

«Note»

# Agricultural and Forestry Resource Development Organizations in Regions Formerly Managed by Imperial Japan: Comparative Study of Agricultural Cooperatives

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## **Introduction: Characteristics of the development of agricultural cooperatives in Japan**

This article presents a discussion of the development of agricultural cooperatives in modern Japan to ascertain the effects of promoting development that the “family” system (“*ie*” system) and “closed communities” (“*mura*” societies) unique to Japan had on Japan’s economy.

The Agricultural Cooperative Act was promulgated and enforced in Japan in 1900. Subsequently agricultural cooperatives expanded rapidly. The role that agricultural cooperatives played in rural economies during the pre- World War II period was extremely important. The Agricultural Cooperative Act permitted businesses of four types: credit business, selling business, purchasing business, and rental business. Credit businesses consisted of collecting and lending the savings of union members. Credit businesses proved the most profitable among the four. Selling businesses collected and sold rice, wheat, and other crops produced by farmers. Purchasing businesses of agricultural cooperatives were run by purchasing industrial supplies such as fertilizers and farming tools and commodities and selling them to their members. The credit, selling, and purchasing businesses were designed to protect farmers from loan

sharks and merchant capital. Rental businesses of agricultural cooperatives were established to purchase agricultural machinery and other equipment and rent them out to their members for a fee. The cooperatives were able to select any one of the four businesses to run, or they were able to operate multiple businesses concurrently.

Improvement of rural finance was demanded by the farmers at the time and the credit business was the most profitable, which encouraged agricultural cooperatives to develop their credit business as a priority. This article presents development of its discussion based on credit business.

The credit cooperatives were characterized by their unsecured short-term loans based on personal credit. Banks, in many cases, provided loans secured by real property. The borrowers consisted largely of real estate owners such as landlords. Credit cooperatives provided unsecured financing based on personal credit. Credit cooperatives therefore would not continue stable development except in areas where personal credit was established. Japan had established its unique, tight-knit “closed communities” in which the residents were bound by direct contact and strong trust relationships. The foundation of personal credit in Japanese credit cooperatives was only possible with the support of such strong trust relationships. In other words, personal credit in credit cooperatives was established in strong trust relationships, close direct contact, and relationships of mutual behavior monitoring. Formation of these relationships was made possible by the “family” system and “closed communities” that are distinctive of Japan. Trust relationships were thereby weaker and direct contact was less frequent among the farmers in regions other than Japan, where mobility of farmers and farmland was high because of division by inheritance, which, unlike in Japan, prevented the successful development of credit cooperatives. This firm establishment of personal credit is the primary condition that supported the development of Japan’s agricultural cooperatives.

The second issue is the problem of areas in which agricultural cooperatives were organized. Credit cooperatives in Japan were founded in regions where the residents were able to build trust relationships reliably, as the districts for organization. These are the areas designated as “closed communities” in this article. These areas have long been the resident by each “family” generation after generation. Because certain “families” have lived in the same area for many years, extremely close relationships among the “families” or a “family” and farmland, wilderness, and mountains and forests are established. The districts for organization were areas in which such trust relationships would definitely develop among the residents. An agricultural cooperative based in an excessively wide area was thought to have exceeded the range that would allow the definite growth of trust relationships, which therefore might have been unsuccessful in developing its credit business.

The third issue is the presence of landowners and wealthy residents who contribute to the development of the local community. Landowners and wealthy residents living in the regions of Japan were characterized by their earnest efforts at local community development even at some sacrifice of their personal interests and willingness to invest their private funds into local development. Landowners and affluent people in Japan sometimes provided agricultural cooperatives with large interest-free loans and funded numerous projects to contribute to the foundation of such cooperatives. They would assume the position of directorship of the cooperatives without remuneration and provide their own homes to be used as offices for those cooperatives. Such support of landowners and affluent residents was extremely important for those cooperatives at their early stage to get their businesses on track successfully. Such activities of people with land and property who would contribute to local development even at their own expense were characteristic of and perhaps unique to Japan.

