FARM HOUSEHOLD ECONOMY UNDER PADDY DELIVERY SYSTEM IN CONTEMPORARY BURMA

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INTRODUCTION

THE aim of this paper is to elucidate some characteristics of the current paddy procurement system in Burma on the basis of interview findings from a village in lower Burma (hereinafter referred to as Village K). Particular attention is paid to the system because it is considered a factor of great influence on the economy of paddy farmers in Burma. This system may also be considered to be of importance in throwing light on the question of how the "Burmese way to socialism" is being realized in rural Burma.

Social scientific research on Burma by foreigners has long been absent. The last two village studies were made by D.E. Pfanner[1] and Manning Nash[2] who conducted field studies of a village in lower Burma and two villages in upper Burma respectively during the years of the U Nu regime. Despite great institutional changes in Burma since the Revolutionary Council came to power in 1962 few of the developments in Burmese rural society have been made known to outsiders.

It is very difficult to gain access to data or materials which would show what contradictions or gaps, if any, are to be found between the ideas upheld in that society and the laws and regulations enforced there. It is also difficult to grasp the realities in the rural communities, and what changes they have undergone if at all. It is the hope of the writer of this paper to be able to bridge, if not fully satisfactorily, such existing information gaps.

The interview surveys of Village K were made from July 1975 through June 1977, with the writer visiting the village every weekend from Rangoon. The writer owes heartfelt thanks to the villagers for their patience in answering her various questions as well as for their hospitality which never changed throughout the research period.

I. INSTITUTIONAL ENVIRONMENT OF PADDY FARMERS

When one attempts to study the agricultural problems of Burma on a village or

[1] See D. E. Pfanner, "Rice and Religion in a Burmese Village" (Ph.D. diss., Cornell University, 1962; Ann Arbor: Michigan University Microfilms, 1963).

[2] See Manning Nash, *The Golden Road to Modernity: Village Life in Contemporary Burma* (New York: John Wiley & Sons, 1965).

farm household plane, it is important to take into account the institutional framework.

Under the "Burmese way to socialism" the fundamental framework in which the farm household economy in Burma is placed is the government paddy procurement system. It is a system which controls the distribution of farm products by means of price controls on paddy and other major farm products[3] and it also encompasses the compulsory delivery of farm products by farmers to the government. Behind the delivery system is the land tenure system, regulated mainly by the Land Nationalization Act of 1953, which controls ownership of the means of production in agriculture.

As will be stated later, the two systems seem to originate from the same idea of controlling distribution relations of farm rent between the state and the producers. Therefore, it is inadequate to discuss the farm products delivery system without taking into account the land tenure system. Before proceeding in detail with paddy farming, some explanations of the land tenure system and the farm products delivery system now in force are given.

A. *Land Tenure System*

The present Burmese legislation regulating farm landownership comprises the Land Nationalization Act of 1953 and the Tenancy Act of 1963.

The Land Nationalization Act of 1953 was enacted under the U Nu regime, but it is still effective today. The gist of the act is that all agricultural land possessed by nonagriculturist[4] landowners, as well as those portions of land owned by farmers in excess of permitted holding limits,[5] are to be expropriated by the state for redistribution to tillers who have no land of their own. The redistribution, however, does not necessarily mean creating new owner farmers, but the land thus expropriated under the act is to belong solely to the state, the farmers being given only the right to cultivation by the Land Committee. The act also forbids farmers to sell, mortgage, or rent their land.

However, the Land Nationalization Act, although enacted, was bound to be enforced slowly because of the instability of the regime. The government did not officially state what progress was being made in enforcing the act until 1963, when an explanation was made by the government through the Tenancy Act.[6]

[3] As of 1976/77 the farm products covered by the delivery system were paddy, jute, cotton, rubber, sugarcane, tobacco, maize, and beans. Farmers growing those crops are to deliver to the government all or certain allotted quantities of the harvests at government purchase prices.

[4] "Agriculturist" as defined by the Land Nationalization Act is: (1) a person who is engaged or has habitually been engaged in the cultivation of land with his own land as his principal means of subsistence; or (2) a person who superintends personally the actual cultivation of agricultural land throughout the working periods of the year as his principal means of subsistence. See [1, p. 1].

[5] In the case of paddy field, the holding limits per farm household were 50 acres, above which land was to be nationalized. However, if a landholding was registered as common ownership by household members which comprised more than four adult persons (above eighteen years old), additional 12.5 acres for each of them could be added to the limits. See The Land Nationalization Act of 1953, Schedules 1 (a) and (b) [1, p. 32].

[6] See [2, p. 2].

According to this explanation, by 1963, ten years after the enactment of the Land Nationalization Act, out of a total registered farmland acreage of 19,574,471 acres, land which was effected by the Land Nationalization Act accounted for only 3,345,984 acres or 17.1 per cent of the total.

In the remaining area the letting-out of land for tenancy, as well as the selling or buying of land persisted as before. When Ne Win took over in 1962, the nation's land problem was far from being solved. Thus the aim of the Tenancy Act of 1963 was to help tenants by placing the landlords under strict control. The act was to cover all the farmland of the country, regardless of whether or not the Land Nationalization Act was in force. The renting of farmland was placed under the following strict control:

(1) In all cases of farmland to be rented, a landlord was to have no option as to whom the tenant would be, the local Land Committee being solely in charge of the matter;[7]

(2) Payment of tenancy rent in kind was to be prohibited;[8]

(3) The upper limit of tenancy rent was to be fixed by law.[9]

Thus the Revolutionary Council, which had come to power only a year before, tried to impose restrictions on persistent private landownership through a strict control of farm rent. In 1965 a further step was taken with an amendment of the Tenancy Act, by which the taking or payment of farm rent was totally prohibited. That is, instead of fixing the upper limit of tenancy rent, a new provision was introduced whereby a tenant did not have to pay any rent to his landlord.[10]

Thus the land tenure system in contemporary Burma came to have certain legal complications because the enforcement of the Land Nationalization Act was not thoroughgoing. In the areas where the act has not yet been enforced, the renting of farmland for tenancy rent is illegal although farmers' private landownership is given tacit approval. In the areas where the act has been enforced, however, farmers have been given only the right to cultivate their land, the selling, renting, or taking of farm rent being prohibited. Village K in the suburbs of Rangoon belongs to the latter case.

B. *Farm Products Delivery System*

In Burma after independence the government made attempts at the state monopolization of trade in farm products as well as at price controls chiefly with an eye to (1) eliminating the domination of trade in farm products by

[7] The Tenancy Act of 1963, Article 3 [2, p. 28].

[8] The Tenancy Act of 1963, Article 4, Paragraph 3 [2, p. 29].

[9] The Tenancy Act of 1963, Article 4, Paragraph 1 [2, p. 28]. The upper limits of farm rent were fixed like this: for paddy field, an equivalent of the land tax on the same field; for land planted to red pepper, onion, tobacco, and sugarcane, an amount three times as much as the land tax; and for land growing other crops, two times more than the land tax.

[10] Provisions of the Tenancy Act of 1963, Article 4, Paragraphs 1 to 3 were eliminated and the article itself was amended as follows: "Tenants given tenancy on these lands by the government or tenants given tenancy by the landlord, if they should still be left, shall have no need to pay tenancy rent to the landlord."

Indian and Chinese merchants, and (2) making the export earnings on farm products an important source of state income. With this aim the government set up the State Agricultural Products Marketing Board (SAMB), the intention of which was to monopolize the trade in rice, the greatest export item for the country. However, the SAMB only monopolized the trade in rice for export, while the trade in rice for domestic consumption remained in the hands of private dealers.

Only one year after coming to power in 1962, the revolutionary government started a nationalization policy in various areas of the economy, and the nationalization of the marketing sector was the first and most thoroughgoing. There was a strong nationalistic motive behind the government's decision to nationalize the marketing sector of the economy, namely, its desire to break the economic power of the resident Indians and Chinese who had dominated this sector since before independence.

As a result of the nationalization of the marketing sector, private trade in rice and other major farm products for domestic markets also came to be prohibited, and the collection of those products also became the domain of the government. The SAMB was reorganized into the Union of Burma Agricultural Products Marketing Board (UBAM)[11] which set up paddy buying depots all over the country to collect paddy. It became compulsory for farmers who produced paddy and other major crops to deliver a quota of each of those crops harvested to the government at officially fixed prices. In the case of paddy, a quota table for a compulsory delivery was set on the basis of the average yield per acre and the paddy farm size. According to the table paddy farmers are to deliver their quota after every harvest to the government's buying depots. Management of this paddy delivery system has been of very great concern to the government and it has mobilized all sorts of organizations[12] in order to collect paddy. Consequently, the enforcement of the farm products delivery system has come to be far more nation-wide and thoroughgoing than nationalization in the land tenure system.[13]

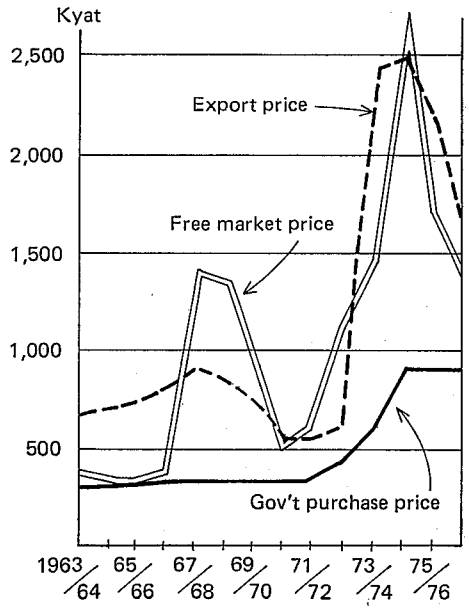
On the other hand, despite such government efforts in collecting paddy, there was also a situation undermining them: the problem of the free market of paddy. As will be seen from Figure 1, which compares the movement of the government

[11] The UBAM was later merged into the Ministry of Trade as Trade Corporation No. 1 (TC No. 1), which is presently referred to as Agriculture and Agricultural Products Corporation. As for the foreign trade of rice, it is dealt with by the Myamma Export Import Corporation, a state agency monopolizing Burma's foreign trade.

