

SOCIAL ACCOUNTS OF A PHILIPPINE VILLAGE

YŪJIRŌ HAYAMI

MASAO KIKUCHI

I. INTRODUCTION

THE "village" is a basic unit of developing economies, in which two-thirds of world population are living. It consists of the households among which functional divisions, such as "producers" and "consumers," are not well established. To a large extent, the village economy is self-contained. Typically, production activities are based on the resources within the village in order to satisfy the demands of the village community; and relatively few transactions go through market.

It has been emphasized that the data should be collected systematically on various economic activities in the village so as to establish a system of village economic accounts [8]. Such data collection is critical for the effective design of the rural development programs as well as for improvements in the national accounts statistics in developing countries.

A large body of data has been collected from the farm management and production cost surveys and, to a lesser extent, from the farm household income-expenditure surveys. However, few efforts have been made to collect statistics that enables the documentation of a whole complex of the village economy.

In this study we have attempted to fill this gap by constructing village economic accounts in an articulated double-entry system. The data were based on the integrated household record-keeping project conducted in a typical rice village in the Philippines.

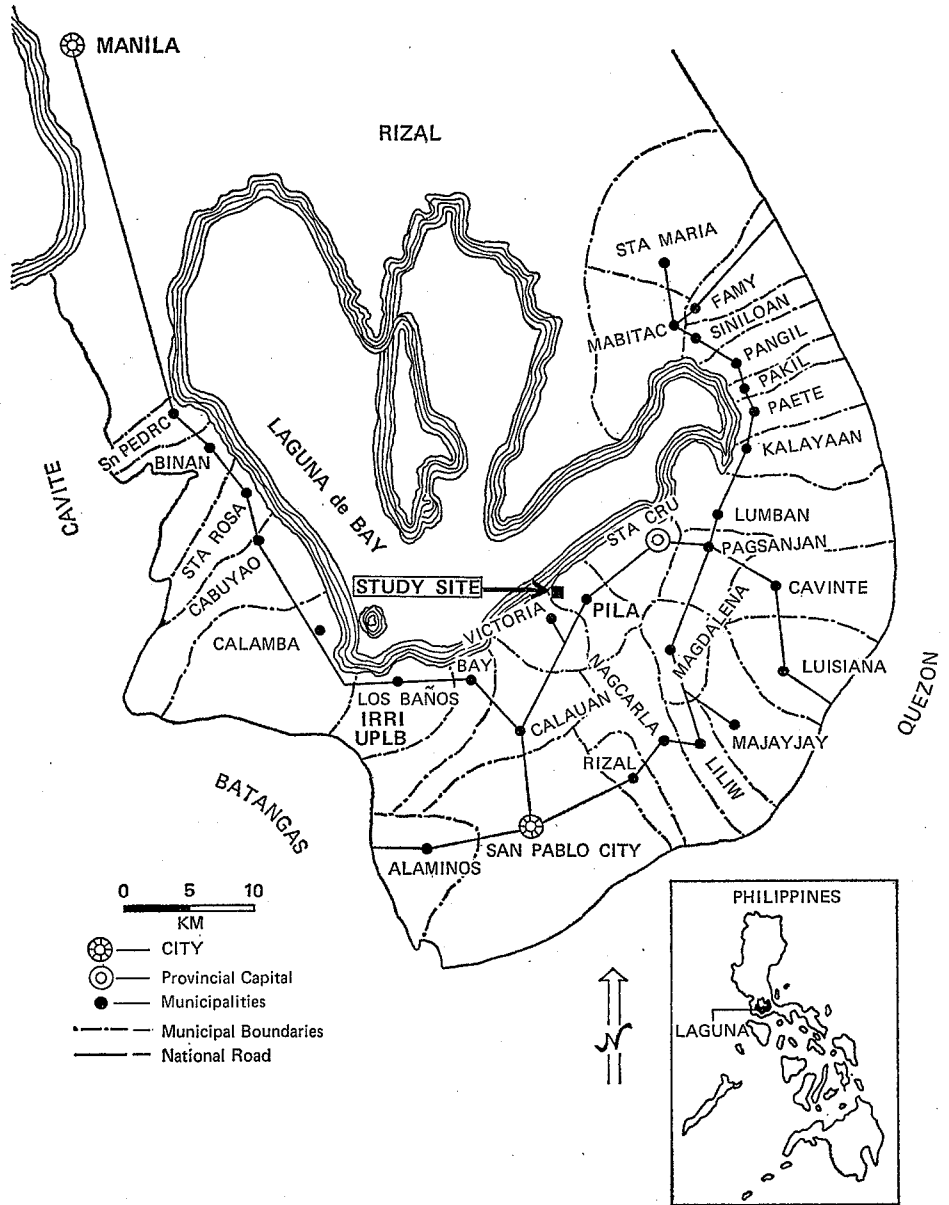
II. DATA AND METHODOLOGY

A. *Study Site*

The barrio (village) selected for study was Tubuan in the Municipality of Pila about ninety kilometers southeast of Manila. It is located in a rice-monoculture area along the Laguna de Bay, the largest lake in the Philippines (Figure 1).

The study on which this paper is based is part of a larger research project conducted at the International Rice Research Institute. A more detailed version including the original data will appear in the project report ("Anatomy of Peasant Economy: A Rice Village in the Philippines") forthcoming from IRRI. The authors thank partial supports to the project from the Seimeikai Foundation and the International Development Center of Japan. Assistance of Luisa Maligalig and Piedad F. Moya on data collection and calculation is gratefully acknowledged.