Establishment of credit cooperatives has been attempted in other Asian countries, which, however, was generally not as successful. The problems that have been pointed out, in general, include difficulties in savings mobilization (having cooperative members deposit funds at their credit cooperative) and low recovery rates of funds borrowed by cooperative members (see, for instance, the introductory chapter of *Nouson Kaihatsu Kinyuuron (Rural Development Finance)* (Japanese) by Yoichi Izumida (2003, University of Tokyo Press)).

First, savings mobilization is a fundamental requirement for the formation of a credit cooperative. A credit business, fundamentally, was established to create a fund flow within the region without relying on externally donated funds. Without active savings mobilization, this assumption would fail. The difficulty of savings mobilization is apparent in the behavior of borrowing without saving, which is commonly seen in farmers. As a result, the loan-to-deposit ratio (loan balance divided by deposit balance) became extremely high, consequently forcing the credit cooperative to borrow working capital from external institutions. A soaring loan-to-deposit ratio is often a reflection of declining savings mobilization.

Secondly, the question arises of whether each rural community can control the opportunistic behavior and moral hazard of cooperative executives and members. Although this becomes a problem in various situations, the most crucial point is whether the loans can be collected without exception. The low rate of loan collection is a problem that is directly related to the sustainability of credit cooperatives, which is, thereby, an extremely important issue for them. Because credit cooperatives provided unsecured loans based on personal credit, minimization of the probability of default was important. Farmers' behavior of borrowing without repaying funds or not repaying them despite having adequate solvency is often observed in developing countries. The question is whether such behavior can be controlled by the village community. In some cases,

misconduct is committed by cooperative executives. A cooperative can not be operated successfully by executives who themselves commit wrongdoing. The point is how the rural community can be capable of controlling such a situation.

Japan has built a unique “family” system and “closed communities”, which has helped satisfy the two conditions above. This was the basis of the rapid expansion of agricultural cooperatives. The Japanese “family” system was the basic incentive for savings mobilization. The basis of Japanese farmers’ behavior since the Edo period had been their earnest wish for eternal continuation, prosperity, and prevention of a downfall of their “family” line. This was transformed into common morals of the farmers such as diligence, thrift, honesty, filial piety, humbleness, submission, devotion, and faithfulness, which were gradually internalized into the modus vivendi of the farmers as self-discipline, self-training, and self-control (see *Nihon No Kindaika To Minshu-shiso (Modernization of Japan and the Thought of the Common People)* (Japanese) by Yasumaru Yoshio (1974, Aoki Shoten), etc.). In this context, this is the internalization of the ethics of farmers’ diligence and saving. This became the incentive for savings mobilization of credit cooperatives in modern Japan. Conventional studies of the financial history of modern Japan have lacked the analytical perspective of connecting the common morals of preventing a downfall of a “family” and savings mobilization, but the causal relationship between the two is important in explaining the savings mobilization in Japan.

Japanese farmers rarely migrated, even over many years, as a result of the “family” system. Japan’s “closed communities” are social relationships built on the assumption of such immobile farmers. The sole inheritance by the first son through the Japanese “family” system made the Japanese farmers extremely stationary. This is a rare case even in world history. The “closed communities” consisting of the “families” develop strong trust in their social

relationships, allowing economic transaction governance with effective mutual surveillance and control. The stable development of credit cooperatives was supported by the communities which allowed such business governance. The “closed communities” of Japan enabled substantial reduction of transaction costs incurred in screening, monitoring, and debt collection associated with moneylending. The mutual regulation and monitoring in the “closed communities” also proved effective for controlling the misconduct of union executives. The Japanese “closed communities” constituted the prerequisite for the stable development of agricultural cooperatives.

The agricultural cooperatives in modern Japan therefore achieved markedly successful growth with the support of the “family” system and “closed communities” peculiar to Japan. In sum, first, conditions that permitted personal credit were satisfied. Secondly, organizational districts appropriate for establishing personal credit, namely, the “closed communities” existed. Thirdly, numerous landowners and affluent residents made significant contributions to the local development. Fourthly, the “family” system provided incentives for savings mobilization. Finally, the “closed communities” unique to Japan proved capable of controlling the opportunistic behavior and moral hazards of cooperative executives and members.

