TRANSFORMATION OF HIRED LABOR AND COOPERATIVE LABOR ORGANIZATIONS IN KOREAN AGRICULTURE

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THE PRESENT paper has been written in the context of efforts to systematically analyze change in Korean agriculture from the standpoint of the labor factor. It has already been more than ten years since rural population in the Republic of Korea has leveled off and even declined in some areas, reversing the hitherto consistent trend of population increase, as a result of the outflow of rural population to the cities in the course of rapid industrialization and urbanization. More recently, in particular, the outflow of agricultural labor has become so pronounced that it is getting to be very difficult to accomplish the necessary farm work in time on the basis of rural labor alone during the busy seasons.

Because of this situation the hitherto much discussed problem of surplus labor has given way suddenly to the reverse—the problem of a labor shortage—and there has been a great deal of discussion and policy activity concerning the need to speed up mechanization considerably.

Needless to say, this rapid change in the situation regarding agricultural labor is closely related to such structural features as the rapid growth of the Korean economy and concentration of increase in labor demand in the large cities and major industrial parks. Among the characteristics that have emerged in this connection are the speed of transition from a labor surplus to a labor shortage, decline in the agricultural labor force more as a result of movement of labor to the cities than as a result of increase in participation in nonagricultural work by farm families, and failure to do something in time about the trend toward a labor shortage and the absence of sufficient time to make the necessary adjustments.

The present paper is a continuation of the research I have done on various aspects of the problem of agricultural labor in the Republic of Korea, including the significance and limits and the course of development of discussion in the Republic of Korea on the subject of surplus labor, the amount, composition, and distribution of agricultural labor, and analysis on the microeconomic level of

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fluctuation in labor input. Both in the postwar period and before then family labor has accounted for the greater part of the agricultural labor force in the Republic of Korea, but hired labor has also been extremely important seasonally and in the case of particular farm household strata. However, there has been considerable change in the form that such hired labor has taken and, moreover, in the form of and practices with respect to cooperative work, which has represented a large part of agricultural work.

This paper deals with three periods: (1) the period between the formation of the tenant farming system on the basis of prewar land survey activities and the change to the system of independent farmers on the basis of postwar agrarian reform; (2) the postwar period after the agrarian reform in 1949 and prior to the time when the hiring of rural labor came to be conspicuously affected by industrialization and urbanization; and (3) the recent period from around 1967 in which there has been a great outflow of rural labor and popularization of new agricultural technology along with introduction of new varieties of rice. Needless to say, war and other disruptive factors prevented the direct application of typical hiring practices in these periods, but nevertheless we shall attempt to analyze the characteristics of each and the change that took place during them along with change in socioeconomic institutional conditions. Furthermore, because of the limited amount of space available and the character of this paper as a qualitative analysis, I have dispensed with statistical tables, figures, and other such tools, leaving quantitative analysis of the same subject to another opportunity in the near future.

I. LABOR PRACTICES UNDER THE TENANT FARMING SYSTEM

The land survey activities of 1910–18 were the point of departure of the prewar tenant farming system. They made it possible to give modern legal sanction to landlord rights as the feudal "public land" system that had been decaying in the waning years of the Yi dynasty gave way to private landownership. The increase in the number of tenant farmers under this newly emerged system had an important bearing on employment.

The most characteristic feature of the tenant farming system before the war was the combination of large landownership and small tenant farming, and in this respect the prewar agricultural system basically differed from both large capitalist farming and a system of independent farmers with small holdings. In that tenant farming system farming activities were basically organized in terms of family labor, with use being made of hired labor only when the available family labor was insufficient.

According to the national census of 1930, at that time hired labor (including clerks of farm associations, male and female farmhands, and other agricultural workers) accounted for only 6.76 per cent of the agricultural working population, the other 93.24 per cent being accounted for by self-employed farmers (including their families as assistants). Of course, it should be noted that since that national census was based on the system of classifying the respondents by their principal

form of employment, it did not reflect the hired labor represented by those who mainly engaged in their own farming activities but who also worked as day laborers or seasonal farm workers for others on the side. In other words, since only those few persons who were not able to attain tenant status and who worked entirely for other farmers as live-in help were counted as hired laborers, that census underestimated the real percentage of hired labor in terms of the breakdown of input of labor.

Making a comparison with Japan on the basis of the results of the 1930 census, Tōhei Sawamura pointed out (1) the high percentage of male farmhands, i.e., farm workers hired on a yearly basis, in the total amount of hired agricultural labor and (2) the low percentage of female farm labor as the most important characteristics of the composition of labor in Korean agriculture [17]. In the total agricultural population, percentages for male farmhands were 1.92 per cent for Japan and 6.02 per cent for Korea and percentages for female labor force were 45.4 per cent for Japan and 34.2 per cent for Korea, the figures for Japan having been estimated by Hidetoshi Isobe (see [17]).

Another important feature of labor in prewar Korean agriculture was the fact that cooperative labor represented the most common form of labor organization, accounting for a great deal of the agricultural work that was done. Helping each other out with farm work during the busy season is a practice that is still fairly important among Korean farmers today, but before the war besides such purely spontaneous and voluntary exchange of labor, such cooperative organizations as *nongsa* and *dongdyure* played an important role in agricultural cooperative work organization [8].

Let us now consider some of the practices with regard to agricultural labor force in Korea in the prewar period, mainly in terms of the most characteristic points.

A. *Forms of Hired Labor*

The prewar tenant farming system was basically one of small farming, and since conditions were not yet favorable to the formation of large numbers of agricultural laborers, the vast majority of farmers depended on their own family labor to work the fields that they held as tenants. Nevertheless, those farmers with holdings much smaller than the amount of labor available in their families and those who had hardly any holdings at all were forced to hire out their labor. On the other hand, landowners with large holdings of their own and even large tenants hired the labor of such lower-strata farmers to make up for their shortage of family labor. Thus, one can see that the role of hired labor was much more important than the census statistics would lead one to believe.

Besides farmhands hired on a yearly basis and day laborers, in some parts of the country there was hiring of agricultural labor on a seasonal or monthly basis before the war, but these forms of hiring never represented a very high percentage of the total, hiring on a yearly basis (such farmhands being referred to as *meoseum*) being the most universal and traditionally important.

Meoseum were male laborers normally hired by farmers as live-in help for a

period of one year who were obliged to follow their master's instructions in doing mainly agricultural work but at times also household work. They were hired by landowners with their own farming plots or middle- and upper-strata independent farmers and at times by large tenants. In fact, there were even instances of their being hired by small-scale farmers who were without their own adult male labor.

Since the *meoseum* engaged year in and year out in agricultural work requiring a great deal of physical strength, they were mostly young or early middle-aged men, but there were also cases of older men or boys who had not yet reached manhood being hired in this capacity. But considering the difference in work capacity between the former, referred to as "prime" *meoseum*, and the latter, known as "lessor" *meoseum* or *goldamsari*, there was a wide gap between them in terms of remuneration.

Meoseum were usually people from poor farming families in other villages, but now and then they worked in the same village as their families lived in. Most of them were single and renewed their contracts year by year, in some cases staying with the same employer for more than ten years. Nor was it unusual for a *meoseum* who had earned the particular confidence of his employer to be given a little land to cultivate on easy tenant terms, thereby becoming a tenant in his own right, but in such cases he was more like a member of the family than a farmhand.

The remuneration received by *meoseum* varied considerably according to the evaluation of their capability at the village level, and the form in which it was paid them and the time of payment were also very diverse. The usual form of remuneration was in kind (chiefly unhulled rice), and sometimes the payment was partly in cash, but only in very exceptional cases was the entire amount paid in cash. Before the war the amount that was generally paid in kind was 2–5 koku (1 koku being equal approximately to 180 liters or 5.119 U.S. bushels) in the case of unhulled rice or 1.50–3.75 koku in the case of polished rice. When the payment was partly in kind and partly in cash it usually consisted of 2–3 koku of unhulled rice and 10–20 yen, and in the exceptional cases where it was entirely in cash, it amounted to 40–50 yen. If one adds to that the meals, tobacco, and spring, summer, and fall clothing with which they were provided by their employers, their total annual wage is estimated at about 150–200 yen [4, pp. 2–11].

