PRESENT STATUS AND PROBLEMS OF OWNER OPERATORS IN THE MUDA AREA

Hiroshi NAMBU* Hin Soon WONG**

ABSTRACT

About fifteen years have passed since the farmers became engaged in rice double cropping culture in the Muda area. In the mean time in this agricultural society, the following three situations have developed conspicuously: a rapid differentiation of peasantry, the large inroads made by the contractors into the production process, and the gradual diffusion of mechanization among owner operators and part owner-part tenant operators.

Under these conditions the outlook for the owner operators should be analyzed namely, the prospects for those farmers who will bear the process of rice production by their own labor and equipment. Under the current conditions, their paddy fields are considerably larger than the average and they own a pedestrian tractor for which they paid a sum of money ranging from M\$1,600 to 5,000. This paper reports the present conditions of farm management for these farmers and points out their problems.

Paddy production of owner operators

In 1985 the situation of farm management in 97 households in the irrigation service block ACRBD-4 in the Muda area was surveyed.

During this survey, it became clear that the farmers who owned a pedestrian tractor became comparatively wealthy as evidenced by better housing as well as clothes of good quality.

Table 1 lists the farmers who own a pedestrian tractor among 97 farmers. They bought new or secondhand pedestrian tractors between 1972 and 1984, and paid for them a sum of M\$1,600 to 5,000. Among these farmers, 6 typical owner operators, namely farmers who own more than 75% of cultivated paddy fields were selected.

Table 2 shows the situation of paddy production by one of the farmers, Mr. J. who owns three paddy lots. From each lot he harvested 52, 61, 84 guni, or a total of 197 guni (a "guni", the jute bag for paddy has a capacity of 83.6 kg on the average). These 197 guni are equivalent to approximately 1.63 tons of paddy and the production capacity was a little less than 3.8 t/ha. This figure nearly corresponds to 4 tons of average production capacity in the Muda area. After he contributed 19 guni as (Islamic) donation "Zakat" and kept 19 guni for his household, he sold 159 guni to the LPN (National Paddy and Rice Authority).

By this sale, he earned M\$4,803.16 for paddy, M\$1,715.84 as the subsidy, in all M\$6,519. Similar tables for the 2nd crop were prepared in the case of the other 5 farmers and the annual gross income was calculated, as indicated in Table 3.

This table shows that the farmers who cultivate 3.1 ha on an average, own more than 75% of the fields and have a pedestrian tractor earned M\$8,888.75 for paddy, M\$3,160.85 as subsidy, in all about M\$12,050 on the average from both crops in 1985.

^{*} Senior Researcher, Tropical Agriculture Research Center, Yatabe, Tsukuba, Ibaraki, 305 Japan.

^{**} Economist, Muda Agricultural Development Authority, Alor Setar, Kedah, Malaysia.

Table 1 Owners of pedestrian tractor

| | | | Pedestrian tractor | | | | Farm area | | |
|-----|---------------------|----------------------|---------------------|---------------------------------------|------------------|---------------------------|---------------------------|-------------------|----------------------|
| No. | *No. of B.F.I.S. | Head of household | Year of purchase | Price when purchas- ed (M\$) | Name of maker | Area owned (relong) | Area rented (relong | Total (relong) | Memorandum |
| 1 | 41 | A | 1978 | 2,000 | | | 5.00 | 5.00 | Kg. Telaga Batu |
| 2 | 45 | В | 1979 | 2,000 | | | 5.00 | 5.00 | Kg. Telaga Batu |
| 3 | 59 | С | 1978 | 2,700 | KUBOTA | 6.75 | | 6.75 | Kg. Telaga Batu |
| 4 | 64 | D | 1973 | 5,000 | | 4.00 | 4.50 | 8.50 | Kg. Bagan, Mk. Jeram |
| 5 | 70 | Е | 1981 | 2,500 | KUBOTA | 9.00 | | 9.00 | Mg. Tanjung Musang |
| 6 | 76 | F | 1974 | 1,600 | | | 12.50 | 12.50 | Kg. Kota Rentang |
| 7 | 79 | G | 1976 | 3,100 | KUBOTA | 7.50 | 2.00 | 9.50 | Kg. Telage Batu |
| 8 | 82 | Н | 1980 | 3,000 | | 1.25 | 9.00 | 10.25 | Kg. Bagan, Mk. Jeram |
| 9 | 85 | I | 1972 | 1,700 | KUBOTA | 14.75 | | 14.75 | Kg. Budi, Mk. Jeram |
| 10 | 89 | J | 1974 | 3,000 | KUBOTA | 10.00 | 2.00 | 12.00 | Kg. Telaga Batu |
| 11 | 95 | K | 1983 | 4,800 | | 3.00 | 8.00 | 11.00 | Kg. Kepala Sepuluh |
| 12 | 96 | L | 1976 | 3,000 | KUBOTA | 9.00 | | 9.00 | Kg. Telage Batu |
| 13 | 97 | M | 1984 | 3,500 | SUZUE | 10.00 | 3.25 | 13.25 | Kg. Telaga Batu |

