

คณะเศรษฐศาสตร์และบริหารธุรกิจ
FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

มหาวิทยาลัยเกษตรศาสตร์
กรุงเทพฯมหานคร

KASETSART UNIVERSITY,
BANGKOK, THAILAND.

VIII Basic Baseline Data on Kuchinarai
Land Settlement, 1976

Faculty of Economics & Business Administration
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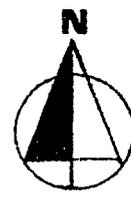
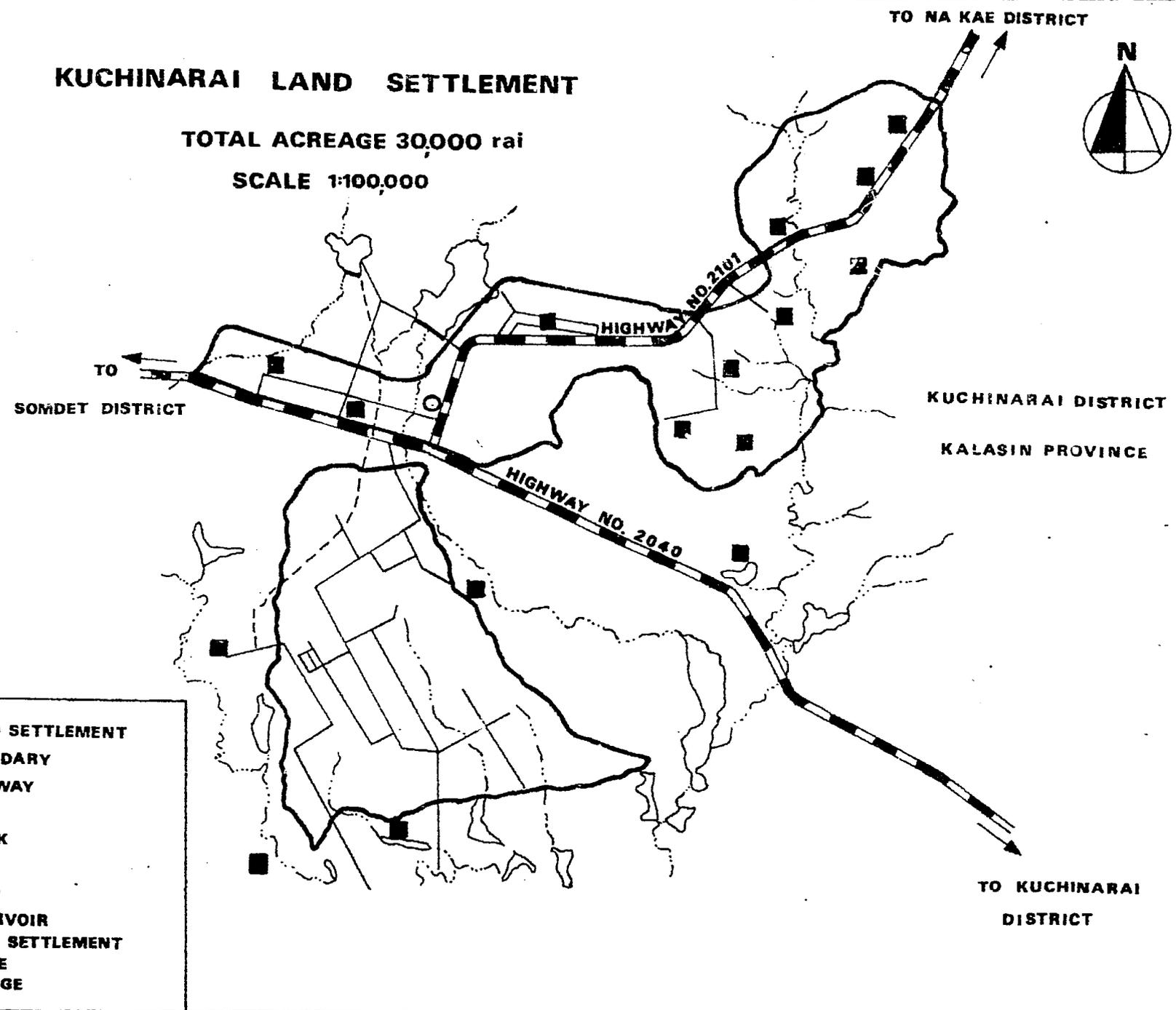
VIII Basic Baseline Data on Kuchinarai Land Settlement, 1976

Land Settlement	<u>Kuchinarai</u>
Location	<u>Kuchinarai</u> district
	<u>Kalasin</u> province
Year established	<u>1963</u>
Total area	<u>30,000</u> rais
Total area allocated	<u>12,650</u> rais
Official membership	<u>506</u>
Size of land plot	<u>25</u> rais

KUCHINARAI LAND SETTLEMENT

TOTAL ACREAGE 30,000 rai

SCALE 1:100,000



TO NA KAE DISTRICT

TO
SOMDET DISTRICT

KUCHINARAI DISTRICT
KALASIN PROVINCE

TO KUCHINARAI
DISTRICT

-  LAND SETTLEMENT BOUNDARY
-  BOUNDARY
-  HIGHWAY
-  ROAD
-  CREEK
-  DIKE
-  POND
-  RESERVOIR
-  LAND SETTLEMENT OFFICE
-  VILLAGE

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VIII 1. Brief Report on Kuchinarai Land Settlement

Kuchinarai land settlement was established in 1963. The total area under the project is about 30,000 rai. Until 1976, an amount of 12,650 rai has been allocated for farmers. The formal plot size for each family is 25 rai.

The interview covered 40 farmers from all over the land settlement, 15 from zone 1^{*}, and 25 from zone 2^{*}. In addition, 10 non-settler farmers living adjacent to the settlement were interviewed. The percentage distribution of settlers by organization membership indicated that agricultural cooperatives, Thai-German agricultural group, and USAID's sericulture group were among popular farmer groups. Ninety-five percent of heads of farm households were over thirty years old, with 50% in the age group of 40-49 years. Most heads of farm households (100% and 76% for zone 1 and zone 2 respectively) completed 4th grade education. This is also true for their non-settler counterpart. The majority of farmer-settler involved in upland crop paddy farming, only about 22 percent engaged in paddy farming as their main source of income.

The average family size was about 7. Out of this, 4 persons worked on farm in the first season while 1.75 persons did that in the second season. Approximately 5 persons per family were in the age group of 11-60 years.

* Throughout this report the settlement is divided into 2 zones, zone 1 and zone 2. They correspond to fertile zone and less fertile zone respectively.

On the average, a family held land about 30 rais and 35 rais for zone 1 and zone 2, respectively. Average land use in 1976 were 30, 35 and 33 rais for settlers zone 1, zone 2, and non-settlers, respectively. The tendency showed that the size of land holdings was not evenly distributed. The average size is larger than the official plot because of many reasons; several plots may have been registered under the names of different members of the same family, land holders in the area prior to becoming registered members can also keep all or most of their land even it is higher than the official size, wealthier settlers may purchase land from emigrating settlers, some settlers also owned land outside the settlement or rented land from other owners.

