Japan’s Fiscal Investment & Loan Program, and Co-operative Financing Agreements

Introduction

Forest covers some 25million hectares in Japan, or around 67% of available land. Most forests are located in mountainous regions, and are therefore largely characterized by their steep terrain. Some 58% of forests are privately owned (the remainder being National Forests), mostly by small farmers. Plantations comprise around 46% of these forests, most of which consist of even-aged conifer stands. Japan's forests are recognized not only for wood production, but also for land and water conservation.

To maintain the amenity functions provided by forests, such as water conservation, prevention of natural disasters, protecting/improving the living environment and providing recreational opportunities, the Minister of Agriculture, Forestry and Fisheries, or the governors of individual prefectures, designate some forest areas as "protection forest" under the Protection Forest System.

Japan is the leading importer of timber and wood products throughout the world, accounting for about 27% of international trade in tropical timber and wood products. Approximately 20% of the domestic lumber requirements in Japan are met by domestic forests, with nearly 40% met by North America and 15% met by Southeast Asia.

Afforestation activities have historically focussed on the restoration of forests devastated by over-cutting during World War II, and wood grown for domestic consumption. Since 1965, newly planted areas have generally been decreasing, largely because of a shortage of suitable places for afforestation, inclination toward natural forest management, an increase in imported wood products, and a decrease in the financial rate of return in the forestry sector.

As a result, forestry in Japan has now become largely stagnant, such that most forest owners in now receive little or no income from timber production. According to the 2000 Forestry Census, only 5% of landowners with over 3 ha of forest sold forest products, and only 10% of forest owners with more than 10 ha sold forest products. A decline in income from forest products has led many forest owners to neglect their holdings, causing a shift in current Japanese forest policy to one that focuses more on forestry improvement activities.

Several approaches have been introduced in Japan over the years to promote public participation in forest management including profit sharing forests, a land afforestation campaign, and providing opportunities for voluntary participation in forest-related activities.

With profit sharing forest schemes, people under contract with the Government plant trees in National Forest sites. Profits from the sale of lumber are then shared between the Government and the contractor. This system promotes co-operative efforts between the upstream and downstream communities, such as improvement of headwater forests and the fishermen's forest system.

Through land afforestation campaigns such as the "Forestry Fund for Green and Water" and "Green Feather Fund Raising", the Government encourages the public to participate in afforestation activities, including National Arbor Days and silvicultural festivals. It is hoped that these activities will pave the way to "a better understanding of coexistence between forests and people, global warming, and the role that forests play in the development of the country."

The Fiscal Investment and Loan Program

Modern-day Japan's fiscal activity, including funding for forestry activities, depends on traditional tax revenues and funds from the Fiscal Investment and Loan Program (FILP). Unlike taxes, however, the FILP funds are drawn from postal savings and other funds backed by the credit and other financial institutions of the nation, and must be repaid with interest.

The FILP also differs from government borrowing through bonds in that future repayment comes not from tax revenues but from fund repayments by enterprises that receive the funding.

The FILP is essentially a set of government-sponsored programs that finances government financial institutions and other government-related agencies. The FILP is not just a system of simple financial intermediation, since the government and the FILP agencies are also linked through flows of direct grants and subsidies

In order to implement various government public finance programs, the FILP uses four different kinds of financial resources: 1) Trust Fund Bureau funds, 2) postal life insurance funds, 3) the Industrial Investment Special Account, and 4) government-guaranteed bonds. These resources are all backed by the same credit systems and institutions.

Since they use financial techniques, FILP policy measures make return on investment a precondition for financing national and local public organizations and public institutions for policy implementation. Essentially, the FILP is a tool of fiscal policy that uses financial techniques to allocate funds, backed by the nation's credit system in order to promote policy goals. In other words, it is a framework for making interest-bearing loans to institutions targeted for FILP financing according to contract.

The FILP combines these funds according to the purpose of the FILP's fund allocation. Certain policy areas, such as afforestation, are especially suited to efficient and effective operations by using the FILP financing system.