Although there is no clear-cut documentary evidence regarding the time of origin of the *meoseum* type of labor, there are references in the *Gyeong'gug-daejeon* [Gyeong'gug code] that indicate that it was already in quite general practice in the early period of the Yi dynasty. In modern times the background for the creation of *meoseum* labor in large quantities included the emancipation of slaves through the abolition of feudal relations of personal social subordination in the Gabo Reform of 1894 and the separation of peasants from their holdings on the basis of land survey activities, causing them to remain in the rural communities as lower-strata agricultural workers. The *meoseum* can therefore be considered to be the product of different historical circumstances than those that

produced modern agricultural wage workers, feudal tenant farmers, and serfs [9].

It has been estimated that there were more than 300,000 *meoseum* before the war [7, p. 109]. Besides that, there were about 40,000 households of agricultural workers with an intermediate status between pure tenant farmers and *meoseum*, who were known variously as *hyeupmagin*, *haengrangin*, *chaho*, etc. Their existence was one of residence in a part of the landlord's house or an independent house provided by him and being provided with meals by him, in some cases the members of the person's family included, while working his land or doing other work for him in addition to the working of a small area of land of about one to four tan (one tan is equal to about ten ares) as a tenant [17, p. 117].

Next to the farmhands hired on a yearly basis, the most important form of hired labor was day laborers. Although the previously mentioned national census did not accurately reflect the relative importance of day laborers in Korean agriculture,[1] they did represent a fairly high percentage of the total amount of labor input, but largely in terms of side work by farmers with holdings of their own. In the busy seasons family labor, farmhands hired on a yearly basis, and labor exchanged with other farmers were not sufficient for large independent farmers and upper-strata tenant farmers to accomplish all of their land preparation, planting, weeding, harvesting, threshing, and other work for the rice crop and similar work for wheat, millet, soybean, and other dry field crops. They therefore had to rely on a considerable amount of day labor. On the other hand, small independent farmers and tenant farmers that had little land in comparison to the amount of family labor available to them provided their surplus labor in the form of day labor as an important means of supplementing their small incomes from their own undersized farming operations. Accordingly, day labor tended to be used almost entirely in the busy seasons since in the slack seasons even larger farmers needed less labor than they had available themselves.

The use of day labor was a universal practice in all parts of the country, and, as in the case of other forms of hired agricultural labor, the employer was obliged to provide the midday and evening meals and two snacks in between besides tobacco and wine at the end of the workday. In the prewar period the daily wage for such day labor was in the range of 0.30–0.50 yen, but it tended to be somewhat higher during busy periods when it was hard to get help, when the work involved was highly intensive, and in sparsely populated northern areas [4, pp. 2–13].

Among the other types of hired labor were seasonal labor and the contracting of work. Seasonal labor was a practice followed mainly in the northwest, the laborers involved being people from other parts of the country, particularly those who were migrating to Manchuria because of crop failures or for other reasons and who engaged in agricultural work for several months in villages along the

[1] According to the Korean national census of 1930, day laborers accounted for only 0.62 per cent and 8.97 per cent, respectively, of all agricultural workers and the total number of agricultural workers excluding family labor. See Sawamura [17, p. 121].

way as a way of paying their travel expenses. At some times and in some areas there was also the hiring of agricultural labor on a monthly basis.

Contracting, on the other hand, was a form of hiring labor in cases where the agricultural land to be worked in the busy seasons was too far away for the holder to properly supervise the work done. It involved a certain area of land as one day's work, the wage for such work depending on whether it was initial plowing, planting, seeding, interim plowing, weeding, harvesting, or whatever that was to be done. One type of such contracting that was fairly prevalent in the rice-growing areas of North Jeonra Province is the *goji* system [4, pp. 2–14]. This system involved contracting of all of the work required by the rice crop, the contractor being guaranteed his living expenses by having his wages advanced to him, in return for his promise to provide his labor for the period of one year. Even after the war this system continued to be practiced up until the mid-1960s, chiefly in the Jeonra region. It was advantageous to the employer in that he was able to secure in advance the amount of labor that he would need in the busy seasons and to the contractor in that he was able to ensure that he would have enough food during the lean spring period by receiving advanced payment in kind. It can be considered, however, to have been a system with a marked premodern character in view of such aspects of it as the usurious nature of the advance payments and the joint liability of the whole family with respect to the contractor's commitment to provide his labor.

B. *Changing Cooperative Work Practices*

Another important feature of prewar agricultural labor practices in Korea is the fact that cooperative labor was generally practiced in many forms. The cooperative labor that has traditionally been practiced in Korea includes both cooperative work and cooperative tillage, the former, which represents the mainstream, including in turn compulsory cooperative work on the part of all, cooperative work by freely formed groups, temporary cooperative work on an exchange basis, and so on [8, p. 526].

Cooperative tillage included both compulsory labor on the part of villagers for the tillage of unoccupied land which existed in the period before the establishment of modern landownership rights, for the purpose of earning money for the village public coffers and the *nonggye* type of arrangement whereby a number of persons joined together to do certain work involved in harvesting. However, in 1912, for example, the total of 900 instances of such cooperative tillage (404 involving tillage of land for the common benefit of the village and 496 representing cooperative tillage on a *nonggye* basis) involved a total cultivated area of only 1,620-plus chō (1 chō being equal approximately to 1 hectare), and after 1920 the practice of cooperative tillage just about disappeared after the basis for its existence was lost through the weakening of the community character of villages in the process of establishment of modern landownership rights on the basis of land survey activities.

Next, let us consider the general compulsory type of cooperative work, in which the whole village or hamlet was organized in group fashion for the joint

performance of work such as planting, plowing, weeding, etc. The general compulsory form of cooperative work was referred to as *dongdyure*, and the organization involved was known as the *nongsa, nongcheong, nonggi, mogcheong,* etc., depending on the part of the country.[2] In the case of Ulsan in South Gyeongsang Province the practice with respect to *dongdyure* was to discuss the organizational arrangements at a banquet held on the village holiday proclaimed in early June as reckoned by the lunar calendar after completion of the planting and first weeding of the rice fields. The banquet was attended by all of the farmers in the village and financed by collecting an amount from each farm household in the area based on the amount of farming acreage or the category in which each was classified or by using funds of the *dong*. On the basis of discussion by all those present, the officials of the *nongsa* were chosen, and the number of days of cooperative work was determined. On this basis each of the farm households in the area was obliged to provide one ablebodied man every day of the period of the cooperative work. If a household did not have such an adult person to provide because of absence, accident, or illness, it had to report the fact in advance and make a monetary payment instead or have a youth serve in place of the adult. Widow households, however, were exempted.

The work was done on a rotating basis according to custom or the degree of urgency of the villagers' work. The wages for the cooperative work were set as so much per dorag (approximately 6.6 ares) on a contracting basis, depending on the thickness of the growth of weeds and the difficulty of the work. Settlement of such wage income was made at completion of the cooperative work, and after subtracting the expenses of the *nongsa*, the remaining amount became the property of the *dong* to be used for cooperative projects or common expenses. In some regions the work of the *nongsa* included planting, irrigation, weeding, and even harvesting, but generally it centered on weeding. Also, in some regions the entire amount of the income from the cooperative work was divided among the members according to the number of days of service of each, with only a small remaining amount being used to cover common expenses. In any case, the *nongsa* played a core role in the village community, providing overall coordination of community life by performing the work of the village in a cooperative fashion in the periods of peak labor demand.