About 40% of the land was used for paddy cultivation and 30% was used for upland crops. It might be mentioned here that the size of uncultivated land amounted to about 6 rais per farm. There may be three reasons for this. The first one lies on the shortage of available family labor. The second reason is the low quality of this marginal land. Lack of sufficient water for crop cultivation is another reason.

In considering the wealth of settlers, assets were grouped into five categories. Land accounted about 73% of the average value which was about ₱ 53,950. 'Building' and 'animals' groups ranked very close together as second and third. The survey also showed that, on the average, settlers of zone 1 were wealthier than those of zone 2. However, non-settlers were wealthier than settlers for this settlement.

As far as crop production was concerned, the major part of land in Kuchinarai was used for paddy cultivation. This is true for both inside

and outside the settlement. Other crops that ranked second, third, and fourth to paddy were cassava, kenaf, and mungbean respectively. Groundnut, sesame, maize, and Turkish Tobacco were also grown here, but they were not significantly important in terms of acreage. Due to part of the area here were partially irrigated, yields of some crops such as paddy, maize, and groundnut were rather high as compared with those of other four settlements covered in the same survey.

In considering the production costs of crops, cost items were grouped into three categories-- variable inputs (both cash and in kind), family labor, and hired labor and machine services. The major portion of production cost was family labor which constituted 78%, 87% 94% and 95% of total production costs of tobacco, glutinous rice, groundnut and kenaf respectively. Only cassava and sesame production required small portion of family labor. The breakdown of production cost into three groups of farm activities indicated that harvesting activity (primary processing included) ranked first, growing activity (care taking included) ranked second, and land preparation activity ranked third in terms of value of production costs. This generally true for non-settlers also.

It was found that only about 20% of settlers borrowed money in 1976. Their only two credit sources were cooperatives and relatives. The average loan sizes were ₪ 1,250 and ₪ 3,800 for relatives and cooperatives sources respectively. The credit was on a short-term basis.

The majority of glutinous rice produced was for home-consumption needs, leaving a small portion, about 5-10 percent for sale. For upland crops, they were for sale mostly except in the cases of tobacco which was

slightly kept as seed use.

Approximately two-thirds of fruits and vegetables produced in 1976 was sold by settlers. This yielded about $\text{P} 500$ per farm of cash income which was about 1/2 of those earned by the non-settlers.

Almost every settler in Kuchinarai raised chicken, mainly for home-consumption purpose. Many settlers raised buffaloes, averaging over two heads per family for the purpose of employed them as draft animals. Duck, cattle, and swine raising were less popular both in and outside of the settlement.

As far as farm income was concerned, rice was the most important source due to large acreage devoted to it. Turkish tobacco brought a sizable income to several farms contracted by commercial tobacco firm located in Banpai district of Khon Kaen province. However, tobacco production was on a small scale, normally less than 1 rai per farm, due to its highly labor intensive requirement. Cassava, kenaf and other upland crops contributed very little.

A combined non-farm income of top four items-- fishing, charcoal making, local trading, and firewood sale which amounted to $\text{P} 1,457$ constituted 77% of average non-farm income of the settlement. It should be mentioned that non-farm income of zone 2 was twice as much as those of zone 1.

The average family income earned by a farm household ranged from $\text{P} 5,525$ for zone 1 to $\text{P} 8,561$ for zone 2. They were uncomparable with those of non-settlers of $\text{P} 16,672$. On the average, net farm income from crops constituted about 70% of the total family income of settlers in Kuchinarai.

A combined expenses of fish, meat, and vegetables constituted 72%, 71% and 87% of the average weekly expenditures for household consumption of settlers in zone 1, zone 2, and non-settlers, respectively. On the monthly basis, expenses on rice accounted for 77% of total expenditures asked. Expenses on clothing, housing, and medical care were among the top three ranking of annual consumption expenditures reported by farmers. It should be noticed here that non-settlers recorded higher expenses than settlers in all three categories of expenditures namely, weekly, monthly, and annual expenditures.

As far as savings was concerned, it was found that 90% of settlers has saved their money in the amount of ₱ 3,876 in 1976. Their most favorite form of savings was self kept in cash. 'Loaned to relatives' and 'self kept as assets' ranked second and third respectively. 'Deposit with banks' as well as 'kept by relatives', and 'loaned to others' were among least important savings sources.

The breakdown of settlers on silk worm rearing status showed that in 1976 about 15% reared silk worm on traditional method, 10% used to rear silk worm but completely stopped rearing, 12.50% will soon join the USAID's sericulture project, and the rest 62.50% never reared silk worm.

To join the USAID's sericulture project, settlers have to have one of their family member including himself received related training on sericulture as organized by the Department of Agriculture's Division of Sericulture. Those who will soon join the project let their children participated in the training program due to the fact that either they themselves were too old or they were busy with other work. Reasons for

not having their children participated in training were either they were too young or busy with other work.

Among settlers who were aware of the sericulture project, eligible and ready to join it, 15% indicated that they will not join while 25% has already join it.

Pilot farmers of the USAID's sericulture project were asked questions concerning spread effect of the project. They were first asked whether there was anyone asking them for information about the project. The answer to this question was only one-fourth of them were asked by other settlers about the project. This may be due to the fact that some settlers were already aware of the project from other sources. Another question was the number of settlers which decided to join the project after learning about the project from pilot farmers. The result was about three-fourths will join the project.

Fifty percent of settlers in Kuchinarai reported that they were not aware of family planning program available in the settlement while 40% indicated the source of their awareness about it was government source. Almost 50% of settlers were not practicing any form of birth control at the time of the survey. Among 52.5% those who practiced, 40% used IDU, 7.5% used pills, and 2.5% each used condoms and sterilization. Among non-settlers, 70% of them did not practice any form of birth control, and 10% each used IDU, pills, and sterilization.

As far as migration of family members was concerned, it was reported that 40% of total farm households did have member migrated out. One-half of those families had one member migrated, and one-third had two members moving out.

Nikom Kuchinarai

VIII 2. Statistical Tables

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Table 1 Distribution of sample farms by zone and by organization membership, 1976.

Organizations	Agricultural zone					
	zone 1		zone 2		Total	
	No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Ag. cooperatives	13	86.70	14	56.00	27	67.50
2. BAAC's credit group	4	26.70	3	12.00	7	17.50
3. Thai-German group	4	26.70	9	36.00	13	32.50
4. PWD's sericulture	-	-	3	12.00	3	7.50
5. USAID's sericulture	6	40.00	6	24.00	12	30.00
6. Others	-	-	2	8.00	2	5.00

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Table 2 Percentage distribution of farm households by number of years farmed in the settlement area and number of years became settlers, by zone, 1976.