The agricultural cooperatives in Japan thus accomplished successful development, but what were the circumstances of cooperatives in regions of the former Empire of Japan that developed contemporaneously? The aim of this study is to make a synchronic comparison of agricultural cooperatives founded in the regions of the former Japanese Empire with the counterparts developed in Japan used as the standard to examine the reasons for different performance of the cooperatives depending on the region. These regions include the mainland of Japan, Okinawa, Taiwan (Formosa), Korea, Karafuto (South Sakhalin), and Micronesia under Japanese Mandate. The discussion particularly examines

Karafuto and Micronesia to elucidate the issue presented above.

The following reviews the history of studies of agricultural cooperatives in the former Japanese Empire. The Agricultural Cooperative Act was promulgated and enforced in 1900. Subsequently agricultural cooperatives expanded rapidly in Japan. The roles that agricultural cooperatives played in rural economies in the prewar era were substantial and analysis and research of them had already been developing at the time. These cooperatives have often been included also in postwar historical studies, adding to the extremely large numbers of studies of them ranging from pre-war to post-war periods. Almost no research of agricultural cooperatives in the former Japanese Empire, on the other hand, has developed with the exception of a cooperative credit society in Korea. Preceding studies of Okinawa, Karafuto, and Micronesia are likely to be nonexistent. Studies of Taiwan (Formosa) have also been extremely rare. In other words, preceding studies of Karafuto and Micronesia that specifically address this issue have never been reported.

Agricultural cooperatives in the regions ruled by the former Japanese Empire were given the grounds for establishment by the following laws and regulations: the 1907 regulations for regional cooperative credit societies; 1914 order for regional cooperative credit societies; and the 1926 order for Korean agricultural cooperatives for cooperative credit societies and agricultural cooperatives in Korea, the 1913 rules for Taiwanese agricultural cooperatives for agricultural cooperatives in Taiwan, the 1915 law for Karafuto agricultural cooperatives for agricultural cooperatives in Karafuto, and the 1932 order for Micronesian agricultural cooperatives for agricultural cooperatives in Micronesia.

## **Chapter 1 Comparison of agricultural cooperatives in the regions of the former Japanese Empire**

This section presents a review of the characteristics of the management of

agricultural cooperatives in Korea, Taiwan, Okinawa, Karafuto, and Micronesia in comparison to that in Japan.

The number of agricultural cooperatives in 1940 was 15,101 in Japan, 723 in Korea, 501 in Taiwan, 107 in Okinawa, 94 in Karafuto, and 7 in Micronesia. The number in Japan was the largest by far, followed by Korea and Taiwan. Although the numbers in Okinawa and Karafuto were approximately a hundred, Micronesia only had seven cooperatives.

The management index reveals that Korea and Taiwan generally outperformed Japan in paid-in capital, reserve funds, savings, sales, and purchase volume. The status of their reserve funds and savings indicated particular strength. The debts, however, considerably exceeded the figure for Japan. The large amount of borrowings made using the capital resulted in a loan-to-deposit ratio of higher than 100%. Not until the 1930s would the ratio begin to go below 100%. Japan's loan-to-deposit ratio went below 100% in 1917. So far as this index suggests, Korea and Taiwan were performing significantly better than Japan.

In contrast, Okinawa, Karafuto, and Micronesia scored lower than Japan in most cases in the index for reserves, savings, sales, purchases, and usage fees. The levels of savings in Okinawa, Karafuto, and Micronesia were low, making the ratio of savings in capital low in these regions. Overall, the data depict the early stage of agricultural cooperatives that rely on paid-in capital and borrowings. Particularly the level of savings of Okinawa was substantially lower than even those of Karafuto and Micronesia. The Okinawan economy went through the period of the so-called "Sago Palm Hell" after the 1920s, in which the economy was facing extremely severe problems. The low level of savings in Okinawa was evidently related to this situation.

The following reviews the farmer organization ratios (the number of cooperatives members divided by the number of farm households). Japan's



farmer organization ratio remained low at 36% in 1920, which, then, rapidly grew to 102% by 1940 to include almost all farm households in the organizations. The farmer organization ratio of Okinawa was rather low at merely about 20% in the 1920s (22% in 1922, 19% in 1925, and 16% in 1930). The member composition by occupation indicates farmers comprising more than 90% at all times while the percentages of members in fisheries, commercial and industrial businesses, and public services and independent professions remained low. These data imply that the farmer organization ratio was markedly low. Okinawa, too, however, improved its farmer organization ratio rapidly in the latter half of the 1930s and thereafter. The ratio reached 73% by 1940. The farmer organization ratio of Karafuto also sharply increased in the latter half of the 1930s, growing from 34% in 1935 to 113% in 1940 to include almost all farmers in the organizations. The organization ratio of all regions that had been lower than Japan consequently soared during the latter half of the 1930s.