[12] Besides the government departments concerned, such organizations as security and administration committees (predecessors of the present people's councils), cooperatives, village defense armies, land committees, etc. also took part in the paddy collection.

[13] However, enforcement of the delivery system is not consistent throughout the country. In some states where ethnic minorities prevail the deliveries appear to be made not strictly in accordance with the delivery table. For example, farmers in the vicinity of Inle Lake in the Shan states, revealed to the writer who visited the area in December 1976, that in their localities the government indiscriminately took only three baskets of paddy per acre whereas in localities nearer to the mountains the farmers delivered to the government no paddy at all.

Fig. 1. Price Movements of Burmese Paddy, 1963/64-1976/77 (Per 100 Baskets* of Paddy)



Source: Teruko Saitō, "Biruma nōgyō no genjō to kadai" [Agrarian conditions in Burma under the Ne Win government], *Nōgyō to keizai*, May 1978, p. 77.
* One basket of paddy=46 lb.≒20.9 kg.

purchase price of paddy as well as its export price and domestic free market price since 1963/64, there arose wide gaps between the government purchase price or the official price of paddy and its free market price since 1967/68. Bad harvests in 1967 and 1968 had widened the gaps, but since then the gaps have remained regardless of harvests. Before 1966/67, although the free market of rice existed, it was not strong enough to seriously threaten the government's paddy purchase business. However, it grew to become a big enough threat for the government to have to take countermeasures in order to secure paddy. Farmers, on the other hand, have always been tempted to earn far more cash income by selling their paddy on the free market rather than from compulsory deliveries to the government.

The two systems explained above have very greatly affected the paddy farmers in present-day Burma. As was stated earlier, however, both systems have not been enforced uniformly throughout the country. Just as farming and agricultural techniques in Burma differ noticeably by locality, the extent to which the two systems have been enforced also vary by locality.[14]

[14] Broadly speaking, the network of central laws takes hold of farming rather weakly in mountainous states where ethnic minorities reside, whereas in the central lowlands on the Irrawaddy and the Sittang basins, where the ethnic Burmese majority prevails, law enforcement is more substantial. It can also be said that even in the central lowlands

Village K is a suburban village of the capital of Rangoon, and may present in itself an example of a place where legal systems are put into practice more on a verbatim basis than elsewhere. To be sure, as will be stated later, gaps exist between the legal system and actual practice even in the neighboring areas of the capital. Yet, the writer's aim is to give an account of the farm-household economy of paddy farmers in a situation where the farm products delivery system and the land tenure system are sufficiently well in force. It is, therefore, not the writer's intention to discuss the economy of Burmese paddy farmers at large.

II. THE VILLAGE AND FARM HOUSEHOLD SURVEYED

A. *Outline of Village K*

Village K is located about twenty-five miles to the north of Rangoon, in the Pegu plains along the trunk road connecting Rangoon, Pegu, and Mandalay. The origins of the village are not clearly traceable. It is said to be a comparatively new village, born at about the same time that the trunk road was constructed. According to the village elders, after the construction of the road, around one hundred years ago during the years of British rule, some people of Village B about two miles to the east of the road came over to form a hamlet, or a branch village, which is the present Village K. They say that in its early years a large portion of the villagers were Talaing,[15] but today the majority is Burmese, with an Indian minority.

As for an overview of the village, living quarters are found alongside the road, and behind them are open paddy fields, with some communal pasture ground, some vegetable gardens and a scattering of wells to serve them—a typical village scene in the Pegu plains.

The trunk road running through the village gives it distinctive features which are not common to other villages. One is that, while paddy farming is still a major occupation in the village, many villagers have job opportunities in the transport business as a sideline. As will be seen later, in addition to such sidelines as small trade, fishing, etc. which are common to all villages in this part of Burma, some villagers are employed as bus conductors or drivers, while some are operating bus and truck transport businesses of their own, which bring them considerable income. Some of them are even engaged full-time in these jobs, having quit farming altogether, or, if they have not quit farming altogether they draw more income from a sideline than from farming.

Another feature which the trunk road has brought is the commercial production of vegetable gardening, which had formerly been primarily for subsistence needs. The fact that the bus transport connects the village with such fresh vegetable consuming centers as Rangoon, Mingaladon, Taukkyan, Hlegu, and others has

in upper Burma, where traditional production practices persist the laws tend to be modified by local conditions more than in lower Burma which is located nearer to Rangoon.

[15] Talaing is the name given by the Burmese to the tribe of Mon, an aboriginal group of lower Burma, which belongs to the ethnic group of Mon-Khmer.

TABLE I

LAND UTILIZATION IN VILLAGE K, 1976/77

Types of Land	Area (Acres)	Percentage
Arable land	2,608	91.4
Paddy fields	2,553	89.5
Cultivated	2,499	
Fallow land	54	
Vegetable gardens	55	1.9
Communal pasture and coppice	51	1.8
Others (road, living quarters, rivers, waterlogged area, etc.)	194	6.8
Total	2,853	100.0

Source: The writer's interview findings from the Agricultural Corporation, township H.

encouraged the gardening of radish, okra, cucumber, and other vegetables. However, aside from the two facts mentioned above, which are rather peculiar to it, Village K can be said to be an average paddy farming village in the Pegu plains.

Table I shows land utilization in Village K as of 1976/77. Of the village's total arable land 2,553 acres or 97.9 per cent was made up of paddy fields, of which 54 acres was *pala mye* or fallow land. The fallow acreage was changeable from year to year; the previous year's fallow area was said to have exceeded 100 acres. The existence of fallow land has been partly due to a labor shortage, but more often than not this has been caused by an oversupply of water: much of the fallow land has been located near *mye lou mye yaing* ("waste land") around a waterlogged area.

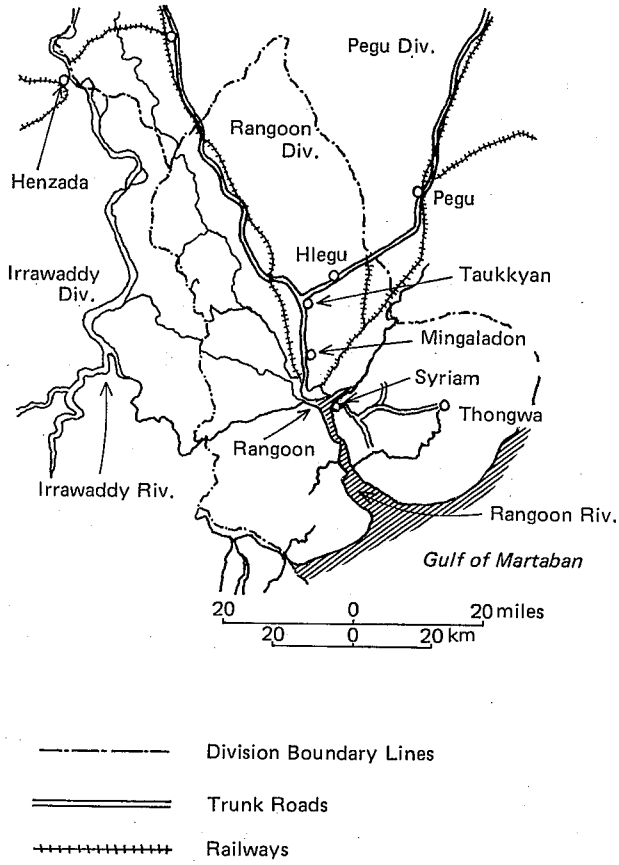
In this part of Burma, where the monsoon rainfall reaches some 3,000 mm. annually, the paddy culture wholly depends on rainwater for its water supply. Even such primitive irrigation techniques as the damming up of brooks, or *yei daga*,[16] which can be seen in the neighborhood of Prome, a little farther to the north of Village K, cannot be met within the village. Again, the farm implements used there do not include such water lifting instruments as *kanue*[17] which are often in use in the upper Irrawaddy delta area.

As for varieties of paddy planted on the village's farms, they all belong to regular paddy varieties that grow in the monsoon period; such varieties as *yei net saba* or *tatanbo* ("floating paddy") that is often planted in flooded areas, *mayin* ("winter paddy"), and *yei kya nauk sai* or *kwa mayin* ("late regular paddy that is sown in September and October") are not at all to be seen there. The crop calendar for paddy cultivation and the maturing period of paddy by variety is shown in Figure 3 and Table II respectively.

[16] *Yei* means water and *daga* a gate. A pond's natural drainage is stopped by boards or planks, and water is channelled through ditches to where it is needed.

[17] *Kanue* is a traditional water lifting instrument: a boat-shaped lacquered basket of bamboo (sometimes of aluminum) is hung from the top-center of a three-log pile in the shape of a pyramid. It is used either for supplying paddy with additional water or for the scooping out of excessive water.

