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# Technical Change and Rural Development in Korea: 1967–76

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## Introduction

The ten years from 1967 to 1976 were a turning point for agricultural development in Korea because (a) the high-yielding variety of rice was introduced in Korea during this period; (b) the level of income of farm households approached that of urban workers for the first time in history; and (c) significant changes occurred in the social conditions of the farmers and productive activities along with this rise in income level. In part I of this paper an overall assessment is presented of the agricultural and rural development in Korea during these ten years. In order to observe more closely the changes taking place in Korean rural communities, two villages were surveyed with the support and cooperation of the Center for Southeast Asian Studies, Kyoto University. These two case studies (see Fig. 2 and 3) dealt with technology, the farm economy, farmers' socio-economic activities as well as their social consciousness. The main findings of this survey are presented in Part II.

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## I An Overall Assessment of Korean Rural Development: 1967–76

### General Conditions

The climate in Korea varies widely. Around Seoul the mean temperature is 11.1°C. In summer the temperature goes up to 20°C to 25°C, whereas in winter it goes down to −6°C on the average, so that vegetables can be grown only in greenhouses. The rainy season lasts about two and a half months beginning in early June. The average rainfall yearly is from 1,200 mm to 1,500 mm, with 60 % of it occurring in the rainy season from June to August.

The soil in Korea is generally fertile enough for rice-growing. Paddy soils are mostly clay or clayey loam, and the upland is favored with loam or sandy loam. The farmers plant mostly rice, barley, and white potatoes in paddy fields, while they raise such crops as radish, Chinese cabbage, garlic, red pepper, sweet potatoes, and pumpkin, in the upland.

Rice farming is still monocultural, but has been on the decline since 1966 as Table 1 shows. Upland crops such as beans, potatoes, and the miscellaneous grains also declined during the ten-year period studied.

**Table 1** Farm Households by Type of Enterprise

Unit: 1,000 households

| Year | Total Households | Rice | Field Crops | Fruits | Vegetables | Special Crops | Livestock | Others |
|---|---|---|---|---|---|---|---|---|
| 1967 (A) | 2,586.9 | 1,813.9 | 615.8 | 13.3 | 13.6 | 7.7 | 7.8 | 114.8 |
| 1976 (B) | 2,335.9 | 1,733.0 | 349.3 | 46.2 | 33.2 | 39.4 | 16.0 | 118.8 |
| B/A × 100 | 90.3 | 95.5 | 56.7 | 347.4 | 244.1 | 511.7 | 205.1 | 103.5 |

Data source: National Agricultural Cooperative Federation. *Yearbooks.*

On the other hand, the growing of fruit, vegetables, and livestock has increased. The production of such special crops as rape, mat rush, hop, and sunflower rose remarkably within a relatively short period.

## 1 The Agricultural Sector of the National Economy

### *Structural Transformation*

The national economy showed a miraculous growth during this period, averaging an annual increase of 10.8 %. Although agricultural growth fluctuated in the early years, it later stabilized around an impressive increase rate of 4–8 % annually (See Table 2). The share of the primary sector in the GNP declined from 32.8 % in 1967 to 24.8 % in 1976. Such a transformation in the industrial area implies that a change in the employment of labor and the use of land resources occurred. In 1967 about 53.5 % of the total population lived in farming areas, but in 1976, this figure was down to 38.2 %. The acreage of cultivated land, which had been almost completely fixed in the past, decreased slightly due to the expansion of urban or industrial areas and the construction of highways. The average acreage of farm land per household changed very little and remained as small as 0.94 hectare in 1976.

**Table 2** The Growth Rate of the National Product, Agriculture and per capita GNP

| Year | GNP | Agriculture and Fishery | per capita GNP |
|---|---|---|---|
| 1967 | 7.8% | −5.0% | 140$ |
| 1968 | 12.6 | 2.4 | 164 |
| 1969 | 15.0 | 12.5 | 203 |
| 1970 | 7.9 | −0.9 | 234 |
| 1971 | 9.2 | 3.3 | 266 |
| 1972 | 7.0 | 1.7 | 293 |
| 1973 | 16.7 | 5.5 | 361 |
| 1974 | 8.7 | 5.6 | 481 |
| 1975 | 8.3 | 6.2 | 532 |
| 1976 | 15.5 | 8.9 | 700 |
| Average (Arithmetical) | 10.8 | 4.0 | |

Data source: National Agricultural Cooperative Federation. *Yearbooks.*
The Bank of Korea. *Economic Statistics Yearbooks.*

### *Modern Agricultural Technology*

While growth in the national economy was primarily driven by industrialization, agricultural production was also stimulated by the introduction of modern technology, particularly in rice-growing. The Office of Rural Development (ORD), of the Ministry of Agriculture and

**Table 3** Diffusion of High-yielding Variety (HYV)

Unit: thousand hectares

| Classification | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 |
|---|---|---|---|---|---|---|
| Area of HYV | 2.8 | 187.5 | 139.0 | 306.9 | 450.7 | 450.0 |
| Percentage of Total Paddy | 0.2 | 15.7 | 11.8 | 25.5 | 37.2 | 37.2 |

Data source: Ministry of Agriculture and Fishery, Korea.

Fishery, began a breeding project[1] in 1966 designed to adapt IR-8 to the Korean environment. After six years of research, the ORD finally brought out a new seed obtained by a triple crossing of IR-8, the Japanese Hokkaido *Yukawa*, and the Taiwanese TN-1, and named it IR-667. In 1970 IR-667 was recognized as being not only a high-yielding variety but also having such advantages as a strong resistance to lodging, resistance to diseases, a high responsiveness to nitrogen fertilizer, and short culms. It did have some disadvantages, though, such as susceptibility to coldness and shattering and an inferior taste. The following year efforts were made to determine the appropriate plant density and planting date.

The use of the high-yielding variety (HYV) was first carefully limited to a small area; 2.8 thousand hectares in 1971 and gradually expanded, as Table 3 shows. In 1975 the HYV was planted in 450.7 thousand hectares which was 37.2 % of the total paddy area.

The yield of HYV per hectare in 1972 for polished rice was 3.85 M/T which was more than 0.65 M/T for any other variety. In 1975 the yield was as high as 5.03 M/T/hectares, that is, a 43 % increment over the yield of other varieties. Table 4 shows the annual increase in yield of HYV and compares the yield of HYV with that of other varieties.

**Table 4** Comparison of Yield Between HYV (Tongil Type) and Others per 10-are

Unit: kg

| Classfication | 1972 | 1973 | 1974 | 1975 |
|---|---|---|---|---|
| HYV | 386 | 481 | 473 | 503 |
| Others (A) | 321 | 350 | 353 | 351 |
| Difference (B) | 65 | 131 | 120 | 152 |
| B/A (%) | 20 | 37 | 34 | 43 |

Data source: Office of Rural Development, Ministry of Agriculture and Fishery.

Other high-yielding varieties called *Milyang 21* and *Milyang 23* were developed at the Milyang Rice Experiment Station with the cooperation of the International Rice Research Institute. These two varieties were found to be highly resistant to blast, nonshattering, and having a good taste with a high amylose content. Later, the Tongil type[2] was recognized as the most suitable among the rice varieties in Korea for producing the highest yield. The HYV spread very rapidly

1) In this research ORD was aided by the International Rice Research Institute (IRRI) and the College of Agriculture, Seoul National University.