^{*}No. of questionnaires of "Basic Farm Information Survey"

Table 2 Paddy production of each farmholding

First crop. 1985 (Farmer J.)

| | | | | | 2 11 01 01 01 | , 1000 (Laminer J. |
|-----------------------------------|-----------|----------|----------|-----------------|----------------|--|
| Production of ϵ | each padd | y lot | | Total | Average | N.B. |
| ① Lot No. | 1 | 2 | 3 | 4 | 3 | |
| ② Lot size (rlg.) | 4.0 | 6.0 | 5.0 | ① 15.0 | | |
| ③ do. (ha) | 1.15 | 1.73 | 1.44 | | | |
| (§ Yield (guni) | 52 | 61 | 84 | (19) 197 | | |
| (3) Weight of 1 guni (kg) | 80 | 85 | 83 | | 82.8 (@÷(9) | |
| Total yield (kg) | 4,160 | 5.185 | 6,972 | ② 16,317 | | |
| ① Yield per rlg. (kg) | 1,040 | 864.2 | 1,394.4 | | 1,087.8 (@÷@) | |
| Yield per ha (kg) | 3,617.4 | 299.7 | 4,841.7 | | 3,771.1 (@÷18) | |
| Gross weight of paddy sold (kg) | 3,760 | 3,060 | 6,308 | ② 13,128 | | |
| Weight of bag and impurities (kg) | 546 | 540 | 1,368 | @ 2,454 | 12.5 (@÷@) | Avg. kg of guni and impurities per gumi |
| ① Ratio ⑩/⑨ (%) | 14.5 | 17.6 | 21.7 | | | |
| Net weight of paddy sold (kg) | 2,914 | 2,520 | 4,940 | 3 10,374 | | |
| 3 Paddy price per 100 kg (M\$) | 46.3 | 46.3 | 46.3 | | | |
| (3) Total receipts (M\$) | 1,349.18 | 1,166.76 | 2,287.22 | 4,803.16 | 30.2 (@÷159) | Avg. price per guni |
| ① Total subsidy received (M\$) | 481.97 | 416.80 | 817.08 | ② 1,715.84 | 10.8 (25÷159) | 159=19-26-19 |
| (16) Zakat (guni) | 5 | 6 | 8 | ② 19 | | |
| | | ~~~ | | | | |

Table 3 Annual gross income 1985

Unit: M\$

| | | Breakdown | | | |
|----------------------|---------------------|--------------------|----------|--|--|
| Farmer's code No. | Annual gross income | Receipts for paddy | Subsidy | | |
| 1 (No. 9 of Table 1) | 16,065.69 | 11,835.57 | 4,230.12 | | |
| 2 (No. 7 of Table 1) | 11,449.41 | 8,501.10 | 2,948.31 | | |
| 3 (No.13 of Table 1) | 11,458.40 | 8,442.94 | 3,015.46 | | |
| 4 (No. 3 of Table 1) | 5,849,27 | 4,309.64 | 1,539.63 | | |
| 5 (No. 5 of Table 1) | 13,398.09 | 9,871.61 | 3,526.48 | | |
| 6 (No.10 of Table 1) | 14,076.75 | 10,371.65 | 3,705.10 | | |
| Average | 12,049.60 | 8,888.75 | 3,160.85 | | |

Expenditure for paddy production

Table 4 indicates the main expenditures incurred for paddy production in the rice year 1985.