Fig. 2. A Map of Rangoon Division



Source: Burma, Land Cover-Land Use Association.

In this village the paddy fields do not yield a second crop as is the case in neighboring villages. After the harvest, therefore, a slack season ensues for farmers excepting those engaged in vegetable gardening and it is during this period that their main work is to prepare firewood and to repair farm implements.

B. *Occupational Structure*

The village's population in 1976/77 was 2,318, of which 1,139 were male and 1,179 female, and the number of households totalled 550.[18]

Of the total 550 households, those engaged in farming numbered 392, or 71 per cent of the total. The 392 farming households were divided into 231 households with land to till and 161 who were landless. The former was further

[18] As the writer could not be sure as to whether or not the village's family registers were available, its population and the number of households by occupation were taken from her interview of a secretary of the Village People's Council.

Fig. 3. Crop Calendar for Paddy Cultivation

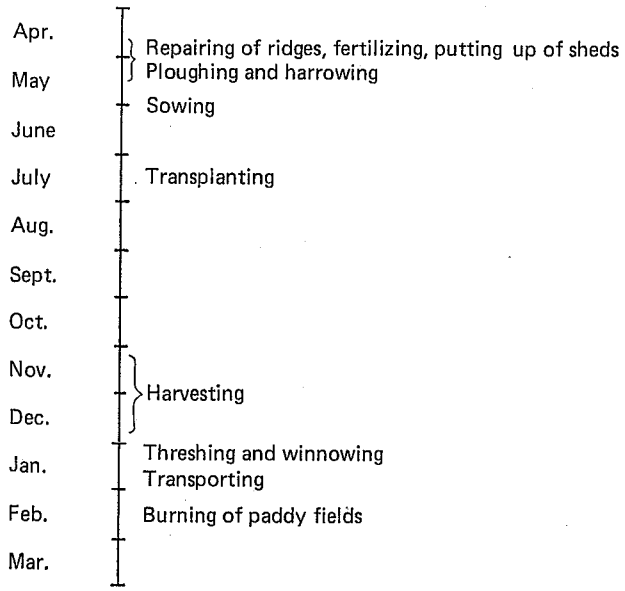


TABLE II

MATURING PERIOD OF PADDY BY VARIETY

Types of Paddy	Maturing Period	Variety
Early paddy (*Kaukyin*)	Less than 150 days	*Seintalay, Yagyaw, Shwewatan*
Medium paddy (*Kauklat*)	150–80 days	*Emata, Midon.* etc.
Late paddy (*Kaukkyi*)	More than 180 days	*Ngakywe*, etc.

classified into 189 households comprising those engaged exclusively in paddy farming and those growing both paddy and vegetables, and 42 upland farmers who engaged solely in vegetable gardening. The latter, without land to till, comprised 8 households engaged in livestock and poultry-raising and the remaining 153 households were made up of agricultural laborers. A considerable 39 per cent of the farming households did constitute those of agricultural laborers.

Of the non-farming households in the village the most outstanding were those 65 households which earned their living by the operation of, or employment in, the transport business. Of the 65, 16 were owners of buses or trucks which they operated for freight or as passenger carriers; 18 operated their own pedicabs called *sai'ka*; and the remaining 31 consisted of employee-drivers or bus conductors. The next group in this bracket were 16 households comprising operators of groceries, tea-houses, etc., 15 who were made up of carpenters (including cartwrights), and 21 who were casual laborers.

The remaining non-farming people included tailors or dressmakers, weavers, blacksmiths, and pressers for sesame oil and peanut oil. There were 9 school

teachers,[19] 25 Buddhist priests or monks of four temples in the village, and 3 midwives. Policemen resided only in the center of township H, none of them being found in the village.

There were no factories in the village where people could have been employed, and a small number of villagers commuted to work at a tobacco factory at township H; there were also some people who were employed at a People's Hospital at township H as orderlies. They were rather exceptional people working outside the village.

C. *Surveyed Households by Major Occupations*

The present survey took up only farming households in the village. Those surveyed were picked up not by random sampling; the survey has the following short story to precede it.

In 1970/71 the Institute of Economics, Rangoon, conducted an interview survey of forty-eight farm households in Village K.[20] The writer was allowed to avail herself of the findings of this survey and a follow-up survey was attempted by her of the same forty-eight households for 1976/77. However, it was found that the composition of the households surveyed heavily leaned toward farmers of bigger farm size, not reflecting the true farm size distribution of the village's farmers. Therefore several households each of smaller farm-size as well as households belonging to agricultural laborers were added so that the samples represent the true picture. Again, the interview survey items of 1970/71 that had been rather rough were refined to meet the writer's own research interest.

Table III shows the farm size distribution of the sixty-four farm households surveyed.

Of the sixty-four households those with their own farmland stood at forty-one, and of these thirty-six were engaged in paddy farming while only five were engaged in upland farming. Nine households out of those engaged in paddy farming were engaged concurrently in upland farming.

Most of the twenty-four households with no farmland of their own were made up of agricultural laborers. One household was engaged in the breeding of milking cows and work cattle and another consisted of an old man who lived on his neighbors' charity. The old man, now having no occupation, used to be a farmer with fifteen acres of paddy land in 1970/71.

The paddy farmers were classified into three groups: small farmers with 8 acres or below; middle farmers with 8 to 16 acres; and large farmers with 16 acres or above. The classification of farmers with between 8 and 16 acres of land as "middle" farmers is not an arbitrary one; it is in consonance with the traditional Burmese unit of *tadontun,* which is what the Burmese people regard as the size of farmland adequate for a farm family to live on and for cultivation with family labor and a couple of work animals. This *tadontun,* may vary a

[19] They corresponded to the total number of the village's school teachers. Not all of them were household heads. The same is applicable to the Buddhist monks and midwives.

[20] The survey was conducted as a training course for students. The results of the survey were not published.

TABLE III

STRUCTURE OF SURVEYED HOUSEHOLDS BY MAJOR OCCUPATION

Occupations		Farm Size† (Acres)	Number of Households
Farmers			41
Paddy farmers*			36
Small:	SS	-3.9	3
	SM	4-7.9	6
Middle:	MS	8-11.9	6
	ML	12-15.9	11
Large:	LS	16-19.9	3
	LM	20-29.9	4
	LL	30-	3
Upland farmers			5
Agricultural laborers			21
Cattle breeding			1
Without a regular occupation			1
Total			64

* Includes those engaged part-time in upland farming.
† One acre≒0.4 ha.

TABLE IV

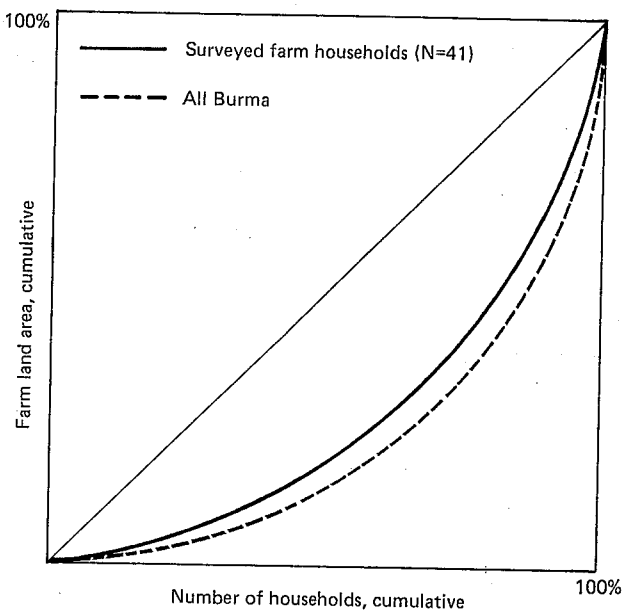
FARM SIZE DISTRIBUTION OF THE FARM HOUSEHOLDS SURVEYED, 1976/77

Farm Size Grouping (Acres)	Number of Households			Farm Area		
	Number	%	% (Cumulative)	Acreage	%	% (Cumulative)
SS (- 3.9)	8	19.5	19.5	12.75	2.4	2.4
SM (4- 7.9)	5	12.2	31.7	31.25	5.8	8.2
MS (8-11.9)	7	17.1	48.8	69.74	13.0	21.2
ML (12-15.9)	10	24.4	73.2	136.21	25.4	46.6
LS (16-19.9)	3	7.3	80.5	51.60	9.6	56.2
LM (20-29.9)	5	12.2	92.7	113.57	21.2	77.4
LL (30-)	3	7.3	100.0	121.00	22.6	100.0
	41	100.0	100.0	536.12	100.0	100.0

little in size depending on land fertility, natural or geographical conditions, etc., yet it should fall within a size of between 8 and 16 acres. Whether this category could still usefully be applied to the farm economy of Village K even today, in economic and technological terms, will be made clear afterward.

As shown in Table IV, the small farmers who account for 31.7 per cent of the total number of households cultivated only 8.2 per cent of the total farmland area (paddy and upland farms together), while the middle farmers constituting 41.5 per cent of the number of households held 38.4 per cent of the land area and the large farmers who comprised 26.8 per cent controlled 53.4 per cent of the land. This would seem to indicate that there were rather great size differences between the farmers of the village, but if compared with the national picture, as is done in Figure 4, it will be seen that Village K had a much thinner layer

Fig. 4. Comparison in Farm Size Distribution between the Surveyed Farm Households and Those of All Burma, 1976/77



Sources: The Socialist Republic of the Union of Burma, Ministry of Planning and Finance, *Pyidaunsu Sociali Tamada Myamma Naingandau, bandayei, sibwayei, luhmuyei, acheianei hnin pattate Pyithu Hluttaw tho asiyinh kansa: 1978/79* [Report of the People's Congress on the financial, economic and social conditions of the Socialist Republic of the Union of Burma: 1978/79], p. 58, and the writer's interview results.

of small farmers and, accordingly, a more equalized size distribution of farms than the national average. The average farm size per farm household for all Burma stood at 5.43 acres while that of the surveyed forty-one households of Village K was 13.08 acres (the corresponding figure of all farmers of the village was 12.26 acres).

