795	13,641	27,251
1940	27,903	21,048	5,512	2,192	758	39,569	137,102
1947	79,782	49,279	12,557	3,273	547	78,380	391,851
1953	192,504	83,499	28,174	3,337	362	68,812	620,017

these reasons, the activities of the Forest Cooperatives are concentrated on such production-related ones as logging and reforestation. This is a peculiar point for the

Forest Cooperatives, because except production cooperatives, all other cooperatives than Forest Cooperatives in Japan are distribution business-oriented.

3. REFORESTATION AND LOGGING – PRESENT AND FUTURE

Between the 1910's and 1930's, a part of reforestation was done by Management Associations by allocating members' labor or by employed labor of the local inhabitants. During the first half of the 1940's, most of the reforestation was done by members' family labor, while forest-owners associations promoted members' reforestation through nursery practice and supply of seedlings by joint purchase, and passing subsidies on to members.

After World War II, up until 1950's, the major of private reforestation was taken care of by farmers, while later, the type of persons dealing with reforestation was diversified, and reforestation policy was developed to change coppice forest to man-made forest of coniferous trees. During this period, the Forest Cooperatives employed silvicultural workers who were once firewood and charcoal producers and now unemployed. At this initial stage, planting works of Forest Cooperatives were expanded followed by tending works recently.

Since the 1960's, profit sharing reforestation has been carried out jointly by the Forest Development Corporation and Prefectural Forest Corporations, and the most of these activities have been implemented by Forest Cooperatives. Out of the total planting works of Forest Cooperatives, about 50 % are

consigned by public corporations, municipalities and the State. The recent trend is the increase of consignment by private forest owners, and in the case of tending works, by public corporations and municipalities. Now, in the man-made forests in private ownership, which is nearly 8 million ha., 73 % of the forest is covered by young stands of under 20 years which need tending. Regrettably enough, however, tending works are lagging far behind because thinning wood is not sold well, and moreover, the costs of cutting and transportation are high. Therefore, Government grants subsidies within the range of a little over 30 % and a little under 70 % to members when they consigned reforestation to the Forest Cooperatives, and it is expected that the consignment of reforestation to the Forest Cooperatives will be increased by this measure.

Wood production of the forest-owners association was expanded rapidly during the implementation of the "Timber Control Act" in the 1940's. In this process, compulsory cutting, based on a cutting plan for standing trees, was enforced together with the organization of the labor forces. This experience was inherited after the War, but the wood production by Forest Cooperatives has declined temporarily due to the mistrust of the Forest Cooperatives by members

generated by the allocation of compulsory cutting to members through the Forest Cooperatives, especially this allocation was made excessively heavy on small and medium scale forest owners who were in a favourable position so far as the transportation of wood was concerned. Nevertheless, through the process of war time control on timber production and distribution closely combined with distribution channel of state controlled companies, the dominant power of the wholesalers was overcome. This power had been firmly established by 1940. This is extremely significant in the history of the Forest Cooperatives as a starting point for considering wood production and distribution.

Since the latter half of 1950's, logging was the main economic activity of the Forest Cooperatives so far as turnover was concerned. Thanks to government subsidies of 50 % and municipal grants of 10–20 % for the purchase of skidders or chain saws by the Forest Cooperatives, logging by Forest Cooperatives has been on the increase, although the fact the cut of standing trees from private forests decreased by 44 % from 50 million cubic meters in 1966 to 28 million

in 1975. However, logging by the Forest Cooperatives has been levelling off since 1970.

In Japan, half of the Forest Cooperatives are now into logging. In annual production terms, 20 cooperatives produce more than 10,000 cubic meters, 76 % of all cooperatives engaging in logging produce less than 3,000 cubic meters, and 42 % produce less than 1,000 cubic meters. This shows, in general, that the business size is rather small. With regard to reforestation tending works have been on the increase, but weeding is expected to reach its ceiling soon, and after that the main activities of Forest Cooperatives should be shifted to logging, i.e. thinning and final cutting. In other words, as we enter the reproduction stage in 1980's, more emphasis should be placed on logging than reforestation by the Forest Cooperatives. During the period to the end of the 20th century, the final cutting of forests planted during the post-war period will be carried out. It is, therefore, imperative to enable those Forest Cooperatives in Japan which are not engaged in logging to enter this business. It is therefore necessary to improve logging techniques in the Forest Cooperatives.