2) The newly developed high yield varieties were named Tongil Type. *Tongil* in Korean means the unification of country.

wherever the environment permitted. The low unit cost of production contributed to the acceptance of HYV. According to estimates by the Chungbug Rural Development Office, the production cost per 80 kg bag of HYV was 18,280 won, which was 6,664 won less than that for other varieties in spite of the higher cost of HYV per 10 are. In 1975, the cost of HYV per 10 are was 126,589 won, while that of other varieties was 119,441 won [Kim 1976]. The HYV required more inputs in raising the yield per hectare, but the increase in output was so much that the input cost per 80 kg bag decreased far more than that of other varieties.

*Government Price Supports*

Another important factor contributing to the rapid dissemination of HYV was the government program to support the price of rice. The price support in 1976 was six times greater than that in 1967. From 1967 to 1976 the price support rose at annual rates of: 11.7 %, 13.7 %, 22.6 %, 35.9 %, 25.0 %, 13.0 %, 15.1 %, 38.5 %, 23.7 %, and 19.0 %.[3] As a result of this Green Revolution, the rice production increased from 3,360 thousand M/T in 1967 to 5,240 thousand M/T, so that Korea became self-sufficient in rice. The problem facing the Cooperative Federation now is how to store the surplus rice.

Needless to say, the so-called Green Revolution was achieved through the adoption of the HYV along with other technological innovations such as sheltered nurseries, fertilizers, disease control, and timing of planting, through the joint efforts of the government and farmers in organizing group farming and training programs, and through the price support mentioned above.

## 2 Economic Condition of Farm Households

*Household Income*

The income of farm households almost doubled in real terms for the ten years, as is shown in Table 5. The proportion of farm income to non-farm income remained almost the same. Despite occasional unfavorable prices for agricultural products, the income of farmers steadily increased during the ten years. In 1976 the average farm household had 5.5 persons, with 2.8 persons working, and cultivated 97 are of which 57 was paddy and 40 was upland area. Average income was 1,156,254 won, or about U.S. $2,312.-, and illiteracy in the rural areas averaged only 5.8 % (See Table 6). The average household paid 19,540 won in taxes and 9,604 won in interest for debts, leaving a disposable income of 1,127,110 won. After a deduction of 1,040 thousand won for living expenses, a surplus of 367,885 won remained for savings. The rate of saving, 32.6 % is fairly high. Details of the average household according to the size of the farm are given in Table 6.

3) Data source : National Agricultural Cooperative Federation [1977].

**Table 5** Change in Household Real-income (at 1975 Prices)

Unit: won

| Classification | Agricultural Income (A) | Non-agricultural Income (B) | Household Income (A+B) |
|---|---|---|---|
| 1967 (A) | 384,023 (77.8%) | 109,277 (22.2%) | 493,300 (100%) |
| 1976 (B) | 737,544 (79.7%) | 188,199 (20.3%) | 925,743 (100%) |
| B/A×100 | 192 | 172 | 187 |

Data source: Ministry of Agriculture and Fishery, Korea. 1977.

**Table 6** Characteristics of Farm Households Sampled (Average Household), 1976

| Classification of Households According to Land Acreage | No. in Family (Person) | No. of Workers (Person) | Cultivated Land | | | | Illiteracy (Person) | F.H. Income (Won) | Living Exp. (Won) |
|---|---|---|---|---|---|---|---|---|---|
| | | | Total (Pyeong) | Paddy (Pyeong) | Upland (Pyeong) | Others (Pyeong) | | | |
| Average | 5.54 | 2.85 | 2908.02 | 1707.50 | 1028.12 | 172.40 | 0.53 | 1,156,254 | 749,189 |
| Less than 0.5 ha. | 4.66 | 2.31 | 961.49 | 530.15 | 401.02 | 30.32 | 0.51 | 670,191 | 514,894 |
| 0.5–1.0 | 5.35 | 2.75 | 2232.83 | 1323.11 | 807.39 | 102.33 | 0.54 | 978,223 | 683,367 |
| 1.0–1.5 | 5.99 | 3.07 | 3596.66 | 2067.68 | 1341.74 | 187.24 | 0.58 | 1,318,888 | 829,756 |
| 1.5–2.0 | 6.58 | 3.38 | 5187.39 | 3075.42 | 1804.57 | 307.40 | 0.48 | 1,697,316 | 1,040,459 |
| More than 2.0 ha. | 6.47 | 3.81 | 7847.64 | 4747.71 | 2312.06 | 787.87 | 0.45 | 253,302 | 1,263,622 |

F.H.: Farm household

Data source: National Agricultural Cooperative Federation. *Yearbooks.*

*Factors for Increase in Income*

A number of factors contributed to the improvement of the farm household income. Although they are common to other countries as well, they are listed here. First of all, employment opportunities outside the farm increased, particularly for younger members of the family, who contributed to the non-farm segment of the household income. Another factor was that the relative cost of fertilizers to the rice price or other output prices came down, and the use of fertilizers increased. Also, agricultural production became more efficient than it had been in the past. Farmers adopted not only the new HYV of rice but also many other profitable crops such as pineapple, asparagus, celery, mushroom, off-season vegetables, and flowers and marketed them efficiently. Moreover, the government provided price supports for rice and barley and expanded the guaranteed amounts of purchase.

Above all, however, the SAEMAUL[4] movement (new village development program) contributed heavily to rural development in Korea. Although its existence was short, its effect was felt everywhere. The government programs have induced the farmers to be industrious, cooperative, self-reliant, more rational in running their farming activities and more inno-

4) The purpose of the SAEMAUL movement was to improve the living conditions of the people. It was a comprehensive program affecting the economic, social, and cultural spheres.

vative in adopting modern technology, and to improve their living conditions.

## II Changes in Farming Technology and Socio-economic Conditions at the Village Level

The survey was conducted in two places shown in Fig. 1, 2, and 3. They are: Oipyung-ri, Pukil-myun, Chungwon-gun, Chungchungbug-do (Village A); and Kajang-ri, Osan-eup, Hwasung-gun, Kyungki-do (Village B). Two villages were chosen for comparison. In one village only the HYV is planted while in the other both the HYV and traditional varieties are planted. Their ecological conditions are also different. The survey focused on 40 farm households in each village selected by random sampling.[5)]

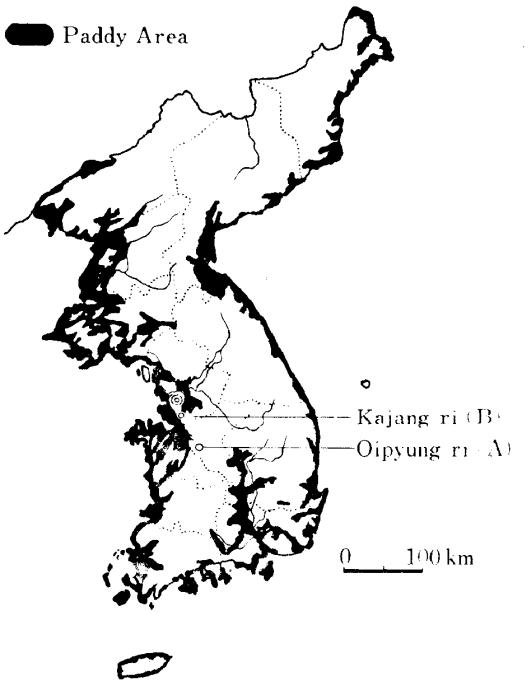


**Fig. 1** Location of the Two Villages

5) The collection and processing of data in this survey were done by Oh Nai-won, Lee Sang-hak, and Park Kyung-su, to whom the authors wish to express their gratitude.