The noticeable difference between Village K and the national average was due to the fact that the latter reflected the existence of upland farmers in larger proportion than the former, thereby lowering the average farm size level. In general, the average farm size is larger in lower Burma where paddy farmers are dominant than in upper Burma where upland and mixed cropping farmers are dominant.

III. HOUSEHOLD ECONOMY OF PADDY FARMERS

A. *Details of Farm Household Economy of Paddy Farmers by Farm Size Group*

In this section some detailed analyses will be made of the household economy

TABLE V

FARM HOUSEHOLD ECONOMY OF PADDY FARMERS BY GROUP SIZE

	SS(3)[a]	SM(6)[a]	MS(6)[a]	ML(11)[a]	LS(3)[a]	LM(4)[a]	LL(3)[a]
Farm size (acres)	2.53	6.00	9.66	13.39	17.17	22.74	40.33
Family size (persons)	5.0	5.0	5.2	6.6	6.0	4.5	6.0
Labor input							
Family labor (LU)[b]	1.20	1.98	1.33	1.93	1.87	1.38	1.43
Hired labor (LU)	0.09	0.26	0.58	1.03	1.05	1.69	2.84
Total (LU)	1.29	2.24	1.91	2.96	2.92	3.07	4.27
Gross income from paddy farming[c]	735.5	2,098.7	3,297.8	4,427.5	5,182.7	6,551.3	12,313.9
Production cost (kyat)[d]							
Total	2,677.5	4,780.9	4,194.0	6,439.4	6,816.9	7,159.5	9,917.7
Family labor cost[e]	2,226.3	3,677.8	2,473.3	3,573.5	3,460.0	2,550.8	2,659.3
Hired labor cost	173.3	486.8	873.0	1,905.6	1,941.3	3,130.3	5,262.0
Seeds	52.3	99.0	152.7	182.2	219.3	279.3	356.0
Chemical fertilizer	14.3	77.0	56.2	71.7	194.0	144.8	404.3
Cow dung	55.0	85.0	80.0	158.3	105.0	105.0	242.7
Land tax	8.0	21.7	34.8	40.5	61.3	80.3	93.0
Rentals (of work cattle and farm implements)	—	—	165.0	76.6	270.0	300.0	112.7
Depreciation for equipment	52.3	300.3	275.7	360.1	400.3	419.0	571.0
Interest on loans	93.3	29.0	83.3	61.8	106.7	150.0	116.7
Others	2.7	4.3	—	9.1	59.0	—	100.0

[a] Figures in parentheses are the number of samples for each farm size group.

[b] Labor unit: Adult male full-timer=1; adult female full-timer=0.6; male part-timer=0.2–0.7; female part-timer=0.2–0.4.

[c] Calculated on the basis of the official purchase price of each grade of paddy harvested.

[d] U.S.$1≒6.23 kyat.

[e] Calculated in terms of wages for hired labor: for a full-timer 1 LU=1,855 kyat; for a part-timer wages by types of work multiplied by work days involved. For wage rates by types of work, see Teruko Saitō, "Shimo Biruma beisaku son no nōgyō rōdōsha: K mura ni okeru so no jittai" [Agricultural labor in K, a rice growing village in lower Burma], *Ajia keizai,* Vol. 21, No. 11 (November 1980).

of paddy farmers under the compulsory paddy delivery system by farm size groups.

Table V shows the average labor input, gross income from, and production costs in paddy farming for the thirty-six households surveyed by farm size group. Since here in question is paddy farming, labor input, gross earnings as well as production costs concerned with vegetable gardening, in which the nine out of the thirty-six households were engaged, are not, naturally, counted in.

The average household consisted of five persons, denoting that nuclear families with parents and their children were dominant, regardless of farm size.

The family labor put into paddy farming, given in terms of labor unit (LU)[21]

[21] An evaluation of labor unit (LU) was made as is shown in the footnote of Table V. Female labor is given less points than that of male labor because women do not take

with the labor of a male committed full-time to paddy farming being expressed as one, stood at between one and two, indicating that, regardless of farm size differences, paddy farming was done by a full-time male, assisted by various forms of supplementary labor. Even for the smallest farmer with less than four acres of paddy land the situation was almost the same, a male's full-time labor having to be put in throughout the farming period.

As for hired labor, Table V shows that with small farmers with eight acres or below its use was very limited. In fact, during the survey period it was confirmed that, with this farm size group, labor was hired only at the time of transplanting; dependence on hired labor prevails with middle farmers with eight acres or above, who seek assistance in work processes other than transplanting, such as ploughing, harvesting, threshing, etc. With the farm size group owning above twelve acres (ML and above) utilization of more than one LU of hired labor was seen, and it usually took the form of hiring one or more male laborers on a seasonal (*yādi alai'*)[22] or permanent (*tanippa loun*)[23] basis. Therefore, with present farming techniques, the farm size limit within which farming could be done with family labor alone is around twelve acres.

Now, what about gross income and production costs in paddy farming in the village? As is explained in the footnotes of Table V, the gross income and wages paid in kind are both calculated in terms of the official price of paddy. As will be discussed in detail later, those farmers who had a surplus of paddy after setting aside that taken up by the delivery quota, home consumption, wages paid in kind, and seeds, would no doubt sell the remainder on the free market. Therefore, their actual income should naturally differ from that calculated on the basis of the official purchase price of paddy, but here analysis is made of gross income and production costs by farm size group on the basis of the official price, irrespective of sales on the free market, the extent and actuality of which could not be quantified.

Let us first see the income from paddy farming by farm size group. Although in Table V the family labor cost was counted in the production costs, the farmers themselves do not as a rule consider their own labor as a cost. So in Table VI the production costs excluding the family labor cost are given. As will be seen from the table, when production costs include the family labor cost (CA), all the paddy farmers of the village except the largest few with more than thirty acres

part in ploughing, an important part of work in paddy farming. Ploughing with a couple of cattle (sometimes buffaloes) is done only by men. In the case of vegetable gardening, however, there are no such differences between men and women in volume and intensity of labor since women also take part in heavy work including water drawing.

[22] In Village K, what they call *yādi alai'* denotes labor hired for six months either in the rainy season (from May to October) or in the dry season (from November through April), or for nine months from April to January of the following year. Seasonal hired labor in paddy farming is mostly on a nine-month contract basis while that involved in vegetable gardening and cattle breeding tends to be on a six-month basis.

[23] The *tanippa loun* denotes a contract covering the whole year. In this case, during the period from January to April, a slack season in paddy farming, hired labor is utilized for the preparation of firewood and various chores.

TABLE VI

NET INCOME FROM PADDY FARMING BY FARM SIZE GROUP

(Kyat)

Farm Size (Acres)	Number of Farm House-holds	Gross Income (GY)	Production Cost		Net Income	
			(CA)	(CB)	(NYA)	(NYB)
SS (– 3.9)	3	736	2,678	452	−1,942	284
SM (4– 7.9)	6	2,099	4,781	1,103	−2,682	996
MS (8–11.9)	6	3,298	4,194	1,721	− 896	1,577
ML (12–15.9)	11	4,428	6,439	2,865	−2,011	1,563
LS (16–19.9)	3	5,183	6,817	3,357	−1,634	1,826
LM (20–29.9)	4	6,551	7,160	4,609	− 609	1,942
LL (30–)	3	12,314	9,918	7,259	2,396	5,055

Notes: 1. CA denotes the production costs which include family labor cost.
2. CB=CA−[family labor cost].
3. NYA=GY−CA.
4. NYB=GY−CB.

of land would have to run at a loss; they would be making net profits only when the family labor cost was counted out of the production cost (CB).

In order to have an idea of the levels of net income at which farmers of different farm size groups were found, let us see the wage level of a farm laborer in the village. In the case of a farm laborer, a permanent laborer (*tanippa loun*) was paid in kind with 125 baskets of paddy together with two meals a day and some tobacco. Evaluating at the official price those baskets of paddy as well as his meals as 2 kyat a day, his annual wage would amount to 1,855 kyat.[24] Therefore, the net income from paddy farming of a farmer of the SS group amounted to only about 15 per cent of the annual wage of a farm laborer. Since farmers of this size group annually put in 1.2 LU of their family labor and 0.09 LU of hired labor for their farming, their income per unit of labor was all the more unfavorable than that of a farm laborer. Even farmers of the SM group were able to earn a net income from farming which amounted to only about 54 per cent of a farm laborer's wage income. The position of middle farmers was slightly better, yet their net revenue level stood at only 84 to 85 per cent of a hired laborer's wage income. Only large farmers with sixteen acres or above of land earned an annual net income from farming comparable to the wage income of a farm laborer or a little higher. Thus, under existing conditions of price controls on farm products in Burma, paddy farming is far from profitable and a great majority of paddy farmers in the small and middle farm size groups could hardly earn a net income from farming which was anywhere comparable to the wage income level of an agricultural laborer.