Fig. 1. Map of Laguna



Due to the extension of national irrigation network the double cropping of rice is commonly practiced with the use of modern semi-dwarf varieties. Absentee landlordism is pervasive in this area.

Tubuan is a relatively small barrio consisted of ninety-five houses with the population of 549 according to the benchmark survey conducted in November 1974. It is connected to the *poblacion* (urban district, of Pila) by a narrow unpaved road.

The coconut grove under which most houses in the barrio are located is slightly elevated from the surrounding rice fields. Villagers are residing under the coconut trees with the implicit consents of the coconut owners living outside of the barrio. By custom they are allowed to utilize the space below the trees by planting fruits and vegetables or raising livestock and poultry.

Rice farming is by far the most dominant enterprise. Common sideline enterprises are duck and hog raising. There are three *sari-sari* stores from which villagers buy small daily needs. For major purchases people go to markets and shops in nearby towns. Common means of transportation are tricycles (three-wheel taxi cab).

B. Sample Households

From the total ninety-five households in the village, twelve cooperators were selected for the record-keeping project. The selection of the cooperators was not random, but based on our judgment on the ability and the willingness to participate in the project. Included in the sample were the households of four large farmers (cultivating more than two hectares), four small farmers (cultivating less than two hectares), and four landless workers. However, we found that the quality of the records of one cooperator who belonged to the category of small farmers was considerably lower than others. Thereby, we omitted his records from our analysis of sample averages. The relations between the sample and the village population are shown in Table I.

TABLE I
CHARACTERISTICS OF THE VILLAGE POPULATION AND THE SAMPLE HOUSEHOLDS

	Large Farmer	Small Farmer	Landless Worker
Number of households:			
Sample	4	3	4
Village	24	30	41
Average family size (person):			
Sample	7.5	5.3	4.8
Village	7.3	5.2	4.7
Average farm size (ha):			
Sample	3.2	1.3	0
Village	3.0	1.1	0

C. Data Collection

Daily records on economic activities were kept by the cooperators on the record books that we distributed. The period extended for one year from June 1, 1975 to May 31, 1976, using the two preceding months (April and May 1975) as a test period.

The record book consists of (a) labor sheets and (b) transaction sheets. The labor sheets were designed to record all labor uses, including those of family, hired and exchange workers, in terms of hours worked. Only income-generating works in a conventional sense were recorded, but housekeeping works such as

cooking and child caring were not recorded. The transaction sheets were designed to record all transactions in cash and kind, including exchange and grant. Home consumption of agricultural products and their uses for seeds and feeds were also recorded in the transaction sheets.

In order to supplement the data generated from the record keeping, the assets surveys were conducted for the sample households both at the beginning and at the end of the record-keeping period.

D. *Accounting Framework*

The accounting system that we designed to summarize the records on the economic activities of the village consists of six accounts: (1) current agricultural production account, (2) current nonagricultural production account, (3) income-expenditure account, (4) fixed capital production account, (5) capital finance account, and (6) outside transaction account. Considering the critical importance of rice in the economy concerned, the current agricultural production account is divided into: (1R) rice production account and (1N) non-rice agricultural production account. Therefore, our system consists of seven accounts which are "completely articulated," as shown in SA/C Tables attached in the end of this paper.

The system is largely consistent with the framework of the present UN *System of National Accounts* [9], except that our system is in gross terms without the explicit entries of depreciations. A major deviation from the UN system was that our system did not include the imputed house rent in the income-expenditure account, because of an imputational problem involved. However, we have provided a highly provisional estimate of the house rent, so that one can enter the rent in both sides of the income-expenditure account, if he wishes to.¹

(1R) Current rice production account establishes the identity between the total value of rice output and the total cost paid (and/or imputed) to the inputs applied to rice production processes. (1N) Non-rice agricultural production account establishes the same identity with respect to other crops, livestock, and poultry.

The village households not only engage in farming but also run a wide spectrum of nonagricultural enterprises, including commerce, transportation, and manufacturing. (2) Current nonagricultural production account establishes the revenue-expenditure identity with respect to non-farm production activities.

Values produced in the enterprises operated by villagers together with their earnings of wages from outside employment, represent major sources of the village income. (3) Income-expenditure account records how the income thus generated was disposed for consumption and savings.

In addition to current production activities, the villagers engage in the production of capital goods, such as building houses and digging irrigation ditches. (4) Fixed capital production account shows how much of the increase in the value of fixed capital is attributable to factors owned by villagers and how much of it was paid to external factors contributed from outside. (5) Capital finance

¹ Some more modifications were also made for the system to be applicable to developing economics, such as suggested by Mukherjee, Choudhury, and Rao [6].

account identifies the sources of fund for financing investments in fixed capital, inventories, and financial assets. Finally, (6) outside transaction account put together all the transactions of the village with outside.

In addition to the village incomes accounts as explained above, we prepared the balance sheets establishing the identity between total asset and total liability in the village.

E. *Imputation*

The major problem in accounting economic activities in the village is how to impute the values of goods and services which do not go through market transactions. Two major items, of which the portions of non-market transactions were especially important, were rice and family labor.