*General Characteristics of the Family*

The average age of family heads and members, family size, and marital status,

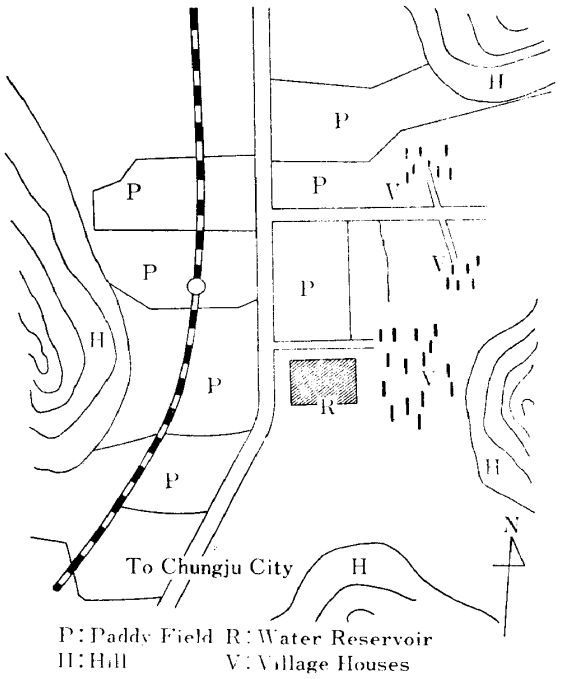


**Fig. 2** Village A (Oipyung-ri)

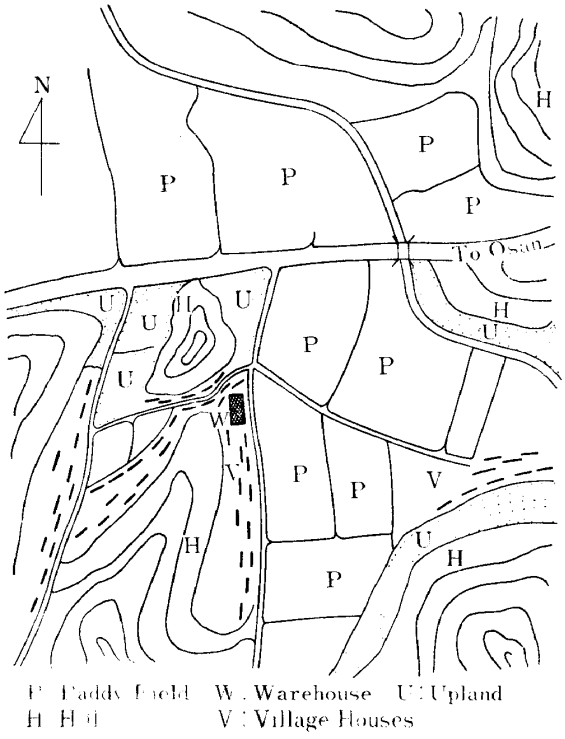


**Fig. 3** Village B (Kajang-ri)

**Table 7** Characteristics of the Average Family

| Item | Vlliage A | Village B |
|---|---|---|
| (Average Age) | | |
| Head | 45.9 | 43.0 |
| Whole Family | 28.9 | 27.2 |
| Family Size | 6.1 | 6.6 |
| (Marital Status) | | |
| Single | 2 ( 5.0) | 1 ( 2.5) |
| Married | 37 (92.5) | 39 (97.5) |
| Divorced | — — | — — |
| Separated by Death | 1 ( 2.5) | — — |
| (Education) | | |
| 1 Primary | 31 (77.5) | 21 (52.5) |
| 2 Secondary | 2 ( 5.0) | 11 (27.5) |
| 3 High | 7 (17.5) | 8 (20.0) |
| (Main Occup.) | | |
| 1 Agriculture | 37 (92.5) | 33 (82.5) |
| 2 Office Worker | 3 ( 7.5) | 6 (15.0) |
| 3 Commerce | — — | — — |
| 4 Professional | — — | — — |
| 5 Rice Mill | — — | 1 ( 2.5) |

**Table 8** Education Levels of Family Members

| Level | Village A | Village B |
|---|---|---|
| 1 Primary School | 148 ( 64.9) | 126 ( 54.8) |
| 2 Secondary School | 40 ( 17.5) | 61 ( 26.5) |
| 3 High School | 33 ( 14.5) | 38 ( 16.5) |
| 4 College & University | 7 ( 3.1) | 5 ( 2.2) |
| Total | 228 (100.0) | 230 (100.0) |

level of education, and main occupation of family heads are shown in Table 7. The level of education of the children (Table 8) is considerably higher than that of the parents (Table 7).

## 1 Ecological Conditions and Farming Practices

*Land Tenure*

There was no significant difference in land holding between Villages A and B, which was about 0.95 hectare per household. Most families had 2 or 3 parcels of land, ano 27.5 % of them had 5 or more parcels of paddy land. The acreage of leased land was very small, 0.02 hectare. The tenant system was completely abolished by the land reform in 1949. In the past 30 years the number of tenants has increased slightly but is still very small. Details concerning landlord-tenant relations are shown in Tables 9 and 10.

*Farming Practices*

The cropping pattern of paddy land is simple. A two-cropping pattern of

**Table 9** Land for Paddy and Others by Holding Conditions

Unit: ha.

| | Village A | | | | Village B | | | | Villages A+B | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Owned | Leased In | Leased Out | Total Holding | Owned | Leased In | Leased Out | Total Holding | Owned | Leased In | Leased Out | Total Holding |
| Paddy Field | 38.02 | 0.38 | 1.6 | 36.8 | 37.82 | 1.37 | — | 39.19 | 75.84 | 1.75 | 1.6 | 75.99 |
| (Per Household) | (0.95) | (0.01) | (0.04) | (0.92) | (0.95) | (0.03) | — | (1.78) | (0.95) | (0.02) | (0.02) | (0.95) |
| Other Agr. Land | 2.62 | 0.33 | — | 2.95 | 8.10 | 2.76 | — | 10.86 | 10.72 | 3.09 | — | 13.81 |
| (Upland) | (2.06) | (0.33) | — | (2.39) | (8.10) | (2.76) | — | | (0.13) | (0.04) | — | (0.17) |
| Total | 40.64 | 0.71 | 1.6 | 39.75 | 45.92 | 4.13 | — | 50.05 | 86.56 | 4.84 | 1.6 | 89.80 |
| (Per Household) | (1.02) | (0.02) | (0.04) | (1.00) | (1.15) | (0.10) | — | (1.25) | (1.08) | (0.06) | (0.02) | (1.12) |

rice-barley is typical in the southern part of Korea. Recently some new two-cropping patterns have appeared, such as rice-potato, rice-tobacco, rice-wheat, and rice-vegetables. In the upland, however, even a five-cropping pattern is practiced near urban areas. Generally farmers tend to prefer a single or two-cropping pattern and hold a secondary job on the side. Land ownership does not seem to have influenced farmers to adopt new technology because 9 out of 10 tenants of paddy land planted the HYV on their own.