Category	Number of years				
	5 and less	6 - 10	11 - 15	over 15	total
(1)	(2)	(3)	(4)	(5)	(6)
<u>SETTLERS</u>					
<u>Zone 1</u>					
A.	26.8	59.9	6.7	6.7	100.0
B.	26.7	66.6	6.7	-	100.0
<u>Zone 2</u>					
A.	16.0	32.0	40.0	12.0	100.0
B.	20.0	36.0	44.0	-	100.0
<u>Total</u>					
A.	20.0	42.5	27.5	10.0	100.0
B.	22.5	47.5	30.0	-	100.0
<u>NON-SETTLERS</u>					
A .	10.0	20.0	20.0	50.0	100.0

Note : A = number of years farmed in the (settlement) area
 B = number of years became settlers

Table 3 Percentage distribution of heads of farm households by sex, age group and zone, 1976.

Category	Age group (years)					total
	under 30	30 - 39	40 - 49	50 - 59	60 & over	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>SETTLERS</u>						
<u>Zone 1</u>						
male	-	13.3	66.7	6.7	-	86.7
female	-	6.7	-	6.7	-	13.3
total	-	20.0	66.7	13.3	-	100.0
<u>Zone 2</u>						
male	8.0	24.0	40.0	16.0	8.0	96.0
female	-	4.0	-	-	-	4.0
total	8.0	28.0	40.0	16.0	8.0	100.0
<u>Total</u>						
male	5.0	20.0	50.0	12.5	5.0	92.5
female	-	5.0	-	2.5	-	7.5
total	5.0	25.0	50.0	15.0	5.0	100.0
<u>NON-SETTLERS</u>						
male	-	30.0	50.0	20.0	-	100.0
female	-	-	-	-	-	-
total	-	30.0	50.0	20.0	-	100.0

Table 4 Education among heads of farm households, by age group, 1976.

Category	% of heads of farm households by age group					
	20-29 years	30-39 years	40-49 years	50-59 years	over 60 years	total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>SETTLERS</u>						
<u>Zone 1</u>						
- below 4 th grade	-	-	-	-	-	-
- 4 th grade	-	20.0	73.3	6.7	-	100
- 5 th - 7 th grade	-	-	-	-	-	-
- higher than 7 th grade	-	-	-	-	-	-
- No formal education/ uneducated	-	-	-	-	-	-
<u>Zone 2</u>						
- below 4 th grade	-	-	12.0	-	-	12.0
- 4 th grade	8.0	28.0	32.0	8.0	-	76.0
- 5 th - 7 th grade	-	-	-	-	-	-
- higher than 7 th grade	-	-	-	-	-	-
- No formal education/ uneducated	-	-	-	4.0	8.0	12.0
<u>Total</u>						
- below 4 th grade	-	-	7.50	-	-	7.50
- 4 th grade	5.0	25.0	47.50	7.50	-	85.00
- 5 th - 7 th grade	-	-	-	-	-	-
- higher than 7 th grade	-	-	-	-	-	-
- No formal education/ uneducated	-	-	-	2.50	5.0	7.50
<u>NON-SETTLERS</u>						
- below 4 th grade	-	-	-	10.0	-	10.0
- 4 th grade	-	30.0	50.0	10.0	-	90.0
- 5 th - 7 th grade	-	-	-	-	-	-
- higher than 7 th grade	-	-	-	-	-	-
- No formal education/ uneducated	-	-	-	-	-	-

Nikom Kuchinarai

Table 5 Main income source of farm households, 1976.

Unit : %

Category	Settlers			Non-settlers
	zone 1	zone 2	total	
(1)	(2)	(3)	(4)	(5)
Paddy farming	26.70	20.00	22.50	60.00
Upland crop farming	73.30	80.00	77.50	40.00
Total	100	100	100	100

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Table 6 Land holding among farmers by zone, 1976.

Category	Land use (rai)					
	zone 1		zone 2		total	
	average	%	average	%	average	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Inside settlement</u>						
Land owned	25.57	85.89	23.52	67.74	24.28	73.89
Land rented in	0.33	1.11	0.64	1.84	0.53	1.61
Land rented free	1.27	1.27	-	-	0.48	1.46
<u>Outside settlement</u>						
Land owned	1.87	6.28	9.32	26.84	6.52	19.84
Land rented in	-	-	-	-	-	-
Land rented free	0.73	2.45	1.24	3.57	1.05	3.20
Total	29.77	100	34.72	100	32.86	100

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Table 7 Average land use by zone, 1976.

Type	Settlers						Non-settlers	
	zone 1		zone 2		total		Av.	%
	Av.	%	Av.	%	Av.	%		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Paddy crop	14.40	48.30	11.04	31.80	12.30	37.43	24.10	71.90
Upland crop	8.85	29.74	11.14	32.08	10.29	31.31	2.70	8.05
Fruit trees	0.48	1.61	0.46	1.32	0.47	1.43	0.10	0.30
Mulberry	0.15	0.50	0.53	1.53	0.39	1.19	-	-
Other	4.21	14.15	9.04	26.04	7.22	21.79	5.70	17.01
Home	1.67	5.61	2.51	7.23	2.19	6.66	0.92	2.74
Total	29.76	100	34.72	100	32.86	100	33.52	100

Table 8 Average value of farm assets at the end of 1976 by zone.

Unit : Baht per farm

Category	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
Land	62,133 (71.81)	57,040 (73.31)	58,950 (72.71)	64,220 (70.64)
Building	10,323 (11.93)	11,633 (14.95)	11,142 (13.74)	18,200 (20.02)
Animals	12,694 (14.67)	8,081 (10.38)	9,811 (12.10)	7,452 (8.20)
Equipment & machinery	1,144 (1.32)	950 (1.22)	1,023 (1.26)	931 (1.02)
Others	231 (0.27)	105 (0.13)	152 (0.19)	109 (0.12)
Total	86,525 (100.00)	77,809 (100.00)	81,078 (100.00)	90,912 (100.00)

Note : The numbers in brackets are percentage,
 The 'Land' category includes only farmers' own land,
 The 'Building' category includes farm house, storage, and animal shelter. Cattle, buffaloes, swine, chicken, and ducks belong to the 'animal' category. The 'equipment & machinery' category includes all farmers' equipment and machines. 'Others' includes only farm's well.

Nikom Kuchinarai

Table 9 Average value of non-farm assets at the end of 1976 by zone

Category	Unit : Baht			
	Settlers			Non-settlers
	zone 1	zone 2	total	
(1)	(2)	(3)	(4)	(5)
1. Desks, Chairs, Closets	208.67	150.00	178.13	165.50
2. Bed room furniture	1,241.20	584.80	930.95	570.00
3. Watches, clocks	138.67	179.20	164.00	40.00
4. Radios, television sets	228.67	294.40	213.50	276.00
5. Gun	243.33	122.00	107.50	08.00
6. Iron, sewing machines	193.53	472.80	368.08	365.50
7. Gold ornaments	60.00	111.20	92.00	--
8. Bicycles	566.67	342.80	364.25	405.00
9. Motorcycles	--	50.00	50.00	--
10. Water containers	156.00	113.40	129.38	89.50
11. Lamp	36.67	20.64	26.65	32.50
12. Kitchenware	262.00	191.20	217.75	371.00
13. Others	--	--	--	--
Total	3,335.40	2,482.24	2,002.18	2,403.10

Table 10 Distribution of family size and average member per farm, 1976.

