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AGRICULTURAL DEVELOPMENT IN JAPAN IN THE PRIMARY STAGE OF HER CAPITALIST ECONOMY (1888-1914)

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I The Industrial Revolution in Japan

In this paper we will deliver some preliminary comment on problems of the Industrial Revolution in Japan from 1888 to World War I. Throughout this period Japan achieved the revolution of her industry and managed to establish industrial capitalism, which was destined to be transformed soon or later into financial capitalism. The Industrial Revolution in Japan covered, generally, the course of 20 years, from 1888 to 1908, when the economic structure of Japan was drastically changed. The crisis of 1907-1908, however, caused great damage to new-born industrial capital and impelled her to change monopolistic capital. Thus the period from 1907 to 1914 corresponded to the transition from industrial to monopolistic capitalism.

In order to examine the problems of capitalism in Japan at its youthful stage, which later came an end by the formation of premature financial capital, this article first discusses the general characteristics of the Industrial Revolution; secondly, it explains the structural feature of Japanese capitalism; and lastly, it makes clear the structure of Japanese agriculture, the situation in the rural economy, and the agricultural policy of early Japan. As for the transitional period from industrial capitalism to monopolistic capitalism, we will discuss it supplementarily in several places during the course of this article.

Through the period of the Industrial Revolution, the fundamental sectors of commodity-production become in general captured by capital and the whole society comes to be reorganized mainly by the law of capital movement. That is, throughout the period of the Industrial Revolution, the rhythmical social reproduction mechanism of capitalism becomes established in general for the first time.

Characteristics of the Industrial Revolution in Japan

In Japan, late-coming and less developed capitalist country as she was, it was cotton spinning, as was the case with the British, which played the most important role. But there is a great difference between these two

countries. Great Britain, pioneering in the universal Industrial Revolution, with her large-scale factory production did away with traditional manufactures in the home market as well as abroad. On the contrary, it was by no means possible for Japan, with her industrial equipment transplanted from abroad, to take advantage over the advanced industrial nations in the competition of productive power. Nevertheless, how could Japan manage to capture so rapidly the domestic market for the cotton spinning industry; and moreover, why could Japan grow up to become an exporter of cotton yarn and cotton goods? It is for the moment enough to point out the following four reasons. First, the long-term decline in the value of international silver against gold-standard countries lowered the price of their commodities against those of the European gold-standard nations. Commodities from countries with the silver-standard system would have a lower price in the world market. So the silver standard system in Japan was helpful in thus suppressing imports from other countries.

Second, the traditional domestic handicraft, such as raw silk manufacture, was favourably developed so that export of these traditional commodities eased the deficit of foreign currency. We will examine this problem at length in the following chapter.

Third, the reorganization of the domestic cotton industry rapidly enabled Japan to overcome the disadvantage of having to import foreign textiles, primarily, by making use of the imported cotton yarn and then managing to develop her domestic cotton spinning industry or introducing such improved hand-loom as the *Battan* type.¹⁾ As a consequence, Japan succeeded in monopolizing her own vast domestic market for cotton yarn and goods.

Fourth, the rise of private enterprises in the cotton-spinning industry entitled her to compete with imported cotton yarn. It is well known that in the beginning of the Meiji era Japan imported spinning equipment and machines, each with 2,000 spindles, in an attempt to promote the modernization of this industry. In 1883 after the failure of these enterprises, a private cotton yarn enterprise, "The Osaka Spinning Co." with 10,500 spindles was established. Afterwards, relatively large-scale private spinning factories were established one after another. In the technological field, the ring spinning machine, which possessed higher productivity in the field of thick yarn, rapidly replaced the mule. Furthermore the day and night shift with cheap labour power increased the effective operation of factories. The introduction of the joint-stock company eased the financial burden for private enterprise. Besides, special financial support was allowed the cotton industry by way of special discounting for bills of exchange for raw cotton imports and by

¹⁾ The word "battan" originated from the French word, "battant." At the beginning of the Meiji era, "battan" machines were imported to Japan.

special loans on mortgaged shares. From the aspect of economic policy the Japanese government supported the cotton industry by abolishing the import duty on raw cotton in 1894, and the export duty on cotton yarn in 1896 by granting a subsidy to the Bombay line. In this manner the Japanese cotton-spinning industry supplied the home market with cheap cotton yarn completely, and after the Sino-Japanese War drastically increased its export to the Asian market, especially to China and Korea. It should be noted that the Japanese cotton spinning industry could establish itself in a private capitalist sector without any protective duties or any other special direct assistance.²⁾

As mentioned above, in Japan the Industrial Revolution developed mainly in the spinning industry. The silk-reeling-and-throwing industry, as well as the cotton spinning industry, was also the backbone of the Japanese Industrial Revolution. Owing to the favourable export of raw silk which will be seen in the following chapter, the silk-reeling-and-throwing industry developed as a symbiosis of two different types; the one, the traditional hand reeling tool which was known as "zaguri" (sitting reel), and the mechanical reel, a simplified type of imported machine falling somewhat between these two forms. At the traditional hand reel, one spinning girl turned one spinning wheel. In the mechanical reeling machine, several spinning wheels are turned by hand, water power, or steam power. But there is an important similarity. In both cases one spinning girl must take out several threads from silk cocoons by hand and also combine them into one thread of silk by hand. To sum up, since the main working equipment of the mechanical reeling machine was insufficiently mechanized, the mechanical reeling machine required skilled handicraft by spinning girls. On this point, that is, for quality of productive power, the mechanical reeling machine could not obtain predominance over the traditional man-powered reeling tool "zaguri." These are the reasons for the coexistence of the two forms.

In about 1905 the number of boiling pots for melting silk cocoons reached a maximum. The total number of boiling pots for these two forms was about 800,000 in 1905 and then decreased to about 600,000 in 1915, while the number of mechanical reeling machines rapidly increased. During the Sino-Japanese War (1894) the output of silk by mechanical reeling machines exceeded that of the traditional hand reeling method and during the Russo-Japanese War (1905) the output by the former was twice that of the latter. The number of mechanical-reeling-machine boiling pots, located mainly in Nagano, Yamanashi, and Gifu Prefectures, was 37,000 in 1888 but afterwards

²⁾ On the Japanese Cotton Industry, see Naosuke Takamura, *Nippon Bosekigyoshi Josetsu (Introduction to a History of the Japanese Cotton Industry)*, Vol. I, Tokyo, Hanawa Publishing House, 1971.

increased to 130,000 in 1896. Following a short stagnation and a little decline the total reached 180,000 in 1911.

In 1905 the number of mechanical silk-reeling workshops with 10 or more boiling pots was 2,320 and the total number of boiling pots 128,152. Private silk reeling workshops (82% of the total) possessed only 50.6 boiling pots each of the average. On the other hand, there existed a small number of large silk-reeling factories which went through the boom and crisis to extend their production. Seven owners of silk-reeling factories possessed more than 1,500 boiling pots respectively in 1911 and these seven made up 10.7% of the total number of boiling pots in the country. Such development of capitalist silk-reeling and throwing factories took place chiefly in the Suwa country of Nagano Prefecture, and its success can be attributed to the long working-hours by young women (from 13 hours to 18 hours a day). Capitalist silk reeling spinners in general dwelling in the dormitory also invented systems of exploiting the low wage scale, as "the wage grade system" or "the wage assessment by relative achievement." In the case of the latter, the manager paid wages to a spinner at the end of a certain period, in accordance with her record relative to the general average throughout the period and even imposed some penalties for poor performance.³⁾

Structural Characteristics of Japanese Capitalism

As mentioned above, Japanese capitalism, which had been established with difficulty, possessed in the 1890's several special characteristics which resulted from its striking backwardness combined with prematurity in its structure.

First, let us examine the structural characteristics of Japanese capitalism from the viewpoint of capital. During the process of the Industrial Revolution in Japan, industrial capital captured the production-process in only a few sectors which could utilize the low level of wages as a powerful means in such departments as the cotton and silk spinning industry, coal and other mining, the shipbuilding industry etc. Since the development of the heavy industries was remarkably insufficient, Japan had to rely heavily on imported equipment, the symbols of modern productive power, even in the cotton spinning and silk reeling industries. It was difficult for Japan to establish the metal industry and the engineering industry thus to be able to compete with the best capital goods from advanced countries in the private sector, where relative composition of capital (the ratio of constant capital to variable capital, i. e. c/v) was higher and the demand for higher proficiency of labourers was greater. In such departments as the iron industry or the arma-

³⁾ On the Japanese Silk-spinning Industry, see Kanji Ishii, *Nippon Sanshigyoshi Bunseki* (A Historical Analysis of the Silk Industry in Japan), Tokyo, Tokyo U.P., 1971.

ment industry, therefore, the industries were developed by state capital, that is, by state enterprises. Needless to say, these industries required large-scale investments. The loss of these industries was absorbed by the Japanese government.

In the field of social capital investment and the infrastructural investment in the process of transportation and communication, (railroad, marine transportation, road, port, bridge, telegraph, and so on) direct investments by state capital were made by the government and direct or indirect protection for private enterprise was offered by the government. According to an estimate by K. Emi, the ratio of state capital investment (including military investment) to gross capital investment in the country was 75% in 1885, 30% in 1890, 32% in 1895, and 52% in 1900.⁴⁾

In such circumstances traditional domestic industries, small workshops, and handicraft with low productivity remained predominant in wide-ranging fields. Even in the textile industry, which was the most important industry at that time and was the one backed most by the industrial capital, there existed vast groups of manufacturers and traditional home workshops under the putting-out system. These groups spread throughout the field of silk-reeling, silk textiles, and the cotton-weaving industry. Even in the silk-reeling industry, which introduced modern machines, handicraft-skilled labour remained and the scale of capital was remarkably small in comparison with that of the cotton-spinning industry.

In summary, we can say that the Japanese economy bore a multistaged structure of industrial organization. Thus, at the top stratum, there existed large-scale enterprises backed by state capital, such as the iron and steel industries and the military and naval arsenals, in addition to large-scale modern mechanized industries by private capital, such as the cotton spinning industry, which imported European technologies and concentrated public capital by way of the joint-stock companies from the early stage of the Industrial Revolution. In contrast, at the bottom there existed the common or various miscellaneous trades. Moreover there also existed wide-ranging groups of medium and small-scale businesses. As an important factor of characteristics of the Japanese Industrial Revolution we should stress the fact that this multi-staged strata did not only transform themselves rapidly into a purely capitalistic industrial organization, i. e., it did not polarize into capital and labour, but was also continuously reproducing itself in the process of the Industrial Revolution in Japan.

Next we will examine the structural characteristics of Japanese capitalism from the viewpoint of labour. Although the number of wage-workers

⁴⁾ See, K. Emi (ed.), *Choki Keizaitokei 4, Shihonkeisei (Long-term Statistics of the Japanese Economy, Vol. IV, Capital Investment)*, Tokyo, Toyo-Keizai-Shinposha.

increased in quick tempo, the total number of wage-workers was small at that time. For instance, the number of workers earning wages in factories employing 10 workers or more was only about 500,000 in 1902, and the number of workers earning wages in the private or state-owned factories employing 5 or more workers was only about 900,000 in 1909. These numbers include the number of workers working in small-shop manufacturing, especially in small factories of the textile industry. The ratio of female workers to the total number of workers in private factories throughout the country was 62% in 1909, and the ratio of female workers in the textile industry was 85% in 1909. Therefore we conclude that at that time the workers in private factories consisted mainly of female workers.

Finally we will investigate the supply side of the labour force in the process of the Japanese Industrial Revolution. The development of industrial capital, mainly in the cotton spinning industry and the silk reeling industry, increased the demand for wage-workers. As is well known, in capitalism the introduction of machines generally simplifies work and even women and boys become wage-earners. Moreover the exploitation of wage earners is strengthened by the intensification of labour and by the prolongation of working hours. Since social prestige of the worker was low at that time in Japan, the exploitation of labour proceeded rapidly and labour in the factories was rapidly exhausted. Therefore, the enterprises had to continuously replace and supplement a large part of their labour force. The demand for the labour to supplement the exhausted force was filled by a large number of latent "surplus-population" from the rural communities and also by a large number of the "zatsugyoso," i.e., people engaged in the miscellaneous trades which had been generated following the late Edo era in the urban and rural communities.

We must explain the characteristics of "the zatsugyoso." By the term "zatsugyoso" we refer to labourers of the lowest class who work unstably in miscellaneous jobs. Wage-earners in its original sense are excluded from the concept of the term of "zatsugyoso." "Zatsugyoso" in the Meiji era consisted of workers in petty workshops, family workers, small retailers, workers in miscellaneous service industries, assistant craftsmen, porters in the construction industry, day-workers in miscellaneous industries and so on. T. Nakamura estimated the working population in 1909 to be 25,420,000, which he divided into three groups. The first was the agricultural workers, numbering 16,030,000. The second was the industrial workers, numbering only 1,640,000. The third consisted of workers in traditional industries except agriculture, who numbered 7,760,000. The working population in traditional industries except agriculture in T. Nakamura's estimation corresponds to our definition of "zatsugyoso," i.e., the miscellaneous groups.⁶⁾

From the mass of "zatsugyoso" in the rural communities and the petty tenant farmers who suffered from poverty, a large amount of labour flowed into the urban communities. The outflow of labour bore two patterns, that is, temporary migration and permanent emigration. At that time the labour force flowed from rural communities mainly according to the pattern of temporary emigration, a typical example of which was the emigration of spinning girls. They were brought in from remote districts through recruiting agents and middlemen. The recruitment was sometimes accompanied by fraud and violence. The wages for temporally emigrant workers was at a level comparable only to that of day-workers in agriculture or porters, since the wage level was influenced by the low standard of living in the rural communities. This situation covered not only spinning girls but also male workers in heavy industry. Labour conditions for temporary emigrant workers deteriorated in the process of exploitation by capital under the factory system. It was consequently worse than that of day-workers in agriculture. As mentioned above, the working class of Japan at that time consisted mainly of poor people in the lower strata of society.

Relationship to the World Economy and the Road to Financial Capitalism

First, we will investigate the state system of Japan in the national context. Japan established the fundamental structure of the state system as the Imperial Regime. The Imperial Regime was supported by the capitalists and the landowners. Consequently, this regime suppressed political freedom and oppressed labour and peasant movements. The Emperor exercised autocratic power, which was relatively independent even from the Imperial Diet controlled by capitalists and landowners, although these two classes supported the Imperial Regime.