## **Chapter 2 Cooperatives in Karafuto**

One characteristic of agricultural cooperatives in Karafuto was that they were positioned as an important measure for Karafuto colonization. In this sense, the agricultural cooperatives in Karafuto had a strong nature of organizations for agriculture and forestry resource development. The following describes the characteristics of Karafuto agricultural cooperatives on the assumption of the above.

Toyohara Credit Cooperative founded in December 1915 was the first agricultural cooperative in Karafuto. It had a strong financial base and superior business performance, and led the industry of Karafuto agricultural cooperatives as a role model. Subsequently an increasing number of agricultural cooperatives were established from 33 in 1921 to 57 in 1933 and 94 in 1940. About half of them were based in districts that were smaller than municipalities.

The member compositions by occupation were generally characterized by large percentages of those engaging in commercial businesses, civil services, and independent professions. The high percentage of members engaging in commercial businesses, civil services, and independent professions in Karafuto contrasted starkly against the large number of farmers in the cooperatives of Japan. The leaders of the cooperatives playing central roles also consisted largely of commercial workers. This was also the case in Micronesia, as described later.

The cooperatives in Karafuto were categorized into four types by the agency of Karafuto based primarily on the member composition. These included rural cooperatives, fishery cooperatives, urban cooperatives, and special cooperatives. The quantities of the four types of cooperatives in 1938 were, respectively, 36, 6, 19, and 20. The largest number was rural cooperatives, although there were also many urban and special cooperatives. Rural and fishery cooperatives were comprised primarily of farmers and fishery workers, respectively. Those cooperatives commonly operated businesses of multiple types including credit business, selling business, purchasing business, and rental business. With some exceptions, urban cooperatives were often cooperatives catering mostly to non-primary industries such as commercial businesses, public services, and independent professions. Special cooperatives consisted of consumer cooperatives, dairy farmer cooperatives, fox farmer cooperatives, and others. The numbers of cooperatives in August 1938 were, respectively, 1, 7, 10, and 2."Dairy farmer cooperatives produced dairy products such as butter. Fox farmer cooperatives bred foxes and sold the fur.

Among the cooperatives described up to this point, the business of urban cooperatives was performing well. The level of paid-in capital and reserve funds of urban cooperatives by far exceeded the average of the cooperatives in Japan. The amounts of savings per member were also large, suggesting that

the urban cooperatives of Karafuto were operating businesses comparable to those of the cooperatives in Japan. Meanwhile, the performance of rural cooperatives, fishery cooperatives, and special cooperatives was poor in all aspects including paid-in capital, reserve funds, savings, loans, sales, and purchases. These cooperatives were highly dependent on borrowings attributable to their extremely low level of savings. The amount that was lent was larger than savings and their loan-to-deposit ratios were also rather high. They indicated business conditions that were typical of a cooperative at an early stage, including the high ratio of paid-in capital in their capital structure. They were fundamentally facing the problem of low savings mobilization. Whereas the agency of Karafuto intended to promote agriculture in Karafuto and encourage farmers to play the central role in the management of cooperatives, it failed to improve the performance of agriculture in Karafuto. Farmers were therefore unable to take leadership in cooperative management. Some rural cooperatives exceptionally lacking savings and having a very high loan-to-deposit ratio could only slightly be regarded as cooperatives.

The interest rates in Karafuto were high. A comparison of interest rates on postal savings and savings and loans of banks and credit cooperatives in Japan revealed the rates in Okinawa to be the highest. However, the interest rates in Karafuto were even higher than those in Okinawa. The interest rates in Karafuto were apparently extremely high. The high interest rate on loans in Karafuto was attributable to the inadequacy of financial institutions and low level of real estate credit.