There are two explanations of the origin of the *nongsa* [8, pp. 540–45], one ascribing it to the necessity for cooperative work in agriculture, and the other to the need to create funds for the village's common religious rites. According to the first explanation, a general, compulsory cooperative work scheme was necessary to make sure that all of the farmland of the village was plowed and weeded in time, and according to the second, the *nongsa* form of cooperative work was started because of the need to pay the expenses of traditional worship of the village's main gods and the impracticality of collecting such expenses from each of the villagers on separate occasions. Neither of these explanations, however, seems to be complete, each relating to only one aspect of the nature

[2] [4, p. 528]. The *dong* means a rural community, and the *dyure* taking turns.

of the *nongsa* and neither explaining the time of its origin. The *nongsa* can be considered as follows in terms of agricultural needs. If farm households were to attempt to procure labor each on their own, it might not be possible to adjust overall demand and supply of labor in the village, and as a result those farm households stricken by illness or accident would be liable to be seriously affected at harvest time by failure to complete their necessary farm work on time. This being the case, it was necessary to form an organization for mutual assistance or relief at the village level. One cannot deny, however, the additional purpose of securing the financial means of promoting and controlling village social events in the face of declining general participation in them along with growing economic individualism. In other words, the *nongsa* was an organization with a complex character.

Up till around the end of the Yi dynasty *nongsa* were widely practiced all over the country, and they were managed with relative facility. However, along with change in the socioeconomic organization of rural communities resulting from land survey activities and other developments, they lost their basis for existence and just about vanished in the 1920s and 1930s. The following can be cited as some of the factors involved in their demise. Firstly, the collapse of the village community, including common village property and customary juridical powers within a particular range, deprived the *nongsa* of one of its most important supports. Secondly, change in the social structure within the village gave rise to conflicting interests. Along with class differentiation, there arose households that engaged in other economic activities as well besides agriculture and those specializing in day labor or work as farmhands on a yearly basis, and since the *nongsa* was to the advantage of large landlords and large farmers and to the disadvantage of small farmers, interest in it naturally declined [5, pp. 211ff.]. Finally, there was technological change such as the introduction of improved plows and weeding equipment which increased the participation of women in the weeding of irrigated rice fields, thereby decreasing the demand for male labor.

The second main form of cooperative work was voluntary association in groups called *dyure*. Whereas the *nongsa* involved compulsory participation by all of the farming households in the area, the *dyure* was an organization purely for work which was participated in by some farm households on a voluntary basis for the purpose of deriving mutual advantage through joint execution of their farm work. While those farm households that did not need cooperative work did not participate, those for which such an arrangement was advantageous participated by having at least one of their members join in the work, and it was normal for two or three adult males to participate from large farming households, or their full work force. The labor provided in the *dyure* was usually returned as well in the form of labor, but in cases where poor farmers participated for the purpose of fuller utilization of the available labor, they might be paid in cash or grain. Just as in the case of the *nongsa*, planting and harvesting were sometimes included in the types of work done by the *dyure*, but the main work item was the weeding of irrigated rice fields. The cooperative work continued

until the work in question was completed, and the allotment of the work was based on a spirit of mutual dependence, the work done each day being determined by which household needed it the most urgently. The daily work extended for about eleven to twelve hours from eight or nine o'clock in the morning to around sunset, but the net amount of time worked was only about seven to eight hours after taking into account the morning and afternoon breaks and the midday rest. The *dyure* is often characterized as a labor organization combining labor, recreation, and banquets.

Besides the most common type of *dyure*, the "paddy *dyure*," or the type for the weeding of irrigated rice fields, there were also "hay *dyure*" for the cooperative cutting of grass in turn for use as compost and "linen *dyure*" and "cotton *dyure*" as cooperative labor organizations for women, and all of them were characterized as cooperative work organizations with a recreational aspect as well.

Although the *dyure* was a more rational form of cooperative work organization than the *dongdyure* and therefore lasted longer, it, too, gradually declined in the midst of changing socioeconomic conditions. Among the reasons for such decline can be cited increasing controversy over whose work should be done first, the difficulty of making adjustments in demand and supply with respect to individual labor on the basis of the daily rotation of the whole work force, deteriorated working morale, second thoughts about the advisability of providing so many meals, and gradual decline in the suitability of the *dyure* system along with diversification of farming management. Furthermore, with the popularization of the products of modern factories, "linen *dyure*," "cotton *dyure*," and other women's cooperative work organizations were deprived of their basis for existence.

The third main form of cooperative work was exchange of labor on a temporary basis, this arrangement being referred to as *pumasi*.[3] Whereas the other two types considered above were both fixed organizations that continued for a certain period of time, the *pumasi* featured exchange of labor on a free-entry, indefinite membership basis. Its scope of membership was usually restricted to the village or a unit of rural community based on territorial ties, and it was possible when necessary, without regard to degree of intimacy within the village, to arrange exchange of labor a few days in advance or even the night before on the simple basis of a verbal promise. Furthermore, there were no restrictions as to the type or period of the work exchanged, any kind of work being possible throughout the year.

The labor provided under this arrangement was as a rule to be returned in the same amount and in the same form, but in some cases it was returned with a different kind of work than that originally provided, and in exceptional cases there was a cash settlement on the basis of the current level of wages. Some exceptions were, however, allowed to this principle of equal value of exchange,

[3] The *pum* of *pumasi* means exchange or hired labor, and the *asi* a lacking of or borrowing of.

depending on the labor supply and demand requirements and human considerations. For instance, in the case of planting of irrigated rice fields it was possible for women and boys fifteen or sixteen years old to exchange labor on an equal basis with grown men, an arrangement which was immensely helpful to farm households without adult menfolk in managing to get their work done during the planting period. Furthermore, although the unit for the exchange of labor was one day's work, it was customary to accept less than a full day's work if justified by the weather or other circumstances.

This *pumasi* arrangement made it possible to avoid the conflicts of interest and lack of flexibility that characterized cooperative labor in general because of its principle of equal value of exchange and the voluntary nature of the exchange. As a result, it came to be more generally practiced in all parts of the country than any other form of cooperative labor. In other words, it assumed the status of the last form of cooperative labor.

Nevertheless, circumstances gradually emerged which made it necessary for even this *pumasi* arrangement to undergo some change in the context of differentiation of rural society. First of all, with the development of individual economic entities and activities, the assistance element of the *pumasi* arrangement became less pronounced, and the aspect of pursuit of profit gradually emerged, and as a result there was a growing tendency to avoid *pumasi* exchanges with youths and other persons not capable of the full measure of work of a grown man and with poor farm households that could only offer less than satisfactory meals. What this led to was a gradual trend toward increase in day labor, with medium and large farmers preferring to secure day labor by making advance payment of money or food in the spring rather than depend on the bothersome method of labor exchange. Consequently, *pumasi* labor came to be important only to lower-strata farm households. Taking as an example the case study made of Ulsan in South Gyeongsang Province [8, p. 553], the percentage of non-family labor, farmhands hired on a yearly basis excluded, represented by exchange labor was 30–47 per cent in the case of large farmers, about 50 per cent in the case of medium farmers, and around 80 per cent in the case of lower-strata farmers, and the percentage of this exchange labor represented by *pumasi* labor, i.e., that part left after excluding *dyure* labor, was 10 per cent, 20 per cent, and 80 per cent, respectively, for the same categories, indicating the class nature of *pumasi* labor as being much more important, and indeed indispensable, to lower-strata farmers than to those farther up the economic ladder.

Let us now briefly consider the regional characteristics of cooperative labor in general, including the *dongdyure, dyure,* and *pumasi* forms. The two main categories of cooperative labor were the irrigated rice field type of southern parts of the country and the dry field type of northern areas. In the case of the former, the cooperative work was predominantly undertaken by the whole village or at least a considerable number of people, but in the case of the latter, it was chiefly done by a small number of persons, this difference stemming primarily from the different natures of the respective main crops, i.e., irrigated rice on the one hand and dry field crops on the other. In southern parts of the country the

cooperation of all of the laborers of the farm households involved was indispensable for the flood prevention and irrigation work that was required. Moreover, in order for the work to be done with necessary dispatch in periods in which there was intensive demand for labor such as when the harvesting of wheat and the planting of the rice fields coincided, it was vital that it be possible to muster the labor of a large number of persons. On the other hand, cooperative work by a relatively small number of persons sufficed in the case of dry field farming in the northern parts of the country since there were not the same water management needs or extreme concentration of farm work in particular periods. Of course, paddy rice was grown even in areas of the country where dry field farming was predominant, but usually in such cases either the dry field method was employed or the water conditions were so excellent that it was possible to grow the paddy rice by the direct sowing method, which allowed for even distribution of labor over the different seasons and made it possible to meet the labor needs of the paddy rice crop with the dry field type of cooperative work organization.