Category	Family size (no. of persons)				total
	under 4	4 - 6	7 - 9	more than 9	
(1)	(2)	(3)	(4)	(5)	(6)
<u>SETTLERS</u>					
<u>Zone 1</u>					
- % of farm households	6.67	33.33	40.00	20.00	100.00
- average member per farm	3.00	5.20	7.83	11.33	7.33
<u>Zone 2</u>					
- % of farm households	4.00	36.00	52.00	8.00	100.00
- average member per farm	3.00	5.11	7.77	11.00	6.88
<u>Total</u>					
- % of farm household	5.00	35.00	47.50	12.50	100.00
- average member per farm	3.00	5.14	7.79	11.20	7.05
<u>NON-SETTLERS</u>					
- % of farm households	-	30.00	70.00	-	100.00
- average member per farm	-	5.33	8.00	-	7.20

Table 11 Percentage distribution of family by number of children and average children per family, by zone, 1976.

No. of children	Settlers						Non-settlers	
	zone 1		zone 2		total		A	B
	A	B	A	B	A	B		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
no children	6.7	-	-	-	-	-	-	-
1 - 3	6.7	1.0	24.0	1.7	17.5	1.6	30.0	2.3
4 - 6	53.8	4.9	52.0	5.2	52.5	5.1	50.0	5.4
7 - 9	33.3	7.6	24.0	8.0	27.5	7.9	20.0	8.5
10 & over	-	-	-	-	-	-	-	-
Total	100.0	5.2	100.0	5.0	100.0	5.1	100.0	5.1

Note : A = percentage of family
 B = average children per family

Table 12 Average family member and their work on farms by zone and age group, 1976.

age group (year)	Settlers									Non-settlers		
	zone 1			zone 2			total			1	2	3
	1	2	3	1	2	3	1	2	3			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
under 11	1.73	0.27	0.13	1.76	-	-	1.75	0.15	0.05	2.00	0.30	-
11 - 13	1.07	0.53	0.27	0.92	0.28	0.08	0.99	0.39	0.15	0.80	0.20	-
14 - 18	1.40	0.93	0.26	0.84	0.60	0.28	1.05	0.73	0.28	1.40	1.00	0.30
19 - 55	2.93	2.67	0.93	2.92	2.84	1.36	2.93	2.75	1.20	2.70	2.70	1.1
56 - 60	0.07	-	-	0.16	0.08	0.08	0.12	0.05	0.05	0.20	0.20	0.20
over 60	0.13	0.13	-	0.26	0.20	0.04	0.22	0.10	0.02	0.10	-	-
Total	7.33	4.53	1.60	6.88	4.00	1.84	7.05	4.22	1.75	7.20	4.40	1.60

Note : 1 = average member of farm households.
 2 = average member who work on farm in first season.
 3 = average member who work on farm in second season.

Table 13 Amount of credit, by source of loan among farmer-borrowers, 1976.

Category	Source of loan					
	Merchants	Neighbors	Relatives	Banks	Cooperatives	Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>SETTLERS</u>						
<u>Zone 1</u>						
- % of farmer-borrower	-	-	6.67	-	13.34	-
- amount per farmer-borrower (₪)	-	-	2,000.00	-	3,000.00	-
- average interest rate (%)	-	-	0.00	-	12.00	-
<u>Zone 2</u>						
- % of farmer-borrower	-	-	4.00	-	12.00	-
- amount per farmer-borrower (₪)	-	-	500.00	-	4,333.33	-
- average interest rate (%)	-	-	0.00	-	12.00	-
<u>Total</u>						
- % of farmer-borrower	-	-	5.00	-	12.50	-
- amount per farmer-borrower (₪)	-	-	1,250.00	-	3,800.00	-
- average interest rate (%)	-	-	0.00	-	12.00	-
<u>NON-SETTLERS</u>						
- % of farmer-borrower	-	-	-	-	-	-
- amount per farmer-borrower (₪)	-	-	-	-	-	-
- average interest rate (%)	-	-	-	-	-	-

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Table 14 Percentage of farmers who borrowed and average loan size, by type of loan and zone, 1976.

Category	zone 1	zone 2	Total
(1)	(2)	(3)	(4)
1. % of borrower on short-term loan	26.66	12.00	17.50
2. average short-term loan (₪)	2,000	4,333	3,000
3. % of borrower on intermediate term loan	-	4.00	2.50
4. average intermediate-term loan (₪)	-	500	500

Table 15 Amount of credit by type and source of loan, 1976.

Category	Sources of loan					
	Merchants	Neighbors	Relatives	Banks	Cooperative	Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>Zone 1</u>						
Short-term loan						
% borrowed	-	-	6.67	-	20.00	-
average amount (₪)	-	-	2,000	-	2,000	-
Intermediate-term loan						
% borrowed	-	-	-	-	-	-
average amount (₪)	-	-	-	-	-	-
<u>Zone 2</u>						
Short-term loan						
% borrowed	-	-	-	4.00	12.00	-
average amount (₪)	-	-	-	5,000	433	-
Intermediate-term loan						
% borrowed	-	-	4.00	-	-	-
average amount (₪)	-	-	500	-	-	-
<u>Total</u>						
Short-term loan						
% borrowed	-	-	2.50	2.50	15.00	-
average amount (₪)	-	-	2,000	5,000	3,167	-
Intermediate-term loan						
% borrowed	-	-	2.50	-	-	-
average amount (₪)	-	-	500	-	-	-

Table 16 Number of farmer-savers and their average savings by zone and type of savings, 1976.

Category	Settlers			Non-settlers
	total	zone 1	zone 2	
(1)	(2)	(3)	(4)	(5)
1. Kept by relatives				
- no. of farm h.h.	2	1	1	1
- av. amount per h.h. (₪)	150.00	66.67	200.00	50.00
2. Loaned to relatives				
- no. of farm h.h.	10	5	5	0
- av. amount per h.h. (₪)	910.00	1,933.33	296.00	-
3. Loaned to others				
- no. of farm h.h.	2	0	2	0
- av. amount per h.h. (₪)	17.50	-	28.00	-
4. Self kept in cash				
- no. of farm h.h.	33	13	20	8
- av. amount per h.h. (₪)	2,048.75	1,760.00	2,222.00	1,070.00
5. Self kept as assets				
- no. of farm h.h.	6	2	4	3
- av. amount per h.h. (₪)	495.00	566.67	452.00	1,850.00
6. Deposit with banks				
- no. of farm h.h.	2	1	1	0
- av. amount per h.h. (₪)	255.00	13.33	400.00	-
Total				
- no. of farm h.h.	36 (90.00)	15 (100.0)	21 (84.00)	10 (100.0)
- av. amount per h.h. (₪)	3,876.25	4,340.00	3,598.00	2,970.00

Table 17 Distribution of Farms by Crop Grown and area planted by zone, 1976.