**Table 10** Rental Arrangements

| Conditions | Unit | Village A | Village B | Total |
|---|---|---|---|---|
| 1. No. of Households Leased in | Household | 4 | 6 | 10 |
| 2. Acreage Leased in | Ha. | 0.71 | 4.13 | 4.84 |
| (Paddy) | " | (0.38) | (1.37) | (1.75) |
| (Upland) | " | (0.33) | (2.76) | (3.09) |
| 3. Types of Arrangement | Household | | | |
| (Share Cropping) | " | 3 | 1 | 4 |
| (Fixed Rent in Kind) | " | 1 | 4 | 5 |
| (Fixed Rent in Cash) | " | — | 1 | 1 |
| 4. Amount of Rent Paid | | | | |
| (Share) | % | 50.0 | 50.0 | 50.0 (Average) |
| (Fixed in Kind) | " | 50.0 | 40.0 | 45.0 (Average) |
| 5. Contract | Household | | | |
| (Oral) | " | 4 | 6 | 10 |
| (Written) | " | — | — | — |
| 6. Duration of Contract | Year | 2.5 | 3 | 2.75 (Average) |
| 7. Provision from Landlord | | Nothing | Nothing | Nothing |
| 8. Variety of Rice Planted | | | | |
| (HYV) | Household | 4 | 5 | 9 |
| (TV) | " | — | 1 | 1 |
| 9. Final Decider of the Rice Variety | | | | |
| (Family) | Household | 3 | 6 | 9 |
| (Landlord) | " | 1 | — | 1 |

Note: Ten farm households out of 80 were leased in by villagers in A and B.

## 2 Adoption and Diffusion of Modern Technology

*The Process of Diffusion*

A new HYV of rice was introduced into Villages A and B in 1971 and 1972 but spread differently in the two villages as Table 11 shows. Clearly villagers in A responded to the new variety more rapidly than those in Village B. The farmers' source of information also differed in the two villages, as is shown in Table 12.

The village leader played a very large role as a source of information in Village B. However, when farmers decided to adopt the HYV the factors which most influenced them were not necessarily the same as those which supplied them with information, as can be seen from Table 13.

Farmers sometimes hesitate to plant HYV because they believe its yield is uncertain compared with that of the

**Table 11** HYV Planted by Farmers for the First Time

Unit: household

| First Year | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | Total |
|---|---|---|---|---|---|---|---|---|
| Village A | | | | | | | | |
| N | — | 3 | 10 | 17 | 7 | 3 | — | 40 |
| % | — | 7.5 | 25.0 | 42.5 | 17.5 | 7.5 | — | 100.0 |
| Village B | | | | | | | | |
| N | 2 | 8 | 2 | 4 | 8 | 8 | 4 | 36 |
| % | 5.6 | 22.2 | 5.6 | 11.1 | 22.2 | 22.2 | 11.1 | 100.0 |

**Table 12** Source of Information on HYV

Unit: household

| Source | No. of Households (Village A) | No. of Households (Village B) | Total |
|---|---|---|---|
| Newspaper | 1 ( 2.5) | — | 1 ( 1.3) |
| Radio | — | 1 ( 2.6) | 1 ( 1.3) |
| School | — | — | — |
| Adult Education | 1 ( 2.5) | — | 1 ( 1.3) |
| Village Leaders | 2 ( 5.0) | 19 ( 48.7) | 21 ( 26.6) |
| Neighbors & Friends | 2 ( 5.0) | — | 2 ( 2.5) |
| Extension Service | 9 ( 22.5) | 19 ( 48.7) | 28 ( 35.4) |
| Demonstration Plot | 25 ( 62.5) | — | 25 ( 31.6) |
| Total | 40 (100.0) | 39 (100.0) | 79 (100.0) |

Note: The numbers of households here are adjusted for the multiple-choice type of answers.

**Table 13** The Most Influential Factor for Adoption of HYV

Unit : household

| Source | Newspaper | Radio | School | Adult Ed. | Village Leader | Neighbor | Extension Service | Demonst-ration Plot | Total |
|---|---|---|---|---|---|---|---|---|---|
| Village A | — | — | — | — | 1 | 1 | 4 | 34 | 40 |
| Village B | — | 2 | — | 1 | 8 | — | 29 | — | 40 |

**Table 14** Planted Area and Yield per Hectare

Unit: area ha.
: yield M/T

| | HYV | | | TV | | |
|---|---|---|---|---|---|---|
| | Area | Harvested Amount | Yield | Area | Harvested Amount | Yield |
| Village A | 36.8 | 199.39 | 5.418 | — | — | — |
| Village B | 23.51 | 120.04 | 5.109 | 15.79 | 67.04 | 4.245 |

traditional varieties (TV). Table 14 shows the actual yield per hectare quoted for polished rice, and Table 15 indicates how many of the planted years of HYV and TV resulted in good, normal, or bad according to the opinions of the farmers surveyed. It appears that achieving a high yield of TV is more unpredictable, although the quantity of the yield tends to fluctuate less than the HYV from year to year.

*Fertilizers and Herbicides*

The farmers applied the various fertilizers listed in Table 16. There does not seem to be any significant difference in the quantity of input for HYV and TV, but there was a difference in the frequency of application which implies that the timing of the input for HYV is important.

Since the mid-1960s weeding by hand has been replaced by the use of herbicides. As Table 18 shows, about 70 % of the farm households surveyed weeded by hand once and applied herbicide twice per crop of rice.

It should be added that mechanization of agriculture did not take hold in these two villages. The main capital assets of the farmers in the two villages were merely: 1 small-size tractor, 32 motorized

**Table 15** Uncertainty of Rice Crop (1967-77)

Unit: year

| Frequency | Village A | | Village B | | Average | |
|---|---|---|---|---|---|---|
| | HYV | TV | HYV | TV | HYV | TV |
| Total Years Planted | 4.8 | 5.7 | 3.8 | 9.1 | 4.30 | 7.40 |
| Good | 3.1 | 0.6 | 2.3 | 2.4 | 2.70 | 1.50 |
| Normal | 0.7 | 4.6 | 1.0 | 6.4 | 0.85 | 5.50 |
| Bad | 1.0 | 0.5 | 0.5 | 0.3 | 0.75 | 0.40 |
| Failure | — | — | — | — | — | — |

Note: TV in Village A had been planted from 1963 to 1972.

**Table 16** The Amount of Fertilizer Used per Ha.

Unit: kg

| Kind | Village A | Village B | | Average | |
|---|---|---|---|---|---|
| | HYV | HYV | TV | HYV | TV |
| Urea | 243.5 | 320.1 | 265.7 | 281.8 | 265.7 |
| Phosphorus | 134.8 | 265.0 | 159.3 | 199.9 | 159.3 |
| Potash | 118.5 | 214.8 | 164.0 | 166.7 | 164.0 |
| Compound F. | 319.6 | 218.0 | 228.7 | 268.8 | 228.7 |
| Silicate F. | 910.0 | 884.7 | 691.3 | 897.3 | 691.3 |
| Total | 1,726.4 | 1,902.6 | 1,509.0 | 1,814.5 | 1,509.0 |

Note: Amounts quoted are not based on elements, but on the raw amounts.

**Table 17** Frequency of Applying Fertilizer to HYV and TV

Unit: household

| No. of Times per Crop | 1 | 2 | 3 | 4 | 5 | 6 | Total |
|---|---|---|---|---|---|---|---|
| HYV | | | | | | | |
| Village A | 1 | 15 | 6 | 13 | 4 | 1 | 40 |
| Village B | 1 | 7 | 20 | 6 | 1 | — | 35 |
| Total | 2 | 22 | 26 | 19 | 5 | 1 | 75 |
| % | 2.7 | 29.3 | 34.7 | 25.3 | 6.7 | 1.3 | 100.0 |
| TV | | | | | | | |
| Village B | 2 | 10 | 15 | 2 | — | — | 29 |
| % | 6.9 | 34.5 | 51.7 | 6.9 | | | 100.0 |

**Table 18** Frequency of Hand-weeding and Application of Herbicide

Unit: household

| | Times | | | Total |
|---|---|---|---|---|
| | 1 | 2 | 3 | |
| Hand-weeding | | | | |
| Village A | 20 | 17 | 3 | 40 |
| Village B | 27 | 3 | — | 30 |
| Total N | 47 | 20 | 3 | 70 |
| % | 67.1 | 28.6 | 4.3 | 100.0 |
| Herbicide | | | | |
| Village A | 1 | 20 | 19 | 40 |
| Village B | 1 | 34 | — | 35 |
| Total N | 2 | 54 | 19 | 75 |
| % | 2.7 | 72.0 | 25.3 | 100.0 |

Note: All farm households which planted TV applied herbicide once per crop.

pumps, 37 ploughs, 27 ox carts, and 76 cows.