Not only a major portion of rice produced in the village was consumed directly by producers' households, but rice was extensively used as a media of exchange, including payments for hired labor and land rent. In this study, we adopted the standard rates for imputing the value of rice as one peso per kilogram of paddy (rough rice), which was a typical market price prevailed during the period of study. The cost of rice milling for home consumption, which was usually paid to millers as a portion of rice milled or bran, is assumed as 5 per cent of the value of the paddy milled.

The values of other agricultural products which were consumed directly by producers or used for exchange were imputed according to the valuation of record keepers themselves.

The imputations of family labor costs were based on the standard market wage rates by tasks, prevailed during the period of record keeping.

Those standard wage rates were also used for separating labor costs from capital costs in the payments to tractor custom works. Since the payments to tractor custom works include both the wage for operator and the capital rental for tractor, we assumed the difference between the total payment and the imputed wage cost as the capital rental.

Because our farmer cooperators were all tenants and actually paid rents to landlords, we did not make any imputation of land rents. However, the tenancy title commands a value in this village. This means that the tenants are receiving a part of the functional income share of land. Therefore, our rent data would be underestimating the functional land rent, and the residual profit overestimating the functional share of capital.

A major problem is involved in the imputation of house rent, because of the difficulty in ascertaining the interest rate to be applied. Interest rates in the village were characterized by extremely large variations, ranging from zero to 100 per cent per a crop season (six months). Highly provisionally, we have tried an imputation by applying the interest rate of 40 per cent per year to the asset value residential buildings and plots. However, it must be cautioned that this procedure is, in fact, no more than an illustrative calculation.

F. *Valuation of Fixed Assets*

The procedures of evaluating fixed assets for the construction of balance sheets

were the followings: Land assets in the form of tenancy titles were assumed as 25 and 35 per cent of land values respectively for the share tenancy and the leasehold tenancy. The land values were estimated by asking the tenants for their own evaluations and adjusting these according to the evaluations of the barrio captain (village headman) and other resourceful persons in the village. The same procedure was followed for the valuation of livestock and perennial plants.

The values of buildings and structures were estimated as the resale values, based on the evaluations of two carpenters. Machinery and implements were valued at their new acquisition prices at local dealers, from which past depreciations were subtracted to arrive at the present values, assuming linear depreciation and zero salvage value; the same procedure was applied to major consumer durables.

G. *Aggregation*

In constructing the village incomes accounts, we first prepared the private accounts for individual households in the sample [3]. These private accounts were averaged separately for large farmers, small farmers, and landless workers. Then, we deducted the transactions within village from the averaged private accounts. Averages for large farmers, small farmers, and landless workers in the accounts adjusted for within-village transactions were multiplied by the number of households in each category within the village, then, aggregated into village totals.

The construction of the village balance sheets followed a similar procedure. First, we prepared the balance sheets for individual households based on the assets surveys conducted both at the beginning and at the end of the record-keeping project. These private balance sheets were averaged for large farmers, small farmers, and landless workers, after deducting the financial claims among each other within the village [1]. Data in the averaged balance sheets were aggregated into village totals by multiplying the number of households in each category.

H. *Public Services and Infrastructure*

The data that can not be obtained from the records of households are the government subsidies to the village in the form of the provision of public services.

This village is serviced by the Santa Cruz River Irrigation System under the National Irrigation Administration. The government subsidy on irrigation was estimated as the difference between the official irrigation fee and the actual collection.

The government subsidy on the barrio school (one to fourth grades) was estimated as the sum of teachers' salaries and other miscellaneous supports such as books.

One agricultural extension worker of the UPLB-SEARCA Social Laboratory (a joint project of the University of the Philippines at Los Baños and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture) was

responsible for two barrios including Tubuan. We assumed that one-half of his salary was the subsidy to Tubuan in the form of agricultural extension service.

Another form of government subsidy was a contribution of truckloads of gravel from the municipal government for the repair of village roads.

The value of existing stock of public infrastructure, including school, health center, and church, was assessed jointly by a carpenter and the barrio captain at the end of the project.

III. VILLAGE INCOMES ACCOUNTS

A. Current Production Accounts

Output and incomes generated from current production activities in the village, documented in SA/C Tables 1R, 1N, and 2 (Appendix), are summarized in Table II.² Rice farming was, by far, the most important enterprise producing more than 80 per cent of output, value added, and village factor income. Agricultural production combining rice and non-rice activities was the source of

TABLE II
OUTPUTS AND INCOMES GENERATED FROM CURRENT PRODUCTION ACTIVITIES
WITHIN VILLAGE

	Agricultural Production			Nonagricultural Production (2)	Total (1) + (2)
	Rice (1R)	Non-rice (1N)	Total (1) = (1R) + (1N)		
(\$1,000)					
Output:					
Sale/payment in kind to outside village	75.7 (68.5)	20.9 (78.6)	96.6 (70.5)	0.2 (25.0)	96.8 (70.2)
Consumption within village	24.4 (22.1)	5.7 (21.4)	30.1 (22.0)	0.6 (75.0)	30.7 (22.3)
Use for current inputs (seeds and feeds)	6.9 (6.2)	0 (0)	6.9 (5.0)	0 (0)	6.9 (5.0)
Inventory change	3.5 (3.2)	0 (0)	3.5 (2.6)	0 (0)	3.5 (2.5)
Total	110.5 (100.0)	26.6 (100.0)	137.1 (100.0)	0.8 (100.0)	137.9 (100.0)
Value added	93.3 (84.4)	14.4 (54.1)	107.7 (78.6)	0.5 (62.5)	108.2 (78.5)
Village factor income	65.1 (58.9)	14.4 (54.1)	79.5 (58.0)	0.5 (62.5)	80.0 (58.0)

Note: Inside of parentheses are percentages with total output=100.