Unit : rai								
Categories	Settlers						Non-settlers	
	zone 1.		zone 2		total		no. of farm	area planted
	no. of farm	area planted	no. of farm	area planted	no. of farm	area planted		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>First season</u>								
Rice	-	-	2	25.00	2	25.00	1	12.00
Glutinous rice	15	205.00	17	247.00	32	452.00	8	229.00
Upland rice	-	-	1	4.00	1	4.00	-	-
Maize	-	-	6	13.50	6	13.50	-	-
Groundnut	4	7.00	12	23.50	16	30.50	-	-
Mungbean	5	41.00	8	33.00	13	74.00	-	-
Tobacco (Turkish)	4	5.50	1	1.00	5	6.50	3	3.50
Cassava	2	14.00	17	130.00	19	144.00	2	6.00
Kenaf	13	27.00	14	62.00	27	89.00	6	17.00
Sesame	1	15.00	5	9.00	6	24.00	1	0.50
<u>Second season</u>								
Groundnut	2	7.00	6	12.50	8	19.50	-	-
Mungbean	2	15.00	6	15.00	8	30.00	-	-
Tobacco (Turkish)	7	10.00	-	-	7	10.00	3	3.25

Table 18 Average yield per rai on planted and harvested area by type of crop, 1976.

Unit : kg/rai

Crops	Settlers						Non-settlers	
	zone 1		zone 2		total		1	2
	1	2	1	2	1	2		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>First season</u>								
Rice	-	-	225.20	255.91	225.20	225.91	250.00	250.00
Glutinous rice	300.49	385.00	140.53	185.75	217.45	274.93	335.90	337.37
Upland rice	-	-	337.50	450.00	337.50	450.00	-	-
Maize	-	-	509.63	509.63	509.63	509.63	-	-
Groundnut	168.57	168.57	394.21	394.21	342.43	342.43	-	-
Mungbean	86.93	93.79	77.76	116.64	82.84	102.17	-	-
Tobacco (Turkish)	142.55	142.55	200.00	200.00	151.38	151.38	148.00	148.00
Cassava	714.29	714.29	1,384.30	1,428.25	1,319.16	1,356.85	1,000.00	1,090.91
Kenaf	190.00	201.18	304.35	304.35	269.66	274.28	230.35	233.79
Sesame	15.73	26.22	78.33	78.33	39.21	52.28	120.00	120.00
<u>Second season</u>								
Groundnut	14.29	14.29	80.56	87.57	56.77	59.84	-	-
Mungbean	24.00	25.71	40.00	40.00	82.84	-	-	-
Tobacco (Turkish)	171.00	171.00	-	-	171.00	171.00	159.38	159.38

1. = yield/rai planted
2. = yield/rai harvested

Table 19 Crop disposition for selected crop, zone 1, 1976.

Unit : kg.

Crop	Crop Disposition (%)					
	Total	debt- repaid	seed- use	home- consumed	sold	stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Glutinous	4,106.67 (100.00)	- -	34.80 (0.85)	2,321.20 (56.52)	546.67 (13.31)	1,204.00 (29.32)
Groundnut	78.67 (100.00)	- -	16.00 (20.34)	4.00 (5.08)	54.00 (68.46)	4.67 (5.94)
Mungbean	237.60 (100.00)	0.40 (0.17)	5.00 (2.10)	- -	232.20 (97.73)	- -
Tobacco (Turkish)	52.27 (100.00)	- -	- -	10.00 (19.13)	39.60 (75.76)	2.67 (5.11)
Cassava	666.67 (100.00)	- -	- -	- -	666.67 (100.00)	- -
Kenaf	342.00 (100.00)	- -	- -	- -	342.00 (100.00)	- -
Sesame	15.73 (100.00)	- -	0.33 (2.10)	- -	15.40 (97.90)	- -
<u>Second season</u>						
Groundnut	6.67 (100.00)	- -	- -	- -	6.7 (100.00)	- -
Mungbean	24.00 (100.00)	- -	1.00 (4.17)	- -	23.00 (100.00)	- -
Tobacco (Turkish)	114.00 (100.00)	- -	- -	0.33 (0.29)	113.67 (99.71)	- -

Note : figures in parentheses are percentage.

Table 20 Crop disposition for selected crops, zone 2, 1976.

Crops	Unit : kg					
	Crop Disposition (%)					
	Table	debt- repaid	seed- use	home- consumed	sold	stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Rice	225.20 (100.00)	- -	- -	145.20 (64.48)	- -	80.00 (35.52)
Glutinous rice	1,467.52 (100.00)	- -	11.40 (0.78)	1,039.20 (70.81)	90.00 (4.09)	356.84 (24.32)
Upland rice	54.00 (100.00)	- -	- -	54.00 (100.00)	- -	- -
Maize	275.20 (100.00)	- -	1.60 (0.58)	1.40 (0.51)	272.20 (98.91)	- -
Groundnut	370.56 (100.00)	- -	25.96 (7.01)	2.32 (0.63)	342.28 (92.37)	- -
Mungbean	102.64 (100.00)	- -	3.40 (3.31)	- -	98.44 (96.17)	10.80 (10.52)
Tobacco(Turkish)	8.00 (100.00)	- -	- -	- -	8.00 (100.00)	- -
Cassava	7,198.36 (100.00)	- -	- -	- -	7,198.36 (100.00)	- -
Kenaf	754.80 (100.00)	- -	- -	- -	754.80 (100.00)	- -
Sesame	28.20 (100.00)	- -	0.16 (0.57)	0.04 (0.14)	28.00 (99.29)	- -
<u>Second season</u>						
Groundnut	40.28 (100.00)	- -	5.04 (12.51)	- -	35.24 (87.49)	- -
Mungbean	24.00 (100.00)	- -	- -	- -	24.00 (100.00)	- -

Note : figures in parentheses are percentage.

Table 21 Crop disposition for selected crops, whole settlement, 1976.

Unit : kg/farm

Crops	Crop disposition					
	total	debt- repaid	seed- use	home- consumed	sold	stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Rice	140.75 (100.00)	-	-	90.75 (64.48)	-	5.50 (35.52)
Glutinous rice	2,497.15 (100.00)	-	20.18 (0.82)	1,591.95 (51.86)	242.50 (9.87)	674.53 (27.45)
Upland rice	33.75 (100.00)	-	-	33.75 (100.00)	-	-
Maize	172.00 (100.00)	-	1.00 (0.58)	0.88 (0.51)	170.13 (98.91)	-
Groundnut	261.10 (100.00)	-	22.23 (8.51)	2.95 (1.13)	234.18 (89.69)	1.75 (0.67)
Mungbean	153.25 (100.00)	0.15 (0.10)	4.00 (2.61)	-	142.35 (92.89)	6.75 (4.40)
Tobacco (Turkish)	24.60 (100.00)	-	-	3.75 (15.24)	19.85 (80.69)	1.00 (4.07)
Cassava	4,748.98 (100.00)	-	-	-	4,784.98 (100.00)	-
Kenaf	600.00 (100.00)	-	-	-	600.00 (100.00)	-
Sesame	23.54 (100.00)	-	0.23 (0.98)	0.03 (0.13)	32.28 (98.90)	-
<u>Second season</u>						
Groundnut	27.68 (100.00)	-	3.15 (11.38)	-	24.53 (88.62)	-
Mungbean	24.01 (100.00)	-	0.38 (1.58)	-	23.63 (98.42)	-

Note : figures in parentheses are percentage.