II. CHANGE AFTER THE AGRARIAN REFORM

The implementation of the system of one part tenancy fee to three parts harvest, the distribution of agricultural land previously owned by Japanese by the U.S. military administration immediately after the Second World War, and the agrarian reform that took place in 1949 dismantled the tenant farming system on which prewar Korean agriculture was based and ushered in a system of independent farming that changed the basic structure of rural society.

The inadequacy of postwar agrarian reform in Korea has been pointed out in many respects. For one thing, the reform did not include redistribution of mountain land and other important means of agricultural production besides cultivated land, the preparatory period from the commencement of discussion of the reform up to its implementation was too long, and there were many irregularities in its implementation as well, including the sale of land by landlords outside the scope of the reform and fraudulent transfer of landownership. Furthermore, because of the war from 1950 to 1953 and the agricultural policy of the period thereafter, such protective and promotional policies for the small independent farmers created by the reform as those relating to the paying off of the agricultural land allocated to them, the supply of funds for their agricultural operations, and price supports for agricultural products were extremely inadequate, with the result that much criticism was heard to the effect that the agrarian reform did little more than replace poor tenant farmers with poor independent farmers. Nevertheless, the agrarian reform did basically resolve the landlord-tenant problem, the most serious socioeconomic problem in the country before the war, liquidate the class of large parasitic landlords who lived off their tenant fee income, and provide a system whereby farmers could hope to get ahead through independent farming operations based on the principle of

ownership of the land by those who worked it, and because of this it can be said to have been of great significance.[4]

Let us now consider the period from the establishment of the system of independent farmers by the agrarian reform up until the time when the effects of industrialization and urbanization began to bring about great change in hiring practices in rural communities. Specifically, this period corresponded to the 1950s and the first half of the 1960s.

A. *Sharp Decrease in Cooperative Work*

The most characteristic feature of this period was the virtual disappearance of cooperative work practices other than *pumasi*, albeit such practices were already on the decline in the period before the war. As already stated, the cooperative cultivation, especially a general compulsory cooperative work organization such as the *nongsa*, was able to exist because of the basis provided by the village community. Along with the development of individual economic interests over a considerable span of time starting from the prewar days, that basis for existence was completely lost. Furthermore, the *dyure*, which although being a cooperative work organization based on free association, was of a fixed nature over a certain amount of time, and therefore had an effect of rigidity on individual economic development, gradually gave way entirely to the *pumasi* as a much freer type of association and to day labor.

In other words, the only form of cooperative labor that survived after the agrarian reform was the *pumasi* as the form with the greatest amount of freedom and the one that was the least binding and that involved exchange of labor only on a small scale.

It is difficult to get an accurate nationwide picture of *pumasi* labor in view of the fact that there are few available case studies regarding it. Let us consider it, however, in terms of the study that was made with respect to three hamlets in the irrigated rice cultivation area of Yeonggwang County in South Jeonra Province in 1965 [1].

According to this study, 91 of the total of 173 farm households in those hamlets participated in *pumasi* practices, that is to say, 52.6 per cent had something to do with such practices to a greater or lesser extent. For the most part, the kind of work involved was chiefly weeding. Looking at the class breakdown of participation by farm households in *pumasi* arrangements, one sees that with the exception of those without any paddy fields at all, farm households in every category participated at the rate of more than a half of the number of households in each case and that the categories that were most highly dependent on *pumasi* labor were small and very small farmers.

This kind of class character of participation in *pumasi* arrangements is practically the same phenomenon as that observed in the prewar Ulsan Dalri village survey. Moreover, as a whole the rate of participation does not appear

[4] For the background, course, and consequences of Korean agrarian reform, see Chung Young-Il [2] and H. Sakurai [16].

to have declined, and there has been no change in the principle of equal value of exchange.

If the labor provided in the *pumasi* exchange is classified as family labor or *meoseum* labor, however, one sees that family labor was predominate in the case of households without any farmland and very small farmers, as one might expect, that both family labor and *meoseum* labor participated in the case of small farmers and medium farmers, and that it was usually *meoseum* labor alone that participated from the households of large farmers. In this way, the class character of such participation is very predictable. Just as in prewar days, on days on which such cooperative labor took place two meals, snacks, tobacco, etc., were provided the participants.

B. *Change in Hired Labor*

Next let us consider the main aspects of the kinds and forms of hired labor under the system of independent farmers after the agrarian reform.

Let us start with change with respect to *meoseum* labor. As we have already noted, *meoseum* labor was the most important form of hired labor in the prewar period. Unlike the case of tenant farmers, *meoseum* were not eligible to receive any farmland allocations by virtue of the agrarian reform, and therefore such reform did not provide them the direct opportunity to change their status to independent farmers. Moreover, the dividing up of the huge estates of landlords for allocation among tenant farmers, created a large number of farm households with rather small farm acreage on the average, and this could have caused a decrease in the demand for *meoseum* labor. It should be remembered, however, that the landlord class that was liquidated by the agrarian reform lived for the most part in the cities as absentee landlords rather than residing in the villages and managing their farmland directly and therefore did not directly hire *meoseum* labor even before the agrarian reform. In other words, the factor that should be considered as having brought about change in demand for *meoseum* labor after the agrarian reform is reduction in the scale of farming of large independent farmers rather than the disappearance of landlords who had had all of their farmland worked by tenants. However, since the main effect of such reform was the ruin of the landlord class and not change in the scale of farming of independent farmers, such reform cannot be considered to have caused a very great decrease in *meoseum* labor.

As for the supply of *meoseum* labor, considering such conditions as sharp increase in population through the influx of evacuees at the time of the Korean War—albeit there was also the factor of population decrease on account of the leaving of ablebodied men in mass to the front—and general stagnation of rural economies and underdevelopment of urban industry in the 1950s, the potential supply no doubt remained at a high level.

There is very little information on the nationwide scale and regional distribution of *meoseum* labor in the postwar period other than that provided by the agricultural census of 1960. One study undertaken in the 1950s estimated that the total number of *meoseum* laborers increased from 272,000 in 1950

to 301,000 in 1956 [9, Part 2, p. 117]. According to the agricultural census of 1960, at that time the number of *meoseum* laborers reached 240,000, hired by some 219,000 farm households, for an average of 1.10 persons per household. This means that 9.4 per cent of the total number of farm households were engaged in the practice of hiring *meoseum* labor. The figures arrived at in the above-mentioned case study, show that of 3,558 farm households in 31 villages (*ri*) 484 households, or 13.6 per cent hired a total of 522 *meoseum* laborers, for an average of 1.08 per household.

As for the percentages of the different classes of households, as determined by their amounts of farm acreage, that hired *meoseum* labor, the figure was 66.7 per cent for those with at least two jeong (about two hectares), 40.5 per cent for those with between one and two jeong, and 6.9 per cent for those with less than one jeong. In the case of small farmers with less than one jeong of land, the hiring of *meoseum* labor was chiefly at such times as they were deprived of their own adult male labor by military conscription or, in rare cases, when young lads or older men were hired in return for only their board for the purpose of intensifying labor input or as a relief measure. In the case of medium or large farmers, however, the role of *meoseum* labor was that of supplementing the basic labor represented by family labor, which was not sufficient to meet their labor needs, or, in cases where the farmer only supervised the work on his farmland, that of providing all of the basic labor needed by him.

Furthermore, there also remained in some areas of the country such prewar forms of hired labor as the *haengrangin* and monthly and seasonally hired help under such names as "half *meoseum*," "monthly *meoseum*," etc., but in this case as well it was characteristic that the master and servant type of relationship between the person hired and the person doing the hiring was much weaker than it had been in the past and that the person hired was more like a wage laborer than before.