Farm income may be underestimated a little because it does not include income

[24] Since farmers of Village K have no second crop, we could take up for the purpose of comparison a seasonal laborer, *yādi alai'*, who is hired for nine months from April through January of the following year, which is a paddy farming period. In this case, his annual income from farm work would amount to 1,440 kyat.

TABLE VII

INCOME STRUCTURE OF PADDY FARMERS

(Kyat)

	Small Farmers		Middle Farmers		Large Farmers		
	SS	SM	MS	ML	LS	LM	LL
Farm income	1,326	4,221	1,726	1,974	3,053	2,945	5,055
Farm products:							
Paddy (NYB)	284	996	1,577	1,563	1,826	1,942	5,055
Others	0	3,187	78	352	897	977	0
Rentals received of work cattle and farm implements	0	0	0	0	330	13	0
Wages received of farm work	1,042	38	71	59	0	13	0
Non-farm income	1,167	2,067	6,833	5,668	0	12,375	470
Farm household income	2,493	6,288	8,559	7,642	3,053	15,320	5,525

from rice bran and paddy sold on the free market after the compulsory delivery. However, as will be made clear later (See Table XII), the delivery quota reached as much as a third of the harvested paddy for each farm size group, and the small farmers hardly had any surplus of paddy left after delivery. Even for the middle farmers such surplus which could be freely sold was estimated to be only around twenty to thirty baskets of paddy. Only large farmers could afford to sell more than eighty baskets of paddy on the free market, a volume that could be of some importance as an additional source of income.

If the net revenue from paddy farming of small and middle farmers was thus less than the wage income of a farm laborer, how did they supplement their income?

As will be seen from Table VII which shows the income structure of farmers by farm size, in the case of small farmers working farms of under four acres (SS) their wage income by far exceeded their net income from paddy farming. So far as their income structure was concerned, therefore, they were not much different from farm laborers. Yet, if seen from the viewpoint of labor input, the labor required for paddy farming was greater than that which earned wages.

With farmers of other groups, wage income from farm labor was very limited in amount, and it was confined to wages earned by wives or daughters at the time of transplanting. In other periods of farming they did not usually work for other people for wages.

With farmers of the SM group, income from upland farming was greater than that from paddy farming. This was not because farming for this group generally consisted in a mixture of paddy and upland farming, but because the group happened to include a household which earned a very high income from intensive vegetable growing. Thus the average income level from upland farming of the group as a whole was increased. Another notable fact about the SS and SM groups is that their non-farm income was by far greater than their income from paddy farming. In other words, in the case of small farmers with less than eight acres of land, income from paddy farming accounted for a very small portion of their total income.

TABLE VIII

PRODUCTION COSTS PER ACRE BY FARM SIZE GROUP

(Kyat)

	SS	SM	MS	ML	LS	LM	LL
Wages for hired labor	68.5	81.1	90.4	142.3	113.1	137.7	130.5
Seeds	20.7	16.5	15.8	13.6	12.8	12.3	8.8
Chemical fertilizer	5.7	12.8	5.8	5.4	11.3	6.4	10.0
Cow dung	21.7	14.2	8.3	11.8	6.1	4.6	6.0
Land tax	3.2	3.6	3.6	3.0	3.6	3.5	2.3
Rentals paid of work cattle and farm implements	0	0	17.1	5.7	15.7	13.2	2.8
Depreciation for equipment	20.7	50.1	28.5	26.9	23.3	18.4	14.2
Interest on loans	36.9	4.8	8.6	4.6	6.2	6.6	2.9
Others*	1.1	0.7	0	0.7	3.4	0	2.5
Total	178.5	183.8	178.1	214.0	195.5	202.7	180.0

* Agricultural chemicals, feedstuff, etc.

In the case of middle farmers, income from paddy farming constituted an overwhelming portion of their farm income, but their non-farm income was still far greater than their farm income.

Table VII indicates that it was only with large farmers that income from paddy farming accounted for a significant portion of the total household income.

It was seen earlier that a maximum farm size within which farming could be done with family labor alone was MS (8–12 acres). However, from the standpoint of income, paddy farming income did not even account for one half of the total household income of middle farmers. Thus, the only group of farmers whose income from paddy farming could meet household expenditures was that of the large farmers. This would seem to indicate that the existing levels of controlled paddy prices were too low to make paddy farming as profitable a business as it should be.

Now, let us see the costs on paddy farming by farm size group. Table VIII shows production costs per acre of land by farm size group.

Let us take notice of such cost items as seeds, chemical fertilizer, dung, and depreciation for equipment, which should have immediate effects upon yields of paddy.

There seemed to be a tendency for the smaller the farm size, the greater the input of seeds per acre of farmland. A similar relationship was hardly noticeable concerning the input of chemical fertilizer, while the use of dung was relatively great with the smaller farm size groups.

As for depreciation of equipment, it was seen that the smaller the farm size (with the exception of the smallest size group), the greater was expenditure on this item per acre. In Village K all the farm work processes were carried out with traditional sets of farm implements, no modern farm machines having as yet been introduced. There was little difference between farmers of different farm size in respect to types of farm implements owned by them, only their number being greater with farmers of bigger farm size. Judging from the

TABLE IX

PRODUCTIVITY OF PADDY FARMING BY FARM SIZE GROUP

(Baskets of paddy)

	Productivity of Land*	Productivity of Labor†
SS	27.7	53.0
SM	29.8	83.8
MS	28.5	172.0
ML	32.3	150.5
LS	29.0	175.0
LM	27.5	205.0
LL	32.7	304.3

* Expressed in terms of yield per acre.
† Expressed in terms of yield per LU.

expenditure on depreciation as shown in Table VIII, farmers of the smallest farm size (SS) appeared not to possess the set of farm implements a paddy farmer ought to have, managing somehow with what they had. With the rest of the farm groups, it was seen that the bigger the farm size, the more economically farmers can use their farm implements.

What was characteristic of paddy farming in Village K, if seen from the volume of fertilizer and seeds used, and also from the utilization of farm implements as judged from depreciation, was that the volume of input of producer goods per acre tended to become smaller, relatively and even absolutely, with greater farm size.

Table IX, which compares different farm size groups with respect to productivity, shows that land productivity as expressed in terms of yield per acre was somewhere between twenty-seven and thirty-three baskets of paddy regardless of farm size differences. This reflects the fact that there were hardly any noticeable differences among farm size groups in respect to investment on improving land. Furthermore, among these the same old farming techniques were prevalent with hardly any new factors at work which might change such techniques and thereby bring in disparity among farmers with different farm sizes.

During the survey period, however, new phenomena were noted which made one anticipate some future changes. One such new phenomenon was an introduction of high yielding varieties (HYVs). Efforts at spreading the HYV were being made in such a way that those farmers who accepted the HYV were ensured a supply of fertilizer at official prices.[25] Although the HYVs were not

[25] Those farmers who planted such government-encouraged HYVs as *Yagyaw* II (Burmese name of IR5), *Shwewatan* (IR5's mutated variety which was developed in Burma), etc. were ensured by the government of the possibility of buying at official prices two sacks of urea (56 lb. a sack), one half of a sack of triple super phosphate or TPS (112 lb. a sack) and a quarter of a sack of potash (112 lb. a sack) for every acre planted to the HYV. The official prices of a sack each of the following were: 9.50 kyat for urea, 62.20 kyat for TSP, and 29.90 kyat for potash. Since urea, for which there was a comparatively great demand was sold on the free market at a price of more than 30 kyat a sack, its

acceptable to farmers in taste and were thus thought to be no good for their own home consumption, they met quality requirements for paddy delivery as *Ngasein* varieties of the third grade.[26] On account of these merits, the HYV was not met with much resistance on the part of the farmers. While in 1975/76 in Village K 157 acres or 6.7 per cent of the total area of paddy farms of 2,329.5 acres had planted the HYV, such acreage increased to 209 acres or 8.4 per cent of the total paddy area of 2,499 acres in 1976/77.[27] While the acreage planted to the HYV was likely to continue to increase, the yield of the HYV per acre was not as yet so high, with somewhere between thirty-five and forty baskets per acre as far as was learned from the interview surveys, since, they said, the fertilizer supplied for use in HYV planting was used by the farmers also for planting of the traditional varieties of rice.[28]

While, as was seen, there was little difference with respect to productivity between farms of different size, there were noticeable gaps in respect to labor productivity. The yield of paddy for every one LU was 53 baskets for the smallest group as against 304.3 baskets for the largest group, an amazing ratio of 1 to 5.7. The reason why such a great gap came about can be found in the fact that, the labor force on larger farms can be more effectively and economically used in spite of the fact that the farming techniques and implements for both large and small farms is the same. In other words, in paddy farming which is strongly conditioned by the natural factor of the time period that it takes for paddy to grow, a certain number of working hours would be required regardless of farm size, and this would seem to put smaller farm size groups at a disadvantage compared to the larger farms.

Thus, it may be said that the advantage of the larger farmers rests not on their potential ability to invest more on land or to introduce newer techniques but on

supply at the official price was very attractive to the farmers. TSP and potash, on the other hand, were not dealt with on the free market.

[26] Official purchase prices of paddy per 100 baskets in 1974/75–1976/77 were:

(Kyat)

		Inferior	Medium	Superior
First grade	*Ngakywe*	1,090	1,110	1,120
Second grade	*Emata*	955	980	995
	Midon	940	960	970
Third grade	*Ngasein*	900	920	930

Source: *Working People's Daily*, September 27, 1976.