Next, we will investigate relationships with the world economy. Japan had set the stage for capitalism at the end of the nineteenth century, whereas the world economy was switching from capitalism to imperialism at that time. Though the Imperial Regime, as mentioned above, was autocratic in national respects, it bore dual characteristics in international affairs. With respect to European countries and the United States, Japan, as a backward country, maintained subordinate and dependent relations especially in economic matters. With respect to Asian countries including China and Korea, by contrast, Japan augmented control over these countries by her strengthened military power and bore an imperialist character from a very early stage.

Repeating economic and military aggressions with the intention of controlling the peoples and raw materials in Asian countries, Japanese capitalism

⁵⁾ Takafusa Nakamura, *Senzenki Nipon Keizaiseicho no Bunseki* (Analysis of Japanese Economic Development in the Pre-War Period), Tokyo, Iwanami Publishing House, 1971.

tried to extend the territory of its market and to develop on a full scale its heavy industries, the establishment of which was insufficient by the end of the century. It should be noted that Japan managed to establish industrial capital after the turningpoint in the Sino-Japanese War. It should also be stressed that the Sino-Japanese War and the Russo-Japanese War were promoting factors for the establishment of industrial capital in Japan. For instance, the introduction of the gold standard became possible by a large amount of indemnity from China as a result of the Sino-Japanese War.

Since Japan did not possess tariff autonomy, Japan could not block the inflow of cheap foreign products by protective tariffs. In order to maintain its independence as a capitalistic country, therefore, industrial policies in Japan should have promoted agriculture for the self-sufficiency of its foodstuffs in addition to promoting its exporting industries for the enlargement of their exports at lower prices. Japan also centralized the import of capital goods by raising foreign loans and suppressing direct investment of foreign capital in the country. In this manner the Japanese government introduced powerful centralized financial and monetary policies. As apparent from the above investigations, "cheap government" was impossible for Japan from the beginning of its capitalism.

Finally, we will investigate the financial aspect of Japanese capitalism during the Meiji era. As for tax revenue, which was the basis of the state budget, the overwhelmingly great part was collected as a land tax at the beginning of the Meiji era. But afterwards an excise tax, such as the duty on rice wine, soy sauce, and sugar, became the main basis for taxation. Through the exploitation by taxation upon the general public, the Japanese government lowered the living standard of the people and transferred the heavy burden of military expenditures and the repayment of foreign loans upon the nation. The rate of income tax for capital was low, that is, low for enterprises and high for landowners (individuals). But landowners could transfer the burden of heavy income tax to tenant farmers by farm rents with high rates.

To sum up, capital investment by state authority led the Japanese national economy. But we must say that this policy was supported by exploitation of the small producers of capital, as well as by the state. The Japanese government once established such financial structure, then utilizing this financial structure realized the introduction of foreign capital, which would be repaid by future tax revenue. In this manner Japan followed the road to premature imperialism and financial capitalism.

II Traditional Industries and The Structure of International Trade

The Role of International Trade in the Gross Demand Structure

It is a well-known fact that since the opening of Japan in 1858, Japanese foreign trade has developed so rapidly that its growth rate has consistently exceeded the growth of worldwide foreign trade. As for economic growth in Japan, that rate was also so high that Japan has become one of the most rapidly developing countries. According to Ohkawa's new estimate (Table 1), although the Japanese economy saw a decline immediately following

TABLE 1 CHANGES IN JAPANESE GROSS DEMAND STRUCTURE
UP TO WORLD WAR I (unit: 1 million yen, %)

	1886-1890	1891-1895	1896-1900	1901-1905	1906-1910	1911-1915
Personal Consumption Expenditure	80.0	75.9	79.2	76.1	74.7	75.6
Gross Domestic Fixed Capital Formation	14.0	14.9	18.0	14.2	16.9	17.4
{ Private	11.7	11.9	12.6	9.4	11.1	11.5
{ Government &	2.3	3.0	5.4	4.7	5.8	5.9
Military	0.7	1.1	2.5	1.8	1.9	1.7
General Government Consumption Expenditure	6.9	7.4	6.6	13.1	9.7	7.7
Export of Goods and Services and Factor-Income Received from Abroad	7.4	8.9	9.9	13.0	15.1	16.7
Gross Demand	108.3	108.9	113.7	116.4	116.3	117.1
Import of Goods and Services and Factor-Income Paid Abroad	8.3	8.9	13.7	16.4	16.3	17.1
Surplus on Current Account	-0.9	0.0	-3.8	-3.3	-1.2	-0.5
Gross National Expenditure	100.0	100.0	100.0	100.0	100.0	100.0
Ibid Five Years Average Amount: Current prices	899	1,270	2,108	2,766	3,703	4,795
Ibid Five Years Average Amount: 1934-1936 prices	4,435	5,293	5,986	6,614	7,220	8,088
Period Averages of Annual Percentages in GNP	3.0	3.9	2.6	2.1	1.8	2.4

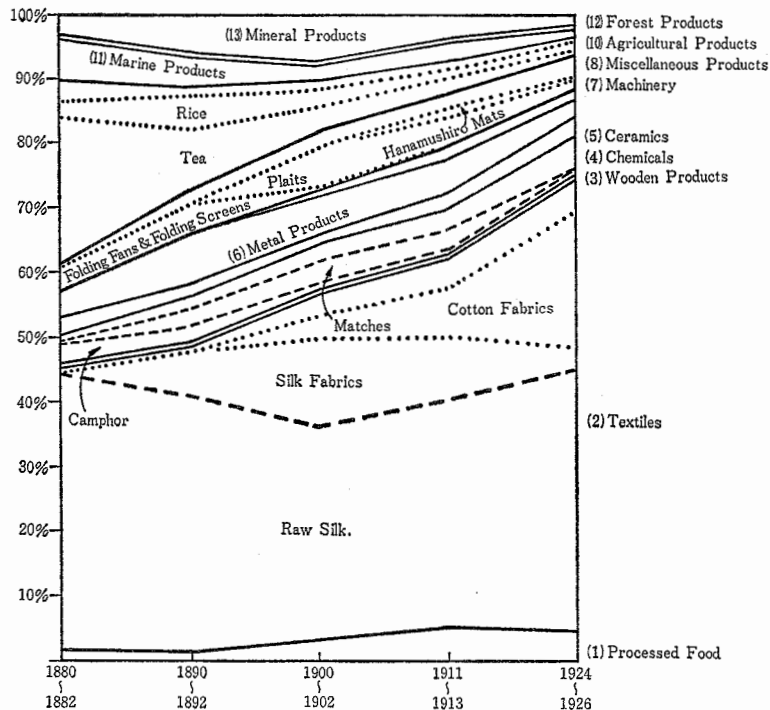
Note) Source: Kazushi Ohkawa and Others, *Choki Keizaitokei 1 Kokumin Shotoku* (Long-Term Economic Statistics of Japan since 1868, 1 National Income), Tokyo, Toyo Keizai Shimpō Sha, 1965, pp. 178, 184~6, 213.

the Sino-Japanese War and during the depressive or stagnant times from that time to World War I, yet it accomplished a growth of 200% throughout this period. From Table 1 we can understand the fact that foreign trade and the domestic capital played a very important role in the growth of total demand upon the Japanese economy and also the fact that expansion of the national budget oppressed personal consumption. Consequently, the portion of personal consumption in the national economy decreased during this period. The expansion of foreign trade and of the national economy, especially in capital accumulation—stimulating to each other—contributed to the high growth rate. The unfavourable balance of payments obliged Japan to raise large foreign loans in order to erase this deficit. This deficit was chiefly due to the government policy of importing capital and military goods and war payments, though a trade balance in the private sector had something to do with it. Fortunately, since exports ran behind imports with only a gradual increase, the unfavourable balance of payments did not increase appreciably.

Export Structure

Japanese exports in the early stage of overseas marketing were raw silk and copper, just like those of the contemporary developing countries, and then primary and semi-manufactured goods, i. e. agricultural products such as green tea, rice, camphor, peppermint, mushrooms (shiitake), seafood products, fish and shellfish, which occupied approximately 80% of the gross export in the early days, and still occupied 50% even at the beginning of the 20th century. As clearly shown in Fig. 1, Japanese export commodities of those days were mostly textiles, at the top of which was raw silk, the next being silk fabrics and other silk manufactured goods. A little less than half of the total exports was occupied by raw silk and silk manufactures, which were staple products for acquiring foreign currency. Only 6% of the total export production of cotton yarn and cotton fabrics increased at the beginning of the 20th century, and rapidly increased to a peak of 17% for the three years of 1911 to 1913. This rate of increase was rather low as compared with that of raw silk and silk products. Exports consisted of metal goods (chiefly copper at first), and then chemical goods such as camphor, matches, peppermint, sulphur, vegetable wax, whale oil; sundry and craft products like Japanese folding screens and western style umbrellas, plaits, brushes, hats, fancy straw mats, shell buttons, and lacquered ware. Exports of green tea, rice, and sea foods, on the other hand, were decreasing.

As for the change in export items from primary goods to secondary industrial products, only a part of the cotton yarn, cotton fabrics, raw silk, *habutae* silk, and copper commodities were produced by machines. Another part of the raw silk was produced by the "zaguri" method, but the greater



Notes 1) Ippei Yamazawa and Yuzo Yamamoto *Choki Keizaitokei 14 Boeki to Kokuhaishushi* (Foreign Trade & Balance of Payments) Estimates of Long-Term Economic Statistics of Japan Since 1868, Vol. 14, edited by Kazushi Ohkawa, Miyohei Shinohara, Mataji Umemura, Tokyo, Toyo Keizai Shinposha, 1979, pp. 106-112.

2) Number (9) is missing.

Fig. 1. Weight of Export Goods (1880 [Meiji 13]~1926 [Showa 1],
Weights Every Three-Year Averages

part of silk fabrics produced by leased hand looms still depended upon traditional handicraft.

Apart from the rapidly increasing export of cotton yarn and cotton fabrics to backward countries after the Sino-Japanese War, the expansion of commodities in the traditional export industries made it easy to acquire foreign currency in order to make imports possible. In this way development of the Japanese Industrial Revolution was guaranteed.

Among all the manufacturing industries, the silk industry depended upon export most heavily, that is to say by 70-80% of the total production. It is noteworthy that the most rapidly developing department for export next to raw silk was that of the miscellaneous industries. As to sundry goods, after the beginning of the 20th century, approximately half of the total production was exported, which offered needed employment to the miscellane-

ous trades both in villages and cities.

As to export partners, during the earlier years, more than 70% of exports were consigned to Europe and North America. The figure remained at approximately 50% even just prior to World War I. Items of export to the advanced industrial countries were primary goods and similar raw materials, or semi-manufactured goods, and sundry.

But to the backward Asian countries of China, Korea, Formosa, and Southeast Asia, Japan exported light industrial products of cotton yarn, cotton fabrics, underwear, matches, sugar, foreign paper, and mining products of copper and coal. The share of export to China and Hong Kong was 22% at the beginning of the 19th century, 33% at the end, and 28% just prior to World War I. To Korea and Formosa, it was 6% at the end of the 19th century, and 12% just prior to World War I. As to Southeast Asia and India combined, it was 4% at the end of the 19th century, and 8% just prior to World War I. Thus Japanese export items showed an extreme contrast between the advanced industrial countries and the backward agricultural countries, and therefore the trade structure was rather antipodal.

Import Structure

Among imported articles, manufactured goods were overwhelmingly first—more than half were textiles—but as the Industrial Revolution developed, manufactured goods were gradually replaced by agricultural products, especially textile materials, above all raw cotton. Just prior to World War I, manufactured goods and primary goods occupied each half, of which textiles amounted to 65% of the latter. This reflected a general tendency in the development of foreign trade in which the import of consumer goods lost to machinery in the process of the Industrial Revolution, which in turn suffered because of a lack in raw materials for industrial intermediate goods. Thus, imported goods for the means of production increased. Imported foods were mostly processed foodstuffs like Hong Kong sugar, (refined sugar) at first, but were gradually replaced by raw sugar, rice, beans, wheat, etc., from the end of the 19th century. But except for raw sugar, they were hardly importable in normal years because of the Japanese increasing self-sufficiency for food, with the exception of the war years and seasons of crop failure.

Such a change of import commodities had an influence on import partners inevitably. Imports from Europe, going up to 70% of the total imports at first, decreased rather rapidly to 26% by World War I, while imports from North America, being less than 10% of the total imports at first, increased to 15% or 18% by the end of the 19th century. This was in remarkable contrast to the high rate of export to North America. Exports to India were very small at the beginning, but jumped to 10% abruptly from

the latter half of the 1880's, and reached 20% by World War I. Imported commodities from India were mostly raw cotton, and then rice. India contributed to Japanese capitalism as a base for raw materials. China (including Hong Kong), indicating 20% of the total import at first, gradually decreased to 10% at the time of World War I, while that of Formosa and Korea increased rapidly at the beginning of the 20th century. Articles of import from Southeast Asia were mainly raw sugar and rice, and the rate of increase from 6% up to 8% by end of the 20th century. The rate of imports from Central and South America, Africa, and Oceania was extremely low at that time.

Japanese Foreign Trade in the Context of World Economy

To summarize, we can say that Japan acquired foreign currency by exporting agricultural and traditional handicraft products like green tea, camphor, peppermint, plaits, fancy straw mats, and so on, especially raw silk and silk fabrics bound for America, France, and Italy; and then imported machinery or industrial intermediate goods from Great Britain, Germany, and Belgium. On the one hand she imported raw cotton from British India to produce cotton yarn, and cotton clothes. In this way she decreased the import of clothing and grasped the vast domestic market for cotton fabrics in the process—consequently succeeding in establishing capitalism. Subsequently, Japan exported cotton yarn and cotton clothing to China and Korea and involved them in the Japanese economic bloc. In short, toward advanced European and American countries Japan was a supplier of raw materials and semi-manufactured goods as a backward country; whereas toward Asian countries Japan, as a unique capitalist country, reduced them to the level of supplier of agricultural products and raw materials, thus sealing their doom as colonies and semi-colonies without any prospect of industrialization.

Development of Traditional Industries

As already mentioned in the previous chapter, the Japanese Industrial Revolution gave rise as its consequence to an enlarged home market by way of very rapidly permeating commodity economy into mass small peasants or small businesses. But quantitative confirmation is extremely difficult. The development of a commodity economy should in itself have strengthened the social division of labour, separating rural domestic industry from agriculture. But in a country like Japan, establishing capitalism by way of introducing modern mechanised industry in the limited special departments and various systems inherent to capitalism from abroad while at the same time developing a commodity economy (wide-spread since the middle of the 18th century but failing to bring about the Industrial Revolution automatically), capitalism

should have had extremely complicated influences on the dissolution of small scale production.