Recently, there has also been an increase in programs establishing trust funds and profit sharing forest contracts and to support forest maintenance.

The cooperative system

The cooperative system in Japan is a multi-tiered structure with a base comprising farmers, fishermen, and foresters organized into JA (agricultural cooperatives), Gyokyo (fisheries cooperatives), and the Forestry Cooperatives (Shinrinkumiai) at the municipal level. These cooperatives, in turn, form prefectural organizations, and the entire structure is managed by national-level organizations, including the Norinchukin Bank (hereafter referred to as the Bank). Organizations at the prefectural and national levels perform specialized business functions, including consulting, sales and purchasing, financing, and mutual insurance services. (Shinrinkumiai and the Prefectural Federations of Forestry Cooperatives (Moriren) do not provide such financing functions.) The three levels of the cooperative system are closely linked through capital subscriptions, management, and business ties and occupy a major position within the Japanese economy.

The Bank serves as the central bank for the cooperatives, extending loans, including FILP lending, throughout the cooperative system and receiving the majority of its funding from the cooperatives as well as prefectural federations. The Bank acts as an intermediary, making adjustments in the supply and demand for funds within the cooperative system, returning profits to the system, and providing funds to other national-level federations in the system.

The Bank's primary sources of funds are deposits, the majority of which are obtained from the cooperative system and the issuance of Norinchukin Bank debentures. Deposits of JA and Gyokyo are obtained from members of these cooperatives in primary-sector industries and from other residents of local communities. These deposits are entrusted to the Bank via Shinnoren and Shingyoren.

Deposits placed with JA and Gyokyo are lent to members for financing their business operations or as general-purpose loans. Of the remainder, in principle, two-thirds or more are entrusted to Shinnoren and Shingyoren at the prefectural level. These organizations extend loans to agricultural and fishery cooperative organizations, corporations related to the primary sector, and local governments within their own prefectures. One-half or more of the remaining funds are deposited with the Bank. This structure is supported by strong ties with the members of Shinnoren, JA, and other related partners.

The Bank is also one of the few financial institutions in Japan that can float bank debentures and raise funds from individual and institutional investors.

Why did Japan develop this system?

Since early in the 20th century, small merchants and manufacturers, including farmers with forest land, began to organize local cooperatives in rural areas, from which agricultural cooperatives were later born. These cooperatives eventually began to undertake banking operations, which stimulated savings by small farmers. At the same time, policy-oriented finance also began to be directed through these cooperatives.

In 1923 the precursor to the Norinchukin Bank was established using government funding, and under special legislation effectively became the central bank for Industrial Cooperatives. Through the 1930's, agricultural cooperatives continued to develop and began to play an increasingly important role in policy-oriented financing. It wasn't until 1943, however, that Forestry Cooperatives (Shinrinkumiai) joined the Bank and the Bank's name officially changed to the Norinchukin Bank,

When the Second World War ended in 1945, Japan's economy and society was in a state of extreme confusion, and Japan was faced with extreme food shortages. Forests were devastated by over-cutting during the War, and demand for wood for consumption increased sharply

Following the War, many important measures were undertaken by the Japanese government Post-War Agricultural Land Reform was carried out in the period from 1947 to 1950. New systems, such as the agricultural cooperative system, agricultural committee organizations, agricultural technical extension works, and a new land improvement system were founded to promote food production and the modernization of rural areas. In the financial sector, the Government provided funds for the agricultural sector from the Ministry of Agriculture and Forestry's special accounts.

In 1953, Japan's *Agriculture, Forestry and Fisheries Finance Corporation* (AFC) was established as the sole government financial institution to support the development of agriculture, forestry and fisheries. Since then, it has played a vital role in providing long-term and low-interest rate loans for these sectors.

How do these mechanisms fund forestry?

Japan's AFC extends low interest loans, including some that carry no interest, for afforestation, including planting, silviculture and the construction or improvement of forest roads and cableways, on a long-term basis. The longest term for these loans has a maximum repayment period of 55 years. AFC also provides support for the acquisition of forestlands and revitalization of forestry management.