Emigrants to Karafuto showed extremely high mobility. In other words, they rarely tended to settle down in one area, but would readily move to a place closer to higher-paying jobs. Although the mobility of commercial workers was lower, that of residents engaging in agriculture and fisheries was extremely high. The high mobility of residents was at a level inconceivable in the

farming and fishing villages in Japan. Given such high mobility, development of trust relationships, direct contact, cooperation, mutual aid, mutual control, and other social relationships among the farmers was difficult. The farmers' social relationships had to be built at a place where no social relationships among the residents had existed at all, but the farmers who were to take the initiative repeatedly moved readily. As a result, "closed communities" with strong trust relationships resembling those seen in Japan never developed. The social relationships that should become the basis of building agricultural cooperatives were nonexistent. This is the fundamental reason why cooperatives did not develop successfully in the farm villages of Karafuto.

### **Chapter 3 Cooperatives in Micronesia under Japanese Mandate**

Financial institutions equipped with a lending function were long absent in Micronesia. The geographical conditions of the scattered small islands in a broad area, small populations, and underdeveloped economy prevented the establishment of main branches of banks in Micronesia, and banks based in Japan were hesitant to open their branches in the region. Post offices were the only institutional financial establishments. This financial inefficiency was a tremendous barrier to the development of Micronesia. An agricultural cooperative would emerge as an organization in charge of developing agricultural and forestry resources, which would be expected to remove the obstacles in the industrial development of Micronesia.

Micronesia established seven cooperatives. Because six of the seven cooperatives operated credit business, overall, the primary business of the cooperatives in Micronesia was credit business. The member composition by occupation revealed large proportions of commercial workers, civil servants, and independent professionals except in one cooperative with numerous farmers. All of the cooperative members were Japanese.

Their management condition was characterized by generally high percentages of paid-in capital and borrowings in their working capital structure, suggesting that the typical condition of cooperatives at an early stage persisted. Yet the high ratio of savings was a characteristic of them. The level of savings was high, and as a whole, the business conditions were favorable. In their lending business, loans to commercial and industrial companies were large. The interest rates, however, were considerably higher than those in Japan and Karafuto. Like the cooperatives in Karafuto, the Micronesian cooperatives had the nature of an cooperative for commercial businesses rather than for farmers.

In sum, the cooperatives in Karafuto and Micronesia can be characterized by their roles as organizations in charge of developing colonial agricultural and forestry resources. In both areas, however, cooperatives in farm villages lacked activities and their positions in each respective market of regional finance failed to reach a high level. Rather, the characteristic of Karafuto and Micronesia was that both had developed as credit cooperatives. Considering this, it is rather doubtful that the cooperatives in Karafuto and Micronesia were capable of adequately playing the role of the organization for the development of agricultural and forestry resources.

#### **Chapter 4 Agricultural development and cooperatives**

The following first quantitatively examines the relationships between agricultural output and management of cooperatives. An investigation into the correlation between a cooperative's management index and agricultural output reveals the following. The coefficients of correlation with the loan-to-deposit ratio, sales business, and purchase business are extremely high at approximately 0.8. The loan-to-deposit ratio shows an inverse correlation. The others show a positive correlation. The second highest coefficient of correlation was savings. Conversely, the coefficients of correlation with reserve funds,

borrowings, and cooperative management index were low. The result described above is closely consistent with the idea of regularly understanding the growth of agricultural production and development of cooperative businesses.

Furthermore, the agricultural output of Karafuto was substantially lower in comparison to that of Japan. The agricultural output per farmer was about half or even less than half of that in Japan.

Results of this examination up to this point suggest that the poor performance of cooperatives in Okinawa and Karafuto might be explained by the low level of agricultural productivity in addition to weak trust relationships in the rural communities.

## **Conclusion**

The aim of this study was to examine as specifically as possible the agricultural cooperatives in Karafuto and Micronesia, which have never been studied in the past, and to ascertain the conditions for the development of such cooperatives.