The influx of foreign cotton yarn and cotton goods at the opening of the country before the Meiji Restoration, for instance, did too much damage to Japanese traditional cotton manufacture, so that most of the traditional cotton enterprises were bankrupt. But weaving centers like Setssu, Bisai, Saitama, Ehime, and Wakayama were spared from bankruptcy by using imported cotton yarn and not by promoting the concentrated workshop but going back to the putting-out system. In this way, when domestic cotton producing districts were reorganized and came to use home-made cotton yarn, the influx of foreign yarn was prevented.

It was the following conditions which made it possible to reorganize domestic cotton producing districts: the fluctuation of the ratio between gold and silver mentioned above, and the extremely low wages for weaving during the Matsukata period of deflation. Besides, we must not overlook the efforts made by domestic cotton spinners to adapt to the demand of consumers in thickness of thread, methods of twisting thread, fitness to dyeing, efforts for the improvement of productivity such as the introduction of the "battan" loom in the textile industry and development of the home-made power loom. Of course, the diffusion from the power loom into small-to-medium-sized traditional industries did not go smoothly, especially at the time of depression after the Russo-Japanese War in 1905, and about 1910 when the putting-out system gained popularity.

In the silk-reeling industry, whose development was enhanced by increasing the export of raw silk, the traditional sitting-reel ("zaguri") expanded side by side with the native Japanese apparatus, a simplified version of imported reeling machines, mentioned in the previous chapter.

The silk fabrics industry for domestic demand developed mainly in Tochigi, Gunma, and Kyoto, except for *habutae*-silk for export, which was produced mainly in Fukui and Ishikawa Prefectures. These were mostly domestic industries controlled by the merchants who advanced money or raw silk in the silk-producing areas. It was as early as 1874 when the Jacquard loom was introduced into the Nishijin area in Kyoto, and we had only 7,067 in 1895. From 1887 to 1889 loom power was introduced into the Kiryu and Nishijin areas in Kyoto, but from about 1907 loom power was diffused in real earnest. Cotton and silk handlooms numbered 757,000 in 1907 at maximum, and after that, decreased gradually.

Domestic industry was widespread. The number of managers of various kinds of industries including the domestic industry and the number of labourers in 1909 are shown in Table 2. Domestic industry in this table indicates the workshop with less than ten labourers. The number of known

TABLE 2 NUMBER OF MANAGERS AND WORKERS BY VARIOUS INDUSTRIAL MANAGEMENT FORMS (1909)

	Total Number of Managers	More than 10 Workers per Workshop			Home Industry		Average Number of Workers per Workshop	
		Factory	Handicraft Mill	Number of Workers	Number of Households	Number of Workers	Total Factories & Handicraft Mills	Home Industry
Silk-Reeling Mill	382,936	2,508	1,212	191,561	379,216	...	51.6	...
Floss Silk Manufacture	177,535	0	12	112	177,523	...	9.3	...
Cotton-Yarn Spinning	(88)	108	3	91,603	(...)	(...)	852.2	...
Spun-Silk Yarn Spinning	9	9	0	9,101	0	0	1,011.0	—
Flax Hemp Yarn Spinning	(14)	13	6	2,465	(...)	(...)	129.5	(...)
Textiles	486,936	1,182	7,254	158,917	478,500	627,221	18.8	1.3
Knitted Goods	940	34	181	3,770	725	2,582	17.5	3.6
Potteries	5,429	34	642	10,018	4,753	17,190	14.9	3.6
Glass	360	41	206	7,624	111	(...)	37.0	(...)
Brick & Tiles	11,701	42	756	14,002	10,903	29,280	17.6	2.7
Leather	936	14	37	850	885	2,930	16.9	3.3
Japanese Paper	55,617	78	451	6,963	55,088	154,172	13.2	2.8
Foreign Paper	(27)	26	45	5,491	(...)	(...)	77.5	(...)
Oil	7,352	82	42	2,612	7,225	10,453	20.7	1.5
Vegetable Wax	1,773	0	4	22	1,769	3,874	5.5	2.2
Industrial Chemicals	143	26	23	2,044	94	(17)	42.0	(...)
Soap & Candles	185	43	24	1,127	118	244	16.8	2.1
Camphor & Peppermint	4,189	22	67	1,921	4,100	16,085	21.6	3.9
Indigo & Lacquer	13,027	20	34	715	12,973	(...)	13.2	(...)
Matches	214	17	175	17,058	(22)	(893)	88.9	(...)
Sake	17,019	368	1,937	29,469	14,714	...	12.8	...
Soy Sauce	14,676	76	497	8,311	14,103	...	14.5	...
Comestibles cannery	792	36	78	2,844	678	2,440	24.9	3.6
Tea	922,144	37	1,323	12,422	920,784	...	9.1	...
Lacquer Ware	5,921	2	127	1,063	5,782	16,276	8.3	2.8
Tatami, Hanamushiro & Other Mats	117,742	1	143	2,262	117,598	211,237	15.7	1.8
Plaits	83,555	1	171	2,006	83,383	255,038	11.7	3.1
Total	2,311,260	4,820	15,450	586,353	2,291,057	*	114.0	1.74

Notes 1) In workshops having more than 10 workers, the factories use motors, but handicraft mills don't use motors. The home industry employs less than 10 workers, including somewhat small-scale home industry.

2) The figure enclosed with parentheses is that the total number of managers is smaller than the number of workshops.

3) Supposing a worker is employed in each type of industry whose total number of workers is unknown, 2,864,000 people are working altogether; similarly if 1.738 people are working in each industry whose total number of workers is known, 3,982,000 people are engaged in the home industry.

4) Source: Toshio Furushima, *Sangyoshi III (Industrial History III)*, Yama-kawa Publishing Company, 1966, p. 492.

workers in the whole industrial sector was only 1.74 per workshop. Supposing that every industrial sector whose laborers were *unknown* employed 1.74 labourers in all domestic industries, there were about 4 million labourers. Otherwise, supposing that they employed an average of only one labourer, there were as many as 2,860,000 labourers. From the fact that the total number of labourers in the workshop with more than 10 labourers was less than 600,000, domestic industries employed five to seven times as many labourers then. Of the domestic industries, the manufacture of plaits, matting, fancy mats, lacquer ware, pottery, peppermint, and so on (including foreign trade), showed an upward tendency; whereas the manufacture of indigo, Japanese paper, camphor, and so on, showed a falling trend. The decline in production of the latter was mainly due to the appearance of substitute articles, and although the Japanese could not always ensure a stable market for the former, yet they played an important role in maintaining and extending the domestic market by giving various opportunities for employment to large numbers in the latent surplus labour force, to the under-employed and semi-unemployed in villages and cities.

Agricultural Problems in Japanese Capitalism

Japanese capitalism, whose structural character has already been mentioned, showed remarkably distinct features also in agriculture from that of Great Britain, an advanced capitalist country. Britain had taken a policy of curtailing domestic agricultural production and supplying the increasing demand for food, agricultural products, and raw materials by increasing its imports from abroad, which tended to decrease largely the rate of food self-sufficiency. It was in common with Britain that Japan adopted the policy of abandoning domestic production of cotton and raw sugar and began to rely on imports from abroad. With regard to Japan's staple export items (rice and silk cocoons), she took a completely different policy from that of the British. Thus, Japan attained self-sufficiency by increasing domestic output. During the period of this study, rice consumption increased to 46%, but rice production increased to only 36%, and even though Japan transformed herself from a rice-exporting country to a rice-importing country in 1897, the rate of self-sufficiency was still as much as 94% to 96%. This was partly because of the increase in yield per acre, but a steady extension of the cropping area also contributed to this phenomenon.

The growth rate of cocoon consumption during this period was remarkably high at 11.1% annually, and rapidly increasing demand for the cocoon was fully self-supplied due to a production increase through the farmer's hard intensive labour. Sericulture became the most important source of cash income to farmers.

Facts that tended to increase the demand for agricultural products in-

cluding rice and silk cocoons supplied mainly by the increase in domestic production, were characterized by the particular structure of Japan. In the case of Germany and the United States, of course, agricultural production apparently increased with the development of capitalism, and there was no decline in production as in Great Britain. The Japanese active labour force in agriculture occupied a far larger share than those in these two countries, and their decreasing rate was extremely slow. Consequently no necessity was felt—as was characteristic in Japanese capitalism—for large-scale capitalist farms at all. Establishing private land ownership by way of the Commutation of Land Tax and the Disposal of Feudal Stipends for Knights, Japan was able to secure the necessary labour force from its latent surplus population—the farmers or rural and urban miscellaneous trades. The “zatsugyoso” was born all over Japan after the remarkable pervasion of its market economy and with the progress of class stratification until the last days of the Shogunate. The progress of class stratification not only brought about a widespread market but also contributed to money saving for capital.

Japanese capitalism, established at the time of world-wide transition to the age of imperialism, had a tendency to transform itself into financial capital from the beginning. This can be seen especially accelerated in the accumulation of capital, by way of the full-fledged joint stock company system, and through the positive leading role of state capital. As is well known, at the stage of financial capitalism, a high level of capitalist development has not been incompatible with the survival of the traditional lower middle class of petty producers, and particularly in Japan the large number of petty producers were exploited indirectly without their dissolution, keeping them subordinate to merchant capital and to the landowners.

Seen from the opposite side, Japanese agriculture contributed to Japanese capitalism in the following points: first of all, even though Tokyo and Osaka were growing up to be big cities by world standards, an overwhelmingly large part of small producers still remained in rural districts; therefore, agriculture and domestic industry were important as sectors exporting goods or producing primary material for it. By expansion of its domestic market, the above mentioned Japanese antipodal structure for foreign trade was connoted, coupled, and complemented within a larger market. Secondly, food self-sufficiency (including the rice crop) contributed to her economy in the expenditure of foreign currency. Thirdly, the stratification of the farmer class disseminated agricultural management into both extremities but retained the small farmer's management as a whole. This tended to strengthen low wages and high land rent and to reinforce the landowners. Up to the Russo-Japanese War in 1905, the disparity among small scale producers was deepened. While the expansion of agricultural management (accumulating

both inside and outside agriculture) had a tendency to advance, under such conditions both productivity of the land itself and labour formed the basis for productivity. The "old-style rich farmer," who relied mainly on an annually employed labour force, grew to some extent. But the "zatsugyoso" in villages and the small tenants with or without land, were not removable and were therefore obliged to stick to their land. Even so, agriculture improved the actual living standard and was to expand income for increasing the population, so that it was possible for both capital and landowners to secure some accumulation of wealth on the basis of agriculture. As far as it was possible to extend the foundation, relations between capital and the landowners went smoothly for a short period of time. In the next chapter, let us refer to agriculture, in greater detail, with special reference to its structure in farm villages, and to its change.

III Structure of Production in Japanese Agriculture

Rice-Cropping-Characteristics of Japanese Farming

By the term "Farming or Husbandry," we mean the method of agricultural production from a farm production point of view, as Nobufumi Kayoh insists. As is well known, everybody in Agriculture uses land first of all as a main means of production, and increased agricultural productivity should be seen not only from the viewpoint of the rise in labour productivity but also from that of land productivity. Secondly, in order to utilize solar heat intensively and rationally for specified crops, weeding is of no little importance in agriculture. From the theoretical point of view, farming is based on "reproduction of the fertility of soil" and "weeding," so that we find the following characteristics in Japanese agriculture.

While different from western farming, in oriental intensive corn husbandry (Körnerbauwirtschaft) (an archtype of Japanese farming without any livestock pasturage at all), fertility was supplied from the grass mowed and carried by human power, and weeding was done by hack and hand hoe cultivation. That cultivation meant weeding intertillage after germination and in this husbandry a huge amount of human labour was required to maintain soil fertility.

Japanese rice crop farming had the distinctive characteristics of requiring a great deal of human labour for fertilization, and of compost which consisted not only of grass but also of fallen leaves, foliage, slug, etc., in hay fields (commonage); river-terraces, foot paths, farm-yards, creeks and so on except cultivated land. Night soil was also utilized. On this human-power fertilization, the efficiency of promoting soil fertility was greater than livestock manure derived from undigested residue or residual feed. Due to the tem-

perate humidity of Japan, grasses and leaves required less time for decomposition into humus. Water contributed a great deal to fertilization through the natural supply by transferring manure nourishment efficiently and controlling weeds in flooded paddy fields.

Thus Japanese rice-crop farming up to modern times was established as "one field continuous cropping husbandry, that is, repeated cultivation farming of the same crop on the same ground," such as single cropping, winter fallow, and ill-drained paddy fields in winter. Rice-transplanting means the agricultural farming of coincidental hand work stripe seeding and intertillage. In this sense, a waterfield rice plant was a typical "crop of hack and hand-hoe cultivation."

Max Fesca (1846-1917), a German agronomist employed by the Japanese Government from 1882 to 1895, carried out a thorough study in Japan to write *Beiträge zur Kenntniss der Japanischen Landwirtschaft* characterizing Japanese farming early in the Meiji era, "shallow cultivation, ill-drainage, less fertilizer."¹⁾ It was thus the task of the new Meiji era to establish a reformed husbandry in order to get rid of the conventional Japanese husbandry.

Rise of Improved Husbandry (Meiji Husbandry)

Here we call attention a cluster of such changes in agricultural techniques which served to promote productivity *in toto* in Meiji husbandry, the core of which consisted of the following: introduction of animal power for plowing rice fields instead of the hand plough method; applying purchased manure in place of poor natural manure like grasses; drainage of paddy fields which had been shallow tilled and ill-drained.

According to the "Agricultural Survey" in 1888, the total area of the "Commonfield" (hay field), consisted of 1,338,000 hectares, which corresponded to approximately 1/3 of the total cultivated land. This means that grass was used as barnyard manure and compost generally. With the progress of intensive cultivation such as reducing common land due to the incorporation of large forests into the national domain, tree planting, and the introduction of secondary cropping, Japan afterwards found it insufficient to fertilize only with grass, leaves, and ashes for compost gathered from waste and forest land, and began to supplement with commercial fertilizers.

From the time of the Sino-Japanese War such organic manures as dried sardine and oil cakes, which had already been applied to cash crops like cotton from the early modern age, could now be introduced even in rice cultivation, thanks to the mass importation of fish manure from Hokkaido

¹⁾ Max Fesca, 'Nogyo Kairyo-an' (1888) Nomukyoku, "Meiji Zenki Kanno Jiseki Shuroku," Vol. 2, pp. 1755-1764.

and soya-bean cakes from the Chinese continent. The subsequent relative cheapness of organic fertilizers tended to increase their popularity and use, and the importation of inorganic fertilizers also gained gradually.