As a government financial institution, AFC extends loans in accordance with established government financial policies (see below), along with policies surrounding agriculture, forestry, fisheries and food supply. AFC extends long-term loans at fixed concessionary interest-rates, in light of the fact that in agriculture, forestry and fisheries, profitability is generally low and the average gestation period of investments is long. AFC raises funds for its loans from the Fiscal Loan Funds Special Account and through issuance of debentures.

How does the mechanism interface with the private sector?

AFC Loans can be made either directly from AFC's branch offices or through agent financial institutions. Agency loans consist of two types: those approved by AFC and those approved by agent institutions. AFC and each agent institution enter into an agreement, which stipulates that the agent institution will be responsible for the disbursement, recovery of loans and partial assumption of the risk, and the agent would be compensated by a commission to be paid by AFC based on the amount of loans disbursed and the interest paid by the borrowers.

Agent institutions, including the Norinchukin Bank, prefectural credit federations of agricultural cooperatives, commercial banks, credit association etc., numbered 278 as of March 31, 2003. In to operate business effectively, AFC, with 938 employees, extends a major part of its loans through these agent institutions.

The Norinchukin Bank, for example, handled some 10% of AFC's loan commitments in FY2002, and contributed some 6.9% of the AFC's ¥1.27b total commitment to the forestry sector.

How is the Fund managed?

Sectors covered by AFC loans are classified into the following four sectoral categories:

- Agriculture
- Forestry
- Fisheries
- Food Industry (Processing & Distribution)

Under forestry, afforestation, construction and improvement of forestry roads, acquisition of forestry land and machinery, setting-up of joint-use production facilities, and stabilization of forestry operations is covered.

Loan Commitments and Outstanding Loans by Purpose (million Y)

Purpose	Loan Commitments (FY2002)	Outstanding Loans (as of March, 2003)
Afforestation & Forest Roads	15,115	748,844
Machinery and Facilities (Individual Entities)	288	19,183
Joint-Use Machinery, Facilities	1,751	31,630
Stabilization of Forestry Operations	60,023	177,347
Forestry Total	77,177	977,004

Loan Funds

For much of its existence, AFC depended upon borrowings from funds collected through the Postal Savings and public pension funds, based on the credit of the Government of Japan, to the Trust Fund Bureau at the Ministry of Finance (the investment plan of these funds is referred to as the Fiscal Investment and Loan Program (FILP)). However, in 2001 the Fiscal Investment and Loan System underwent a fundamental reform and the system of entrusting the full amount of Postal Savings funds and public pension funds to the Trust Fund Bureau was eliminated and the investment of the funds were left to be determined autonomously. Loans to AFC and other Public Institutions have special status, and are now funded from the capital market through issuance of debentures (Special Account Bonds) by the Fiscal Loan Funds Special Account.

In 2001 AFC started to raise its funds through issuance of debentures in addition to its borrowings from the Fiscal Loan Funds Special Account.

The interest charged on borrowings from the Fiscal Loan Funds Special Account had previously been a fixed rate irrespective of its maturity. This rate now varies according to the borrowing term and will be set based on market yields of national bonds.

How does the Fund operate financially?

The government sets the standards for its lending programs through a rigorous screening process, which bases lending criteria on self-assessment standards conforming to the government's financial assessment manual. In this way, AFC implements rigorous assessment of all its assets, making system revisions in each period.

For example, following are the principal improvements made in the term ended March 2003:

- Uncollected loan interest, provisional payments on loans and others were added to assets subject to assessment.
- Independent secondary assessment by the assessment department of assessments by the operating and screening departments.
- Addition of debtors, forestry public corporations and other major public sector customers to those subject to assessment (extraction standards) when their internal credit ratings are below certain levels.
- Systemization of asset assessment operations.

Risk and Return on Investment

In Japan, as elsewhere, the production of agriculture, forestry and fisheries is heavily affected by natural conditions, and as such, prices are subject to wide fluctuations. Because of this, and given the long repayment period associated with these lending programs, in exceptional cases AFC loans could experience difficulties in repayments due to unforeseen events such as natural disasters, crop damage due to diseases and insects, changes in management conditions, etc. For this reason, AFC regularly gathers information on the state of each borrower and the associated asset, including financial conditions, and renders management advice as necessary.