² In the following discussions, we express values in terms of U.S. dollars, based on the exchange rate of seven pesos to one dollar which prevailed during the period of data collection.

TABLE III
RELATIVE FACTOR SHARES OF OUTPUT AND INCOME GENERATED FROM CURRENT
PRODUCTION ACTIVITIES WITHIN VILLAGE (%)

	Total	Labor	Land	Capital	Current Inputs
Output shares:					
(1R) Rice production	100.0	32.4	30.0	22.0	15.6
(1N) Non-rice agricultural production	100.0	15.4	0	38.7	45.9
(1) Total agricultural production (1R)+(1N)	100.0	29.1	24.2	25.2	21.5
(2) Nonagricultural production	100.0	25.0	0	37.5	37.5
(3) Total current production (1)+(2)	100.0	29.1	24.1	25.3	21.5
Income shares:					
(1R) Rice production	100.0	38.4	35.6	26.0	—
(1N) Non-rice agricultural production	100.0	28.5	0	71.5	—
(1) Total agricultural production (1R)+(1N)	100.0	37.1	30.8	32.1	—
(2) Nonagricultural production	100.0	40.0	0	60.0	—
(3) Total current production (1)+(2)	100.0	37.1	30.7	32.2	—

more than 99 per cent of factor income within the village. Nonagricultural enterprises were a very minor income source in this barrio.

About 70 per cent of rice output was sold or paid in kind to outside of the village, and 20 per cent consumed within the village. The outside sale ratio was higher for non-rice agricultural output (such as poultry products and pigs). The ratio of village consumption was higher for nonagricultural output (primarily transportation services by tricycles).

The value added ratio was relatively low for non-rice agricultural production, because the major input for duck and hog raising was feeds, therefore, characterized by a high proportion of current inputs in output values. A relatively high proportion of fuel use for tricycles, also, had the effect of depressing the value-added ratio in nonagricultural production. In contrast, 100 per cent of value added from both non-rice agricultural activities and nonagricultural enterprises became villagers' factor income, whereas nearly 30 per cent of value added from rice farming flowed out from the village in the form of land rents to absentee landlords.

Estimates of factor shares in current production activities are shown in Table III. Labor and land were the two major factors contributing to rice production, sharing the returns almost equally. However, because of the imputation problem previously explained, it is likely that the calculated shares represent an underestimate for the functional share of land and an overestimate for the functional share of capital.

For non-rice agricultural production, the output share of current inputs was large because of the large input of feeds; the high income share of capital reflects the high capital value in the form of livestock and poultry. Since duck

and hog were the backyard enterprises and did not use any farmland, the share of land was zero for non-rice agricultural production.

The output of nonagricultural enterprises (tricycles) was equally divided among fuel cost, imputed wage, and residual profit.

B. *Income-Expenditure Account*

Total income of the village was estimated as \$101,800 or \$126,200 depending on whether to include the imputed house rent. The factor income to total village income was about 80 per cent (Table IV). More than 95 per cent of the factor income was earned within the village. The income accruing to labor was nearly one-half of the factor income excluding the house rent but only 38 per cent including the house rent.

Total disposable income of the village was \$94,700 excluding the house rent

TABLE IV
COMPOSITION OF VILLAGE INCOME

	Excluding Imputed House Rent		Including Imputed House Rent	
	(\$1,000)	(%)	(\$1,000)	(%)
Total village income	101.8	100.0	126.2	100.0
Village factor income:				
Factor income within village (Labor income)	80.0 (40.1)	78.6 (39.4)	104.4 (40.1)	82.7 (31.8)
Factor income from outside (Labor income)	3.6 (1.2)	3.5 (1.2)	3.6 (1.2)	2.9 (1.0)
Total factor income (Total labor income)	83.6 (41.3)	82.1 (40.6)	108.0 (41.3)	85.6 (32.8)
Transfer income from outside	18.2	17.9	18.2	14.4

TABLE V
PATTERN OF HOUSEHOLD EXPENDITURES

	Excluding Imputed House Rent		Including Imputed House Rent	
	(\$)	(%)	(\$)	(%)
Per capita disposable income (D)	172.4	—	216.8	—
Per capita consumption:				
Produce within village	56.0	38.7	100.4	53.1
Purchase from outside	88.6	61.3	88.6	46.9
Total (C)	144.6	100.0	189.0	100.0
Per capita food consumption:				
Produce within village	54.8	54.7	54.8	54.7
Purchase from outside	45.4	45.3	45.4	45.3
Total (F)	100.2	100.0	100.2	100.0
Average propensity to save (1-C/D)		16.1		12.8
Engel coefficient (F/C)		69.3		53.0

and \$119,100 including the house rent. Since the total population was 549 persons, per capita income was estimated as \$172.4 and \$216.8 for respective cases (Table V). Excluding the house rent, about 84 per cent of the disposable income was consumed and 16 per cent saved; including the house rent the average propensity to save declines to 13 per cent. Almost 70 per cent of consumption expenditure went to food, although the Engel ratio declines by 13 per cent if we include the house rent.