The winter wet-paddy field was fitted for hack and hand-hoe cultivation, but with the traditional long-sole plow, deep cultivation was impossible, even in the drainable paddy field and even with animal tillage. "Kannosha," sponsored by Enri Hayashi of Fukuoka Prefecture, encouraged the use of the "Dakimottate plow" (soleless vertical plow). This association sent about 450 to 460 teachers of horse plowing to 30 Prefectures of Japan during the 9 years between 1885 and 1893. The plow made deep cultivation possible but was difficult to handle, and then was replaced by the "short-sole plow" of the "Higo Maruko"-type developed by Suejiro Ohtsu in 1899, and by the "Matsuyama-type" developed by Genzo Matsuyama of Chiisagata in Nagano Prefecture in 1901.

With animal tillage, it took indeed less time to plow than before, but deep plowing was of no practical use and shallow cultivation was not abandoned, since a new husbandry suitable for deep plowing was not conceived. Unlike European "crop rotation husbandry," cultivation with the plow was not realized in intertillage, and therefore intertillage weeding was still done by hand. Weeding tools showed remarkable advance from Ganzume (Goose nails for weeding) to Funagata josoki (boat-shaped hand rotary weeder) and then to Taichi guruma (Rotary cultivator), but intertillage still depended on human power as before. We could still make do with hand weeding partly

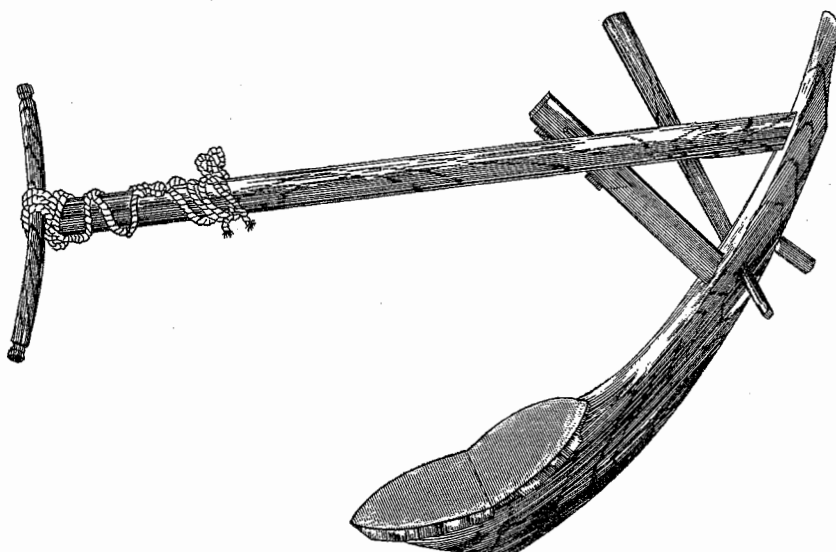


Fig. 2. Dakimottate plough.

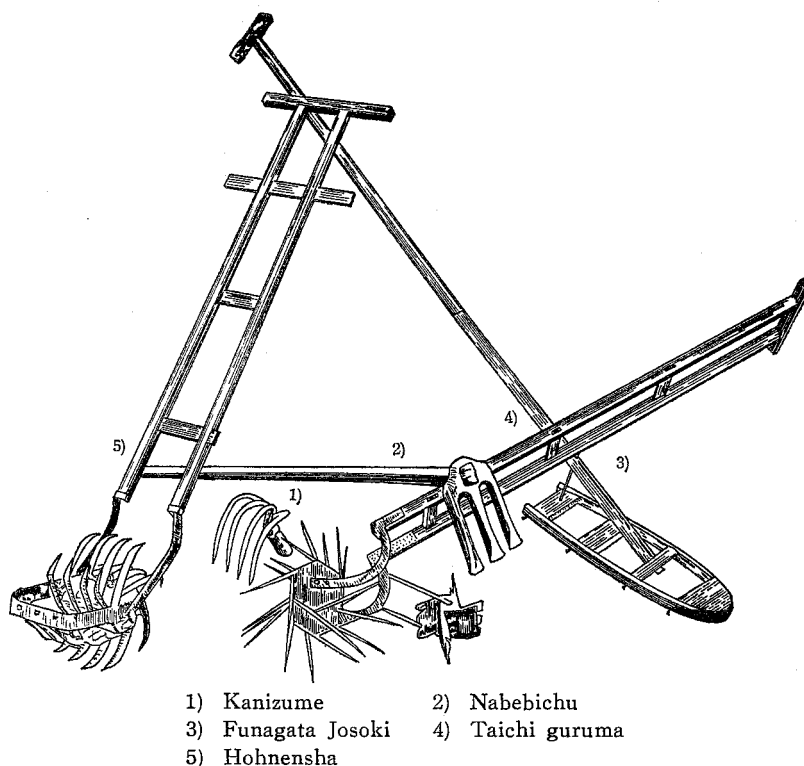


Fig. 3. Paddy field Cultivating & Weeding Tools.

because water in the paddy field prevented the growth of dry soil weeds. Hydrophytic weeds were eliminated by the repetition of "midsummer drainage." Only "Japanese millet," the same hygrophytic plant as rice, was left to be weeded by human-power intertillage.

Land Improvement and Reformation of the Well-drained Paddy Field

Let us consider the significance of the term "paddy field" by Yohsuke Tanaka.²⁾ A paddy field is the contradictory unit of flood and drainage, where adequate irrigation should be maintained by controlling the quantity of water. Thus a dry field having a system of water catchment, drainage, and water supply is "paddy field" proper.

"Water" in the paddy field was, first of all, effective to soil fertility reproduction, such as the supply of nutrient water, carriage and supply of fertiles, promotion of organic decomposition, warmth, prevention of erosion, pest and insect control, and so on. Secondly, it was effective for the substi-

²⁾ Yohsuke Tanaka, "Creek Suiden Nogyo no Tenkai Katei (Changes of the Paddy Farming System on the Creek Irrigation Area)," *Bulletin of the National Institute of Agricultural Sciences* (Japan) Series H, No. 52 (March, 1979).

tution of means of labour, such as harrowing, weeding, and so on. Thirdly, it was effective to the security of working conditions, such as keeping soil soft and making it easy to till and weed. The paddy field was the vessel for water and the means of distributing fertility through water.

"The making of well-drained paddy fields" was a *sine qua non* for the rice field as an appliance; thereby in order to better the drainage, and make drained paddy fields, land improvement was performed by way of consolidating existing fields which remained irregular and wet. This improvement was essential not only for multiple crops in the off-season, but also for mid-summer drainage in the rice crop, because a well-drained soil provides good-percolation and quickens the profusion of the deepest roots of the rice plants.

Improvement of land productivity by reforming it into well-drained paddy fields could not be expected without the development of other systematized techniques. For instance, since deep cultivation with the animal plow replaced the traditional plow cultivation, it was necessary to design a medium landside plow for pressing down the new plow sole. In order to put intermittent irrigation into practice, more water and a new supply system were of course necessary, such as a treadle water lift wheel, a steam pump, a water-way network, and so on. Land improvement brought about decreasing fertility due to the increasing dissolution of organic materials in the soil and required added amounts of artificial fertilizer and careful management practices, which needed the selection of varieties showing adaptability for heavy manuring. The starting form of such a series of new farming methods was called Meiji husbandry.

The term "land improvement" was applied both for land readjustment, or construction of water for irrigation and drainage, and for soil amendment of underdrainage and soil dressing etc. Promoters of land improvement after the mid-Meiji era were in the first place medium and lower rank landowners in the villages who exploited their land for themselves and were well informed of the situation of their holdings. Their numbers were buttressed by large absentee landowners who had interests under the stimulus of the effects of land improvement. Direct effects included improvement in the quality of rice, increase in yield, reduction of working hours, the possibility of double cropping, and so on. Another effect we find in increased farm rent, a rise in land prices, adjustments of the foot path or balk levee, reclamation of water areas, and presentation of newly cultivated land due to the dissolution of miss surveying, which stimulated landowners to improve their land. The detailed process and result will be referred to below in the section on agricultural policy.

*From The Diffusion of and by the Techniques of Veteran
Farmers to the Technical Development of Official
Agricultural Experiment Stations*

The above-mentioned course of Meiji husbandry was indefinite from the start. As described in Kaoru Inoue's "Large-scale Husbandry", Western and American agricultural tools, seeds, seedlings, and the breeding stock of modern western husbandry were introduced similar to those parallel necessities in the manufacturing industry. There was, unfortunately, little hope of success for these unsystematic introductions into the naturally and historically different Japanese conditions of climate, community, small-scaled and intermingled landholding, landlord-tenant relation, and so on. After all, Meiji husbandry resulted in the adoption of empirical conventional husbandry based on spontaneous techniques by veteran farmers from the 18th century. The farmers' techniques were characteristic not only of a succession to conventional husbandry but also of the attempt to improve and systematize it for its own sake. It was so empirical that it was sometimes self-righteous. To do away with this self-righteousness and to develop agricultural technology was then a major task for the agricultural committees, agriculture schools, the grain and vegetable's pilot farms in the prefectures, and national and prefectural agricultural experiments stations.

Some noteworthy techniques raised were "the seed selection with salt solution" method, which shortened the term of seed soaking and raised germination percentage, and consequently made it possible to sow and seed sparsely. Then, management of the nursery beds was intensified and good seedlings were raised in narrow rectangular nurseries. The number of hills at the time of transplanting to the paddy field increased and the number of planted seedlings per hill decreased; consequently, regular planting and the Taichi guruma for careful and efficient intertillage and weeding were devised and put into practice.

Another technique, "the introduction of excellent variety," tended to encourage and diffuse the most excellent variety possible. For instance, "Jinriki," being popularized in western Japan, was devised by Chojiro Maruo and named by Zenroku Iwamura. It was a variety of late-maturing, short-clummed, high-tillering rice, a panicle number type with strong adaptability for heavy manuring. "Kame no O" originated by Kameji Abe was the main variety of the Tohoku region because of its resistance to cold, early maturing capacity, and its adaptability to heavy fertilization in the well drained paddy field.

It was in 1891 that *Konoronsaku—Measures for Promoting Agriculture*, (a book of urgent policies subsequent to the mid-Meiji era)—was published. According to its policy, advancement in agricultural improvement was prefer-

red to reduction of the land tax. Direct and indirect agricultural education was advocated by means of agricultural schools, agricultural experiment stations, itinerant short training courses, agricultural associations, and so on.

Foreigners, among whom were Edward Kinch (1876-81), Osker Kellner (1881-92), Max Fesca (1882-95), W. S. Clark (1876-77), William Brooks (1877-88), were invited to Japan to teach in Sapporo and Komaba Agricultural College which were established in 1876 and 1877 respectively. This contributed greatly to the advancement of agriculture and agricultural techniques. The Agricultural Bureau established a temporary agricultural experiment farm at Nishigahara in Tokyo in 1891, and in April of 1893 the Central Agricultural Experiment Station developed a unique system of agricultural techniques for Japan, in place of imported foreign husbandry. The first Director was Jun Sawano at the young age of thirty-three. Engineers and assistant engineers were mostly graduates from Komaba Agricultural College but some were graduates from Sapporo Agricultural College. An old agronomist, Denjihei Funatsu, was also employed as assistant engineer. It was in 1899 that a special law was enacted to subsidize prefectural agricultural experiment stations by the State, yet it was some time before systematized techniques spread far and wide.

IV Changes in Rural Life

Agricultural Works and Life Cycle of Farmers

The family or household as the fundamental unit, which generally consisted of members of direct descendants, played a central role in Japanese agriculture in the form of small-scale husbandry. The farm household unit was, in other words, the elementary base for reproduction, both in production and life. In production, the household practiced and maintained the work and allocation of labour, and in life it carried the reproduction of the "Ie" itself. In short, without the commoditizing of labour power and without the division of production and domestic living, the working and living hours of each family here determined conventionally, consciously, and purposefully by the household.

To allocate living hours from the viewpoint of making life the reproduction of living can be divided into four parts: 1) providing for daily necessities— food, clothing, and shelter-, 2) rearing the family, 3) purchasing daily commodities, and 4) maintaining human relationship with the villagers. The viewpoint of labour allocation can be divided into three parts; 1) farm work, 2) labour for making agricultural tools, and 3) labour for improving soil. Each one of the three is not complete in itself but is tied in closely with the others for rice cultivation. This division of farm labour illuminates the farmer's saying, "good soil makes good rice." In addition, 4) extra work

(side jobs) and 5) work for selling surplus farm products are performed as non-cultivating labour.

These allocations of labour were ordered under the instruction of the family head or a farm manager in the household. It is the so-called generational division of labour. Each family member's working hours in the working person are allocated consciously in cooperation with the other family members. The division of labour among the generations means for example that the generation of the twenties were engaged mainly in physical labour, that of the thirties and forties in management labour, and that of the fifties were exempt from rice cropping and were engaged mainly in vegetable growing, livestock managing, repairing of houses and tools, public relations, and other miscellaneous farm duties.

To consider a stem family at generation intervals of about twenty years, not only the eldest son and his wife, but also the second and the third son or the eldest son's sisters take charge of physical labour, and sometimes they request other assistance (e. g., hired labour by the day or for a longer period).

As the members of the family grow up, labour power holdings fluctuate in cycle, by which the size of operational holdings might be influenced to a certain extent, such as lending and borrowing land. If impossible, it was popular among peasants to send out their children to earn, and at the time of need, to employ extra labourer.

But the cycle of generations was so long that it didn't always give the same results, because of having been influenced by external economic or social variables.

The long-term cycle of generations, generally speaking, proceeded with a monotonous, seasonal combination of annual farm labour. In addition with each change of season, holiday, ceremony and annual event the cycle was enacted through custom. Annual traditional events in each village, involving local shrines, among other various events played a very important role in the villagers' rest, recovery, and recreation.¹⁾

Function and Structure of the Autonomous Village

It is true the farm household is an elementary unit of production and domestic life, but it is not possible to accomplish agricultural production by use of the individual farm household alone. The "Mura" or village, whose constituent unit is the farm household, manages the land, water, grazing land, forest, and waste land in a certain territory autonomously, by which sufficient production in the farm household is secured also. "Mura" means neither a government administrative organization nor a mere production

¹⁾ Research Group on Toyohara-Mura Edited, *Zenji Nisshi (Journal of a Farmer in the Shonai-Plain, Yamagata-Prefecture 1893-1934)*, Tokyo Univ. Press, 1976.

community, neither a local group in society. It is a self-governing community, having the function of both *de facto* autonomy without and self-control within.