As before the war, the major part of the *meoseum*'s remuneration was in kind in the form of unhulled rice, the level being between five and nine seom (one seom is equal about to 180 liters or 5.119 U.S. bushels). Nor was there much change with respect to the practice of providing him with room and board, tobacco, etc.

According to a case study undertaken at Yeonggwang County in South Jeonra Province in 1965, 32 of the 173 farm households in question, or 18.5 per cent, hired *meoseum* labor, and none of the households had over 3 jeong of farmland or more than two *meoseum*. As an indication of the fact that the importance of *meoseum* labor had by no means declined, 100 per cent of the large farmers (those with over 2 jeong of farmland), 72.2 per cent of the medium farmers (those with 1–2 jeong), 18.9 per cent of the small farmers (those with 0.5–1 jeong), and 7.7 per cent of the very small farmers (those with 0.1–0.5 jeong) hired *meoseum* labor.

This study did, however, reveal the fact that the master and servant type of relationship between the person hired and the person doing the hiring was much weaker than it had been at the time of previous studies. Before the war there

were many cases of long-term hiring of the same *meoseum* by the same farmer in which the *meoseum* gained the confidence of the farmer and was helped by him in many ways, including, for instance, being assisted in finding a suitable bride and even eventually being given land to work as a tenant, but after the collapse of the tenant system, such cases became very rare. The 1965 Yeonggwang study revealed that of the 32 *meoseum* laborers in the three hamlets in question, 25 had worked for the same farmer for less than a year and only 2 for more than three years. Moreover, the average length of time that they had served as *meoseum* was only 3.1 years, with only 5 of the 32 having served for more than 5 years. Compared with the results of the 1956 study (259 of the 522 *meoseum* laborers, or about one-half, having served as *meoseum* for more than 5 years), this was a very considerable reduction in the average length of *meoseum* service. What this means is that the social mobility of *meoseum* labor had increased. There was not, however, much difference between the results of two studies in other respects such as the form and level of payment or remuneration.

In summary, there had been no evident basic change during the fifties and first half of the sixties after the agrarian reform in the fact that *meoseum* labor was the most important form of hired labor of farm households, but the fact that the average career of *meoseum* laborers and the length of time they had served with the same household had become much shorter and that the traditional master and servant relationship between the *meoseum* and the farmer that he worked for had become much weaker can be considered as a sign of the sharp change that was to take place with respect to *meoseum* labor in the next stage.

Now let us consider the day labor form of hired labor. The supply of day labor came from small or very small farmers, who had more family labor than their own farmland required, and the demand for it came from farm households that could not meet their labor needs in the busy seasons solely on the basis of family labor, *meoseum* labor, and the *pumasi* type of exchange of labor. Furthermore, there were hardly any farm households that depended entirely on day labor to make a living. There was, in fact, no difference between the prewar and postwar periods with respect to these and other basic features of day labor.

According to the previously mentioned study undertaken with respect to Yeonggwang County in South Jeonra Province, 83 of the 173 farm households, or 48.0 per cent of the total, had had the experience of providing day labor, and all but one of them belonged to the categories of small or very small farmers or farmers without any paddy farmland of their own. The percentages of each of these three categories of farm households that had participated in the supply of day labor in some degree or other were 21.6 per cent, 65.4 per cent, and 67.6 per cent, respectively.

On the other hand, 79, or 45.7 per cent, of all of the farm households in question had had the experience of hiring day labor, the percentage being 100 per cent in the case of farm households in the medium or higher category, 81 per cent in the case of small farmers, 30.8 per cent in the case of very small farmers, and 2.9 per cent in the case of farm households without any paddy farmland of their own. As for the number of man-days of day labor hired

annually, the overall average was 43.8, ranging from only 10 in the case of farm households without paddy land of their own to 140.5 in the case of large farmers and with figures in between of 20.6 for very small farmers, 33.3 for small farmers, and 61.8 for medium farmers.

Furthermore, the average number of days of day labor provided annually by individual persons was 39.2 days in the case of men and 19.7 days in the case of women, for an average of the two of 30.7 days, or only one month. The greatest number of days worked as a day laborer by any of the individuals involved was 110, which is an indication of the fact that day labor was a supplementary form of hired labor that took place only during the busy seasons in most cases.

Considering, however, the fact that according to the same study there were only 1,870 days of *pumasi* labor in total in the three hamlets in question as opposed to a total of 3,709 days of day labor, it is clear that the prewar importance of *pumasi* as a form of exchange labor for cooperative work had considerably declined, it having been replaced to a large extent by day labor.

Finally, let us briefly consider the situation then with regard to the practice of the work contracting form of hired labor, or *goji,* which had been somewhat in evidence in the prewar period. According to the 1965 Yeonggwang study in South Jeonra Province, a typical case of contracted work for rice cultivation on a package basis, involving a total average work input of six days, was planting, three weedings, harvesting, and transportation of the harvested crop for an area of cultivation of one dorag (approximately 6.6 ares), the remuneration being two do (one do being equal to a little over eighteen liters) of unhulled rice (worth 600 won at that time) paid in advance in the spring to keep the contractor in food during that lean season. The year of the study 35 of the farm households in question hired labor in the form of such contracting of work, and 49 of them contracted such work, which means that 48.6 per cent of the total of 173 farm households were involved in the *goji* system [1, p. 46].

The percentages of the total number of farm households in each category of size represented by those that had hired labor on a *goji* basis were 83.3 per cent in the case of large farmers, 50.0 per cent in the case of medium farmers, 35.1 per cent in the case of small farmers, and 10.3 per cent in the case of very small farmers, and the percentages with respect to provision of *goji* labor were 32.4 per cent for farm households without any paddy fields, 41.3 per cent for very small farmers, and 15.8 per cent for small farmers, medium and large farmers not having participated at all in such labor. This class nature is a natural consequence of the fact that *goji* labor was provided out of necessity.

Furthermore, the importance of *goji* labor in this region is shown by the estimated figure of 31.0 per cent for the percentage of the total rice paddy acreage worked through input of this kind of labor. Although *goji* labor was not used for the entire process of cultivation of the rice crop but rather only with respect to those types of work listed above, it is nevertheless clear that it was of very great importance.

Goji labor was concentrated in hand work during particular short periods and

was not used for work involving the use of production machinery such as plows and threshers or cattle or for water control or application of fertilizer.

This system of *goji* labor was very useful to large farmers in terms of securing a stable supply of labor during the busy seasons to make up for their labor shortage in comparison to the amount of land they had now that the tenant system had been legally abolished. It was also preferred to day labor by those who provided the labor in that it guaranteed work opportunities and enabled them to get by in the spring, when they were short of food, because of payment in advance. Such payment in advance, however, did have the disadvantage of involving a usurious interest rate nearly as high as that applied in that region at that time for *jangri-mae*,[5] and *goji* wages were therefore somewhat lower than those for day labor in most cases. Also, while meals and tobacco were provided on the days worked in the same fashion as for other forms of hired labor, it should be noted that the *goji* system had some pre-modern characteristics such as the joint responsibility of the family to provide the farm work labor that had been contracted through advance payment of wages.

Although no definitive conclusions can be drawn with respect to regional distribution and other aspects of *goji* labor in view of the paucity of case studies regarding it for other areas, one can surmise that it was practiced mainly in flatland paddy rice cultivation areas.

From the above it should be clear that *goji* labor was a form of agricultural labor with a strongly pre-modern hue that was made possible by the existence of large amounts of surplus labor in rural communities and by the fact that the people involved were always short of food in the spring. Consequently, it, along with *meoseum* labor, was greatly affected when rural community labor forces began to decrease with rapid outflow of population to the cities.