Excluding the house rent, about 40 per cent of total consumption was spent for the goods and services produced within the village and the rest purchased from outside; the ratio of the village product in total consumption exceeds 50 per cent if we include the service of residential house. The ratio of the village product was higher in food consumption, amounting to 55 per cent.

C. *Fixed Capital Production Account*

Total fixed capital produced in the village during the study period was \$5,300, of which 23 per cent was capital for agricultural production, 46 per cent for nonagricultural enterprises, and 31 per cent for residential construction.

Seventy-nine per cent of the total cost of fixed capital construction was paid to the inputs supplied from outside of the village, and only 21 per cent was the contribution of village factors.

D. *Capital Finance Account*

Total investment gross of depreciation was \$16,400, of which 33 per cent was investment in fixed capital, 22 per cent in inventories, and 45 per cent in financial assets.

Ninety-three per cent of capital formation was financed by village savings. Capital construction by village factors was only 7 per cent of total investment. The minor contribution of family factors to capital formation corresponds to a low rate of family labor utilization in the slack months of rice production.³ This seems to suggest that a large potential exists to mobilize the underutilized family labor for the construction of productive capital in the rural sector by adequate technical and financial assistance.

E. *Outside Transaction Account*

The total receipt of the village from the transactions with outside of the village was \$118,600, whereas the payment was \$111,000. As the result, this village had the surplus of external transactions, amounting to \$7,600 or nearly 6 per cent of total receipt, which implies the increase in the financial claims of villagers to the outside economy. Thus, the data show a relatively large net outflow of financial resources from the village sector. Even though the net resource outflow estimated as a residual may involve large errors, the direction of the resource

³ During the year of record keeping, a working family member of sample households worked on the average of 170 days out of 365 days. The rates of labor utilization were especially low in the slack months, August–September and February–March [2].

flow shown in the account is consistent to the data from the assets surveys, as shown later.

Sale of agricultural products was the major source of villagers' receipts (60 per cent). Next important sources were the payment in kind to external inputs (21 per cent) and the grant to the household from non-villagers (10 per cent).

Payments to external inputs for agricultural production and purchase of consumption goods and services were the two major items among the payments by villagers to the outside economy, each comprising about 40 per cent. Payments to external inputs for agricultural production were mainly rent for absentee landlords and purchase of current inputs such as fertilizers.

IV. ASSETS OF THE VILLAGE

Structure of asset-holdings in the village was documented in SB/S Table 1 (Appendix).

Total asset value of this village as of June 1, 1975, was \$281,500. In May 31, 1976, it increased to \$284,300. Meanwhile, debt outstanding changed from \$38,900 to \$31,000. As the result, net worth changed from \$242,600 to \$253,300. (Note that the depreciations of reproducible fixed assets during the period were not deducted.) The net worth of the village was roughly 2.5 times as large as the total village income during the project year.

The value of land assets was about 50 per cent of total asset value. Since most of the farmers in this village were tenants and landlords were residing outside the village, the values of land assets in the balance sheets were the values of tenancy rights and residential lots.

The share of other fixed assets in total asset value (including land assets) was about 40 per cent. If we exclude land assets, it was about 80 per cent. Buildings and structures, and major consumers' durables, were of major importance, together occupying about 70 per cent of the value of non-land fixed assets.

Data on the fixed assets by use were shown in SB/S Table 2 (Appendix). Percentage compositions of the fixed assets for farm production, non-farm production, household use, and public use were:

	(%)	
	Including Land Assets	Excluding Land Assets
Farm production	64.0	34.1
Non-farm production	3.3	7.9
Household use	29.3	50.0
Public infrastructure	3.4	8.1
Total	100.0	100.0

Capital coefficient for agricultural production, defined as the ratio of the fixed assets for farm use to village factor income from agricultural production activities was 2.2 if we include land assets in the capital, but it was only 0.4 excluding land assets.

The positive financial assets, including cash and other financial claims to out-

TABLE VI
INVESTMENT CHECK

	Gross Investment Based on		Statistical Discrepancy (1) - (2)
	Balance Sheets (1)	Income Accounts (2)	
Fixed capital	4.3	5.3	-1.0
Inventory	3.5	3.5	0
Net financial assets	2.8	7.6	-4.8
Total	10.6	16.4	-5.8

side of the village, amounted to \$12,500 at the beginning of the project, which declined to \$7,400 at the end of the project. However, since the debts outstanding decreased more than the decrease in positive financial assets, the financial assets recorded a net increase.

As a final check of reliability of data, we compared in Table VI the gross investments estimated by subtracting the initial asset values from the terminal asset values (SB/S Table 1), with those estimated in SA/C Table 5. The first estimates were based on the asset surveys and the second on the record keeping. Because increases in consumers' durables were not counted as investments in SA/C Table 5, we exclude them from the comparison.

The discrepancy between the two estimates of investments was rather small for fixed capital, considering the problems involved in data collection and imputation. However, the discrepancy was quite large for financial assets. It is possible that the estimates of investments in financial assets from the accounting approach is likely to involve large errors, because the net acquisition of financial assets was estimated in our accounting system as a final residual including various possible errors. However, both sets of data, at least, support the same hypothesis that there was a net outflow of financial resources from the village to the outside economy.