It is a territorial "Association of Ie" to invest each farm household with equal rights and duties, including economic inequality due to the difference between private land possession in each farm household. Without the autonomous and common regulations in such "Mura," individual rights of private land possession and cultivation would not be ensured. "Mura" has an autonomous management organization, with which they, giving to residents within regulations corresponding to administrative and judicial power, organize labour management for the maintenance and common utility of land and water, and adjust and solve complicated relations concerning rights to use and cultivate the land. In the case of common rights, irrigation rights, and problems directly connected with the neighbouring "Mura", representatives of each "Mura" then meet to discuss the maintenance of water and the regulation of utilities in order to reach a mutual agreement.²⁾

"Mura," which was legislated as an administrative unit under the Tokugawa Shogunate, originally contained various strata of households mainly due to the difference in scale of land ownership. This stratification, in spite of being influenced by the independence, accumulated wealth of each subordinate farm household. "Nago", "Fudai", "Tsukuriko", "Genin", etc., and the development of landowner-tenant relations continued until the Meiji era.

To characterize the constituent types of "Mura" from the mutual relation of farm households, we find three basic classifications: 1) Equality of work and the receiving of mutual benefits was to be found in relationships among independent farm owners. 2) In the "Mura" with resident landowners, authority was mostly concentrated in the hands of the landowners, and an "association of main households" managed the "Mura". Many petty tenants and miscellaneous classes under control of the ruling class were living from hand to mouth. 3) In the "Mura" of tenants having absentee landowners, the interests of cultivating farmers was easily reflected in the administration, but because of their economic poverty, it was difficult to support petty miscellaneous jobs within the "Mura" by various forms of employment. The difference in these three types had various influences on subsequent movements in cooperatives, tenancy disputes, and rural rehabilitation.³⁾

²⁾ Tsutomu Takigawa & Hitoshi Saitoh, *Asia no Tochiseido to Nosonshakai Kozo* (Landowner-system and Structure of Asian Rural Society), Institute of Developing Economics Tokyo, 1968.

³⁾ Keiji Ushiyama, *Nohminso Bunkai no Kozo-Senzenki* (Changes in Class Structure of Rural Society in the Pre-war Period, Japan), Tokyo, Ochanomizu Publishing Co., 1975.

Labour Market and Rural Life

The labour market both inside and outside the village had closely related to the way of production in the farm household, having various influences on the landowner-tenant relations. As an old style of the employment in agriculture, a long-term apprentice of the non-kinship family, such as "Genin" "Fudai", and "Nago", occupied small attached dwellings (huts). In the Mid-Meiji period, the style of employment changed, except in the backward district, to annual, seasonal, and daily employment. For it was much more effective to lend small tenant farm land and to levy rent in kind, employing small tenants at the time of the landowner's need. Miscellaneous jobs in rural underemployment were also the source of a hired labour supply.

To the rural latent surplus population, domestic industry, weaving job work, and small shops in the farm village were important sources of employment, too. As mentioned before, the textile industry for export and various kinds of home industry relating to miscellaneous industry played an important role of extending the domestic market. With the improvement of transportation systems of railway, road, and shipping, the miscellaneous jobs were influenced rather rapidly. For instance, cart-drawers, drayman and jinrikisha-drawers, boatmen, and railroad labourers etc. increased rapidly on the whole, showing prosperity and decline. Consequently the population increased rapidly in rural cities of prefectural seats or local industrial trading centers. Small scale of retail merchants and business managers of restaurants and other services increased remarkably, too, and the mobility of population from the rural districts to cities and towns was raised.

While from the local district without the remarkable development of local labour market, a large number of people went out for work. The main sources of employment for male workers were the fisheries in Hokkaido, coal mines in Kyushu prefectures, farms and breweries in neighboring prefectures. About 1910, the people rushed to fill miscellaneous jobs available in large cities. Employment for female workers was mainly silk-reeling, cotton spinning, the textile industry as well as waitress, shopgirls, barmaids, domestic help service, etc. in the city. There was a transformation within the types of immigration from the returning type to the non-returning type, but about the turning point of it, there were some regional differences. In the Suwa district of Nagano prefecture, the nonreturning type already exceeded the returning type at the beginning of the 19th century, while in Tohoku, the increasing rates of domiciliary and real population remained approximately unchanged up to 1910, afterwards making a drastic change. In Niigata prefecture, the same change between the two rates was seen from World War I, too, and after the Showa depression, the non-returning type clearly became more prominent every year.

The Standard of Living and the Standard Wage Rate

Class stratification of the "Ie" (household) in the "Mura" (village) suggested a distinction corresponding to the then current standard of living. According to the landowning scale of the landowner, the owner-farmer, the owner-tenant, the tenant, and the petty tenant farmer (equivalent to the miscellaneous classes), the standard of living was lowered, which was seen most conspicuously in housing, holiday dress, and other conveniences rather than in food.

The wage standard was the average daily labourer's wages, which was prescribed by the living standard of the petty tenant and of the miscellaneous class who could not live without extra work. The average daily wage for males corresponded to the price of about three sho, (4.5 kg) of rice up to World War I.

According to Tsutomu Hyodo's studies,⁴⁾ "the urban lowest class" earned approximately the same income as that of "the so-called poor peasants" in the village, and the wage rates for craftsmen in conventional jobs were little different in city and farm village. Only heavy industrial skilled labour began to separate gradually from "the urban lowest class". As compared with the structural change of Japanese capitalism after World War I, it was only a slight heterogeneous change in members of the same "urban lowest class." In addition, due to the increasing latent surplus population both in city and village and large population mobility among "the lowest classes," no qualitative difference in the standard of living was found in its structure fundamentally.

But there was, as a matter of course, some regional difference in the level of wages. The level of wages was relatively high in cities and urban districts as labour market spread extensively and in the developing areas of domestic industry.

According to the survey⁵⁾ of income and expenditure per "Tan" (0.25 acres) carried out by the National Conference of Agricultural Affairs for the three years from 1899 to 1901, there was a remarkable regional difference in the estimated amount of average daily wages; 42.7 sen in Shiga prefecture, 35.1 sen in Osaka prefecture, 34 sen in Fukui prefecture, 33.7 sen in Kyoto prefecture, 31 sen in Hyogo prefecture, 30.3 sen in Wakayama prefecture, 30.2 sen in Nara prefecture, 29.8 sen in Toyama prefecture, 29.5 sen in Ishikawa prefecture, and 29.3 sen in Niigata prefecture.

⁴⁾ Tsutomu Hyodo, *Nippon ni okeru Roshikankei no Tenkai* (*The development of Management and Labour Relations in Japan*), Tokyo, Tokyo Univ. Press, 1971.

⁵⁾ Zenkoku Nojikai (National Conference of Agricultural Affairs), *Inada Keizai Chosa* (*Economic Investigation of the Paddy Field*), 1902.

V Landowner-Tenant System

The Fall of the Owner-Farmers

After the owner-farmers' severe fall and the developing of landownership by the landlord class during the period of MATSUKATA'S deflation policy (1881-85), the owner-farmers continued to exist, but showed a tendency to decrease in number.

- (1) First of all, the total tenant land rate increased from 40% in 1892 to 45.5% in 1908.
- (2) During the same period, paddy fields held by owner-farmers decreased from 1.55 million to 1.44 million hectares.
- (3) The rate of owner-farmers the total number of farmers decreased from 35.4% in 1899 to 32.8% in 1908, while that of owner-tenant increased from 38.4% to 39.5%, and that of the tenants increased from 26.2% to 27.7% in the same decade.
- (4) The total number of landowners decreased 6,444 households in the decade from 1899 to 1908. Precisely speaking by scales of landowning, however, the number of landowners with fewer than 5 hectares decreased 8,812 households but the number of landowners with more than 5 hectares increased 2,271 households. This shows the decrease of small-scale landowners and the increase of large and intermediate landowners who were not engaged in cultivation.

From the above-mentioned facts, we can assume the loss of the owner-farmer's land, reduction of the landowner's land for cultivation, and the continuous increasing loan to tenancy.

We will investigate the number of farm managers by cultivations scales. Unfortunately there were no directly comparable statistics on farm managers. Only the number of farmhouses, dividing 39 prefectures into three categories of less than 0.8 hectares, and more than 1.5 hectares (0.8 to 1.5 hectares), we see from "NOJI CHOSA" (the Agricultural Survey) in 1888, which was successor to "KOGYO IKEN" (The Opinions on Industrial Development) as an epochmaking industrial survey published in 1884. From "NOJI TOKAI" (Agricultural Statistics)" collected annually through the agricultural association to 1908, we see the number of farm households, divided into four categories: less than 0.5, from 0.5 to 1, from 1 to 2, more than 2 hectares respectively.

From two statistics based on the different classification during a period of twenty years, various estimations were made. Moritaro Yamada,¹⁾ Tsutomu

¹⁾ Moritaro Yamada, "Noshi Kaikaku no Rekishitekiigi (The Historical Meaning of Land Reform)", Tokyo, Tokyo University Economic Academy, *Sengo Nippon Keizai no Shomondai (Various Problems of Postwar Japanese Economy)*, Tokyo, Yuhikaku Publishing Company, 1949, p. 148.

Ouchi,²⁾ Takeo Wataya,³⁾ and Shigeaki Ishiguro⁴⁾ insisted on differentiation on both sides. Hiroshi Ohashi⁵⁾ and Masanori Nakamura,⁶⁾ on the other hand, insisted on the tendency toward a steady decline, including regional differences. Their theories encountered, however, some problem as to the means of calculation and it was impossible to confirm which was correct. Generally speaking, the decreasing tendency of the middle class and the increasing tendency of differentiation on both sides can be seen, both including some regional differences. In the Tohoku district, the tendency toward differentiation was amplified, but in the suburbs of commercial and industrial towns like Osaka, the general tendency of declension in classes was seen.

As mentioned previously, Meiji husbandry required of much human labour, even partially introducing the animal plow to tillage and puddling before rice transplanting so that only in the restricted districts, where hired labour (variously known as "Nenyatoi," "Wakaishu", "Wakaze", "Sakuotoko", etc.) was easily obtainable, was large-scale management over family members engaging in farming possible. But hired labourers, even if easily obtainable, were limited only to participate in simple physical work. The employer was obliged to take charge of administrative labour or skilled labour such as water management, pest control, and additional manurings. In extensive agriculture beyond a certain limit of family-scale management, marginal productivity showed a rapidly diminishing tendency. Why was the enlargement of management scale so inactive under such increasing tendency of differentiation? It is partly because the above-mentioned marginal condition for developing of the old-fashioned management by rich farmers and partly because of the increasing and sound advantage of lending unmanageable land and demanding rent.

The Landownership in Japan

Private landownership, unlike the feudal, in which peasants were tied

²⁾ Tsutomu Ohuchi, *Chisokaisei Zengo no Nominso no Bunkai to Jinushisei (Peasants Distintegration before and after the Land Tax Revision and the Landowner System)*, edited by Kozo UNO, *Chisokaisei no Kenkyu (The Research of the Land Tax Revision)*, Vol. 1, Tokyo, Tokyo University Press, 1957, p. 60.

³⁾ Ibid, *Nippon ni Okeru Nominso no Bunkai (Peasant Distintegration in Japan)*, Tokyo, Tokyo University Press, 1969, p. 46.

⁴⁾ Takeo Wataya, *Nominso no Bunkai (Peasant Distintegration)*, the first volume of Takeo WATAYA's Writings, Agriculture and Forestry Statistical Society, 1979, p. 3.

⁵⁾ Shigeaki Ishiguro, Meiji 41 nen no Kibo kosu ni tsuite (The Number and Scale of Households in Meiji 41), *Soken Geppo (Monthly Bulletin of National Research Institute of Agricultural Economics)*, Vol. 95, October 1956.

⁶⁾ Hiroshi Ohashi, *Chihou Sangyo no Hatten to Jinushisei (The Development of Local Industry and the Landownership)*, Rinsen Publishing House, 1979.

⁷⁾ Masanori Nakamura, *Kindai Nippon Jinushi Seidoshi Kenkyu (Historical Studies of Landlord System in Modern Japan)*, Tokyo University Press, 1979.

to the land and compelled to pay land tax by extra-economic compulsion, was based on the modern contract from the legal point of view. This made it the most severe form of punishment to deprive the tenant of his land and evict him if he had not yet paid his rent. Landownership was formulated under the following circumstances: the peasant could not give up doing small-scale farming, even if it meant losing his land ownership with permeation of the commodity-economy, and in the steady progress of commercialization of land, which meant converting land into commodities of merchant capital and moneylenders' capital, the merchants were interested in purchasing land and changed themselves into landowners.

This was likely to have happened even under feudalism as it continued in its disintegrating process, and of course, after its dissolution or without the establishment of feudalism, as in underdeveloped countries of South East Asia, where a large number of petty peasants and miscellaneous industrial classes, were existent and were in excessive competition for leasing the land. In such a situation, farm rent was often raised to the highest level of the tenant farmer's minimum standard of living. Even if not raised to this extent, it was raised to the permitted level of $C+V$, which meant the tenant farmer was not able to secure any profit. In this sense, the system cannot be called capitalistic landowning.

Such landownership was modern in legal thought and practice, but in substance there were remarkably traditional and pre-modern parts left. In order to collect the high farm rent in the midst of low and unstable agricultural production and the undeveloped commodity market, the following necessary measures were taken: 1) payment in kind, 2) paying the maximum amount of rent only in times of the good harvest, and 3) reducing farm rent or exempting it altogether as necessary— not only at the bad but also at the normal harvest. Payment in cash and in full as stated in the written contract would have driven the tenant into immediate ruin at the time of a low rice price or during crop failure, and the landowner himself would have failed to collect the rent due, also. Consequently, it was fictionalized that the tenant farmer owed his existence to his landowner's beneficent reduction. The amount of reduction and exemption for a certain year was often transferred into the tenant's account for adjustment in subsequent years. The tenant sometimes had to borrow food grains from his landowner during a poor harvest, for instance, and if he could not return them by the harvest he owed a heavy cumulative debt plus high interests.