4. TO ORGANIZE FOREST WORKERS

It is expected that the self sufficiency ratio in logs will increase from about 30 % at present to 40 % or 50 % in line with the increase of log supply from the forests created by reforestation after the War. Under these circumstances, only those Forest Cooperatives which could successfully organize forest workers enjoy a leading position in the regional forest sector. Where this was not the case, the Forest Cooperatives have gone in the opposite direction. At the initial stage of development in the organization of forest workers by the Forest Cooperatives, neighbourhood labor organized under the traditional master system was transferred to cutting and transportation labor belonging to the Forest Cooperatives.

After the 1960's, a cutting and transportation labor group was formed by the Forest Cooperatives thereby reorganizing the traditional organized labor which was based

on neighbourhoods, in hamlets ect. Most of these groups consisted of farmer-laborers who lost their jobs by the drastic decrease of fuelwood and charcoal production. Because of the rapid increase of these groups of Forest Cooperatives in the 1960's, the remarkable decrease of forest labor was mitigated, even under such circumstances as a marked outflow of people from rural and mountain villages. However, since the 1970's, it has been difficult to employ younger laborers, and as the proportion of aged people in the total population has been increasing remarkably, serious problems will be met in recruiting sufficient labor to meet the increasing production of domestic logs in and after the 1980's.

One of the current counter-measures to this problem is to organize the labor force of the members of each Forest Cooperative by hamlet, and to employ them as part-time

labor. At the same time, it is necessary to create a modern environment for labor by improving spur roads to enable cars to gain access to the working places — most of forests

in Japan is located in the steep mountainous region — and by emancipating forest workers from risky and hard labor through mechanization.

5. TOWARDS THE DOMESTIC PRODUCTION AGE

The Japanese economy is now changing from rapid growth to stagnant growth, and many industries are standing at the turning point of structural reform. Forestry is by no means an exception to this trend. Forests planted after the War have been increased and the area of private forests is almost reaching 8 million ha, and entering into the final cutting age after the period of thinning of the past years.

Even though the demand for logs has been 100 million cubic meters or so since the 1970's, the log supply structure is constructed with the main emphasis placed on imported foreign logs which is only supplemented by domestic logs. As a result, the domestic market for logs has shrunk and the decrease in logging has accelerated.

The auction market for logs was expanded during the 1950's and 1960's, mainly for the following two reasons. One was that lumberman could not gain sufficient profit out of the marketing of standing trees due to the acute competition between sawmills triggered by the rapid increase in the demand for logs for reconstruction purposes after the War. Lumbermen had no alternative but to convert their businesses to the purchase of logs. Another was that dams were constructed in many rivers for the generation of electric power and for flood control, making rafting impossible. However, the road transportation has been increasing rapidly which enabled the

demand for specific assortment and volume to be met at any time and at any place.

The marketing of logs by the federations of Forest Cooperatives was expanded between second half of the 1950's and the first half of the 1960's. However, in the second half of the 1960's, turnover decreased. This was caused by a shock impact on the log market operated in various parts of Japan by federations of Forest Cooperatives when the volume of imports of logs from the U.S.A. and U.S.S.R. was increased rapidly and handling facilities for imported logs were opened at ports throughout Japan. After this period, up to the 1970's, log marketing by the federations has been on the gradual increase as the government assistance to the structural improvement of construction or rebuilding of joint marketing facilities was given to the federations.

Log marketing by the federations will be expanded in the future, but the Forest Cooperatives will not be able to perform their function fully as nucleus of private forest if their activities only concern an extension of the activities conducted so far, because log production from the forests planted after the War is increasing gradually. It is strongly urged that the reorganization and strengthening of the functions of the Forest Cooperatives, such as silviculture, logging, processing and distribution, be carried out on the basis of the newly organized forest labor force.