Table 4 Annual main expenditures for paddy production 1985

| | | | | | | | | Unit: M\$ |
|------------|-----------------|---------------------|---------|---------|---------|---------|---------|-----------|
| | | Household No. | | | | | | |
| Item | | | 1 | 2 | 3 | 4 | 5 | 6 |
| ① Seeds | | | 260.0 | 50.0 | | | 120.0 | 125.0 |
| | Nursery | 1st plowing | | | | | 55.0 | |
| | plot | 2nd plowing | | | | | 45.0 | |
| 2 | Main field | 1st plowing | | | | | 585.0 | |
| Plowing | | 2nd plowing | | | | | 495.0 | |
| | Sub-total | | 809.0 | 514.0 | 627.5 | 546.0 | 1,180.0 | 0 |
| | Ratio ②/① (%) | | 14.7 | 11.2 | 13.3 | 24.4 | 23.8 | 0 |
| | ③ Transport | of seedlings | 70.0 | 10.0 | | | | |
| | Hired labor | | 865.8 | 920.0 | 746.5 | 130.0 | 1,255.0 | 1,040.0 |
| 4 | Expenditure | for food and drinks | 180.0 | 100.0 | 80.0 | 50.0 | | |
| Trans- | Sub-total | | 1,045.8 | 1,020.0 | 826.5 | 180.0 | 1,255.0 | 1,040.0 |
| planting | Ratio 4/ | (ii) (%) | 19.0 | 22.1 | 17.5 | 8.0 | 25.3 | 22.8 |
| ⑤ Chem- | Pests and dis | eases | | | 4.5 | | | |
| icals | Weedicide | | 48.6 | 63.0 | 4.2 | | 48.0 | 58.0 |
| | Hired labor | | 311.5 | 389.0 | 118.5 | 40.0 | 315.0 | 98.0 |
| 6 | Combine har | vester charge | 1,917.0 | 1,040.0 | 1,153.8 | 877.5 | 1,170.0 | 1,625.0 |
| Harvest- | Sub-total | | 2,228.5 | 1,419.0 | 1,272.3 | 917.5 | 1,485.0 | 1,723.0 |
| ing | Ratio 6/ | (1) (%) | 40.4 | 31.0 | 27.0 | 40.9 | 30.0 | 37.8 |
| | Field to lorry | or house | 57.0 | 30.0 | | | | |
| 7 | Lorry to LPN | | 672.5 | 432.0 | 432.5 | 258.0 | 524.0 | 542.0 |
| Trans- | Sub-total | | 729.5 | 462.0 | 432.5 | 258.0 | 524.0 | 542.0 |
| portation | Ratio ⑦/ | (11) (%) | 13.2 | 10.0 | 9.2 | 11.5 | 10.6 | 11.9 |
| Depreciate | tion of pedestr | ian tractor | 170.0 | 310.0 | 350.0 | 270.0 | 250.0 | 300.0 |
| Land ren | ıt | | | 653.2 | 1,061.5 | | | 653.2 |
| ⑩ Water ut | ilization cost | | 151.5 | 96.0 | 136.5 | 70.5 | 93.0 | 123.0 |
| ① Total | | | 5,512.9 | 4,607.2 | 4,711.0 | 2,242.0 | 4,955.0 | 4,564.2 |

These figures do not represent the production cost for which the capital interest, free supply of fertilizers and chemicals, etc. should be added to the items of this Table. The objective of the survey was to analyze the living standard of the owner operators based on the income and expenditure of cash.

The methods adopted during the survey were as follows:

- 1) Attempt to obtain direct answers from the farmers.
- 2) When data were not available for accurate calculation, they were approximated.
- 3) Both the land rent and the depreciation cost of the pedestrian tractor were calculated based on additional surveys. For the estimation of the latter, the straight-line method was adopted and the life of the machine was considered to be 10 years.
- 4) The figures of plowing cost were based on the cost of diesel fuel, engine oil and repair cost for both seasons.

Table 4 roughly shows how much the farmers paid for paddy production in cash in the rice year 1985. After subtracting these figures from the annual gross income listed in Table 3, the following balance was obtained.

| No. | 1 | household | M\$: | 10,552.79 |
|-----|---|-----------|----------|-----------|
| No. | 2 | household | M\$ | 6,842.21 |
| No. | 3 | household | M\$ | 6,747.40 |
| No. | 4 | household | M\$ | 3,607.27 |
| No. | 5 | household | M\$ | 8,443.09 |
| No. | 6 | household | M\$ | 9,512.55 |

(The average being 7,617.60, about M\$7,600).

The net income in cash of owner paddy farmers in the Muda area is estimated to be M\$7,600 presently. This annual income of M\$7,600 is equal to M\$633 per month and nearly three times as high as that of tenant farmers (M\$223/month).