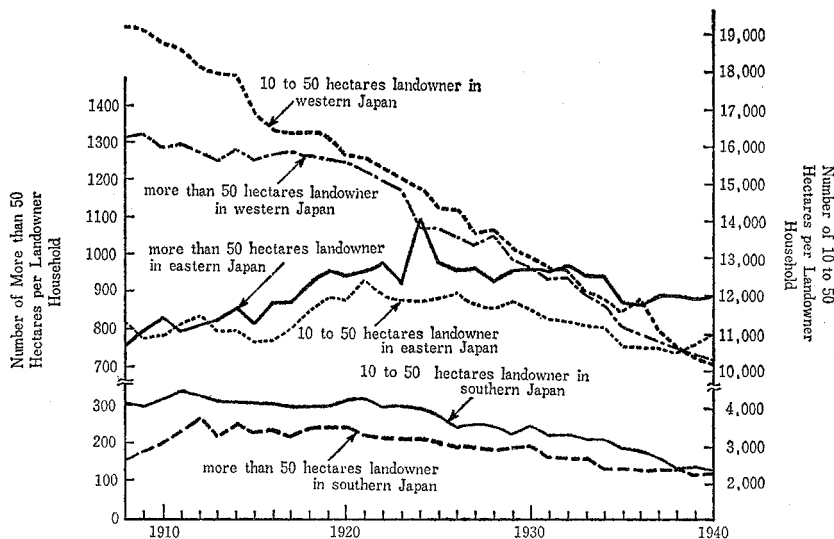
The tenants already in existence were interfered with by the resident landowner, both in production and in their daily lives, and were often required to perform a lot of services in addition to personal obedience. The tenant stood little on his rights and scarcely voiced his opinion, while the land-

owner's political power and influence grew very strong.

Regional Differences of Landownership

The number of landowners with more than 50 hectares of cultivated land increased rapidly up to a first peak numbering 5,078 in 1923, and then decreased. The number of landowners with 10 to 50 hectares of cultivated land gradually increased from 40,000 in 1908 to 48,503 in 1923, and then decreased slightly, increasing again to reach their second peak of 46,461 in 1934. Thus the general trend of landowners was a combination of different regional trends, and especially a sharp fluctuating trend in Hokkaido was the main inconsistency. Let us divide the whole of the prefectures (except Hokkaido and Okinawa) into three groups and investigate the number of landowners in each group.

According to statistics available from 1908, the number of landowners



- Notes 1) Excluding Hokkaido and Okinawa Districts.
 2) Eastern Japan means 11 prefectures, including six Northeastern prefectures and five Kanto prefectures except Tokyo and Kanagawa. Southern Japan includes the 4 prefectures of Kochi, Kumamoto, Miyazaki, and Kagoshima, and Western Japan includes the other prefectures on Honshu.
 3) The Agriculture and Commerce Ministry, *Noji-Tokei (The Agricultural Association Investigation, Agricultural Affairs Statistics)*, to 1911, and *Noshomusho (Norinsho) Tokeihyo*, (the Agriculture and Commerce Ministry (Ministry of Agriculture and Forestry), Statistical Table), from 1912 to 1940.

Fig. 4. Changes of 10 to 50 Hectares, and more than 50 Hectares in Landowner Households by Districts.

in 30 prefectures of western Japan as seen in Fig. 4 showed a continuously decreasing tendency. In Eastern Japan, the number of landowners showed an increasing trend until the first half of the 1920s, afterwards turning to a decrease, and we can assume from the relatively small decreasing rate that landownership had been maintained steadily until the showa depression.

This can be proved from the ratio of tenant farm land also. In most of the prefectures of western Japan, peaks in the tenant farm land ratio were observed by World War I, while in the prefectures of eastern Japan, they were observed after Showa depression. Four prefectures of southern Japan showed an intermediate trend between western and eastern Japan. As to the peak of tenant farm land ratio it resembled eastern Japan; and as to the trend in the number of landowners it resembled western Japan, indicating its peak in the first half of the 1910's. The subsequent decreasing tendency was extremely slow, like that of eastern Japan.

Generally speaking, the management scale in western Japan was smaller than that of eastern Japan, and it was too early to stop land investment in western Japan. From comparatively early time landowners in western Japan set up multifold investments except agriculture. Reduction rates for contract rent was kept relatively low. Landowners in Eastern and Southern Japan, having little chance for investments except agricultural investment, were so anxious for agricultural investment such as reclamation and land improvement that they made efforts to diffuse new agricultural techniques and to encourage fertilization. They were also eager for raising contract farm rent and for payment in kind.

The above-mentioned regional differences were not due to the qualitative difference of landownership, but to the developing difference in the labour market and in sufficient space for reclaimable land to be turned into paddy fields. In western Japan, where miscellaneous industrial labour market developed from early times, farm households tended to decrease in number because of the lack of reclaimable space. Under such circumstances, competition for renting farm land did not overheat and there were few hopes for raising farm rent, also. This can be attributed to the fact that landowners were apt to be concerned about other investments besides agriculture.

In eastern Japan with sufficient reclaimable lands in addition to an improved water supply, improving varieties for cold weather resistance, and so on, the total amount of cultivated land and the number of farm households increased steadily. It then became possible to establish branch families and to be engaged in agriculture there. Under the above-mentioned conditions in eastern Japan, the developing labour market in the farm village and the improvement and stability of rice cropping productivity, the landowner need be concerned only about land investment for a long time.

Since landownership was most suitable for merchant capital and money-lender capital, and for a large number of small-scale producers in undeveloped capitalism, so it subsequently turned toward the worse as capitalism developed. In western Japan land investments came to have little advantage and landowners came to play a less productive role.

The Nonresident and Resident Landowners

As mentioned in chapter IV, but for the autonomous and communal regulations of the "Mura", private landowning under the small scattered field system could not be ensured. In the event that the landowner was a constituent of the "Mura," the intention of "the autonomous village" was hardly contradictory to that of the landowner. For "the resident landowner" himself, being restricted by autonomous regulations of the "Mura," fulfilled the function of the landowners, making good use of the restriction. As the resident landlord (belonging to the upper class of the Mura's hierarchy) knew the tenant's life very well, he took a paternal attitude toward tenants at the time of poor harvest or misfortune, but he could, on the contrary, collect high contract farm rent when he found the tenant to have some stock or surplus left. From the daily subordinate relation between employer and employee, the tenants could hardly resist their resident landowners.

When the resident landowner and the owner-farmer sold their land to the landowner, the merchant, or to the moneylender outside the autonomous village, these purchasers became "the nonresident landowners". The nonresident landowner often disputed and refused the indispensable source of revenue to the autonomous village assessment "by assets" and "per capita," except for minimum payments like the assessment per area of farm land in the village. The nonresident landowner, being out from under the autonomy of the farm village, aimed for the common management of all tenants of the land in his possession, and so a clash of interests among villages was apt to occur. The nonresident landowner, living outside the "Mura" was concerned about only yield on his land and hardly acceded to the tenants' request for the reduction of rent, which incurred disrepute from the members of the autonomous village against the nonresident landowner.

But the nonresident landowner was of great assistance to the tenant in the sense that the unfamiliar relationship with nonresident landowner made it much easier to demand improvement of tenant conditions. Especially with damage by moderating keen competition among tenants to lease land in the village, they gathered to consult in every autonomous village and made application to nonresident landowners for the reduction and exemption of rent. The village chief or the most prominent owner-farmer in the "Mura" sometimes mediated between the two.

Most of the nonresident landowners could hardly manage their tenants

and land very well from outside the "Mura" so that they entrusted influential farmers (called "Shihainin," "Sahai" "Taya" etc.) in the "Mura" with the task of encouraging agricultural matters and collecting rent. Influential farmers were sometimes the landowners themselves and sometimes owner-farmers, and when the former landowner sold his land to the nonresident landlord, subject to nominating him as manager, even the tenant became an influential farmer. As manager, he had influence in determining rates of reduction and exemption of rent through his crop report to the landowner. As an intermediate exploiter, he would often receive presents from tenants in addition to a regular commission from the landowner.

Development of Rice Market and Rice Inspection

The relation between the landowner and the tenant changed gradually under the influences of a developing rice market and the expansion of a railroad network as well as a developing regional labour market. As to the transportation of rice into the Tokyo market, for example, railroad transport accounted for 43% and shipping 57% from 1909 to 1911, but from 1912 to 1916 transport by rail far exceed that by shipping: 74% and 26% respectively. This change in the means of transport was accompanied by a large transformation of rice merchants in the rice-producing and rice-consuming districts. The decline of big exporting merchants at harbors and the sudden increase of small-scale wholesale dealers in consumer districts becomes clear, in addition to the wide-spread exporting merchants in minor producing centers connected by related railroad lines. The whole rice market by this time were organized into two, eastern and western blocks of Tokyo and Osaka.⁷⁾

At the same time, criticism and grading of rice at the consuming district market gave rise to the claim for improvement in shipping rice through the resident landowners, who intended to impose a burden on the tenant by raising public estimation of rice. From 1907 through 1917, prefectural inspections were put into practice one after another according to the regulations of shipping rice and produced rice conditioning of the administration concerned.

The landowners, for the purpose of raising rice grading standards at these inspections, stirred up the tenants for standardization of plant breeding, improvement of drying and selection, standardizing of capacity, the reorganization of Yomasu (additional rice estimating some percent for ullage, and it was called many other words eg. Komimai, Mawashimai etc.), improvement of straw-bag packing, and so on. At the same time, they set up the landowners association to have a tenant rice fair advised by the prefectural

⁷⁾ Keizo Mochida, *Beikokushijo no Tenkai Katei* (*The Development of Rice Market*), Tokyo, Tokyo University Press, 1970, p. 70.

authorities, offering prize money and valuables or rice for excellent rice and imposing a penalty on inferior rice.

The extending railroad network resulted in raising rice prices in remote places, reducing the regional and seasonal differences in the rice price. More labour and more money were, however, required for selection, dryness, packing, and so on, and the farm rent should be paid in kind, and profits from the improvements of rice production mainly fell to the landowners.

This fact stimulated the landowners in single cropping paddy field areas, (those who took rough extensive farming for granted), to increase revenue by increasing investment in fertilizer and by collecting additional farm rent. The establishment of "Saving Cooperatives" and "Credit Cooperatives" in each district were urged for the purpose of accommodating the tenant by providing fertilizer on credit with low interest, or no interest at all. With loans based on the landowner's capital and added to the tenants' petty savings, most of the landowners let the tenant cooperate by buying artificial fertilizer or soybean cake and by letting the tenant pay his debts in rice at the autumnal harvest time. Thus the landowners took measures to increase the yield and to collect additional rice, encouraging their tenants who could not afford to buy fertilizer by themselves.

Capitalization of Landowners' Funds

As mentioned before, in order to develop capitalism, Japan introduced from the advanced countries, first of all, highly developed and mechanized industry, transportation, and banking, and covered the necessary funding for capitalization with national funds from land and liquor taxes and from merchants' and landlords' savings. The landowners' savings were raised from still self-supporting small-scale managing tenants, who had been deeply influenced by the commodity economy.

From the point of rentability, landownership was the most suitable form for the period of merchant capital, which made remarkable progress in the primitive accumulation of capital. Until the beginning of the 1890's, before the beginning of the industrial revolution that land investment yielded the highest interest. Yield on land investment then, being regulated by yield on capital from the preceding period, was relatively high as compared with that from the initial period of capitalism.

Land price, once fell due to Matsukata's deflation policy (1881-85), but began to rise again very rapidly from the latter half of the 1880's; consequently the value of land which was purchased at the time of declining land prices, rose rapidly, too. The resulting yield of investment in newly purchased land, however, declined rapidly and therefore the net profit ratio fell to a low 4% or 5% from the end of the 19th to the early 20th century. As the yield on land was as low as or less than that from investment in

securities, land investment from private and social monetary funds showed a decreasing tendency in general during that period.⁸⁾

Land prices were raised because under the influence of superior agriculture products during the initial period of capitalism, especially in the price of rice over industrial products, the farm rent the tenant paid his landowner was relatively stable and showed only a slight tendency to rise.

The rice price, however, was of little advantage during the period of change to monopoly capitalism because the land tax was raised under the name of an emergency tax, which was levied during the Russo-Japanese War in 1904. The land tax was kept high even after the war, and the resulting rice price declined.

In the region of western Japan, as mentioned before, land prices tended rather toward stability in spite of the declining rice price. The fixed land price resulted in a remarkable loss in the profit ratio of newly purchasable land, and this, in turn, influenced land investment a great deal except for the special case of accumulating land offered as security.

There was still some possibility for gaining a large profit from success in investing for land improvement, and the land improvement and investment business demanded not only agreement by many landowners in a certain area, but also financial support of local governments and other public investment. Those who became landowners as a result of merchant or moneylender capital and those who want to get freehand were disinclined to invest in land anyway. For this reason the landowner sought out securities investment as an easy and sound investment rather than further land investment.

A further reason for landowners' concern in stocks was that securities investment, such as shares, public loans, and bonds, was more systematically advantageous because of the Income Tax Law amendment in 1899. This amendment provided that dividend income and interest on public loans and bonds of third-category personal income tax imposed on the landlord classes, were to be excluded for general taxation, and instead were to be separated at the source as first and second category income tax of fixed general tariffs. In order to promote government securities, taxes were deferred and an exemption measure was taken. At the same time, tax rates on income from bank deposits, debenture bonds, loans, and so on, were also deferred, resulting in the accelerated influx of monetary funds into these fields.⁹⁾

⁸⁾ Keiji Ushiyama, "Meiji Taishoki ni okeru Mitsubishi no Tochitoshi (The Mitsubishi Zaibatsu's Land Accumulation in the Meiji and Taisho Eras)", *Nogyo Sogo Kenkyu (Quarterly Journal of Agricultural Economy)*, Vol. 20, No. 2, April 1966.

⁹⁾ Masanori Nakamura, opus citatum.

Rise of the Peasants' Movement

As the concern of landowners shifted from land or from agricultural productivity to valuable securities or circulation of rice as seen in western Japan, the productive role played by the landowner became less important. So as to raise the rent as contracted, the landowner had to persuade the tenant to pay higher rent, but it became difficult except in cases where there was keen competition to obtain land for tenancy. Without a definite policy, such as land improvement or the introduction of new technology, the landowner hardly received due compensation for his investment. In most cases, the landowner tried to raise the rent in kind up to the limit of the contract rent, but was forced to admit a gradual decline of rent rates vis-a-vis the yield.

In western Japan, the tenant became independent of his landowner, strengthening his role as a commodity-producer, and devising second croppings, upland field croppings, and side jobs. He began to claim compensation for increasing labour and materials due to rice inspections, which was only burdensome and of no profit, and began to agitate with other tenants the abolition of the above-mentioned "Komimai" or "Mawashimai." From partial success in this dispute, the tenants gained self-confidence and began to work out clever strategy for claiming collectively "Menkoi Undow" (petition for reduction of rent), "Kemi" (Inspection of each paddy field), and "exemption" even for slight crop failures which they had endured heretofore. They also delayed payment in rice for several reasons attached, and sometimes refused cultivation, returning their tenanted land to their landowners together.