V. CONCLUSION

In this study we have experimented to document the production, income-expenditure, capital formation, and transaction activities of a rural village in a developing economy, in terms of a set of economic accounts in a completely articulated double-entry system. For this purpose a record-keeping project was conducted in a typical rice village in the Philippines in a pilot scale. Despite possible observational errors inherent in the process of highly complicated data collection for such an accounting system, the results shed some lights on controversial issues in development economics, such as the potential of mobilizing local resources for capital formation and the inter-sectoral flows of financial resources [4], [5], [7].

It should be emphasized that, by nature, this study represents an experiment of data collection and documentation for the analysis of village economy in its

whole complexity. It was not intended, by itself, to produce policy implications directly useful for rural development. Since the study was based on a very small sample in one village in one year, any generalization from our data can be highly dangerous. However, the study clearly shows a possibility that the data can be systematically collected and documented at a village household level to be consistent with the framework of macro national accounts. When our approach will be applied to various locations over time, we will have a solid data base for advancing the theory of peasant economy as well as for formulating the rural development policy. Needless to say, in the process the reliability of national income accounts in developing countries will be increased dramatically.

REFERENCES

1. HAYAMI, Y., and MALIGALIG, L. "Structure of Asset-Holdings of the Households in a Rice Village in Southern Luzon," Anatomy of Peasant Economy, Project Report No. 2, mimeographed (Los Baños: International Rice Research Institute, Department of Agricultural Economics, 1976).
2. HAYAMI, Y.; FLORES, P.; and MALIGALIG, L. "Labor Utilization in a Rice Village in Southern Luzon," Anatomy of Peasant Economy, Project Report No. 3, mimeographed (Los Baños: International Rice Research Institute, Department of Agricultural Economics, 1976).
3. HAYAMI, Y., and KIKUCHI, M. "Anatomy of Peasant Economy: The Economic Accounts of Rural Households in the Philippines," *Economic Review*, Vol. 28 (October 1977).
4. ISHIKAWA, I. *Economic Development in Asian Perspective* (Tokyo: Kinokuniya Bookstore, 1967).
5. LEE, T. H. *Intersectoral Capital Flows in the Economic Development of Taiwan, 1895-1960* (Ithaca: Cornell University Press, 1971).
6. MUKHERJEE, M.; CHOUDHURY, U. D. R.; and RAO, D. S. P. "Economic Accounts for Developing Countries," *Review of Income and Wealth*, Series 21 (December 1975).
7. NURKSE, R. *Problems of Capital Formation in Underdeveloped Countries* (New York: Oxford University Press, 1953).
8. OSHIMA, H. T. "Improving the Statistics of National Accounts for Development Planning with Special Emphasis on Southeast Asia," *Philippine Economic Journal*, Vol. 6, Second Semester (1965).
9. United Nations. *A System of National Accounts*, Series F, No. 2, Rev. 3 (New York: 1968).

APPENDIX

 SA/C TABLE 1R
 CURRENT RICE PRODUCTION ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)
1.1	Payments to non-village inputs for rice production (6.8)	43.1	78.7	39.1
1.1.1	Rent to absentee landlords	24.9	45.4	22.6
1.1.2	Capital rental to non-villagers	3.3	6.1	3.0
1.1.3	Purchased current inputs	14.9	27.2	13.5
1.2	(1.2) Seed use of rice (1.8)	2.3	4.2	2.1
1.3	Income of village factors for rice production (3.9)	65.1	118.5	58.8
1.3.1	Hired labor wage	21.4	39.0	19.4
1.3.2	Family labor wage	14.4	26.2	13.0
1.3.3	Rent to resident landlords	8.3	15.1	7.5
1.3.4	Rent to owned land	0	0	0
1.3.5	Capital rental to villagers	0.5	0.9	0.4
1.3.6	Farm profit (residual)	20.5	37.3	18.5
Total rice production expenditure		110.5	201.4	100.0
1.4	Payments in kind to inputs owned by non-villagers (6.1)	24.9	45.4	22.5
1.5	Sale of rice to outside village (6.2)	50.8	92.5	45.9
1.6	Sale of rice within village (3.2)	8.9	16.2	8.1
1.7	Home consumption of rice (3.1)	15.5	28.2	14.0
1.8	Seed use of rice (1.2R)	2.3	4.2	2.1
1.9	Feed use of rice (1.2N)	4.6	8.4	4.2
1.10	Inventory change in agricultural products and inputs (5.4)	3.5	6.5	3.2
Total rice output		110.5	201.4	100.0

SA/C TABLE 1N
CURRENT NON-RICE AGRICULTURAL PRODUCTION ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)
1.1	Payments to non-village inputs for agricultural production (6.8)	7.6	13.8	28.4
1.1.1	Rent to absentee landlords	0	0	0
1.1.2	Capital rental to non-villagers	0	0	0
1.1.3	Purchased current inputs	7.6	13.8	28.4
1.2	Feed use of rice (1.9R)	4.6	8.4	17.3
1.3	Income of village factors for agricultural production (3.9)	14.4	26.3	54.3
1.3.1	Hired labor wage	0	0.1	0.2
1.3.2	Family labor wage	4.1	7.5	15.5
1.3.3	Rent to resident landlords	0	0	0
1.3.4	Rent to owned land	0	0	0
1.3.5	Capital interest and rental to villagers	0	0	0
1.3.6	Farm profit (residual)	10.3	18.7	38.6
Total agricultural production expenditure		26.6	48.5	100.0
1.4	Payments in kind to inputs owned by non-villagers (6.1)	0	0	0
1.5	Sale of agricultural products outside village (6.2)	20.9	38.1	78.6
1.6	Sale of agricultural products within village (3.2)	1.9	3.4	7.0
1.7	Home consumption of agricultural products (3.1)	3.8	7.0	14.4
1.8	Inventory change in agricultural products and inputs (5.4)	0	0	0
Total agricultural output		26.6	48.5	100.0