### 3 Economic Condition of Farm Households

*Household Budget*

Cash income, defined here in the broad sense, refers to income from farming activities plus income from other sources. Table 19 shows the agricultural income and non-farm or business income for sampled households in Villages A and B. The average farmer in B seems to be getting more business income than the farmer in A, because Village B being closer to an urban area has more non-farm employment opportunities.

The expenditure side of the household budget is shown in Table 20. Villagers in B had more agricultural expenses because they owned more land. Among the various items the largest portion of expenses went to feed and hired labor.

As was mentioned in part I, the real income of farmers improved during the ten-year period studied. According to the survey, 61.3 % of the villagers felt that their income had "increased"; 22.5 %, was "the same"; and 16.2 %, had "decreased" (See Table 21). Table 22 lists durable consumer goods traditionally regarded as luxuries but owned by farm households in 1977. It should be noted that in the midst of prosperity 16.2 % of the farm households must have been unhappy with their declining standard of living.

**Table 19** Cash Income per Household (1976/1977)

Unit: thousand won

| Item | Village A | | Village B | | Average | |
|---|---|---|---|---|---|---|
| | Amount | Portion | Amount | Portion | Amount | Portion |
| | | % | | % | | % |
| 1. *Agricultural Income* | 1,162.2 | 83.1 | 1,382.0 | 73.0 | 1,272.1 | 77.4 |
| Rice | | | | | | |
| (HYV) | 895.0 | 64.1 | 676.0 | 35.7 | 785.5 | 47.9 |
| (TV) | — | — | 258.0 | 13.6 | 129.0 | 7.9 |
| Barley | 3.1 | 0.2 | 4.0 | 0.2 | 3.6 | 0.2 |
| Soybean | 2.3 | 0.1 | 2.0 | 0.1 | 2.2 | — |
| Poultry & Pigs | 7.3 | 0.5 | 77.0 | 4.1 | 42.2 | 2.6 |
| Vegetables | — | — | 10.0 | 0.5 | 5.0 | 0.3 |
| Fruits | — | — | 36.0 | 1.9 | 18.0 | 1.1 |
| Rent | 30.8 | 2.2 | — | — | 15.3 | 0.9 |
| Other | 223.7 | 16.0 | 319.0 | 16.9 | 271.3 | 16.5 |
| 2. *Receipts from Business* | 234.5 | 16.9 | 511.0 | 27.0 | 372.8 | 22.6 |
| Trade | 50.0 | 3.6 | — | — | 25.0 | 1.5 |
| Light Processing | 0.2 | — | — | — | 0.1 | — |
| Specialty | 17.5 | 1.3 | 45.0 | 2.4 | 31.3 | 1.9 |
| Agr. Wages | 12.0 | 0.9 | 1.0 | — | 6.5 | 0.4 |
| Non-agr. Wages | 118.8 | 8.5 | 105.0 | 5.6 | 111.9 | 6.8 |
| Salary | 36.0 | 2.6 | 360.0 | 19.0 | 198.0 | 12.0 |
| Total | 1,396.7 | 100.0 | 1,893.0 | 100.0 | 1,644.9 | 100.0 |

Note 1: Agr. income=amount sold in the year × average selling price.
Note 2: Cash income=agricultural income+cash receipts from business other than agriculture.

**Table 20** Agricultural Expenditures per Household

Unit: thousand won

| Item | Village A | Village B | Average | |
|---|---|---|---|---|
| | | | Amount | Portion |
| Chemical Fertilizer | 93.0 | 104.0 | 98.5 | 13.39 |
| Insecticide+Herbicide | 37.0 | 54.0 | 45.5 | 6.18 |
| Seeds | 15.2 | 14.0 | 14.6 | 1.98 |
| Feed | 100.0 | 231.0 | 165.5 | 22.49 |
| Poultry & Pigs | 1.0 | 10.0 | 5.5 | 0.75 |
| Small Tools | 5.0 | 44.0 | 24.5 | 3.33 |
| Maintenance | 44.0 | 11.0 | 27.5 | 3.74 |
| Fuel etc. | 12.0 | 20.0 | 16.0 | 2.18 |
| Other Materials | 27.4 | 28.0 | 27.7 | 3.77 |
| Hired Labor | 120.0 | 196.0 | 158.0 | 21.47 |
| Land Rent | 4.0 | 17.0 | 10.5 | 1.43 |
| Irrigation | 50.0 | 2.0 | 26.0 | 3.53 |
| Farm Tax | 40.0 | 28.0 | 34.0 | 4.62 |
| Fees, Charges | 60.0 | 49.0 | 54.5 | 7.41 |
| Other | 48.0 | 7.0 | 27.5 | 3.73 |
| Total | 656.6 | 815.0 | 735.8 | 100.00 |

Note: As organic fertilizer is mostly produced on the farm, it could not be estimated in money terms here.

**Table 21** Farmers' Evaluation of Their Past Income

| | Number of Households | | Total |
|---|---|---|---|
| | Village A | Village B | |
| Much Increased | — | 1 | 1 ( 1.3) |
| Increased | 20 | 28 | 48 ( 60.0) |
| Same | 11 | 7 | 18 ( 22.5) |
| Decreased | 9 | 4 | 13 ( 16.2) |
| Total | 40 | 40 | 80 (100.0) |

**Table 22** Ownership of Consumer Durables

Unit: household

| Item | Quantity | | | | | Total Number for Villages A+B |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 or More | |
| Boat with Engine | 1 | | | | | 1 |
| Blanket | 61 | 2 | | | | 63 |
| Radio | 69 | 4 | | | | 73 |
| Bicycle | 54 | 4 | 1 | | | 59 |
| Wrist Watch | 58 | 7 | 6 | 2 | | 73 |
| Sewing Machine | 67 | | | | | 67 |
| T.V. Set | 69 | | | | | 69 |
| House | 80 | | | | | 80 |

*Labor Shortage and Female Workers*

Since the manufacturing and service sectors in big cities attract more male workers than female, the rural areas in Korea suffer from a shortage of labor, particularly male labor. As a result more and more agricultural activities are taken over by the women. As seen in Table 23, there is no difference in the

**Table 23** Number of Households Classified by the Number of Persons Engaged in Rice Growing

Unit: household

| No. of Persons | Village A | | Village B | | Total | |
|---|---|---|---|---|---|---|
| | Male | Female | Male | Female | Male | Female |
| 0 | 1 | 1 | 0 | 0 | 1 ( 1.2) | 1 ( 1.2) |
| 1 | 26 | 29 | 28 | 26 | 54 ( 67.5) | 55 ( 68.8) |
| 2 | 10 | 7 | 11 | 14 | 21 ( 26.3) | 21 ( 26.3) |
| 3 | 2 | 3 | 0 | 0 | 2 ( 2.5) | 3 ( 3.7) |
| 4 | 1 | 0 | 1 | 0 | 2 ( 2.5) | 0 |
| Total | 40 | 40 | 40 | 40 | 80 (100.0) | 80 (100.0) |