The HYVs were all graded as third grade, but as the gaps between official and free market prices were smallest with this grade, the purchase prices of the *Ngasein* varieties were relatively favorable.

[27] Based on the interview findings from a village manager of the Agriculture Corporation of township H.

[28] The government hoped for a yield of 80 baskets of HYV per acre. The IR varieties were called by Burmese people *yagyaw* which meant "to exceed 100"; that is, the HYV varieties were first introduced to the Burmese farmers as miraculous rice varieties which would bring them a yield of more than 100 baskets per acre.

TABLE X

FARMERS' DESIRE TO ENLARGE FARM SIZE

(Number of households)

	SS	SM	MS	ML	LS	LM	LL
Answered in affirmative	2	5	6	6	3	2	1
To enlarge: paddy	2	5	6	6	2	1	1
upland	1*	0	0	0	1	1	0
Answered in negative	1	1	0	5	0	2	2
Total	3	6	6	11	3	4	3

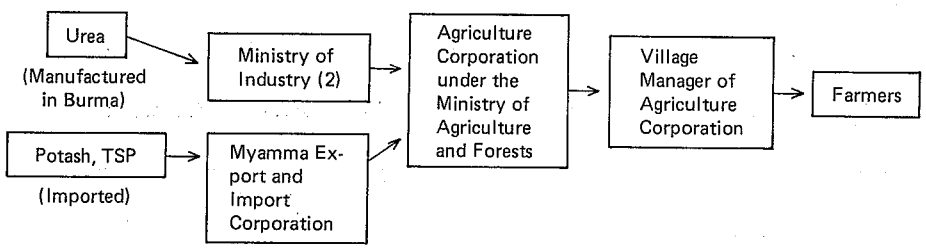
* One household wanted to enlarge both paddy land and upland, so the duplication.

the fact that farming on the larger farms enable them to use the human and animal labor force more effectively.

Table X shows farmers' answers to the question as to whether or not they had any desire to enlarge their farms. It was learned that farmers of all farm size groups but LM and LL had a strong desire to enlarge their scale of farming. One of the reasons for this could obviously be found, as mentioned above, in the differences in labor productivity and, accordingly, in farm income levels.

In striking contrast with the above, the farmers of all farm size groups did not at all seem to be eager to increase the yield of paddy per acre, i.e., raising land productivity. One of the reasons for this was to be found in the fact that supplies of fertilizer, chemicals, farm implements, etc., were very scanty and their free market prices were quite high.[29] However, an even more important

[29] The channels of supply of fertilizer to farmers were as follows:



The prices at which the above were supplied to the farmers consisted of cost of production (or import price), freight, and commission.

Farm implements, both domestic manufacture and imported, were supplied by way of the Agricultural Mechanization Department, under the Ministry of Agriculture and Forests and cooperatives to farmers. The prices at which the farmers bought them included, as in the case of fertilizer, the cost of production (or import price), freight, and commission. However, the farm implements handled by the cooperatives were rather limited in quantity, and coupled with problems of corruption on the part of people concerned, farmers often could not get their supplies.

The gaps between the official and free market prices of the farm implements were such that the free market price of a Burmese hoe, for instance, stood at between 30 and 35 kyat against the official price of 15.10 kyat, and that of a sickle was 9 or 10 kyat against the official price of 5 kyat.

factor which discouraged the farmers from raising land productivity should no doubt be found with the existing compulsory paddy delivery system.

B. *Effect of the Paddy Delivery System on Farm Household Economy*

As was mentioned earlier, all Burmese paddy farmers are supposed to deliver an allotted quota of paddy in accordance with the quota table, which is set by a Trade Ministry Notification. This table is given in the form of a matrix of acreage planted (1–100 acres) and yields per acre (1–100 baskets).

One thing that is particularly notable about this quota table is that the extent to which the delivery quota is augmented in proportion to the increased yield per acre is far greater than it is in proportion to an enlargement of farm size.[30] Suppose, for instance, there is a farmer with ten acres of paddy farm, from which he gets a yield of 30 baskets of paddy per acre. In this case, he is supposed to deliver to the government 117 out of the total production of 300 baskets of paddy. In a situation, then, where he manages to expand his paddy farm by one acre or by 10 per cent, he will have to deliver 134 out of a total production of 330 baskets; on the other hand, however, should he, through laborious effort, manage to get a yield of 33 baskets per acre, i.e., a 10 per cent yield increase per acre, from the same ten acres of his paddy farm, the delivery quota imposed on him will be 142 baskets, instead of 134 baskets, despite the fact that the total production from his paddy farm is the same 330 baskets.

In a case, likewise, where the farm size is enlarged by two acres or by 20 per cent while the yield per acre remains unchanged, the delivery quota will be 150 out of the total production of 360 baskets; in a case, however, where the yield per acre is increased by 6 baskets or by 20 per cent with farm size unchanged, the delivery quota will be set at 166 baskets out of the same total production of 360 baskets.

Such a greater delivery requirement of a farmer having an increased yield per acre over and above one having an enlarged farm size reminds us of a fundamental idea underlying the compulsory delivery system, an idea that regards the yield per acre mainly as a function of the natural fertility of land, rather than as a function of the input of labor and producer goods. It, most probably,

[30] In seeking to get the correlation between the delivery quota, on the one hand, and the planted area and yield per acre, on the other, in accordance with the quota table, we have got the following equation: $z=0.9x(y-10)-54$. Therefore,

when x is given: $dz=0.9xdy$;

when y is given: $dz=0.9ydx-9dx$.

That is, when the planted area (x) is given while the yield per acre (y) increases, 90 per cent of the increased portion of the yield will be taken for delivery; but, when the yield per acre is given while the planted area is enlarged, the 90 per cent of the increased portion of the yield minus nine baskets of paddy per acre will be taken for delivery. This will show that the degree of increase of the delivery quota in proportion to an increased yield per acre is much greater than that in proportion to an enlarged planted area.

We have got the above equation for the case where $x \geqq 20$, but it is considered that the same result will be got even in the case where $x<20$.

originates from the idea that differential rent should be sucked up by the state; that is, that excess profit brought to a farmer on account of natural fertility and location of farmland should belong to the state, which is the owner of the land.

Again, assessment of delivery quotas in accordance with the quota table is made anew every year. This would mean that the state has the intention to suck up not only the first form of differential rent derived from the natural fertility of the land but also its second form which is a result of additional productive investment. Hence, under conditions of official delivery prices being set at a level far below that of market prices, it would no doubt discourage farmers from investing in the land. This has resulted in a vicious circle of a very limited land investment on the part of the farmers, the fertility of the land having to remain "natural," and the assumption of the quota table that the paddy yield per acre is a function of the natural fertility of the land being, after all, justified by actuality.

Thus it was learned that while farmers had an apparent desire to enlarge their farm size, they were not at all eager to raise productivity and that the larger the farm size, or the more surplus they could afford, the more extensive did their farming tend to be. This should be said to be an immediate effect of the compulsory paddy delivery system.

An assessment of delivery quotas for Village K is made in September every year. Evaluation officers of the Agriculture Corporation of township H would come and make a round of paddy farms inspecting crop conditions, after which they would notify every farmer of his delivery quota. The quota, however, tended to be set at a level slightly lower than that fixed in the official table for deliveries.

If a farmer after harvest fails to deliver his allotted quota, a member of the Village People's Council would come to him and ask the reason. If it is found that due to such unavoidable circumstances as crop damage from insects and pests, loss of a hand due to the death of a family member, and so on have prevented him from fulfilling his obligation, he will be exempted from any punitive action; if, however, the reasons he has given are found not sufficiently justifiable, he will be urged to fulfil his obligation. If, then, he is unable to deliver his quota in time, punitive action will be taken in the form of a denial for the following year of the advance purchase payment of paddy that is made twice in the year, i.e., when cultivation has begun for the year and when the rice plant has matured.[31]

In considering the effects of the paddy delivery system on the farm household economy of Burmese paddy farmers the following fact also should not be over-

[31] As part of its effort to collect paddy the government introduced in 1973 the system of advancing to farmers the paddy purchase price. Farmers under contract with the government as to delivery of paddy were to be able to have an advance of a part of the purchase price without interest. The amount, as it stood in 1976/77, was a total of seventy kyat, of which a half was to be made at the beginning of cultivation and the other half at the beginning of harvest. Since the interest rates in private financing were somewhere between 4 and 10 per cent per month, this government interest-free advance served as an incentive for farmers to consent to the delivery system.

TABLE XI

AMOUNT OF PADDY SOLD AND BOUGHT ON THE FREE MARKET, 1976/77

	Number of Households	Number of Households Having Sold Paddy Harvested in 1975/76		Amount Sold per Household (Baskets)	Number of Households Having Bought Paddy		Amount Bought per Household (Baskets)
SS	3	0			1	4	41.8
SM	6	0			3		
MS	6	2	3	51.7	2	6	40.6
ML	11	1			4		
LS	3	1			1		
LM	4	1	3	118.3	1	3	69.7
LL	3	1			1		

Note: Amounts of paddy are those bought and sold during 1976/77, therefore, of paddy harvested in 1975/76.

looked: If the delivery quota absorbed all the marketable surplus of paddy for every farmer irrespective of his farm size, there would not be much of a problem. However, if farmers belonging to some groups can afford such marketable surplus after putting aside paddy for delivery and at the same time catering to their home consumption and wages for hired labor in kind, as well as seeds, it would mean that their farm income was favored with free market prices of paddy.