SA/C TABLE 2

CURRENT NONAGRICULTURAL PRODUCTION ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)
2.1	Payments to non-village inputs for nonagricultural production (6.9)	0.3	0.5	33.3
2.1.1	Capital rental to non-villagers	0	0	0
2.1.2	Purchased current inputs of non-village origin	0.3	0.5	33.3
2.2	Income of village factors for nonagricultural production (3.10)	0.5	1.0	66.7
2.2.1	Hired labor wage	0	0.1	6.7
2.2.2	Family labor wage	0.2	0.4	26.7
2.2.3	Capital rental to villagers	0	0	0
2.2.4	Profit from nonagricultural enterprises (residual)	0.3	0.5	33.3
Total nonagricultural production expenditure		0.8	1.5	100.0
2.3	Revenue of nonagricultural enterprises from non-villagers (6.3)	0.2	0.3	20.0
2.4	Revenue of nonagricultural enterprises from villagers (3.3)	0.6	1.2	80.0
2.5	Inventory change in nonagricultural products and inputs (5.5)	0	0	0
Total nonagricultural output		0.8	1.5	100.0

SA/C TABLE 3
INCOME-EXPENDITURE ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)
3.1	Home consumption of agricultural products (1.7R+N)	19.3	35.2	19.0
3.2	Sale of agricultural products within village (1.6R+N)	10.8	19.6	10.6
3.3	Revenue of nonagricultural enterprises from villagers (2.4)	0.6	1.2	0.6
3.4	Purchase of consumption goods of non-village origin (6.11)	48.7	88.6	47.8
	3.4.1 Food	25.0	45.4	24.5
	3.4.2 Non-food	23.7	43.2	23.3
3.5	Interest payment to consumption loan from non-villagers (6.12)	3.1	5.8	3.1
3.6	Grant from the households to non-villagers (6.13)	3.8	6.9	3.7
3.7	Tax and rate (6.14)	0.2	0.4	0.2
3.8	Savings (residual) (5.7)	15.3	27.8	15.0
Total household expenditure		101.8	185.5	100.0
3.9	Income of village factors for agricultural production (1.3R+N)	79.5	144.8	78.1
3.10	Income of village factors for nonagricultural production (2.2)	0.5	1.0	0.5
3.11	Earnings from outside-village employment (6.4)	1.2	2.1	1.1
3.12	Receipt of rental from non-villagers (6.5)	2.4	4.4	2.4
3.13	Grant to the households from non-villagers (6.6)	12.5	22.7	12.2
3.14	Government subsidy (6.7)	5.7	10.5	5.7
Total village income		101.8	185.5	100.0
Imputed house rent		24.4	44.4	22.9

SA/C TABLE 4
FIXED-CAPITAL PRODUCTION ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)	
4.1	Payments to non-village inputs for capital formation	(6.10)	4.2	7.7	79.4
4.1.1	Purchase of machineries		0	0	0
4.1.2	Purchase of materials produced outside of village		3.8	6.9	71.1
4.1.3	Hired labor wage for construction to non-villagers		0	0	0
4.1.4	Purchase of livestock		0.4	0.8	8.3
4.2	Contribution of village factors to fixed capital formation	(5.8)	1.1	2.0	20.6
4.2.1	Family labor wage for construction		1.0	1.7	17.5
4.2.2	Hired labor wage for construction to villagers		0	0	0
4.2.3	Farm-supplied materials		0	0	0
4.2.4	Purchased materials produced within village		0.1	0.2	2.1
4.2.5	Residual		0	0.1	1.0
Total expenditure for fixed capital formation			5.3	9.7	100.0
4.3	Agricultural fixed capital formation	(5.1)	1.2	2.2	22.7
4.4	Nonagricultural fixed capital formation	(5.2)	2.5	4.5	46.4
4.5	Residential construction	(5.3)	1.6	3.0	30.9
Total fixed capital formation			5.3	9.7	100.0

SA/C TABLE 5
CAPITAL FINANCE ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)
5.1	Agricultural fixed capital formation (4.3)	1.2	2.2	7.4
5.2	Nonagricultural fixed capital formation (4.4)	2.5	4.5	15.1
5.3	Residential construction (4.5)	1.6	3.0	10.1
5.4	Inventory change in agricultural products and inputs (1.10R+1.8N) (2.5)	3.5	6.5	21.8
5.5	Inventory change in nonagricultural products and inputs (2.5)	0	0	0
5.6	Acquisitions of liquid assets from non-villagers (residual) (6.15)	7.6	13.6	45.6
Gross investment		16.4	29.8	100.0
5.7	Savings (3.8)	15.3	27.8	93.3
5.8	Contribution of village factors to fixed capital formation (4.2)	1.1	2.0	6.7
Gross investible fund		16.4	29.8	100.0