III. NEW DEVELOPMENT ALONG WITH TECHNOLOGICAL INNOVATION

Along with rapid industrialization and urbanization on the basis of the economic development plan drafted and implemented in 1962, population, and particularly young people, began to flow out of rural communities to the cities at an increasingly rapid rate. As a result, the number of farm households and farm population, which had continued to increase over a long period of time, leveled off and in some cases began to decline very slightly around 1967, causing the inevitable collapse of many of the systems and practices with respect to the hiring of labor that had been viable because of the excess population that had accumulated in rural communities. Furthermore, beginning about 1970, new varieties of rice such as Tongil rice were widely adopted along with new cultivation techniques for them and labor-saving means of production such as agricultural chemicals and cultivators.

[5] *Jangri-mae* was rice lent to poor farmers in the spring as food to be repaid in kind at the time of the autumn harvest together with interest, which was usually usurious, sometimes as high as 50 per cent.

Such socioeconomic and production technology changes have not only greatly affected traditional systems and practices but also have had an effect on new practices as well because of the great speed with which they have taken place. Let us now consider the change in labor practices that has taken place since 1970, chiefly in terms of the sharp decrease in the amount of hired labor and the consequent rise in the degree of dependence on family labor, developments with respect to policy-promoted group cultivation during the process of introduction of new varieties of rice, and the trend of replacement of *pumasi* labor, the last remaining tradition form of cooperative labor, by day labor.

A. *Substitution of Hired Labor by Family Labor*

The most important change in the structure of agricultural labor in recent years has been the trend of substitution of hired labor by family labor. In the course of sustained economic growth since the 1960s not only has the excess population in cities been absorbed but there has also been increase in demand for the labor supply of rural communities on the part of nonagricultural sectors, with the result that the number of young workers in particular in agricultural work has conspicuously declined.[6] Consequently, there has been a rapid decrease in the supply of *meoseum* labor, which has traditionally been the main form of agricultural hired labor, and other sources of hired labor in rural communities.

As for the demand side of agricultural hired labor, since the second half of the 1960s agricultural wages in real terms have risen not only in absolute terms but also relative to wages in other industries,[7] and it has become more and more difficult for farm households to hire annual farmhands and other types of non-family labor. At the same time the amount of labor time required by farm work has decreased considerably along with increased use of materials such as herbicides and other agricultural chemicals and rapid increase in introduction of cultivators and other farm machinery, and this has tended to decrease demand for hired labor.[8]

The most conspicuous phenomenon that has occurred amidst such change in conditions is the sharp decline, or rather near disappearance, of *meoseum* labor, which had been the main form of long-term hired labor. The present writer's survey of five hamlets in Gyeonggi Province in 1977, including flatland, suburban, and mountain areas, revealed that only 3 of the 322 farm households surveyed were currently employing *meoseum* labor [10, p. 177], all three being large farmers with more than three jeong of farmland in flatland paddy rice cultivation

[6] According to the "Survey of the Economically Active Population," the total number of persons in the age group of 20–39 engaged in work in agriculture, forestry, and fisheries declined from 2,364,000 in 1966 to 2,120,000 in 1975.

[7] According to a study in 1967, the average annual remuneration for *meoseum* labor had reached 61,688 won, or 94 per cent of the figure of 65,808 won for the annual equivalent of casual wages in manufacturing industries (Chung Young-Il [3, pp. 14–16]).

[8] According to the "Economic Survey of Farm Households," the average annual amount of labor input per farm household as measured in hours adjusted on the basis of work capacity gradually declined from 2,585 hours in 1965 to 1,694 hours in 1977, and according to the "Survey of Rice Production Costs," the amount of labor input for ten ares of paddy rice cultivation decreased from 141.2 hours in 1965 to 96.8 hours in 1977.

areas. For most farmers the hiring of *meoseum* labor was something of the past that was no longer in the least bit feasible. The survey also revealed that besides room, board, and clothing, the annual remuneration of *meoseum* workers was twelve seom of unhulled rice, which is quite a bit higher than in the past. Under such conditions the hiring of *meoseum* labor can be considered impossible now for all but the largest farmers, and, besides, with the decrease in the number of young laborers in rural communities, the potential source of supply of such labor has practically disappeared.

Another characteristic development has been the replacement of *pumasi*, the only form of traditional cooperative labor that had remained after the war, by day labor. In this respect, the above-mentioned survey in Gyeonggi Province in 1977 revealed that the practice of *pumasi* labor was still in evidence only in mountain areas, having given way entirely to day labor in flatland paddy rice cultivation areas and areas near cities. Even in mountain areas the survival of *pumasi* labor in rural communities should be considered as a remnant of bartering rather than as being based on consciousness of the traditional village community, for mountain areas offer few opportunities for cultivation of cash crops or non-agricultural employment, and village economies there have not been completely converted to monetary economies.

In the areas near cities *pumasi* labor had been replaced by day labor on an individual basis, but in the flatland paddy rice cultivation areas, where there is still strong village solidarity, it has been replaced by organized cooperative work in the form of day labor. The organization for such cooperative work, called the village "work team," was not formed for the purpose of exchange of labor but rather for the purpose of regulating all demand and supply of day labor within the village, with settlement being made entirely in cash. Originally, such organization came into being in order to prevent the wages paid by farm households in the village from leaving the village, but gradually it also came to assume the role of adjustment of supply and demand for hired labor within the village during the busy agricultural seasons. Just as in the past, the input of day labor is mainly for such work as paddy field planting, weeding, harvesting, threshing, etc., which occurs during the busy seasons, giving such labor a strong seasonal hue, and the other practices relating to day labor are also much the same as before.

B. *Popularization and Limits of Group Cultivation Organization*

Group cultivation in the Republic of Korea is a form of farming introduced at the initiative of the authorities in charge of providing guidance with respect to farming techniques for the purpose of getting farm households to cultivate new rice varieties developed by remote breeding of *Japonica* and *Indica* varieties. The aim is to reduce the element of uncertainty involved in the introduction of new varieties and achieve a high standardized level of production in which there is little difference in productivity between different farm households and different farmland. It was done by having the farmers in group farming districts undertake the basic work involved in a cooperative fashion on the basis of the same

varieties and the same cultivation techniques and according to a cultivation timetable that takes into account the proper times for different kinds of work in different regions.

Group farming was first introduced in 1968, this method being encouraged through production cooperative organizations for the purpose of standardizing cultivation techniques and reducing production costs as one of the guidance programs for rural communities. It was not, however, until 1971, when new rice varieties of the Tongil type began to be widely grown by farm households, that group farming really came into its own.

One group farming unit usually consists of five to ten hectares of paddy rice fields and has a membership of fifteen to thirty farm households, with various teams led by the head of the farming unit, such as a pest control team, a water control team, and a cultivation team, being responsible for their respective tasks. The pest control team is responsible for fighting blight and insect damage and managing agricultural chemicals, agricultural machinery, and tools, etc.; the water control team not only manages irrigation and flood control but also is responsible for keeping the group farming unit's records; and the cultivation team raises seedlings for transplantation, does the transplanting, and manages the application of fertilizer. Each member farm household participates in both the cooperative work and the joint purchase of materials [15].

The number of such group farming units nationwide was initially 550 in 1971, when demonstrative cultivation of the new rice varieties, which also was for the purpose of testing their adaptability to different regional conditions, began on the farm household level, and increased rapidly to 29,000 in 1974 and 48,000 in 1977 [11, p. 188]. The cultivated area involved also increased from a mere 2,750 hectares in 1971 to 393,000 hectares in 1974 and 481,000 hectares in 1977. This last figure represents 39.1 per cent of the total area under paddy rice cultivation and 27.9 per cent of the area under cultivation with new varieties.

It should first be noted in this respect that such organization has played an important role in enhancing the effectiveness of administrative guidance of farming technology. This has been accomplished by imparting new cultivation techniques developed at agricultural experiment stations to farmers through the implementation of intensive educational and training programs participated in by officials of such group farming units and farmers in general during the slack winter months. Such training has been provided by active rural community guidance personnel, each assigned to a particular group farming unit, who have not only passed on new technology but also fulfilled the vital liaison function of reporting problems that have arisen in real cultivation situations to test and research organizations for study by them with a view to finding appropriate solutions.