**Table 24** Persons Hired per Household for Each Stage of Work

Unit: person

| Cultivation Stage | Village A | Village B | | Average | |
|---|---|---|---|---|---|
| | HYV | HYV | TV | HYV | TV |
| Ploughing | 0.7 | 0.4 | 0.2 | 0.5 ( 1.8) | 0.2 ( 1.5) |
| Transplanting & Broadcasting | 16.8 | 8.8 | 5.6 | 12.8 ( 45.4) | 5.6 ( 42.1) |
| Irrigation | 0.4 | 0.1 | 0.1 | 0.2 ( 0.7) | 0.1 ( 0.8) |
| Weeding | 1.0 | 0.8 | 0.6 | 0.9 ( 3.2) | 0.6 ( 4.5) |
| Harvesting | 12.2 | 5.8 | 3.7 | 9.0 ( 31.9) | 3.7 ( 27.8) |
| Threshing | 5.6 | 3.5 | 2.6 | 4.5 ( 15.9) | 2.6 ( 19.5) |
| Transportation | 0.1 | 0.6 | 0.5 | 0.3 ( 1.1) | 0.5 ( 3.8) |
| Total | 36.8 | 20.0 | 13.3 | 28.2 (100.0) | 13.3 (100.0) |

**Table 25** Help Received on an Exchange Basis per Household

Unit: person

| Cultivation Stage | Village A | Village B | | Average | |
|---|---|---|---|---|---|
| | HYV | HYV | TV | HYV | TV |
| Ploughing | 0.2 | — | — | 0.1 | — |
| Transplanting & Broadcasting | 6.8 | 9.1 | 2.1 | 7.9 | 2.1 |
| Irrigation | 0.1 | — | — | 0.1 | — |
| Weeding | 0.1 | — | — | 0.1 | — |
| Harvesting | 5.5 | 5.9 | 1.3 | 5.7 | 1.3 |
| Threshing | 0.7 | 1.2 | 0.6 | 0.9 | 0.6 |
| Transportation | 0.02 | 0.1 | 0.1 | 0.1 | 0.1 |
| Total | 13.42 | 16.3 | 4.1 | 14.9 | 4.1 |

number of men and women engaged in farming. It was not enough to have more women workers on the farm particularly in peak seasons. Tables 24 and 25 show how hired labor and exchange labor were utilized. Clearly transplanting and harvesting require an acute input of labor at a specified time. Since help has been increasingly difficult to obtain, the need for machinary to do these tasks is very strong. In the 1980s as the farm income rises, mechanization will be a key factor in the modernization of Korean agriculture.

## 4 Social Life

*Social Participation*

Table 26 gives an overall picture of the social activities of Korean farmers. The findings may be summarized by the statement that they often listen to the radio (68 %), attend village meetings (83 %), and visit the farmers' association (51 %), district offices (46 %), and provincial towns (45 %). They sometimes visit nearby towns (51 %) and attend adult education classes (26 %). It is surprising that nearly half of the heads of interviewed households *never* read the newspaper; 86 % of them *never* attended religious observances; and about half of them *never* visited the experiment stations.

*Decision-making*

Decisions regarding such subjects as family planning, schooling of the children, adoption of new HYV, buying large equipment, selling harvested crops, and disposing of farm land were the domain of the head of the household as Table 27 indicates. Only in matters regarding the occupations of offspring and the selection of spouses for offspring did the householder and children share an equal portion of influence.

Also, 96.2 % of the farmers in Villages A and B often visited village leaders to consult them on village or agricultural matters and around 35 % visited the school teachers two or three times a year for advice on their children's schooling and parent-teacher association busi-

**Table 26** Social Participation of Farmers (Head of Household)

Unit: household

| Item | Village A | | | | | Village B | | | | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Often | Sometimes | Rarely | Never | Subtotal | Often | Sometimes | Rarely | Never | Subtotal | Often | Sometimes | Rarely | Never | Total |
| To Read Newspapers | 9 | 7 | 1 | 23 | 40 | 12 | 8 | 6 | 14 | 40 | 21 (26.3) | 15 (18.7) | 7 ( 8.7) | 37 (46.3) | 80 (100.0) |
| To Listen Radio | 29 | 6 | 4 | 1 | 40 | 26 | 8 | 4 | 2 | 40 | 55 (68.7) | 14 (17.5) | 8 (10.0) | 3 ( 3.8) | 80 (100.0) |
| To Attend Village Meeting | 37 | 2 | 0 | 1 | 40 | 29 | 7 | 2 | 2 | 40 | 66 (82.5) | 9 (11.2) | 2 ( 2.5) | 3 ( 3.8) | 80 (100.0) |
| To Visit Extension Farm | 8 | 8 | 10 | 14 | 40 | 4 | 13 | 3 | 20 | 40 | 12 (15.0) | 21 (26.3) | 13 (16.2) | 34 (42.5) | 80 (100.0) |
| To Visit Experiment Station | 4 | 6 | 11 | 19 | 40 | 2 | 9 | 5 | 24 | 40 | 6 ( 7.5) | 15 (18.7) | 16 (20.0) | 43 (53.8) | 80 (100.0) |
| To Visit Farmers' Association | 23 | 13 | 2 | 2 | 40 | 18 | 14 | 2 | 6 | 40 | 41 (51.3) | 27 (33.7) | 4 ( 5.0) | 8 (10.0) | 80 (100.0) |
| To Attend Main Religious Gatherings | 5 | 1 | 0 | 34 | 40 | 3 | 1 | 1 | 35 | 40 | 8 (10.0) | 2 ( 2.5) | 1 ( 1.2) | 69 (86.3) | 80 (100.0) |
| To Attend Adult School | 4 | 6 | 6 | 24 | 40 | 4 | 15 | 3 | 18 | 40 | 8 (10.0) | 21 (26.3) | 9 (11.2) | 42 (52.5) | 80 (100.0) |
| To Visit District Office | 21 | 17 | 2 | 0 | 40 | 16 | 21 | 2 | 1 | 40 | 37 (46.3) | 38 (47.5) | 4 ( 5.0) | 1 ( 1.2) | 80 (100.0) |
| To Visit Nearby Town | 12 | 14 | 11 | 3 | 40 | 7 | 27 | 5 | 1 | 40 | 19 (23.7) | 41 (51.3) | 16 (20.0) | 4 ( 5.0) | 80 (100.0) |
| To Visit Provincial Town | 28 | 10 | 1 | 1 | 40 | 8 | 25 | 6 | 1 | 40 | 36 (45.0) | 35 (43.8) | 7 ( 8.7) | 2 ( 2.5) | 80 (100.0) |