SA/C TABLE 6
TRANSACTION ACCOUNT

		Total (\$1,000)	Per Capita (\$)	Composition (%)
6.1	Payments in kind to inputs owned by non-villagers (1.4R+N)	24.9	45.4	21.0
6.2	Sale of agricultural products to outside village (1.5R+N)	71.7	130.6	60.5
6.3	Revenue of nonagricultural enterprises from non-villagers (2.3)	0.2	0.3	0.1
6.4	Earnings from outside-village employment (3.11)	1.2	2.1	1.0
6.5	Receipt of rental from non-villagers (3.12)	2.4	4.4	2.0
6.6	Grant to the household from non-villagers (3.13)	12.5	22.7	10.5
6.7	Government subsidy (3.14)	5.7	10.5	4.9
Total receipt from outside		118.6	216.0	100.0
6.8	Payments to non-village inputs for agricultural production (1.1R+N)	50.7	92.5	42.8
6.9	Payments to non-village inputs for nonagricultural production (2.1)	0.3	0.5	0.2
6.10	Payments to non-village inputs for fixed capital formation (4.1)	4.2	7.7	3.6
6.11	Purchase of consumption goods of non-village origin (3.4)	48.7	88.6	41.0
6.12	Interest payment to consumption loan from non-villagers (3.5)	3.1	5.8	2.7
6.13	Grant from the households to non-villagers (3.6)	3.8	6.9	3.2
6.14	Tax and rate (3.7)	0.2	0.4	0.2
6.15	Acquisition of financial assets (5.6)	7.6	13.6	6.3
Total payment to outside		118.6	216.0	100.0

VILLAGE SOCIAL ACCOUNTS

SB/S TABLE 1
VILLAGE BALANCE SHEETS

	Initial (June 1, 1975)			Terminal (May 31, 1976)		
	Total (\$1,000)	Per Capita (\$)	Composition (%)	Total (\$1,000)	Per Capita (\$)	Composition (%)
<i>Assets</i>						
Fixed assets:	256.4	467.1	91.1	260.9	475.3	91.8
Land	148.2	270.0	52.6	148.2	270.0	52.1
Buildings & structures	40.9	74.5	14.5	45.4	82.7	16.0
Major consumer durables	13.9	25.3	5.0	14.1	25.7	5.0
Machineries & implements	31.1	56.7	11.1	31.3	57.0	11.0
Livestock	7.5	13.7	2.7	5.6	10.2	2.0
Perennial plants	6.0	10.9	2.1	7.5	13.7	2.6
Public infrastructure	8.8	16.0	3.1	8.8	16.0	3.1
Inventories:	12.6	22.9	4.5	16.0	29.1	5.6
Farm products	7.4	13.4	2.7	16.0	29.1	5.6
Farm inputs	5.2	9.5	1.8	0	0	0
Financial assets:	12.5	22.8	4.4	7.4	13.5	2.6
Savings	4.7	8.6	1.6	4.1	7.5	1.4
Cash	7.8	14.2	2.8	3.3	6.0	1.2
Total assets	281.5	512.8	100.0	284.3	517.9	100.0
<i>Liabilities</i>						
Debts outstanding	38.9	70.8	13.8	31.0	56.5	10.7
Net worth	242.6	442.0	86.2	253.3	461.4	89.3
Total liabilities	281.5	512.8	100.0	284.3	517.9	100.0

SB/S TABLE 2
COMPOSITION OF FIXED ASSETS

	Initial (June 1, 1975)			Terminal (May 31, 1976)		
	Total (\$1,000)	Per Capita (\$)	Composition (%)	Total (\$1,000)	Per Capita (\$)	Composition (%)
Land	148.2	270.0	57.8	148.2	270.0	56.8
Farm land (f)	127.2	231.7	49.6	127.2	231.7	48.7
Owned land	0	0	0	0	0	0
Tenancy title	127.2	231.7	49.6	127.2	231.7	48.7
Residential lot (h)	21.0	38.3	8.2	21.0	38.3	8.1
Buildings & structures	49.7	90.5	19.4	54.2	98.7	20.8
Farm use (f)	0.8	1.5	0.4	0.9	1.6	0.3
Non-farm production use (n)	0	0	0	0	0	0
Residential use (h)	40.1	73.0	15.6	44.5	81.1	17.1
Public infrastructure (p)	8.8	16.0	3.4	8.8	16.0	3.4
Major consumer durables (h)	13.9	25.3	5.4	14.1	25.7	5.4
Machineries & implements	31.1	56.7	12.2	31.3	57.0	12.0
Farm use (f)	22.5	41.0	8.8	22.7	41.3	8.7
Non-farm production use (n)	8.5	15.5	3.3	8.5	15.5	3.3
Residential use (h)	0.1	0.2	0.1	0.1	0.2	0
Livestock (f)	7.5	13.7	2.9	5.6	10.2	2.1
Perennial plants (f)	6.0	10.9	2.3	7.5	13.7	2.9
Total assets (f+n+h+p)	256.4	467.1	100.0	260.9	475.3	100.0
Farm assets (f)	164.0	298.8	64.0	163.9	298.5	62.8
Non-farm production assets (n)	8.5	15.5	3.3	8.5	15.5	3.3
Household assets (h)	75.1	136.8	29.3	79.7	145.3	30.6
Public infrastructure (p)	8.8	16.0	3.4	8.8	16.0	3.3