As prerequisites for the development of agricultural cooperatives that provided unsecured financing based on personal credit, the issues of how to promote savings mobilization and how rural communities would be able to control the opportunistic behavior of farmers (cooperative members) were examined specifically. Japan has its unique “family” system, in which the farmers’ behavior and ethics of hard work, thrift, and regular savings for the permanent continuation of “families” and prevention of a downfall of “families” had been popularized. This constituted the incentive for savings mobilization. The “closed communities” that are distinctive of Japan played the role of controlling farmers’ opportunistic behavior and governing economic transactions. Farmers and villages in both Karafuto and Micronesia, however, did not have such functions of providing incentives for savings mobilization and governing

economic transactions. Without the formation of a “family” system like that of Japan, farmers’ ethics associated with the “family” system did not fully develop and the incentives for savings mobilization were inadequate. Unlike Japan’s “closed communities” based on “families”, the village communities consisting of highly mobile farmers failed to develop social relationships such as trust, cooperation, mutual aid, and mutual control adequately among the farmers. In addition, the development of rural economies was considerably slow in these regions, and such an economic environment of agricultural cooperatives likely had the effect of distracting the development of agricultural cooperatives. The prerequisites for the development of agricultural cooperatives must have been inadequate in Karafuto and Micronesia in both economic and non-economic aspects.

#### Note

This article is a summary of Sakane (2013).

#### Bibliography

- Arimoto, Yutaka (2006): “Kaihatsu Keizaigaku kara mita Jichi Sonraku (Perspective on Autonomous Village Theory: A View from Development Economics),” *Nogyoshi Kenkyu (The Journal of Agricultural History)* 40.
- Hayami, Yujiro (1995): *Kaihatsu Keizaigaku (Development Economics)*, Sobunsha.
- Izumida, Yoichi (2003): *Nouson Kaihatu Kinyuuron (Rural Development Finance)*, Tokyo University Press.
- Kato, Yuzuru (1984): *Nogyo Kinyuron (Agricultural Finance)*, Meibun shoten.
- Kawamoto, Akira (1983): *Mura no Ryoiki to Nogyo (Territory of Village and Agriculture)*, Ieno hikari kyokai.
- Matumoto, Takenori (2011): “Shokuminchiki Chosen niokeru Kinyu Kumiai no Soshiki to Kinou (An Analysis of the Organizational Characteristics and Functions of the Cooperative Credit Societies in Colonial Korea),” *Nogyoshi Kenkyu (The Journal of Agricultural History)* 45.
- Okama, Kunio (1994): *Gyouseison no Shikkou Taisei to Shuraku (Execution Structure and*

*Village Society*), Nihon keizai hyouronsya.

- Saito, Hitoshi (1989): *Nougyou Mondai no Tenkai to Jichi Sonraku (Development of Agricultural Problems Referring to Autonomous Village)*, Nihon keizai hyouronsya.
- Sakane, Yoshihiro (1996): *Bunkatsu Souzoku to Nouson Shakai (Partible Inheritance and Farming Village Society)*, Kyushu University Press.
- Sakane, Yoshihiro (2011): *Nihon Dentou Shakai to Keizai Hatten (Japanese Traditional Society and the Economic Development)*, Nosangyoson bunka kyokai.
- Sakane, Yoshihiro (2013): “Nihon Teikokuken niokeru Norin Shigen Kaihatsu Soshiki (Agricultural and Forestry Resource Development Organizations in the Japanese Imperial Sphere: Comparative Study of Agricultural Cooperatives)” in Kimio Noda ed. *Norin Shigen Kaihatsu Shiron II (A History of Agriculture-Forest Resource Development, Vol. 2)*, Kyoto University Press, pp. 23–70.
- Takeno, Manabu (2001): “Shokuminti Karafuto Nogyo no Jittai (The Essential Karafuto Agriculture: the Period of Collective Immigration, 1928–1940),” *Shakai Keizai Shigaku (Socio-Economic History)* 66–5.
- Yasumaru, Yoshio (1974): *Nihon no Kindaika to Minsyu Sisou (Modernization of Japan and the Thought of the Common People)*, Aoki syoten.
- Yurugi, Takao (1996): “Senzenki Noson Chochiku Doin no Shinten (Rural Savings Mobilization in Prewar Japan),” *Nogyo Keizai Kenkyu (The Journal of Rural Economics)* 67–4.
- Yurugi, Takao (1996): “Nihon niokeru Noson Shinyo Kumiai no Keisei Katei (Transformation from Informal Group to Cooperative Financial Institution in Rural Japan),” *Ajia Keizai (Asian Economics)* 37–3.