While one cannot overlook the policy support that has been provided by the government for the promotion of cultivation of the new varieties by farm households, including priority supply of various kinds of farming materials and the priority purchase by the government of the crops of such new varieties, the most

decisive contributing factor has clearly been the introduction of this collective method of cultivation. A survey undertaken in 1975 with respect to 1,141 farm households (113 of which were participating in group farming units) in sixty-eight villages and hamlets throughout the country [14] has revealed that there has been outstanding improvement of cultivation techniques in group farming units within a very short period of time. For instance, the percentage of the total seedling area of farm households participating in group farming unit represented by the area with facilities for maintaining the temperature of seedling beds increased from 8.9 per cent in 1970 to 100 per cent in 1974, and the percentage of the farm households using the intermittent irrigation method increased from 42.5 per cent in 1970 to 92.9 per cent in 1974. Furthermore, through improvement of the method of application of agricultural chemicals and herbicides and techniques with respect to selection of the right timing, the average number of times that it was necessary to carry out interim plowing and weeding was reduced from 2.5 to 0.9, contributing considerably to labor savings and reduction of production costs.

Let us now consider the future prospects of this collective method of cultivation that has played such an important role in popularizing advanced techniques of rice cultivation in the last decade. First it is necessary that we consider the basis on which the viability of this method depends and its limits. In this connection it is very worthwhile to consider Japan's experience as a country in which group farming and a variety of other types of paddy rice production organization have undergone constant change since the mid-fifties along with change in the given conditions with respect to the structure of agricultural labor, progress in production technology, improvement of basic land conditions, and so on. As a matter of fact, at the initial stage of introduction of group farming in the Republic of Korea, considerable attention was given to the experience that Saga Prefecture of Japan had had in this respect [11, pp. 152–54], the method of group farming employed there having been a form of the rice cultivation production organization developed mainly in Aichi Prefecture.

Group farming of rice in Japan first took place in the Takadana area of Anjō City, Aichi Prefecture in 1957 [13] [12]. At first such group farming was based on "technical agreements" regarding choice of varieties, application of fertilizer, prevention of blight and insect damage, irrigation management, and so on, for the purpose of standardization of cultivation periods in each water system and cultivation of appropriate varieties. Since at that time a full 90 per cent of the farm households in the Takadana area were engaged entirely in agriculture, and there was plenty of basic labor available, the main purpose was to increase the yield of farm work undertaken on an individual basis. However, as more and more farm households took up other occupational sidelines, shortages of labor and particularly basic labor, i.e., that of adult, able-bodied men, occurred, and the type of group farming based on cooperative work on the part of the whole village came to be adopted, the first example of which occurred in the Higashi Hongō area of Okazaki City in 1960, with cooperative raising of rice seedlings, cooperative transplanting, joint use of cultivators, and cooperative efforts to prevent blight and insect damage.

In the next two to three years thereafter as engagement by farm households in nonagricultural occupations increased still further, the burden of the few farm households in the village that still kept exclusively to agriculture became excessive, and the system of cooperative work began to collapse. Particularly after the introduction of tractors in 1963, the work burden of operators got to be heavier and heavier, and to make matters worse, the work fees determined on the basis of cooperative work were low, and payment as usually slow.

This being the case, the "work commissioning" (technical trust) method was adopted for the purpose of countering avoidance and refusal of cooperative work by farm households specializing in agriculture and operators and ensuring that operators could make a decent living. What this method involved was the separation of operators and farm machinery from the village and their incorporation into commissioning organizations through the intermediary of farming cooperatives and so on, the first example thereof having been that of the Sakurai Farm Cooperative in 1964.

However, because of the pronounced seasonal nature of the system of work involved in paddy rice cultivation, it was inevitable that the operators that were commissioned to work on this basis should be able to work only a very limited number of days a year and that consequently their level of income should fail to keep pace with that of farm households with nonagricultural side businesses, and as a result, this method of work organization as well lost its viability. In order to get over this difficulty, a new system was adopted known as "management commissioning" (complete trust), based on the premise of expansion of scale of farm management, the first instance of it being that of the Takaoka Farm Cooperative in Toyota City in 1968. There are two types of such management commissioning organization, one involving the intermediary of a farm cooperative and the other involving a direct relationship between the commissioning and commissioned parties, but both are alike in being for the purpose of large-scale farm management on the basis of increased flexibility of use of farmland.

The fact is that there were both the necessity and the necessary conditions in Japan in the mid-fifties for the development of group farming involving standardization of rice varieties and cultivation periods and organization for irrigation purposes over a certain extent of geographical area from the hitherto predominant pattern of self-contained production on the part of individual farm households. First, one can cite the fact that in order to increase the productivity of rice cultivation, which was not making much progress at the time, there was the technical need to switch from late maturing varieties to medium and early maturing varieties and that this could be most effectively done in a planned fashion by a collective entity of at least a certain size. Moreover, the success of cultivation agreements with the purpose mainly of increasing yield can be ascribed to the fact that farm households still had a sufficient amount of basic labor at their disposal in those days when engagement in nonagricultural side businesses had not yet become the general practice and that the goal of increase in the yield of the rice crop was in the common interest.

The reason why cooperative work was added to cultivation on the basis of

agreements around 1960 is that the interests of upper-strata farm households with insufficient supplementary labor and lower-strata farm households with nonagricultural sidelines and a lack of basic labor coincided in undertaking the raising of seedlings, prevention of blight and insect damage, and transplanting on the basis of cooperative work in those days when basic labor was beginning to flow out of rural communities [6].

As other regions of the country came to follow the example of Aichi Prefecture, individual villages in Saga Prefecture began to adopt a form of group farming around 1963 that involved such change in cultivation techniques as selection and popularization of new varieties and dense planting, heavy application of fertilizer in stages, careful water management on the basis of intermittent irrigation, thorough protection against blight and insect damage, and other measures required by such new varieties. As a result, a new record for yield per unit of land was set each year in the second half of the sixties, a success that was marked by the coining of a new expression: "the new Saga stage." However, in the case of Saga Prefecture as well because of failure to introduce new technology relating to means of labor owing to conditions of underdevelopment of the land in infrastructural terms and also because of further development of the trend toward engagement by farm households in nonagricultural sidelines and the adoption by the government of a policy of encouragement of reduction of rice cultivation acreage, it was not possible to undergo new organizational development, and participation in group farming gradually declined.

As can be seen from the example of Japan's experience as described above, group farming organization can only develop on the basis of economic necessity and technological feasibility, and with such changes in the given conditions on which it depends as mass outflow of basic agricultural labor and oversupply of rice, it cannot help but disintegrate or else undergo transition to new organizational types. In such a case it is of utmost importance that change in the given economic conditions affecting the survival and development of group farming organization be recognized and that the necessary physical and institutional conditions be provided for smooth transition of group farming to successive organizational forms depending on the kind of change that takes place in the given conditions. This will no doubt involve a wide range of aspects, including infrastructural land improvement, improvement of conditions of supply of improved means of production, and adjustments in the land system, including land-use systems.

Besides the group farming that is most widely practiced nationwide in the Republic of Korea today, in a very few areas there has recently developed production organization of a new type known as "farming companies" that undertakes agricultural work on a commissioning basis. Since this new type of organization is still in the experimental stage, let us take a brief look at what it involves and problems with respect to it in terms of one example without considering whether or not it will last or spread more widely.[9]

[9] *Donga ilbo*, January 14, May 2, and May 18, 1979.

In order to cope with a serious shortage of agricultural labor in Wangju County, a paddy rice cultivation area of North Jeonra Province, North Jeonra Farming Service Company was organized by prominent farmers of the area in February 1979 as a joint-stock company that owns large-scale farming machinery, including rice transplanters and tractors, and undertakes all or part of the work involved in paddy rice cultivation on a commissioning basis for farm households in the area. In its first year of operation this farming company was commissioned by fifty-eight farm households in the Gimje District in Wangju County to do all the work involved in the cultivation of 80 jeong of paddy rice, starting with the raising and transplantation of the rice seedlings and extending all the way to the harvesting, and part of the work with respect to another 200 jeong, such as plowing and leveling, prevention of blight and insect damage, and threshing. Farm households in the region requested it to do still more work, but it was not able to do so because of the limited amount of equipment at its disposal, including only six rice transplanters.