Our preceding discussion was made, as was mentioned, on the basis of official paddy purchase prices, in terms of which all the harvests of paddy farmers were calculated. This was based on the assumption that under existing conditions where farmers had to deliver about one third of their paddy harvests to the government, few of them would have a surplus marketable on the free market. Actually, however, some farmers of certain size groups should be considered to have afforded such surplus; on the other hand, there should be farmers who, after having delivered their allotted quotas of paddy, would find themselves short of paddy for their home consumption or for wages for hired labor in kind.

In Table XI is given the information obtained from the interview survey at Village K. Farm households which replied that they had sold their paddy on the free market numbered only six, i.e., three middle-sized and three large-sized, out of a total number of thirty-six households surveyed. It was at first expected that the farmers might not answer the question because the selling of paddy at free market prices was illegal, but it turned out that they were not so nervous about it, probably because marketing of paddy at free market prices after delivery to the government was tacitly approved by the authorities. On the other hand, as many as thirteen farmers replied that they had bought some paddy at free market prices and that they had done so within the village. Those farmers who sold their paddy on the market did so both within and without the village.

The information given in Table XI, however, would seem to understate the extent to which paddy was actually sold or bought at the free market. So, as is

TABLE XII

PADDY BALANCES WITH FARMERS BY FARM SIZE GROUP

(Baskets)

	Output in 1976/77 (A)	Delivery in 1976/77* (B)	Seeds (C)	Home Consumption† (D)	Paid to Hired Labor in Kind‡ (E)	Surplus Marketable A−(B+C+D+E)	B/A (%)
SS	70.0	23.0	4.7	100.0	28.3	−85.7	32.9
SM	189.2	62.5	9.2	108.3	23.3	−14.0	33.0
MS	322.5	120.0	12.8	109.2	52.0	28.5	37.2
ML	431.2	154.5	16.2	150.5	90.5	19.5	35.8
LS	498.3	182.7	21.0	133.3	81.7	79.6	36.7
LM	630.0	182.5	22.5	125.0	169.5	130.5	29.1
LL	1,290.0	410.7	35.7	233.3	323.3	287.0	31.7

* The amounts actually delivered (≒compulsory delivery quotas).

† Figures based on the interview survey. Includes the amount to be consumed annually by the family plus offerings to Buddhist priests and, probably, meals served to hired laborers.

‡ Includes rental (in kind) for work cattle in case used.

shown in Table XII, let us look at the paddy balance with the average farmers in each farm size group in order to estimate the amount of paddy marketable. In the case of farmers with less than eight acres of farmland (SS and SM), the output of paddy itself was absolutely short of the amount required for delivery, seeds, home consumption, and wages for hired labor in kind, necessitating the procurement of additional paddy on the free market as a stop-gap measure. Some farmers of these size groups were said to have even been compelled to buy paddy on the free market so as to meet the delivery requirement.

Middle-sized farmers on the average could have some surplus after meeting delivery and other requirements, but the surplus amount was relatively small. Large farmers, on the other hand, could afford such surplus in large amounts. Therefore, they might well be considered to have earned much greater actual income than that shown in Table VI which was calculated on the basis of official prices of paddy. Although free market prices were changeable seasonally, they stood at a level 1.5 or 2 times as high as that of official prices. This should have made actual income of large farmers from paddy farming much higher than it might appear.

The existing paddy delivery system thus absorbed all or nearly all of the surplus of paddy with farmers of small and middle farm size groups in Village K, while it allowed large farmers to leave enough surplus to sell on the free market.

Circumstances like this, under the dual price of paddy, certainly made the income disparity between farmers still greater. That is, large farmers, while taking advantage of an economy of scale in the sense that they were able to make more effective use of a labor force, also benefited from the surplus of paddy which they could sell on the free market. The actual income of small

farmers, on the other hand, was made still lower because of the fact that they often had to buy paddy on the free market in order to meet requirements for the compulsory paddy delivery, home consumption, and seeds, as well as for wages for hired labor in kind.

That is why the farmers had an obvious desire to enlarge their farm size while they were not at all eager to raise the productivity of their farmland.

IV. LAND TENURE: THE SYSTEM AND ACTUALITY

As township H, to which Village K belongs, is found in the area where nationalization of land was enforced by 1963, all the farmland there is owned by the state, farmers being accorded only the right to cultivation. It is, therefore, understood that they cannot dispose of their farmland of their own accord. However, as far as the writer learned from the interviews, the official system was not always complied with in actuality. In Village K, as elsewhere, there were cases of illegal selling and buying of paddy farms or of illegal tenancy.

Paddy farmers replied uniformly that they had no right to buy or sell their paddy farms; farm laborers, on the other hand, when asked as to their possibility of buying farmland, replied, although not all of them, that they had such a possibility. Moreover, it was found that there had been actual cases of paddy farm transactions in the village not earlier than several years before, and that there were definite quotations for paddy farms.

Also as for tenancy rent, payment or acceptance of which is prohibited by the Tenancy Act, it was actually being practiced. However, there were no such cases as openly renting a paddy farm on a permanent basis; it was usually rented for a period of one year when the farmer in question found it impossible to cultivate his paddy farm for the year due to such circumstances as sickness of a family member who was an important hand. They made it a rule for the person who thus had a paddy farm rented to pay to the lessor a certain portion of paddy harvested.

Table XIII shows, on the basis of interview findings, the "land prices" and "tenancy rents" of paddy farms and the prices of upland farms and home lots. As will be seen from the table, the "land prices" and "tenancy rents" of paddy farms being illegal, they were naturally set at comparatively low levels. Paddy farms of the first grade may be considered as land yielding around forty-five baskets of paddy per acre while that of the second grade yields around thirty-five baskets and that of the third grade twenty to twenty-five baskets. The "land prices" of paddy farms largely corresponded to gross annual revenues from those farms as calculated in terms of official prices of paddy, although in the case of paddy farms of the third grade they were a little lower. The rates of the "tenancy rents" were said to be around 20 per cent of the output.

With regard to the land tax which is also shown in Table XIII, it is worth noting that, as indicated by the amount of between 1.75 and 5 kyat per acre, it was quite nominal. This is an indication that farmers' contribution to state finance was made primarily through the farm products delivery system.

TABLE XIII

LAND PRICES AND TENANCY RENTS IN VILLAGE K, 1976/77

(Prices per acre in kyat)

Land prices	Paddy farm: First grade	500	Illegal
	Second grade	300	Illegal
	Third grade	100	Illegal
	Upland	200–450	Illegal, but tacitly approved
	Home lots	3,000–4,000	Legal
Tenancy rents	Paddy farm 5–10 (baskets per acre)		Illegal
	Upland	40–50	Illegal, but tacitly approved
Land tax	Paddy farm: First grade	4–5	
	Second grade	2.75–	
	Third grade	1.75–	

Now let us see how landholdings were being transferred. Table XIV shows how and why changes occurred in farm size of the forty-seven farm households, which a team of the Institute of Economics, Rangoon, had studied in 1970/71.

As can be seen from Table XIV, six out of the seven upland farmers underwent changes in their farm size, and five of them enlarged their holdings. On the other hand, twelve out of the twenty-six paddy farmers underwent changes in their farm size, the number of those having had it reduced exceeding those having enlarged it. The fourteen households of farm laborers had not had their farms in 1970/71, but three out of them had managed to obtain their paddy farms to become farmers since.

Now let us see the reasons why those changes occurred. In the case of paddy farms, farmers gained or lost their farms in most cases through the Land Committee, but there were some cases found where they were transferred on account of inheritance or where the land was reclaimed. In the last-mentioned case, a farmer began cultivating an abandoned piece of land just for a one year trial, but had not as yet had it registered as his farm and, naturally, had not paid the land tax on it.

As far as the interview findings were concerned, there were no cases of obvious illegal transfers of paddy farms, such as selling or buying, or renting them out for tenancy, in contrast with the case of upland farms where selling, buying, and renting for tenancy were reported in the open. It is true that selling, buying, or renting of upland farms were also illegal acts contrary to the Land Nationalization Act and the Tenancy Act, but in Village K, farmers showed little sign of concealing such acts. This seemed to reflect the fact that while paddy was strictly covered by the delivery system and its prices and transactions were placed under control, the upland produce of Village K, i.e., fresh vegetables, were left outside such control and were allowed to be transacted freely.

With regard to transfers of paddy farms, Table XIV may have given the impression that the Land Committee played an active role in distributing or

TABLE XIV

CHANGES IN FARM SIZE, 1970/71–1976/77

A. Changes in Farm Size

Occupational Grouping by 1970/71 Sampling	Number of Households	Of which, Households Having Undergone Changes in Farm Size		
		Total	Enlarged	Reduced
Upland farmers	7	6	5	1
Paddy farmers				
S (– 7.9 acres)	3	2	1	1
M (8–15.9 acres)	15	5	3	2
L (16– acres)	8	5	1	4
Farm laborers	14	3	3	0
Total	47	21	13	8

B. Reasons for Changes

	Total	Laid Fallow or Renewed Cultivation	Inherited	Land Committee	Reclaimed	Sold or Bought	Tenancy	Unknown
Paddy farms								
Changes only in farm area actually worked	4	4	0	0	0	0	0	0
Changes also in registered farm size	13	0	4	8*	1	0	0	0
Upland farm								
Changes in farm size	6	0	1	0	0	2	1	2

Source: Data for 1970/71 were from the Institute of Economics, Rangoon.