Table 22 Crop disposition for selected crops, outside the settlement, 1976.

Unit : kg

Crops	Crop Disposition					
	total	debt- repaid	seed- use	home- consumed	sold	stocked
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Rice	300.00 (100.00)	-	-	300.00 (100.00)	-	-
Glutinous rice	7,692.00 (100.00)	522.00 (6.79)	54.00 (0.70)	1,980.00 (25.74)	2,696.00 (35.05)	2,440.00 (31.72)
Tobacco (Turkish)	51.80 (100.00)	-	-	-	51.80 (100.00)	-
Cassava	600.00 (100.00)	-	-	-	600.00 (100.00)	-
Kenaf	391.60 (100.00)	-	-	-	391.60 (100.00)	-
Sesame	6.00 (100.00)	-	-	-	6.00 (100.00)	-
<u>Second season</u>						
Tobacco (Turkish)	51.8 (100.00)	-	-	-	47.8 (92.28)	4.0 (7.72)

Note : figures in parentheses are percentage.

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Table 23 Cost of production per rai planted by crop and zone, 1976.

Crops	Unit : ฿/rai							
	Zone 1				Zone 2			
	LP	GR	HA	T	LP	GR	HA	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>First season</u>								
Rice	-	-	-	-	63.0	78.8	48.6	190.4
Glutinous rice	61.7	112.4	115.1	289.2	41.9	65.6	60.1	167.6
Upland rice	-	-	-	-	94.0	169.5	131.5	395.0
Maize	-	-	-	-	72.0	193.5	125.0	390.5
Groundnut	106.4	208.0	253.6	568.0	92.3	235.4	257.7	285.4
Mungbean	125.3	179.9	286.1	591.3	30.9	116.5	137.3	284.7
Tobacco (Turkish)	155.1	700.5	924.9	1,780.5	350.0	1,184.0	2,605.0	4,219.0
Cassava	12.1	18.6	41.5	72.2	92.4	135.0	97.9	325.3
Kenaf	188.6	247.1	314.2	749.9	92.1	180.0	296.3	568.4
Sesame	30.0	30.9	4.5	65.4	61.3	87.9	63.8	213.0
<u>Second season</u>								
Groundnut	64.3	102.9	58.5	225.7	59.4	164.0	114.3	337.6
Mungbean	12.0	40.3	26.0	78.3	83.3	166.6	169.6	419.5
Tobacco (Turkish)	56.6	527.4	857.1	1,461.1	-	-	-	-

Note : LP = land preparation
 GR = growing
 HA = harvesting
 T = total

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Table 23 (continued)

Unit : t/rai

Crops	Settlers				Non-settlers			
	LP	GR	HA	T	LP	GR	HA	T
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<u>First season</u>								
Rice	63.0	78.8	48.6	190.4	25.5	49.0	42.0	116.5
Glutinous rice	50.9	86.8	85.0	222.7	51.9	52.9	75.3	180.1
Upland rice	94.0	169.5	131.5	395.0	-	-	-	-
Maize	72.0	193.5	125.0	390.5	-	-	-	-
Groundnut	95.6	229.1	256.8	581.5	-	-	-	-
Mungbean	83.2	151.7	219.7	454.6	-	-	-	-
Tobacco (Turkish)	185.1	774.8	1,195.8	2,155.7	208.6	1,112.9	506.9	1,828.4
Cassava	84.5	123.7	92.5	300.7	58.8	345.0	142.5	546.3
Kenaf	121.4	200.3	301.9	623.6	112.1	307.2	449.5	868.8
Sesame	41.8	52.3	26.8	120.9	46.0	200.0	270.0	516.0
<u>Second season</u>								
Groundnut	61.1	142.1	94.2	297.4	-	-	-	-
Mungbean	47.7	103.6	97.8	249.1	-	-	-	-
Tobacco (Turkish)	56.6	547.4	857.1	1,461.1	169.8	1,129.8	2,096.8	3,306.4

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Table 24 Cash cost of production per rai planted by crop, farming activities, by zone, 1976.

Unit : ฿/rai

Crops	Zone 1				Zone 2			
	LP	GR	HA	T	LP	GR	HA	T
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>First season</u>								
Rice	-	-	-	-	-	-	-	-
Glutinous rice	4.9	26.1	4.1	35.1	-	14.3	6.8	21.1
Upland rice	-	-	-	-	-	10.0	-	10.0
Maize	-	-	-	-	-	16.6	32.6	49.2
Groundnut	-	33.8	-	33.8	9.5	94.7	34.3	137.5
Mungbean	3.6	58.9	21.1	83.6	6.1	22.6	4.7	33.4
Tobacco (Turkish)	-	363.6	15.3	378.9	-	478.0	10.0	488.0
Cassava	-	-	28.1	28.1	21.5	27.6	52.2	101.3
Kenaf	3.3	13.8	16.4	33.5	-	9.0	48.2	57.2
Sesame	-	0.9	-	0.9	-	3.0	-	3.0
<u>Second season</u>								
Groundnut	-	30.0	1.4	31.4	-	55.8	15.2	71.0
Mungbean	-	18.3	2.0	20.3	-	29.2	10.0	39.2
Tobacco (Turkish)	6.0	310.5	27.1	343.6	-	-	-	-

Note : LP = land preparation
GR = growing

HA = harvesting
T = total

Table 24 (continued)

Crops	Unit : B/rai							
	Settlers				Non-settlers			
	LP	GR	HA	T	LP	GR	HA	T
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<u>First season</u>								
Rice	-	12.8	-	12.8	-	7.0	-	7.0
Glutinous rice	2.2	19.6	5.6	27.4	6.9	11.0	17.2	35.1
Upland rice	-	10.0	-	10.0	-	-	-	-
Maize	-	16.6	32.6	49.2	-	-	-	-
Groundnut	6.6	80.7	26.4	113.7	-	-	-	-
Mungbean	4.7	42.7	8.7	56.1	-	-	-	-
Tobacco (Turkish)	-	381.2	14.5	395.7	-	205.7	-	205.7
Cassava	19.4	24.9	49.9	94.2	-	210.0	75.0	285.0
Kenaf	1.0	10.5	38.6	50.1	-	12.9	23.1	36.0
Sesame	-	1.7	-	1.7	-	20.0	-	20.0
<u>Second season</u>								
Groundnut	-	46.5	10.2	56.7	-	-	-	-
Mungbean	-	23.9	6.0	29.9	-	-	-	-
Tobacco (Turkish)	6.0	310.5	27.1	343.6	-	288.3	-	288.3

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Table 25 Cost of production per rai planted by crop and zone, 1976.