Since not even the harvesting stage of the first year of the company's operation has yet been reached, it is not easy to make any conclusions yet about whether this new kind of commissioned farm work organization using large-scale equipment will survive and indeed become more widely practiced. If, however, one wants to get an idea of what the chances are, one has to consider the matter in a comprehensive fashion, including at least such aspects as the technical conditions making work with large-scale machinery possible, the economic feasibility on which such work depends, and reorganization of the agricultural land system that it based on the principle of independent farmers working their own land.

CONCLUSION

The following are the two main points that have been made in the above: (1) Because of a sharp decline in *meoseum* labor, which had traditionally been the main type of hired labor, and in *goji* labor, a type of contracted labor with a strongly pre-modern hue based on the sale of labor by poor farmers out of necessity, there has been a considerable decrease in the relative importance of hired labor in farm work; and (2) farmers are finding it very hard to manage because of the major outflow of young labor from rural communities at the same time that in a few areas a large number of farmers have had to resort to the commissioning of their farm work. For such commissioning of farm work to become more widely practiced, however, it is necessary that a number of technical, economic, and institutional conditions be met. First of all, for mechanization of all phases of farm work it is necessary that there be improvement of land conditions as required by mechanization, supply of farm machinery in large quantities, and popularization of management systems and operating techniques, none of which can be accomplished in a short period of time. Furthermore, the economic feasibility of full replacement of labor by machinery must be carefully studied not only from the standpoint of individual farming operations but also in terms of rational allocation of resources on the national

economic level. As for the system of commissioning of farm work, sooner or later it will have to undergo transition to the next stage, which is commissioning of the management of farming operations, and that will require complete reconsideration of the principle of "ownership of farmland by the tiller of the soil," which is the basic spirit of agrarian reform. Such revamping of the agricultural land system must be carefully regulated in harmony with trends with respect to change in the given national economic conditions relating to agriculture.

Another major tendency throughout the period from before the war up to recent years has been the gradual extinction of traditional forms of cooperative labor, including cooperative cultivation and the *nongsa* and *dyure* arrangements because of establishment of modern landownership rights, diversification of the interests of different social strata within the village, loss of organizational flexibility because of the large scale and permanence of organizational types, and so on. Even the *pumasi* system, the last remaining form of cooperative labor, recently has given way to day labor and retains some importance only among lower-strata farm households and in mountain areas. The group farming type of new cooperative work organization that has been adopted everywhere in recent years along with introduction of new rice varieties has played an important role in overall improvement of rice cultivation techniques thanks to the fact that all strata of farm households have had a common interest in increasing the yield of the rice crop, the existence of the basic farm labor required for collective cultivation, and provision of technical guidance and purchase of the crops of the new rice varieties on a priority basis by the government. Nevertheless, if the conditions on which it is based continue to change, such group farming organization, too, will have to find ways of developing into new forms. If change occurs with respect to any of the economic conditions that have made the introduction of the group farming method both necessary and possible, such as sustained increase in rice yields, the high profitability of rice cultivation, and a plentiful supply of basic farm labor, it will become difficult for group farming organization to function properly. In fact, there has already been such change in the given conditions as revision of the policy of high prices for rice that was adopted in the early and mid-seventies and greater outflow of agricultural labor from rural communities than expected, and this has begun to undermine the group farming system, as evidenced by the adoption in a few areas of a work commissioning system.

It is important, therefore, that ways be found to provide the physical, economic, and institutional basis for smooth transition to the next stage of farm work organization as a form of progressive development of the present group farming method so as to be able to raise agricultural productivity still further, taking into account the needs of the national economy in as far as they affect agriculture.

REFERENCES

1. CHONG BYUNG HYOU. "Hangug eui nongeob nodong e gwanhan ilgochal—Jeonra Namdo Yeonggwang-gun ha 3 gae burag eui josa rur jungsimeuro" [A study on agricultural labor in Korea—case study of three villages in Yeonggwang County, South Jeonra Province], *Gyeongje nonjib* [Korean economic journal] (Institute of Economic Research, Seoul National University), Vol. 6, No. 2 (June 1967).
2. CHUNG YOUNG-IL. "Jeonhu Hangug nongjigaehyeog e gwanhan ilgochal" [A review on postwar land reform in Korea], *Gyeongje nonjib* [Korean economic journal] (Institute of Economic Research, Seoul National University), Vol. 6, No. 2 (June 1967).
3. ————. "Over-time Changes in the Regional and Urban-Rural Income Differences in Korea," Income and Assets Distribution Research Project, Institute of Economic Research, Hitotsubashi University (Tokyo, 1976).
4. HIROTA, Y. "Chōsen ni okeru nōgyō rōdō" [Agricultural labor in Korea], *Chōsen nōkai hō,* Vol. 15, No. 2 (February 1941).
5. HISAMA, K. *Chōsen nōgyō no kindai-teki yōsō* [Modern aspects of Korean agriculture] (Tokyo: Nishigahara-kankōkai, 1935).
6. IMAMURA, N. "Inasaku seisan soshiki no seisei tenkai tembō" [Formation, development, and future outlook with respect to production organization for rice cultivation], in *Shūdan einō no tenkai* [Development of collective farming], ed. Takekazu Ogura (Tokyo: Ochanomizu-shobō, 1976).
7. IN JUNG SIK. *Chōsen no nōgyō kikō* [Structure of Korean agriculture] (Tokyo: Hakuyōsha, 1940).
8. KANG JUNG TAEK. "Chōsen ni okeru kyōdō rōdō no soshiki to sono shiteki hensen" [The history of cooperative labor organization in Korea], *Nōgyō keizai kenkyū,* Vol. 17, No. 4 (December 1941).
9. KIM BYUNG TAE. "Meoseum e gwanhan yeongu" [A study on the *meoseum*], *Gyeongjehag yeongu* [Korean economic review] (Korean Economic Association), Part 1 is included in Vol. 4 (November 1956) and Part 2 in Vol. 5 (December 1957).
10. KIM IL CHUL, and CHUNG YOUNG-IL. "Hangug yeongsenong e gwanhan sohoe-gyeongje jeog yeongu" [Socioeconomic study on small farmers in Korea], in *Sahoe gwahag yeongu bogo: I* [Social science research report: I] (Seoul: Institute of Social Sciences, Seoul National University, 1977).
11. KIM IN HWAN. *Hangug eui nogsaeg hyeongmyeong—byeo sinpumjong eui gaebar gwa bogeub* [The green revolution in Korea—development and diffusion of new rice varieties] (Suweon: Office of Rural Development, 1978).
12. NISHIO, T. *Nōgyō seisan soshiki o kangaeru* [A study of agricultural production organization] (Tokyo: Ienohikari-kyōkai, 1975).
13. ————. "Suitō seisan soshiki no hensen—Aichi-ken ni okeru" [Change over time in paddy rice production organization in Aichi Prefecture], in *Shūdan einō no tenkai* [Development of collective farming], ed. Takekazu Ogura (Tokyo: Ochanomizu-shobō, 1976).
14. Republic of Korea, Office of Rural Development. *Dongil-byeo eui bogeub hyogwa e gwanhan josa yeongu bogoseo* [Survey and study report on popularization effect of *tongil* variety rice], by Shim Young Kun and Shin Dong Wan (1975).
15. ————. "Urinara eui sal-saengsan hyeogmyeong" [The rice production revolution in Korea], mimeographed (1977).
16. SAKURAI, H. *Kankoku nōchi kaikaku no saikentō* [A reconsideration of Korean agrarian reform] (Tokyo: Institute of Developing Economies, 1976).
17. SAWAMURA, T. "Chōsen nōgyō no rōryoku soshiki" [Labor organization in Korean agriculture], *Shakai seisaku jihō,* No. 208 (January 1938).