In this way, following the Russo-Japanese War, the landowners came to realize at last a time of transition and established their own pressure groups to insist on a government policy. Because of this strong resistance on the part of tenants against their landowners, they were not able to realize the same profits as before. This meant that the landowners came to realize for the first time that the demand of the landowning class was contradictory to the logic of capital.¹⁰⁾

VI Agricultural Policies—Beginning of Conflicts of Interest between Capital and Landownership—

Japan, as a late-coming and less developed capitalist country, had to transplant highly developed productivity and various capitalistic systems from the advanced countries for her rapidly developing capitalism. That is why various economic policies were taken under the leadership of the Government. In the main there was the so-called "policy for the promotion of

¹⁰⁾ Shuzo Teruoka, *Nippon Nogyo Mondai no Tenkai* (*The Development of Japanese Agricultural Problems*), Vol. 1, Tokyo, Tokyo University Press, 1970.

industrialization", including the agricultural aspect of that policy. The main contents of the latter were: 1) to promote export of agricultural products and processed goods, 2) to facilitate agricultural financing, 3) to organize the extension system, and 4) to collect and disseminate excellent traditional techniques of farming.

The land tax, basis for the taxation system, and the reduction of extreme deficits on the external current account balance were inevitable in order to secure economic independence. Even though the "expropriation of land tax" under the government's powerful deflation policy accelerated the fall of owner farmers, it was thought that there was nothing to do but leave them alone for the purpose of the primitive accumulation of capital. The rapid development of landownership was its resulting phenomenon, and in this sense, developing capitalism enjoyed a honeymoon-like relation to landownership.

Japanese capitalism, immediately after its establishment, began to change into monopolistic capitalism under the government's guidance from the beginning, wholly depending on introduced foreign capital as a result of the Russo-Japanese War. It was too early to begin to reorganize the policy accordingly.

In spite of the lack of monopolistic system on heavy industry, Japan took an imperialistic policy under the tense international relationship existing in the Far East—building up her heavy industry, expanding her powerful military force, and advancing into neighbouring countries to make them colonies. For that purpose, heavy taxes for the redemption of national debts were imposed upon small-scale production classes in cities and farm villages. The Government gradually came to systematize its policy for raising national productivity by maintaining and cultivating those widely exploited classes. Let us take a look at the agricultural policy from 1888 to 1914.

Foreign Trade in Agricultural Products and Measures for the Promotion of Exports

As has already been mentioned, early Japanese export goods consisted mainly of raw silk, copper, and primary industrial goods. Above all, the export of agricultural, forestry, and marine products, as represented by green tea, occupied 41% of the total amount of exports from 1876 to 1880, and 18% from 1891 to 1895; decreasing rapidly to 10% from 1901 to 1905. While raw silk and silk fabrics occupied 37% from 1876 to 1880, they increased to 41% from 1891 to 1895, and afterwards decreased gradually, still maintaining 30% from 1911 to 1915. In the world silk market before and after 1907, Japan overtook China and Italy and became the world's biggest exporter of silk. Japanese policy on silk export was carried out as politically financed through raw silk wholesalers.

Direct export of raw silk was not successful after all, experiencing various complications, and so raw silk wholesalers in Yokohama sold to

foreign merchants in the Yokohama settlement, which became the so-called "foreign trade system in the settlement." A shipping agent, the association of local silk manufacturers, received a huge amount of advance money from raw silk wholesalers in Yokohama, who were selected for strong support by the Yokohama Specie Bank and the Bank of Japan. With a large amount of capital from these two banks, a few large wholesalers could recover from the severe damage of a sharp fluctuation in the price of raw silk and would be able to extend the production and export of raw silk rapidly. As a primary producing country subordinate to the world market on raw silk with the U. S. as its center, Japan adopted a powerful export promotion policy along with the most inconspicuous form of finance for the acquisition of foreign currency.

Meanwhile, export of Japanese green tea was stagnant, losing in productive competition with the rising tea producing countries of Ceylon, British India, and so on, on Tropical plantations from the late 19th to the early 20th century. The export promotion policy as a countermeasure to green tea may be divided broadly into two parts: 1) the prohibition of exports of faced green tea and other inferior teas, because of its bad reputation in the consuming nation, organizing tea dealers association by prefectures to give technical guidance and inspections ("Regulations of the Tea Dealers Association," 1887). The Center of the tea dealers association was formed to make an investigation into the overseas green tea market. Another was the promotion of direct export of green tea, which met with great difficulty because of strong resistance by green-tea-wholesalers in Yokohama. In 1894, at last, the first trial of the direct export of green tea met with success in the "Japan Tea Corporation Ltd." in Shizuoka prefecture, but neither of the green-tea export promotion policies were very successful.

Another important foreign trade policy, the recovery movement of tariff autonomy was pointed out. In 1894, the Anglo-Japanese Commercial Treaty was signed and came into effect in July 1899. Tariff law, as related to the treaties but opposed to tariff autonomy, was enacted in 1897, asking for the trade partner's agreement on 104 items of main import goods. As to import tariffs on agricultural products, the wartime emergency special tax, 20% ad valorem tax on silkworm-egg card, 30% ad valorem tax on raw silk, 15% ad valorem tax on rice and paddies were imposed respectively. By replacing of the treaty in 1910, tariff autonomy was fully recovered at last, and a 41.7% import tariff came to be imposed on sugar also. Import tariffs on rice and paddies will be mentioned later.

Organization of the Agricultural Financial System

Modern Japanese agricultural finance was initiated and supported by three special banks and agricultural cooperatives. They were the Nippon Kangyo

Bank (the Hypothec Bank of Japan—established in 1897), the Prefectural Agriculture and Manufacturing Banks (established from 1898 to 1900), and the Hokkaido Takushoku Bank (founded in 1900), which were all in charge of lending long-term agricultural capital loans on real estate mortgaged under the government's protection, and raising funds on bank debentures.

The Nippon Kangyo Bank, barely opened after the Sino-Japanese War with capital of 10 million yen, was so organized that it could make a long-term low interest loan, issuing bank debentures at a premium up to 10 times its capital. On the other side of government protection and financial assistance, government superintendence was so rigid that it assumed the right to appoint the bank director, and trifling matters such as prior securing of the Finance Minister's permission, became common routing in daily execution of the most mundane affairs.

At first, restriction was placed on lending so that banks could make loans for the improvement of "agriculture and the agribusiness." The Bank was charged with two types of loans: 1) secured loans of redemption by yearly installment within 50 years and within 5 years redeemable loan on real estate mortgage, and 2) unsecured loans to public organizations, but in principle it should be the first duty of the bank to make a firm and sound loan. As most landowners thought it more profitable to reduce their own cultivated land and lend it to the tenants, it was not only difficult to find large scale loans for the positive extension of agricultural production on their estates, but also nearly impossible to have long-term prospects for securing sound profits. It was not long, therefore, after the opening of business that it came to be recognized that this business policy had failed. First of all, direct large loans were made sparingly, and these tended to reduce the minimum standard amount of lending. Then, from 1901 the Agriculture and manufacturing Banks gradually strengthened agency loans to middle-and-small-scale landowners and to old-style rich farmers, that is, as agents lending the Nippon Kangyo Bank's capital. The first public lending was given to municipal corporations, and the next to the irrigation associations, which indirectly contributed to the improvement of agricultural productivity. But as mortgage loans on landed property in urban districts became possible after 1911, the Nippon Kangyo Bank and the Agriculture and Manufacturing Banks were merging into the Real Estate Bank, dealing mainly with mortgage loans on urban landed property.

The Agriculture and manufacturing Banks were, after 1898, founded one in each of the forty-six prefectures. These were systematically independent of the Nippon Kangyo Bank, but actually the Nippon Kangyo Bank was to buy bank debentures of the Agriculture and Manufacturing Banks. As to the capital involved, the maximum amounted to 1.5 million yen from the

Bisan Agriculture and Manufacturing Bank, and the minimum 200 thousand yen from the Okinawa Agriculture and Manufacturing Bank. The average per bank came to 620 thousand yen. The Government subsidized a total of 8.33 million 1 thousand yen to each prefecture (principal share holder of the bank) according to the ratio of taxed land area in each prefecture. The Agriculture and Manufacturing Bank was granted various privileges such as issuing 5 times her total capital in debentures, dealing with fixed deposits, and making joint and several liable loans to groups consisting of more than 20 debtors as positive business, which was actually provided for the purpose of lending through a credit cooperative. In actuality, however, the Agriculture and Manufacturing Bank mostly made to an agent loans from the Nippon Kangyo Bank, having little chance to make such joint loans.

As shareholders in the Agriculture and Manufacturing Bank were limited to those who lived and were domiciled in the prefecture, the Hokkaido Takushoku (colonization) Bank was established according to this special law for the purpose of developing the new colony. Its capital was 3 million yen, and 1 million of that amount was government investment, for the purpose of contributing not only to the improvement of agriculture and industry but also to the development of the island itself. Hokkaido Takushoku Bank, building its foundation as a commercial bank from the time of its opening, and after the Sino-Japanese War, being qualified to issue bank debentures and loans on funds in the Deposit Bureau of the Ministry of Finance, played a positive role as a supplier of paddy field reclamation funds and land purchase capital.

In short, these special banks were founded as a kind of public organization subsidized by the government for the purpose of providing long-term production funds mainly for agriculture, for raising funds from the private sector, and for granting free loans according to bank principles. But as the landowners and the old style rich farmer classes, who should be provided with capital, played a less productive role, lending was made not on the basis of productive business but on integrated capital of the landowners for purchasing rentable land, election funding and living expenses, natural disaster relief, and sound urban real estate. It was the ratification of the above-mentioned that eliminated the first article of the 1910 authoritative law of both banks—"to make loans for contribution to the development of agriculture and industry."

Yet, it did not mean the Nippon Kangyo Bank and the Agriculture and Manufacturing Bank lost the function of agricultural finance at all. On the contrary, they came to play remarkably important roles as agency banks intermediating long-term low-interest loans for the agricultural community and as municipal corporations from the Yokinbu (deposit department) fund of the Finance Ministry.

Systematization of the Agricultural Association

The first permanent national level agricultural association was "Great Japan's Agricultural Association" established in 1881. It aimed for the systematization of the nationwide "agricultural symposium," calling veteran farmers for the purpose of promoting the developing agriculture by "communication of agricultural knowledge and experience", but never thinking of talking agricultural politics.

The agricultural association had two roles. One was the farmers' autonomous organization and the other was the body for diffusing agricultural policy. But "Great Japan's Agricultural Association," for instance, was far from an autonomous organization because special members of the association, who were qualified to take part in the proceedings of the association, were occupied mostly as government officials.

In 1893 Masana Maeda was inaugurated as Secretary General of "Great Japan's Agricultural Association". In 1894, the National Conference of Agricultural Affairs was summoned and decided to organize a national and regional system of agricultural associations. It was promoted to organize the regional agricultural association; consequently, this association was held in each prefecture according to the average national association. On the other hand, the "Great Japan's Agricultural Association" was strongly opposed to political campaign activities, such as of memorializing petitions to the government and to the Diet. Masana Maeda then resigned as the Secretary General and organized the central office of the National Conference of Agricultural Affairs, making efforts to establish the Agricultural Association Law.

The government was extremely cautious of the landowners' organization, but later was convinced of the enactment to make public "the Agricultural Association Law" in 1899 and enforced it the following year. According to this law, compulsory admission and the right of compulsory collection of the membership fee, which the national agricultural association demanded, were refused. Instead, the annual expenditure of 150,000 yen in government subsidy was provided. The Agricultural Association Ordinance, an Imperial ordinance on the organization of agricultural associations, did not permit the organization of this agricultural association on a national level. Unless the Prefectural Governor and Secretary, for prefectural organization and unless the Head of towns and villages for rural organization, were not nominated for president of the prefectural, district, and rural agricultural associations. For vice-president or the councilor of each agricultural association, the nomination of other large-scale landowners was required. It was partly to appease landowner discontent from the increased land tax for the procurement of Russo-Japanese War expenditures, and partly for fear of the

agricultural association's release from the strong restraint of government. In October of 1903, the Minister of Agriculture and Commerce issued officially 14 items of agricultural improvement to the agricultural association. The main items included seed selection of rice and barley in a salt solution, development of the narrow rice-nursery, regular planting, compost improvement, enforcement of animal tillage, and readjustment of arable land. The agricultural association took the lead in putting these improvements into practice, often compelling peasants by police force to do them. By these war-time promotions the agricultural association extended its prestige for the first time.

The National Conference on Agricultural Affairs, not being legislated, professed itself as the National Center, and changed its name to the "Imperial Agricultural Association" in 1907, and succeeded in legislation in 1910. Establishment of the Imperial Agricultural Association was due to the recognition that landowners could no more rely on traditional bureaucratic agricultural policy in the political and economic recession of landownership in the post-Russo-Japanese War period. The Imperial Agricultural Association gained strong political power for fulfilling its function as a vigorous pressure group for all farmers under the guidance of the landowners.¹⁾

The Establishment of Rural Cooperatives

The rural industrial association, a cooperative of small-scale farmers, was the most predominant organization of farmers, who were unable to adapt to commodity economy by themselves because of their petty small-scale farming and weak economic base. Its purpose was to realize a kind of "scaled economy" (mainly in circulation and in credit) and to adapt to commodity economy, excluding merchant capital, and money lending capital from rural society. We should take notice of the fact that a unit of the agricultural cooperative was equal or similar to the "Mura". As mentioned already, the "Mura" is not only a community for production and life, but also a sort of self-governing body comprising its own people and territory. Since the "Mura" is a spontaneous autonomous body, the cooperative finds easy accommodation in it. Japanese Agricultural cooperatives, in advance of legislation, had already developed autonomously. Hotokusha and other savings associations were substantially equal to credit cooperations, and in 1898 there were as many as 351 selling cooperative unions dealing in raw silk and green tea, in addition to common purchase cooperatives dealing in fertilizer.

In 1891 the first credit cooperative bill was presented to the House of

¹⁾ The Ministry of Agriculture, Forestry, and Fisheries, *Norinsuisansho Hyakunenshi* (*The Centennial History of the Ministry of Agriculture, Forestry, and Fisheries*), Vol. 1, Meiji Era, 1979.

Peers through the Ministry of Home Affairs. This cooperative originated with Yajiro Shinagawa and Tosuke Hirata, who modelled it after the German Schultze Delitsch type of urban handicraftsmen's cooperative. The Ministry of Agriculture and Commerce preferred the German Friedrich Wilhelm Raiffeisen type of credit cooperative over that of Delitsch, which Hajime Watanabe insisted on in his publication, "The Credit Association" in collaboration with Sho Takahashi and Tokiyoshi Yokoi in the Association of Agricultural Science (Nogakukai). The Raiffeisen cooperatives had unlimited liability, no compensation to officers, no subscribed capital, no dividends, prohibition of the transfer of shares, combination of credit, and economic enterprises (multi-purpose cooperatives).