Crops	Unit : ¥/rai							
	Zone 1				Zone 2			
	A	B*	C**	Total	A	B*	C**	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>First season</u>								
Rice	-	-	-	-	12.8	177.6	-	190.4
Glutinous rice	15.7	254.2	19.4	289.3	10.7	146.5	10.4	167.6
Upland rice	-	-	-	-	10.0	395.0	-	395.0
Maize	-	-	-	-	16.6	341.3	32.6	390.5
Groundnut	33.8	534.3	-	568.1	94.7	447.9	42.8	585.4
Mungbean	52.7	516.7	21.9	591.3	22.6	251.4	10.8	284.8
Tobacco (Turkish)	363.6	1,401.6	15.3	1,780.5	478.0	3,731.0	10.0	4,219.0
Cassava	-	44.1	28.1	72.2	23.4	223.9	78.0	325.3
Kenaf	8.2	716.4	25.2	749.8	9.0	511.2	48.3	568.5
Sesame	0.9	64.5	-	65.4	3.0	210.0	-	213.0
<u>Second season</u>								
Groundnut	30.0	194.3	1.4	225.7	55.8	266.7	15.2	337.7
Mungbean	18.3	50.0	2.0	78.3	29.2	380.3	10.0	419.5
Tobacco (Turkish)	300.0	1,117.5	43.6	1,461.1	-	-	-	-

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Table 25 (continued)

Crops	Unit : P/rai							
	Settlers				Non-settlers			
	A	B*	C**	Total	A	B*	C**	Total
(1)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<u>First season</u>								
Rice	12.8	177.6	-	190.4	7.0	109.5	-	116.5
Glutinous rice	13.0	195.4	14.5	222.9	4.2	145.2	30.7	180.1
Upland rice	10.0	385.0	-	395.0	-	-	-	-
Maize	16.6	341.3	32.6	390.5	-	-	-	-
Groundnut	80.7	467.7	33.0	581.4	-	-	-	-
Mungbean	39.3	398.5	17.0	454.6	-	-	-	-
Tobacco(Turkish)	381.2	1,760.0	14.5	2,155.7	205.7	1,622.6	-	1,828.3
Cassava	21.1	206.5	73.1	300.7	10.0	261.3	275.0	546.3
Kenaf	8.8	573.4	41.3	623.5	12.9	832.8	23.1	868.8
Sesame	1.7	119.1	-	120.8	20.0	406.0	-	516.0
<u>Second season</u>								
Groundnut	46.5	240.7	10.3	297.5	-	-	-	-
Mungbean	23.8	219.2	6.0	249.0	-	-	-	-
Tobacco(Turkish)	300.0	1,117.5	43.6	1,461.1	288.3	3,019.2	-	3,306.5

Note : A = variable inputs, B = family labor, C = hired labor and machine.

* average labor per day ranges from $\text{P}15$ to $\text{P}20$

** hired labor and machine services are normally charged together for the land preparation and growing activities, hired labor cost alone is seldom found in harvesting activities.

Table 26 Average value of vegetables and fruits home-consumed and sold in 1976 by zone.

Unit : Baht

Category	Settlers			Non-settlers
	Total	Zone 1	Zone 2	
(1)	(2)	(3)	(4)	(5)
Vegetables				
-- av. value per farm	549.55	619.67	507.48	983.50
-- av. value home-consumed	198.83	309.33	132.52	106.80
-- av. value sold	350.73	310.33	374.96	876.70
Fruits				
-- av. value per farm	260.30	216.26	286.72	196.90
-- av. value home-consumed	83.05	26.26	117.12	69.10
-- av. value sold	177.25	190.00	169.60	127.80
Vegetables & Fruits				
-- av. value per farm	809.85	835.93	794.20	1,180.40
-- av. value home-consumed	281.88	335.59	249.64	175.90
-- av. value sold	527.98	500.33	544.56	1,004.50

Table 27 Average number and value of livestock and poultry per family kept in farm households at the end of 1976, by zone.

Category	Settlers			Non-settlers
	Total	Zone 1	Zone 2	
(1)	(2)	(3)	(4)	(5)
Cattle				
- av. number (heads)	0.58	0.93	0.36	0.40
- av. value (Baht)	1,547.50	1,713.33	1,448.00	700.00
- % of h.h. raised cattle	15.00	26.67	8.00	10.00
Buffaloes				
- av. number	2.48	2.73	2.32	3.00'
- av. value	7,615.00	10,453.33	5,912.00	6,510.00
- % of h.h. raised buffaloes	82.50	93.33	76.00	80.00
Swine				
- av. number	-	-	-	-
- av. value	277.50	200.00	244.00	-
- % of h.h. raised swine	10.00	13.33	8.00	-
Chicken				
- av. number	-	-	-	-
- av. value	390.30	298.93	445.12	197.30
- % of h.h. raised chicken	97.50	100.00	96.00	80.00
Duck				
- av. number	-	-	-	-
- av. value	30.55	28.67	31.68	44.50
- % of h.h. raised duck	32.50	33.33	32.00	40.00

Table 28 Amount of non-farm income per farm by zone, 1976.

Source of non-farm income	unit : Baht per farm			
	Settlers			Non-settlers
	zone 1	zone 2	total	
(1)	(2)	(3)	(4)	(5)
1. local trade	-	632.00	395.00	4,200.00
2. firewood sale	80.00	146.00	121.25	-
3. charcoal making	485.67	411.84	439.52	20.00
4. carpenter service	253.33	0.04	95.025	-
5. fishing	196.00	684.00	501.00	220.00
6. hired labor service	-	72.00	45.00	-
7. salary	-	246.00	153.75	280.00
8. silk product sale	116.67	87.60	98.50	60.00
9. cottage manufacturing	16.00	-	6.00	-
10. others	-	40.00	25.00	-
Total	1,147.67	2,319.48	1,880.05	4,780.00

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Table 29 Average family income by zone, 1976.

Unit : Baht				
Category	Settlers			Non-settlers
	zone 1	zone 2	total	
(1)	(2)	(3)	(4)	(5)
1. net farm income from crops	3,877.92	5,627.17	5,218.27	10,887.97
2. income from fruits & vegetables	500.33	546.56	527.98	1,004.50
3. non-farm income	1,147.67	2,319.42	1,880.05	4,780.00
Total (family income)	5,525.92	8,561.21	7,626.30	16,672.47

Table 30 Gross Margin per rai on individual crops, zone 1, 1976.