**Table 27** Decision Maker in Family Matters of Farm Household

Unit: household

| Item | Village A | | | | | | Village B | | | | | | Total | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Householder | Parents | Wife | Himself | Others | Subtotal | Householder | Parents | Wife | Himself | Others | Subtotal | Householder | Parents | Wife | Himself | Others | Total |
| Family Planning | 17 | — | 2 | — | — | 19 | 32 | — | 3 | 2 | 1 | 38 | 49 (86.0) | — | 5 (8.8) | 2 ( 3.4) | 1 (1.8) | 57 (100.0) |
| Years of Children's Schooling | 9 | — | — | 10 | — | 19 | 31 | 1 | 3 | 2 | 1 | 38 | 40 (70.2) | 1 (1.8) | 3 (5.2) | 12 (21.0) | 1 (1.8) | 57 (100.0) |
| Job for Children | 1 | — | — | 18 | — | 19 | 27 | — | 2 | 8 | 1 | 38 | 28 (49.1) | — | 2 (3.5) | 26 (45.6) | 1 (1.8) | 57 (100.0) |
| Selection of Their Spouse | 3 | — | — | 16 | — | 19 | 24 | 1 | 2 | 10 | 1 | 38 | 27 (47.3) | 1 (1.8) | 2 (3.5) | 26 (45.6) | 1 (1.8) | 57 (100.0) |
| Adopting New Varieties of Rice | 40 | — | — | — | — | 40 | 35 | 4 | — | — | 1 | 40 | 75 (93.8) | 4 (5.0) | — | — | 1 (1.2) | 80 (100.0) |
| Buying Large Equipment | 40 | — | — | — | — | 40 | 33 | 5 | 1 | — | 1 | 40 | 73 (91.3) | 5 (6.3) | 1 (1.2) | — | 1 (1.2) | 80 (100.0) |
| Selling Harvested Rice | 40 | — | — | — | — | 40 | 34 | 5 | — | — | 1 | 40 | 74 (92.5) | 5 (6.3) | — | — | 1 (1.2) | 80 (100.0) |
| Disposing of Farm Land | 40 | — | — | — | — | 40 | 34 | 5 | — | — | 1 | 40 | 74 (92.5) | 5 (6.3) | — | — | 1 (1.2) | 80 (100.0) |

ness, as shown in Tables 28 and 29.

*Social Relations in Times of Emergency*

When help was needed, the farmers first turned to their neighbors. Next sought out were their parents, siblings, and other relatives. In Villages A and B most farmers answered that they would first ask their neighbors for help when they needed to borrow rice, money, and farming tools, to repair their house or other buildings, to transplant and harvest rice, and to hold weddings and funerals (See Table 30). For personal matters,

**Table 28** Frequency of Visits Made by Farmers to Community Leaders

Unit: household

| | 1 | 2 | 3 | 4 | Often | Very Often | Total Answering |
|---|---|---|---|---|---|---|---|
| Village Leaders | — | — | — | — | 3 (3.8) | 77 ( 96.2) | 80 (100.0) |
| Religious Leaders | — | — | — | — | — | 2 (100.0) | 2 (100.0) |
| School Teachers | 4 (9.8) | 17 (41.4) | 12 (29.3) | 1 (2.4) | 7 (17.1) | | 41 (100.0) |

**Table 29** Purpose of Visits to Leaders and Teachers

Unit: householder

| | Village Matters | Agricultural Matters | Taxes | Personal Matters | Religious Matters | Schooling of Children | Borrowing Money | Others | Total Answering |
|---|---|---|---|---|---|---|---|---|---|
| Village Leaders | 42 (52.5) | 19 (23.8) | 6 (7.5) | 5 (6.2) | — | — | 5 (6.2) | 3 (3.8) | 80 (100.0) |
| Religious Leaders | — | — | — | — | 2 (100.0) | — | — | — | 2 (100.0) |
| School Teachers | — | — | — | — | — | 21 (52.5) | — | 19 (47.5) | 40 (100.0) |

Note: For school teachers, "others" was equally divided between parent-teacher association business and organization of school athletic meets.

**Table 30** First Person Turned to for Help

Unit: household

| | Borrow Rice When Short | Borrow Money | Borrow Farming Tools | Help Repair Building | Help in Trans-planting | Help in Harvest-ing | Help in Holding Marriage & Funeral | Personal Matters |
|---|---|---|---|---|---|---|---|---|
| Parents | 4 ( 6.3) | 4 ( 6.3) | 1 ( 1.5) | 2 ( 2.9) | 1 ( 1.4) | 1 ( 1.4) | 1 ( 1.5) | 6 ( 9.1) |
| Sibling | 3 ( 4.7) | 2 ( 3.1) | 2 ( 3.0) | 4 ( 5.9) | 4 ( 5.8) | 2 ( 2.9) | 6 ( 9.0) | 16 ( 24.3) |
| Other Relatives | 9 ( 14.0) | 6 ( 9.4) | 4 ( 6.1) | 4 ( 5.9) | 2 ( 2.9) | 4 ( 5.8) | 21 ( 31.3) | 22 ( 33.3) |
| Neighbor | 48 ( 75.0) | 52 ( 81.2) | 59 ( 89.4) | 58 ( 85.3) | 62 ( 89.9) | 62 ( 89.9) | 39 ( 58.2) | 22 ( 33.3) |
| Total Number Answering | 64 (100.0) | 64 (100.0) | 66 (100.0) | 68 (100.0) | 69 (100.0) | 69 (100.0) | 67 (100.0) | 66 (100.0) |

they would turn to their siblings or other relatives as well as their neighbors.

## 5 Social Consciousness

*Farmers' View on the Function of Village Head*

Farmers in Villages A and B perceived the duties of the village head as shown in Table 31. These duties, according to the majority of villagers, in the order of importance, were: (1) to look after the matters of the village, (2) to present the villagers' needs to the local government, and (3) to convey information from the government to villagers. Following these came the responsibility of promoting the spread of HYV.

*Attachment to the Village*

The Korean farmers seem to be strongly attached to their villages, as is shown in Table 32. To them, the village is a place where they have many relatives and friends on whom their own lives depend.

*Expectation of Leadership*

To get an idea of what the farmers expect from the leaders in the villages, they were asked what qualities were important and whom they respected. Tables 33 and 34 summarize the answers. Kindness and generosity was the most important qualification in the minds of the interviewed. The village head was first, followed by priests. Teachers who were regarded very highly in the past came only after the two. The farmers' reasons for their choices are presented in Table 35. The most com-

**Table 31** Farmers' Views on the Main Duties of the Village Head

Unit: household

| Item | Village A | Village B | Total | |
|---|---|---|---|---|
| | | | Weighted Number | Percentage of Raw Number Answering |
| To Convey Administrative Information | 8 (20.0) | 7 (17.5) | 15 (18.8) | 68.8 |
| To Organize Villagers for Irrigation Work | 1 ( 2.5) | — — | 1 ( 1.2) | 8.8 |
| To Provide Credit to Villagers | — — | 1 ( 2.5) | 1 ( 1.2) | 6.3 |
| To Settle Disputes among Villagers | 6 (15.0) | 3 ( 7.5) | 9 (11.3) | 41.3 |
| To Present Villagers' Needs to the Local Government | 12 (30.0) | 3 ( 7.5) | 15 (18.8) | 52.5 |
| To Organize Villagers to Maintain Village Facilities | 3 ( 7.5) | 2 ( 5.0) | 5 ( 6.2) | 28.8 |
| To Arrange Religious Activities | — — | 1 ( 2.5) | 1 ( 1.2) | 3.8 |
| To Look After the Village | 5 (12.5) | 18 (45.0) | 23 (28.8) | 63.8 |
| To Promote Expansion of HYV | 5 (12.5) | 5 (12.5) | 10 (12.5) | 50.0 |
| Total | 40 (100.0) | 40 (100.0) | 80 (100.0) | |

Note: Since multiple choice questions were used, the number of households was weighted. The percentage of the raw number appears in the last column. For example, for the first item, 68.8% means that 55 farmers out of 80 answered "yes."

mon reasons were: "render service for the village," "good in counselling," "knows better farming," "hard work," and "social status." Such criteria as moral character, high education, and birth no longer seem to be important. It is evident that the farmers nowadays are more rational and pragmatic in their value judgements.