It is also higher than the median salary of the whole Malay population (Table 5) but lower than that of the non-Malay inhabitants, for which the median is M\$1,024 and 770, respectively.

Table 5 Peninsular Malaysia: household income by ethnic group, 1979 and 1984 (M\$ per month)

| (Mill per month) | | | | | | | | | |
|-------------------------------------|--------|-----------|-----|---|------|-------|---|--|--|
| Constant 1970 prices Current prices | | | | | | | | | |
| Ethnic group | | 1979 1984 | | Average annual growth rate, 1980-84 (%) | 1979 | 1984 | Average annual growth rate, 1980–84 (%) | | |
| Bumiputera | mean | 296 | 384 | 5.3 | 492 | 852 | 11.6 | | |
| | median | 197 | 262 | 5.9 | 237 | 581 | 19.6 | | |
| Chinese | mean | 565 | 678 | 3.7 | 938 | 1,502 | 9.8 | | |
| | median | 373 | 462 | 4.4 | 620 | 1,024 | 10.6 | | |
| Indian | mean | 455 | 494 | 1.7 | 756 | 1,094 | 7.7 | | |
| | median | 314 | 347 | 2.0 | 521 | 770 | 8.1 | | |
| All ethnic groups | mean | 417 | 494 | 3.4 | 693 | 1,095 | 9.6 | | |
| | median | 263 | 326 | 4.4 | 493 | 723 | 8.0 | | |
| Urban | mean | 587 | 695 | 3.4 | 975 | 1,541 | 9.6 | | |
| | median | 361 | 463 | 5.1 | 600 | 1,027 | 11.3 | | |
| Rural | mean | 331 | 372 | 2.4 | 550 | 824 | 8.4 | | |
| | median | 222 | 269 | 3.9 | 369 | 596 | 10.1 | | |

Source: Fifth Malaysia Plan, 1986-1990, p.99.

As a result it is considered that opportunities should be made available for the poor tenants to find an additional source of employment, as emphasized in the "Fifth Malaysia Plan (1986-1990)" which aims at eradicating poverty in the rice-growing areas of the country.

Problems facing owner operators

- 1 The farmers are not used to keeping a record of the management of their farm. As a result, they are unable to evaluate the productivity of their holding.
- 2 The harvesting cost amounts to about 35% of all the payments for paddy production, as many farmers in the Muda area rely upon contractors for harvesting. As a result, most of the money paid by the farmers does not remain in the rural area but is diverted to the town. Therefore the farmers should form a group to operate a combine harvester jointly so as to save money.
- 3 The transplanting cost is high as the farmers depend on human power until low cost and efficient transplanting machines become available.

On the other hand, transplanting without using a machine gives a good opportunity for women or poor peasants to earn an income. Moreover due to technical and economic reasons, it may be difficult to promote the use of transplanting machines presently.

4 The plowing cost is lower when the farmers own a pedestrian tractor than when they rely upon a contractor, as indicated in Table 4. For example as the pedestrian tractor of Farmer No.5 was out of order during the year 1985, he had to pay M\$1,180 as a charge to a contractor.

On the other hand, although the cultivated fields of Farmers No. 1, 2, and 3 are larger than those of Farmer No. 5 their ordinary plowing cost was lower than that of Farmer No. 5. Most of the owners of a pedestrian tractor are able to operate it, but they cannot easily repair it. If they could learn a few mechanical techniques they could save the money spent in a repair shop in town.

In conclusion, to solve these problems, cooperation among farmers should be promoted to improve the efficiency and reduce the cost of farm operations in the Muda area.

References

- Kementerian Pertanian Malaysia (1983): Perangkaan Padi Semenanjuan Malaysia. (In Malay).
- 2) KUCHIBA, M. TSUBOUCHI, Y. and MAEDA, N. (1976): Malay Nôson no Kenkyû. (In Japanese).
- 3) MOKHTAR, Shamsuddin (1986): Fifth Malaysia Plan, National Printing Department, Kuala Lumpur, Malaysia.
- 4) YAMASHITA, M. (1981): The actual situation of farm management under the double cropping in Muda irrigation area Malaysia, *Nekken Shiryo* (TARC Archives) **51.** (In Japanese).
- 5) YASHIMA, S. (1986): Study on the rural development in Malaysia.