AFC requires mortgages and/or guarantor(s) from borrowers as security for loans, Primary mortgages are established on properties financed by the loans, and in the event that there is a deficiency, other properties (including assets that general financial institutions tend to shy away from), such as farm land, may also be used as collateral.

Risk-managed loans

Although bank legislation does not apply to AFC, self-assessment results follow the same standards as those of private sector financial institutions. That is, AFC inspects borrowers directly or through agent institutions to ascertain whether recipient projects are performing in line with the original plan that was approved by AFC, and whether funds have been applied as provided for in the lending program.

When a borrower falls into insolvency due to circumstances beyond his control, such as natural disaster, sickness of the borrower or a drastic change in market conditions, AFC, taking into consideration the particular circumstances of the borrower, may take steps to relax the terms and reschedule the repayment schedule.

In addition, under certain circumstances AFC will also consider providing loans for rehabilitation of farm management for those who are in difficulty due to low market prices for products, reduction in crops, natural disasters, etc. In such cases, the first priority of AFC is always to examine how to rehabilitate a client's business. With the effects of a protracted recession and an increase in imported foods in recent years, there are some cases in which borrowers have had to abandon rehabilitation of their business. In these cases, AFC attempts to recover its loans through disposing of collateral and calling on the guarantors for payment. In these cases, measures to be taken for debt collection are similar to those taken by commercial banks.

In order to maintain transparency a wide range of information on the status of AFC's bad loans is disclosed to the public.

Self-assessment

In self-assessment, borrowers are classified into five categories, depending on their situation, as follows:

- *Normal:* Debtor's business condition is good, with no particular problems in their financial condition.
- *Monitoring required:* Debtors with loan condition problems, fulfillment problems, weak or unstable business conditions or financial condition problems, requiring monitoring of future management.

- *Danger of bankruptcy:* Debtors not presently in bankruptcy but in management difficulties, no progress in improvement plans and high likelihood of future bankruptcy.
- *Effectively bankrupt:* Debtors whose bankruptcy has not appeared legally or as a matter of form, but are in deep management difficulties with no prospect of reconstruction and are in effect bankrupt.
- *Bankrupt:* Debtors that are bankrupt because of collapse, liquidation, corporate adjustment, corporate rehabilitation, civil rehabilitation, cessation of note exchange dealings and disposition, or other reasons

In addition, and taking collateral, guarantees, etc. into consideration, loan collection risk is graded from unclassified to group IV.

In their assessment results, unrecoverable assets, or those with no value that fail to meet certain criteria, can be, with the Finance Minister's approval, directly written off as prescribed by the "Ordinance related to public corporation government fund payment"(Ordinance No. 162, 1951). In fiscal year 2002 some ¥14 billion in unrecoverable assets were written off under this mechanism.

Based on "Transfer to amortization allowance of non-performing loans" (Finance Ministry Banking Bureau Director-General notice of March 31, 1982), default provisions are set at 0.6% or less of the loan balance after subtraction of loan receipts.

Has this system been successful?

At the end of fiscal 2000 (March 2001) the outstanding amount of the FILP stood at around ¥418 trillion (about US$3.48 trillion at the exchange rate of ¥120 per dollar), or more than 80% of GDP (Doi and Hoshi, 2002). The postal savings, which at the time was the most important source of funds for the FILP, was one of the world's largest financial institutions, with around ¥250 trillion in deposits (35% of total household deposits) as of the end of fiscal 2000.

The persistence and scale of Japanese banks' bad loans problem, however, is probably unparalleled among developed economies, and the FILP has been no exception.

In their 2002 review of the FILP, Doi and Hoshi (2002) found that many public corporations and local governments were actually de facto insolvent. Their estimates suggest that as much as 68% of the FILP loans were bad, and they calculated the expected losses to be in the order of ¥45 trillion (9% of GDP) or higher.