* In one case the price for the farm transferred was said to have been paid to a former cultivator.

redistributing lands to farmers, but, looked into more closely, it turned out that the committee's role in this was not so active. For, in all of the eight cases as shown in Table XIV, farmers had secured their plots of land for cultivation prior to making an application to the committee, so the formalities were only ex post facto; so the case here was rather far from where the Land Committee controlled, as it should, all the uncultivated land tracts within the area of its jurisdiction, which it would distribute to farmers upon application.

A most often-to-be-met case of changes in landholdings and farm size may be the following. In and around the village there was much fallow land or uncultivated land in the easily flooded lowland area in river basins. The cultivated area of Village K changed from year to year depending on whether and how far those uncultivated or fallow land were cultivated anew. Farmers would resume or give up farming on these lands, taking into account, in so doing, the official purchase prices and free market prices of paddy for the year as well as

the availability of a labor force. There were cases where they tilled these lands only for a year without having to pay any land tax; but if they continued into another year or more, they would have to have the lands registered and pay the land tax on them. As for the delivery, in the meantime, the quota allotment would be made for all the land planted to rice, regardless of whether the land tax was paid or not, since the delivery quota assessment was to be made annually before the harvest after checking up on crop conditions with every farmer.

Thus the changes in utilization of what we may call "marginal land" was the main cause of the changes in farm size of the farmers of Village K; otherwise, transfers of paddy farms with stable yields would occur only in cases of inheritance. As far as was learned from interviews, there was just one case of the transfer of a paddy farm, not inferior or "marginal," that took place without any connection to inheritance. In this case, an old man who lived alone, unable to continue farming to support himself, gave up his fifteen-acre farm to the Land Committee, and another farmer took over. However, it was notable that it was not the Land Committee but the old man himself who chose the farmer who took over. He transferred his farm to the farmer under an agreement that he would be assured of the minimum necessities of life until his last moment.

Among the farmers who answered that they had had their farm size enlarged or reduced via the Land Committee there was a farmer who had paid the price of the paddy farm in question to the former cultivator. Although the farm was of the third grade, liable to be flooded from time to time, he said he had paid 100 kyat per acre to obtain it. Otherwise farmers acquired farms which had already been given up by the former cultivators without any payment of the land prices involved.

As may have been indicated from the above observation, the Land Committee seemed to take care only of paddy farms, but not farmland at large. Even with regard to paddy farms, the committee was playing a less and less active role, at least in recent years, in distributing land to farmers and making adjustments in land tenure relations. It has almost been reduced to a land registry office.

In September 1976, a nation-wide reorganization of the Land Committees took place. Their function and competence were taken over by the executive committees of the people's councils which were local administrative organs of the government.[32] This action was taken as part of an administrative organization reform as well as personnel retrenchment carried out in the same year, but it had apparently had it in the background that the Land Committee had become increasingly inactive in playing its primary role and its authority in settling various disputes concerning landholdings was becoming weaker. This situation was also confirmed by the villagers of K. When they had had some disputes in the recent

[32] See *Mirror Daily*, November 8, 1976, and the Social Republic of the Union of Burma, *Pyandan* [Burma gazette], No. 45/6 (November 1976). The Land Committee (with its local committees at different levels), which after the abolition of the Land Nationalization Department had continued to exist as an ad hoc committee under the Ministry of Agriculture and Forests, was dissolved as an organ of the government with the issuance of a Notification of Council of Ministers of September 23, 1976.

past concerning questions of landholdings, the Land Committee consisting of five village members was quite ineffective in settling them. Moreover, the villagers did not know with which of the two organs to take up matters, the Land Committee or the People's Council. To make matters worse, the directions they gave were often contradictory. Therefore, the dissolution of the Land Committee was far from being the cause of lament for the villagers.

The Land Committee, which was an organ for enforcement of the Land Nationalization Act, was thus on the wane. This notwithstanding, the norms of the Land Nationalization Act which denied private landownership seemed to be still alive at least for paddy farms in Village K. Selling or buying of paddy farms had to be done only in secret, it was never made open. The free market "land prices" were found at rather low levels because farmers could not be full-fledged owners of those farms. Possibilities for development of tenancy relations were also basically held in check. Thus the main reason why the development toward private landownership was basically being arrested even under circumstances where the Land Committee had to be dissolved can be found in the existence of the compulsory paddy delivery system. In this sense, the delivery system can be said to have played a substantial role in propping up the system of land nationalization which in itself had not enough legal force.

However, some farmers, of larger farm size groups, gained enough output of paddy that, after delivery to the government, a considerable amount could be sold on the free market, and here room was left for private rent to come into being. The government raised the official purchase price on several occasions from 1973, as the existing gaps between the official and free market prices of paddy had become such an obstacle to the government's paddy procurement activities. Should changes like this in paddy purchase prices become substantial (close to the free market price), they would most probably bring in changes in the actual land system, because under the circumstances where the Land Nationalization Act had lost its practical effect the compulsory delivery system was the most important factor that would prevent the commercialization of farmland.

V. CONCLUSION

In this paper, an attempt was made to analyze the effects of the paddy delivery system on the farm household economy of Burmese farmers. The main results of the analyses are summarized and some policy implications are given below.

(1) The basic idea underlying the delivery system seems to be that the state will absorb the differential rents into its own hands. There would be no room for private rent so long as the delivery system functioned well and absorbed nearly all of the marketable surplus of paddy. In this sense the delivery system could remain a factor preventing the commercialization of land and reinforcing the none too effective Land Nationalization Act.

(2) With regard to the effect of the delivery system on the household economy of individual farmers, the compulsory delivery of paddy at low official prices decreased the level of profitability of paddy farming. As was seen in Table VI,

the income size of paddy farmers against their unit labor input, irrespective of their farm size, was much smaller than the corresponding wage income of hired laborers.

(3) For farmers with less than sixteen acres of land who accounted for a great majority of the farmers, the compulsory delivery quota absorbed practically all of the marketable surplus of paddy after setting aside from the output the portions for home consumption, seeds, and wages for hired laborers in kind. For these farmers income from paddy farming hardly covered one half of their total household income. That is, they depended more for their livelihood upon sidelines.

(4) On the other hand, for the remaining small number of farmers of larger farm size groups it was possible after delivery to secure a considerable amount of surplus which they could sell on the free market. Of the farmers of Village K only these large farmers could afford to live on paddy farming alone. This would mean that the delivery system was a factor to widen, rather than remove, farm income disparity among farmers.

(5) The existence of the delivery system generally served to discourage farmers to increase paddy production, particularly through increasing paddy yield per acre. In all groups of farmers, such investment on land as would help increase yield per acre was found at a very low level. This resulted in a vicious circle of low investment on land, low land productivity, and the idea underlying the delivery system tending to identify land productivity with the natural fertility of the land.

(6) On the other hand, farmers clearly showed their eagerness to enlarge their farm size so that they might be able to have the advantage of higher labor productivity allowing them to secure greater surplus of paddy marketable on the free market. However, possibilities for the enlargement of farm size were as yet very limited because land was not commercialized. Transfers of landholdings thus far were largely confined to those marginal land with low productivity of which farmers either resumed or gave up cultivation. In a small number of cases, though, there were also latent movements toward the commercialization of land.

Thus the compulsory farm products delivery system increasingly came to affect not only the farm household economy but the Burmese economy at large.

In present Burmese government policy for agricultural development a great emphasis has been put on increasing the output of paddy. At that the greater importance has been attached to increasing yield per acre rather than to extending the cultivated land area.[33] Certainly, it may be a realistic policy to let increased paddy production depend on the farmers' will to augment the yield per acre without requiring much financial resources rather than to create new cultivable lands which would necessitate the introduction of mechanized power, large-scale

[33] For example, a Resolution for the Implementation of Short-term Agricultural Program adopted by the People's Congress on October 23, 1976, set an increased production of paddy by 15 million baskets annually as a task of primary importance, for which, it said, it would be necessary to attain an average yield of forty-five baskets per acre. See *Working People's Daily,* October 27, 1976.

irrigation systems, and so on. However, as was seen from the preceding discussions, the existing delivery system is in conflict with this policy.

As was mentioned earlier, the government has been making efforts to introduce high yielding varieties, combined with providing farmers with fertilizer at officially low prices as an incentive to that effect. Whether such an attempt by the government induces farmers to attain higher yields of paddy with little increase in production costs thus providing a key to breaking the bottleneck remains to be seen.

Another conceivable policy would be for the government to raise the delivery prices repeatedly until little gap remains between the official and free market prices. However, this would no doubt shake the very foundation of the delivery system as a very important financial resource channel for the government. Moreover, in view of the fact that the Land Nationalization Act lacks legal force, were the official purchase prices of paddy to be raised, the commercialization of the land would be stimulated. The continuation of the delivery system and the low official prices of paddy, therefore, would be of vital importance to the government.

On the other hand, how long and in what way would the Burmese farmers be able to endure the existing burdens? Would there be a widespread tendency of the farmers, as has taken place many times in the past, to evade their obligation to deliver their allotted quota of paddy, with the free market gaining ground as a result? This is why things around the delivery system should be watched carefully from now on.

REFERENCES

1. Burma. *1953 leya mye naigan pain pyuloyei a'ubadei* [The land nationalization act of 1953] (Rangoon: Government Printing and Stationary, 1965).
2. Burma, Central Land Committee. *Thiza kyatayei hnin taunthuledhama akwinayei kagwe de ubadeimya shindan* [Explanation of the tenancy act and the law protecting rights of peasants] (Rangoon: Sarpei Beikman Press, 1963).