In 1900, the Industrial Cooperative Bill was enacted after undergoing amendments proposed by the Ministry of Agriculture and Commerce. The government, however, adopted no special protectionism for the cooperatives, making much of the Nippon Kangyo Bank and the Agricultural and Manufacturing Bank only as governmental finance supporting organizations. The establishment of the cooperative, therefore, could not help being delayed.

It was from the 1910's that the government changed its policy for utilizing cooperatives as ready-made agents and took measures to promote them. The number of cooperatives had already reached 7,308 with members, numbering approximately to 400 or 600 thousand by 1910. Judging from the ratio of organizations to farm households, the figures were as low as 10%, at most, and the number of members per cooperative was 110. The spontaneously organized cooperative thus laid its foundation in the territory of the "Mura". These cooperatives were mostly established as credit cooperatives. The most important problem for peasants in those days was to be released from high-interest on heavy debts, and it was impossible for peasants to sell and purchase as needed without financial assistance through credit cooperations.

In the 1900's industrial cooperative law credit cooperatives could not carry on other business, but by the first amendment in 1906, the multi-purpose cooperatives were widely approved. Subsequently the number of such type cooperatives increased by combining management of purchase and credit or management of purchase, sale, and credit. As the rice market was still controlled by merchants, sale and credit cooperatives did not develop easily.

Thus the early cooperatives were managed under positive leadership by resident landowners, partly because the landowners' own economic interests were concerned, but mainly because they bore the social responsibility as the executive class in the "Mura". As far as they were able to play a positive role with initiative, the cooperatives were able to function in order to improve the landowner-tenant relationship.

Consolidation of River Conservation and the Irrigation System

Until the rise of various enterprises in the late 1880's, the river conservation and irrigation control system was maintained by traditional methods. The traditional system was established from the end of the 17th to the 18th century, and as the unit of irrigation, the "Mura" under feudalism managed its water control autonomously. In 1884, Suiri-dokokai (Organization for Water Control and Construction), developing from the traditional irrigation association, was established but with no substantially difference in methods on results. In 1886, 14 main rivers in Japan were designated as under direct control of the government so as to keep water from overflowing their banks, but into flood storage basins instead. Stress was laid on "low water works" for shipping transport, patterned after Dutch techniques.

The Association for Flood Control, established in 1890 and originating mainly with Meizen Kinbara, strongly emphasized the construction of "high water works", laying stress on flood damage rather than on convenience by water transport. This was preferable from the view point of the landowners, too. In the same year, the Irrigation Association Act was promulgated, separating flood control and irrigation, and "suiri-dokokai" was reorganized into two parts: a "flood control association and an "irrigation association." The change resulted the landowner having to pay operational expenses of the irrigation association in place of the "Mura". It was a measure corresponding to the completion of the Commutation of Land-tax that water charges and land tax were imposed on the same person. It was generally understood that water should be attached to land. But management of the irrigation association was left to the "Mura" as before.

By the "River Law" in 1896, uniform systematic laws pertaining to river conservation were first established, consisting of three principles. The first was that all rivers belonged to the public and that water could not be obtained to satisfy private rights. The second was that the local government took responsibility for river management and conservation. The third was that the river manager's permission was necessary for construction near and occupation of rivers. After the enactment of the River Law, the Ministry of Home Affairs set up high water works by constructing high embankments upon all first-class rivers. It was worth noticing that the traditional "right to use water" was legally approved now for the first time. According to the provision for water rights which had already been in existence at the time of enactment, putting them under protection of the law, the traditional relationship for water distribution were legally approved. In this case, water rights, essential to Japanese agriculture, were legally approved, corresponding to the landowning rights, but the characteristic of water as belonging not to the private sector but to the public, was not made clear, being left to tradi-

tional customs. Subsequently, the Sand Control Law in 1897 and the Forest Law in 1907 complemented the field of river conservation beyond the limitations of the River Act, and the Irrigation Association Act was established in 1908. Consequently the association dealing with irrigation and drainage was approved as a corporation (juridical person) within the jurisdiction of the Ministry of Home Affairs.²⁾

Promotion of Land Improvement

As already mentioned in chapter III, the readjustment of arable land was extremely important to Meiji husbandry that aimed at improvement of land productivity by reformation into well-drained paddy fields, introducing animal tillage, and the use of chemical fertilizers. Tsuneaki Sakoh studied land readjustment, irrigation, drainage, and reclamation engineering in Germany for 5 years (1887 to 1891), and published *On the Consolidation of Land* in 1893. In response to his theory, the "Arable Land Consolidation Law" was enacted in 1899 and enforced the next year. The outline of that law was that with the landowners' agreement more than two-thirds of planning area and more than two-thirds of juridical land price in the planning area, the disapprover was forced to consent to the construction; exchange, division, and consolidation of land, alteration of land form, the change of road, border, and ditch. Then, for the area in question juridical land prices remained unchanged and the registration tax was exempt.

Encouraged by this law, the year 1905 saw water conservation works extending to 695 districts all over Japan, and the total planning scale amounted to 30,251 hectares. Total construction expenses involved amounted 4.82 million yen, and the yearly average in newly developed land 5,000 hectares plus or minus. The law, however, barely mentioned the improvement of irrigation, laying stress on land readjustment and farm road construction. The law was criticized by Tokiyoshi Yokoi, who insisted on the necessity of land improvement not by land readjustment but by irrigation and drainage. According to Yokoi, the main purposes of land improvement were increase in production per area and double cropping in the same well drained paddy field; and so, animal tillage was nothing but a means toward high production. He thought irrigation and drainage were more essential than land readjustment and road construction. His opinion on practical agricultural techniques in those days was generally accepted, indicating the landowner's interests.

The Cultivated Land Consolidation Law was revised in 1905, adding "equipment and the construction of irrigation and drainage" to the substance

²⁾ Akira Tamaki, "Kasen Suiri Seido no Kakuritsu (The Establishment of River Irrigation System.)" See Naraomi Imamura and others, *Tochikairyo Hyakunenshi (The Centennial History of Land Improvement)*, Heibon Sha, 1977,

of business. For, by the shortage of food at the time of the Russo-Japanese War, the necessity for increasing production and for stimulating land improvement was felt keenly. In the same year, a training course in technical expertise for land readjustment was held and in the next year (1906), according to "regulations for encouraging land readjustment and improvement," 50% of the local government's investigation, planning, and management expenses were subsidized by the Government. Moreover in 1908, the National Treasury came to subsidize 50% of all prefectural land improvement expenses. Afterwards, national subsidies for this sort of business became more positive.

In 1909, the Newly Arable Land Consolidation Law was established, having undergone a great change in content. In the new act, items pertaining to "land reclamation, conversion of land, management of constructed facilities, and underground drainage" were added. Irrigation and drainage were noticeably situated as a center of the new law. At the same time, the developers (conventionally a landowner's joint group), organized themselves into a cultivated land consolidation association (juridical person). It became easier to intensify the security of business management and to obtain loans. Furthermore, the law permitted the collection of additional farm rent. The maintenance and management of irrigation and drainage facilities after their completion was relegated to the ordinary water utilization association under the jurisdiction of the Ministry of Home Affairs or to municipal corporations. For land improvement in 1910, the government decided to lend long-term low-interest loans from funds in the Deposit Bureau of the Finance Ministry through the Nippon Kangyo Bank and the Agriculture and Manufacturing Bank. This meant complementing change in the landowner's attitude that gradually turned negative toward productive investment in land improvement.

In regard to the effects of land improvement, rice production per 10 are yield in Kagoshima prefecture in 1882 was the lowest at 99 kg., but from 1906 to 1910 it rose to 26th at 252 kg. The growth rate of the yield during this time was as high as 255.7%. The development of improved areas, encouraged by Prefectural Governor Hisayoshi Kanoh (1848-1919), reached 7,307 hectares by this time.

The rise in land productivity brought certain profits to tillers, and above all, a great deal to the landowner. Particularly, in areas of low productivity, land improvement was very effective and contributed great deal to the reduction of regional differences.

The total work in land improvement by the end of 1911 reached into 4,195 districts, included 246,601 hectares, and construction costs amounted to 48.12 million yen.

Post-Russo-Japanese War Political Situation and Food Policy

The Russo-Japanese War required as much as 1.7 billion yen and resulted in a huge foreign debt. The national debt (including foreign debt) increased from 640 million yen at the end of 1903, to 2.2 billion yen at the end of 1906 and to 2.65 billion yen at its peak in 1910. National and local tax liability per capita was 4.86 yen in 1903, and 9.127 yen in 1912, (about twice that of 1903), which marked the limit of the people's tax-bearing capacity. Unlike the Sino-Japanese War, the Russo-Japanese brought about no reparations, and the Government failed to keep its promise to abolish the "emergency wartime tax", which could not be realized in the immediate post-war period. Moreover, in March of 1908, the following indirect taxes were levied: the liquor and sugar tax were raised, and taxes on kerosene and petroleum were newly fixed and the cigarette price was also raised. Consequently, the system of taxation, gradually depending mainly on indirect taxes, made the people's tax burden much heavier. Heavy tax burdens hindered national economic growth, and the real growth ratio from 1906 to 1910 fell to only 1.8% as indicated in Table 1.

The government organized a board of production investigation to inquire into the fundamental problem of economic policy in 1910, which reflected how difficult it became to adjust the interests of various classes in the nation. The serious nature of the discussion was reflected in matters concerning government moves to reduce imports, (especially rice imports), and to increase exports (especially raw silk exports), which resulted in an increasing tendency toward trade deficits.

Under these circumstances, in order to expedite the assignment of a "postwar policy," i. e., to ensure and develop the colonies after the Russo-Japanese War, keep wages low, and increase export of commodity and capital, the capitalists insisted on the necessity for development and import of low-price foreign rice, especially colonial rice; whereas the landowners feared the inflow of low-price foreign rice and colonial rice on a sluggish post-war depression market. Hence, the conflict of opinions between capitalist and landowner. The future direction of the nations food policy came to the fore in connection with the rice tax problem.

The Japanese rice tax began with the establishment of a rice import duty of 15% ad valorem as the second emergency tax in 1905. The percentage of land tax in the increased first emergency tax in 1904 reached 38%, and that of the second emergency tax reached 25%. Rice import duty was established for the purpose of shifting the landowner's increasing burden onto the people (consumer) and directly increasing government income by every means available. As the tax had been established with a fixed time limit, (until September 1906), the first point of issue was continuation

or discontinuation of the duty.

When the "Tariff Law Revision Bill" was presented to the 22nd Diet for the purpose of establishing an important and effective industrial protective tariff for a Japan endeavoring to obtain tariff autonomy, rice duty (for which no description at all existed in the Government's bill) was passed as a shift from the emergency tax, and was revised as a government bill by the Seiyukai Party and the other party then in power. This was attained through the influence of the National Conference of Agricultural Affairs led by the landowners. Thus rice duty was included in the tariff law as a specific duty of 64 sen per 100 kin in October of 1906, but substantially there was no change in tax rates at all.

Rice duty became an important problem of the 26th Diet in 1909 to 1910. A sweeping amendment of the tariff law was made prior to the establishment of tariff autonomy rights by the commercial treaty revision in 1911. The government's bill was made, being based on raising tariffs for the protection of developing industry, and the rice duty was left as it was. In 1909 the National Chamber of Commerce had already decided to abolish the duty on rice, but the landowner wanted to raise it with the help of the Seiyukai Party.

The plan for raising the duty on rice passed the House of Representatives but was rejected by the House of Peers, and after consultation between the two, tax rates were raised to 1 yen per 100 kin, "on condition of lowering the tax within the limits of 40 sen per 100 kin in the appointed term by an imperial ordinance in the even of a poor harvest." In the Diet, a reduction in land tax was decided, too, which, having no connection with the rice tariff, indicated how powerful in political clout the landowner classes had actually become. The important point to remember was that the capitalist classes fundamentally achieved their imperialistic demands, making concessions to the landowner classes on agricultural protective tariffs and raising tariff barriers for industrial protection.

In connection with this problem, Tsuneaki Sakoh, Director of the Agricultural Bureau, Shogoro Hatano of the Mitsui Bank, and Tatsugoro Inoue of the Industrial Bank of Japan held the same view, differing from Tokuzo Fukuda's theory for the establishment of national commerce like that of Great Britain, and in discussion with Agricultural Fundamentalists including Tokiyoshi Yokoi, looked far ahead into the future of Japanese capitalism. They perceived that Japanese capitalism was supported by the low wages paid to workers, from the farm villages, and pointed out that the reason for this low level was that a single person from the farm needed less for living expenses. As a result, they maintained that the rice price should be kept at a low level unless agriculture declined, and should not be allowed to rise. Rice tariffs should be kept at the lowest level so that the low-wage

basis could be maintained.³⁾

In this way, government insistence that the status quo small-scale producer should be maintained as the basis for low wages (without promoting the dissolution of the small-scale producer) indicated a positive change in the capitalist point of view, although the capitalists themselves had never taken notice either of the dissolution of the small-scale producer nor of his loss of land.

But it cannot be said the strengthened rice tariff gave satisfactory results in raising the price of rice. The quality of foreign rice that was purchased mainly by the urban lower classes, miscellaneous job classes in farm villages, and by the petty tenant classes, was far inferior to rice produced in Japan, and so had relatively small influence on the domestic price of rice. On the contrary, colonial rice, very similar to domestic rice in quality and very cheap in price, wielded important influence over the rice market. Formosan rice was exempt from import tax from the beginning. As for Korean rice, the conventional import tariff was taken over as a new rice import tax at the time of its Annexation to Japan (1910), but was abolished in July of 1913 in the 27th Diet (1911 to 1912); therefore, the demand of landowner classes against the develop-and-import scheme and against imported colonial rice were unsuccessful.

This indicated that Japanese capitalism had made a new choice the export of Japanese commodities and capital to the colonies and the attempt to promote cultivation of rice as a main industry in the colonies in order to keep the Japanese domestic wage standards low. We have observed that Japanese capitalism, shifting later to imperialism, thereafter reorganized its fundamental food policy in the direction of self-support based on rice culture, not only domestically but also in the colonies as a whole.

³⁾ Keizo Mochida, "Shokuryoseisaku no Seiritsukatei (1) (Formation of Food Policy since Meiji Era, I, Landowners versus Bourgeoisie (1)), " *Quarterly Journal of Agricultural Economy*, Vol. 8, No. 2, April 1954.