They noted that the Special Account for National Forest Service, which used to be one of the FILP recipients, was restructured in fiscal 1998. At this time the government issued bonds to pay for losses that amounted to some ¥2.8 trillion.

Analysis of the program has revealed a complex flow of funds and subsidies among the central government, public corporations, and local governments in the FILP. The system has since been, and continues to be, reformed. The effectiveness of the resulting system is difficult to gauge at this point.

However, and as noted earlier, in 2001 the Fiscal Investment and Loan System underwent a fundamental reform and the system of entrusting the full amount of Postal Savings funds and public pension funds to the Trust Fund Bureau was eliminated. The FILP now appears to have developed very rigorous standards for loan approvals self-auditing practices.

As a result of this recent reorganization, it is difficult at this point to determine how well the system is functioning financially.

What is required for this mechanism to work?

The idea of a centrally-based finance agency extending forestry financing through some kind of independent financial institution would, at face value, seem to be an attractive option for many countries. Such a system could well be used to fund regional forestry cooperatives and afforestation. The institutions in Japan, however, have evolved over a long period of time, and appear to have been originally developed from the smallholder up as well as from the top down.

Growth in afforestation in many other countries, by contrast, has often been driven by policy decisions from the top down. In addition, forestry cooperatives do not currently exist on a large scale in many countries, particularly when compared with countries like Japan, Ireland and Denmark, which have long traditions of forestry cooperatives. Indeed, although there are long traditions of farm cooperatives to aid small operators in many countries, forestry cooperatives are not as common.

Typically, farm cooperatives are engaged in processing and marketing, whereas forestry cooperatives get involved much earlier on. A cooperative provides a framework within which the members (or shareholders) can formalize their relations with each other. It also has the ability to raise money, which may make it easier for small businesses to grow and develop. Moreover, it can also be considered a 'body corporate', with the ability to give credit and borrow money.

Forest cooperatives help by allowing landholders to take advantage of economies of scale, both in terms of helping landowners to plant in adjoining areas, and by providing access to bulk pricing on goods and services. For landowners planting smaller forested areas, start-up costs can be prohibitive, particularly in terms of fencing, seedlings and specialized equipment, and small plots may be too small to become viable economic units. Government support for such cooperatives can be an efficient use of resources.

What basic elements are needed?

Formation of a forestry credit and funding system

While the overall credit system in Japan seems to have problems beyond the scope of this briefing note, some sort of financial distribution system would need to be set up in a country if support for forestry cooperatives and the distribution of loans is to be implemented. And while support for cooperatives may be feasible through an expansion of current government forestry structures, a credit system set up to run through a financial system, one based on government criteria, might function better for loans. Such financial institutions already have the ability to process loans, and the infrastructure to deal with the dynamics of regional demands.

Emphasis on financial returns

Many of Japan's smaller, privately-owned plantations are currently being neglected, mostly due to poor financial returns. Japan's case shows that markets for wood products need to be clearly identified prior to planting. While future prices and currency fluctuations are difficult to predict, clear objectives for afforestation need to be established, and rigorous benefit-cost analyses need to be performed.

Quantification of market and non-market benefits

As mentioned earlier, the Japanese government has, in recent years, begun to recognize the importance of non-market benefits, including environmental benefits. A benefit-cost analysis that includes such benefits is likely to provide both motivation and justification for a larger government stake in any lending or support program.

Protection of ecosystems, biodiversity and erosion control, for example, provide very real benefits that governments (municipal, regional or federal), or indeed individuals or conservation organizations, may be willing to invest in. Similarly, the monetary quantification of many secondary market benefits, such as tourism and hunting receipts, may also interest various levels of government or landowners in participating in such a fund, and help ensure that plantations are well-maintained.

Elimination of system inefficiencies

For Japan, an overly-complicated financial system led to increased red tape for all concerned, and a lack of transparency in the system in general. Moreover, unnecessarily complicated systems are costly in and of themselves. If other countries were to set up a network for the distribution of funds to forestry, it should keep the system relatively straight forward, while still maintaining a rigorous internal accounting and auditing procedure.

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