**Table 32** Farmers' Feelings About Their Villege Unit: household

| Item | Village A | Village B | Total |
|---|---|---|---|
| Just a Place to Reside | 3 ( 7.5) | — | 3 ( 3.8) |
| Nothing More Than an Administrative Unit | 2 ( 5.0) | 1 ( 2.5) | 3 ( 3.8) |
| Many Relatives and Friends on Whom They Depend | 34 (85.0) | 34 (85.0) | 68 (85.0) |
| Group of People Formed to Cope with Their Problems | 1 ( 2.5) | 5 (12.5) | 6 ( 7.5) |
| Total | 40(100.0) | 40(100.0) | 80(100.1) |

**Table 33** Farmers' Opinion of the Qualifications for Agricultural Cooperative Leader

| Item | Number of Farmers (Weighted) | Percentage of Raw Number Answering |
|---|---|---|
| Being Resourceful | 5 ( 6.3) | 8.8 % |
| High Ability to Read & Write | 5 ( 6.3) | 10.0 |
| Religious Piety and Moral | — | — |
| Administrative Capability | 16 (20.0) | 28.8 |
| Kindness and Generosity | 43 (53.7) | 75.0 |
| Having Good Friends among Government Officers | 1 ( 1.2) | 3.8 |
| Others | 10 (12.5) | 11.2 |
| Total | 80 (100.0) | |

*Occupational Preferences*

As the relative share of agriculture in the labor force declines, the children of farmers tend to choose occupations according to their parents' wishes and their own preferences. In Table 36 the fields selected by the interviewed in the order of preference are modern farming, commerce, civil service, and manufacturing. Their attachment to agriculture is still rather strong. This may be due to the improvement of agricultural work itself. Nearly 70 % of the farmers felt that their work had become easier to perform in the last five years, as Table 37 shows.

*The Farmers' Worries and Aspirations*

In order to find out about the farmers' worries and aspirations, they were asked how they would spend an unexpected,

**Table 34** Persons Highly Respected by Villagers

| Classification | Village A Number | Village A Answering | Village B Number | Village B Answering | Total |
|---|---|---|---|---|---|
| Priest | 3 | ( 7.5) | 20 | ( 43.5) | 23 ( 26.7) |
| Teacher | 2 | ( 5.0) | 10 | ( 21.7) | 12 ( 14.0) |
| Village Head | 34 | ( 85.0) | 16 | ( 34.8) | 50 ( 58.1) |
| Fellow Villagers | 1 | ( 2.5) | — | — | 1 ( 1.2) |
| Total | 40 | (100.0) | 46 | (100.0) | 86 (100.0) |

Note: In Village B the number of people who respect priests is large because there is a church near this village.

**Table 35** Reasons for Respecting Leaders

Unit: no. of answers

| Reasons | Village A | Village B | A+B |
|---|---|---|---|
| 1. Modern Knowledge | 1 | 2 | 3 ( 1.9) |
| 2. Moral Excellence | 4 | 2 | 6 ( 3.8) |
| 3. Rich | — | — | — |
| 4. Religious Knowledge | — | 1 | 1 ( 0.6) |
| 5. Render Service for Village | 15 | 28 | 43 (27.4) |
| 6. Good in Counselling | 7 | 28 | 35 (22.3) |
| 7. High Education | 2 | 1 | 3 ( 1.9) |
| 8. Religious Piety | — | — | — |
| 9. Innovativeness | 1 | 2 | 3 ( 1.9) |
| 10. Hard Work | 6 | 18 | 24 (15.3) |
| 11. Fostering Many Children | — | — | — |
| 12. Luck | — | — | — |
| 13. Good Birth | — | 6 | 6 ( 3.8) |
| 14. Social Status | 6 | 6 | 12 ( 7.7) |
| 15. Wisdom | 5 | 1 | 6 ( 3.8) |
| 16. Physical Strength | — | — | — |
| 17. Knowledge of Better Farming | 7 | 8 | 15 ( 9.6) |
| 18. Eloquence | — | — | — |
| 19. Others | — | — | — |
| Total | 54 | 103 | 157 (100.0) |

**Table 36** Occupational Preferences

| Field Job | Number of Farm Households | | Total |
|---|---|---|---|
| | Village A | Village B | |
| Commerce | 14 (41.2) | 6 (19.3) | 20 (30.8) |
| Civil Service | 4 (11.8) | 2 ( 6.5) | 6 ( 9.2) |
| Modern Farming (Cash Crops & Livestock) | 9 (26.5) | 19 (61.2) | 28 (43.1) |
| Manufacturing | 2 ( 5.8) | 2 ( 6.5) | 4 ( 6.1) |
| Office Work | — — | 2 ( 6.5) | 2 ( 3.1) |
| Others | 5 (14.7) | — — | 5 ( 7.7) |
| Total | 34 (100.0) | 31 (100.0) | 65 (100.0) |

**Table 37** Farmers' Evaluation of Their Work in the Last 5 Years

| Item | Number of Households Village A | Number of Households Village B | Total (A+B) |
|---|---|---|---|
| Harder | 3 ( 7.7) | 2 ( 5.0) | 5 ( 6.3) |
| Same | 12 (30.8) | 7 (17.5) | 19 (24.1) |
| Easier | 24 (61.5) | 31 (77.5) | 55 (69.6) |
| Total | 39 (100.0) | 40 (100.0) | 79 (100.0) |

**Table 38** How an Extra Income of 500,000 Won (1,000 US $) Would be Spent by the Farmers

| Item | Village A Amount to be Spent by Each Household | Village B Amount to be Spent by Each Household | Average per Household (A & B) |
|---|---|---|---|
| Religious Purposes | — | — | — |
| Ceremonies | — | — | — |
| To Purchase Land | 44,000 ( 8.8) | 37,500 ( 7.5) | 41,000 ( 8.2) |
| Commercial Purposes | — | — | — |
| Better Farming | 85,000 (17.0) | 165,000 (33.0) | 125,000 (25.0) |
| Daily Necessities in the Family | — | 2,500 ( 0.5) | 1,500 ( 0.3) |
| Housing | 32,000 ( 6.4) | 12,500 ( 2.5) | 22,000 ( 4.4) |
| Pay Debt | 164,000 (32.8) | 90,000 (18.0) | 127,000 (25.3) |
| Deposit | 31,000 ( 6.2) | 37,500 ( 7.5) | 34,000 ( 6.8) |
| Education | 103,000 (20.6) | 45,000 ( 9.0) | 73,000 (14.7) |
| Precious Metal or Stone | — | — | — |
| T.V. Set etc. | — | 2,500 ( 0.5) | 1,500 ( 0.3) |
| Cattle & Buffalo | 24,000 ( 4.8) | 82,500 (16.5) | 54,000 (10.8) |
| Others | 17,000 ( 3.4) | 25,000 ( 5.0) | 21,000 ( 4.2) |
| Total | 500,000 (100.0) | 500,000 (100.0) | 500,000 (100.0) |

Note: ( ) Percentage

extra income of 500 thousand won. The ways it would be spent are listed in Table 38.

In both Villages A and B the utmost concerns of the farmers were improvement of farming, repayment of debts, and education of children, although there were some differences between the two villages. Spending for such items as religious ceremonies, precious stones and metals, and luxury goods such as TV sets was extremely small. More than half of the extra income would be spent on farming improvements, additional land, and livestock such as cattle and buffaloes. This suggests that the farmers are very eager to upgarde their farming methods and thereby achieve better living conditions and a higher social status. With such strongly motivated farmers in the rural communities of Korea, the government can bring about agricultural and rural development with appropriate socio-economic policies.

**References**

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