Crops	Yield (kg/rai)	Value (¥/rai)	Cash cost (¥/rai)	Gross margin 1 (¥/rai)	total var. cost (¥/rai)	Gross margin 2 (¥/rai)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Glutinous rice	300.49	435.71	35.1	400.61	289.3	146.41
Groundnut	168.57	547.85	33.8	514.05	568.1	-20.25
Mungbean	86.93	645.02	83.6	561.42	591.3	53.72
Tobacco (Turkish)	142.55	2503.18	378.9	2124.28	1,780.5	722.68
Cassava	714.29	392.86	28.1	364.76	72.2	320.66
Kenaf	190.00	761.90	33.5	728.40	749.8	17.10
Sesame	15.73	204.49	0.9	205.59	65.4	139.09
<u>Second season</u>						
Groundnut	14.29	42.87	31.40	11.47	225.70	-182.93
Mungbean	24.00	174.00	20.30	153.70	78.30	95.70
Tobacco (Turkish)	171.00	2958.30	343.60	2614.70	1461.10	1497.20

Note : gross margin 1 = value - total cash cost
 gross margin 2 = value - total variable cost

Table 31 Gross Margin per rai on individual crops, zone 2, 1976.

Crops	yield (kg/rai)	Value (฿/rai)	Cash cost (฿/rai)	Gross margin 1 (฿/rai)	Total Var. cost. (฿/rai)	Gross margin 2 (฿/rai)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Rice	225.20	337.80	12.0	325.00	190.4	147.40
Glutinous rice	148.53	237.65	21.1	216.55	167.6	70.05
Upland rice	337.50	506.25	10.0	496.25	395.0	111.25
Maize	509.63	932.62	49.2	883.42	390.5	542.12
Groundnut	394.21	1,277.24	137.5	1,139.74	585.4	691.84
Mungbean	77.76	587.87	33.4	554.47	284.8	303.07
Tobacco (Turkish)	200.00	3,800.00	488.0	3,312.00	4,219.0	-419.00
Cassava	1,384.30	636.78	101.3	535.48	325.3	311.48
Kenaf	304.35	1,247.84	57.2	1,190.64	568.5	679.34
Sesame	78.33	815.42	3.0	812.42	213.0	602.42
<u>Second season</u>						
Groundnut	80.56	441.47	71.0	370.47	337.7	103.77
Mungbean	40.00	320.00	39.2	280.80	419.5	-99.50

Note : gross margin 1 = value - total cash costs
 gross margin 2 = value - total variable costs

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Table 32 Gross Margin per rai on individual crops, whole settlement, 1976.

Crops	Yield (kg/rai)	Value (฿/rai)	Cash cost (฿/rai)	Gross margin 1 (฿/rai)	Total var. cost (฿/rai)	Gross margin 2 (฿/rai)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Rice	225.20	337.80	12.8	325.00	190.40	141.40
Glutinous rice	217.45	321.83	27.4	294.43	222.7	99.13
Upland rice	337.50	506.25	16.0	496.25	395.0	111.25
Maize	509.63	932.62	49.2	883.42	390.5	542.12
Groundnut	342.43	1,112.90	113.7	999.20	581.5	531.40
Mungbean	82.84	618.81	56.1	562.71	454.6	164.21
Tobacco (Turkish)	151.38	2,712.73	395.7	2,317.03	2,155.7	597.93
Cassava	1,319.16	606.81	94.2	512.61	300.7	306.11
Kenaf	269.66	1,100.21	50.1	1,050.11	623.6	476.61
Sesame	39.21	433.27	1.7	431.57	120.9	312.37
<u>Second season</u>						
Groundnut	56.77	296.91	56.7	240.21	297.4	-0.49
Mungbean	82.84	639.52	29.9	669.62	249.1	390.42
Tobacco (Turkish)	171.00	2,958.30	343.6	2,614.70	1,461.1	1,497.20

Note : gross margin 1 = value - total cash costs
 gross margin 2 = value - total variable costs

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Table 33 Gross Margin per rai on individual crops, outside the settlement, 1976.

Crops	Yield (kg/rai)	Value (฿/rai)	Cash cost (฿/rai)	Gross margin 1 (฿/rai)	Total var. cost (฿/rai)	Gross margin 2 (฿/rai)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<u>First season</u>						
Rice	250.00	375.00	7.0	368.00	116.5	250.50
Glutinous rice	335.90	631.49	35.1	596.39	180.1	451.39
Tobacco (Turkish)	148.00	2,215.56	205.7	2,000.86	1,828.3	387.26
Cassava	1,000.00	500.00	285.0	215.00	546.3	-66.30
Kenaf	230.35	884.54	36.0	848.54	868.8	15.74
Sesame	120.00	1,200.00	20.0	1,180.00	516.0	684.00
<u>Second season</u>						
Tobacco (Turkish)	159.38	3,080.82	268.3	2,792.52	3,306.5	-225.68

Note : gross margin 1 = value - total cash costs
 gross margin 2 = value - total variable costs

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Table 34 Average weekly expenditures for household consumption in 1976, cash and in kind, by agricultural zone.

Unit : Baht

Category	Settlers									Non-settlers		
	Zone 1			Zone 2			Total			cash	in kind	total
	cash	in kind	total	cash	in kind	total	cash	in kind	total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. meat	25.0	-	25.0	5.3	-	5.3	12.70	-	12.70	40.0	-	40.0
2. fish	21.7	6.7	28.4	4.4	36.4	40.8	10.88	25.25	36.13	21.5	6.0	27.5
3. vegetable	0.7	8.7	9.4	-	12.2	12.2	0.25	10.90	11.15	1.7	16.0	18.3
4. fruits	2.7	5.0	7.7	-	6.9	6.9	1.00	6.18	7.18	2.0	3.2	5.2
5. sugar	4.5	-	4.5	1.5	-	1.5	2.6	-	2.6	0.7	-	0.7
6. spices	3.1	-	3.1	2.2	-	2.2	2.55	-	2.55	0.4	-	0.4
7. non-alcoholic drinks	2.0	-	2.0	0.9	-	0.9	1.30	-	1.3	1.0	-	1.0
8. alcoholic drinks	3.3	-	3.3	6.1	-	6.1	5.00	-	5.00	1.4	-	1.4
9. cigarette	-	5.1	5.1	2.0	4.2	6.2	1.20	4.53	5.81	3.2	1.5	4.7
Total	63.0	25.5	88.5	22.4	59.7	82.1	37.63	46.85	84.78	71.9	27.3	99.2

Table 35 Average monthly consumption expenditures per farm household
by zone, 1976.

Type of expenditures	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
	(1)	(2)	(3)	
A. <u>Cash expenditures</u>				
rice	15.33	53.40	39.13	16.00
cereal	0.33	0.50	0.48	0.50
fuel	0.20	0.12	0.15	1.50
kerosene	9.47	7.56	8.28	30.00
newspaper	1.20	2.56	2.05	0.10
dry battery	9.00	8.72	8.83	7.10
soap	7.53	7.56	7.55	11.60
toothpaste	11.60	9.52	9.66	8.00
detergent	8.67	11.72	10.50	6.50
charcoal	--	--	--	--
total	63.33	100.72	86.70	82.20
B. <u>Expenditures in kind</u>				
rice	208.67	172.76	186.23	254.50
charcoal	12.73	21.20	18.05	12.50
total	221.40	193.96	204.28	267.00
Grand total	284.73	294.72	290.98	349.20

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Table 36 Average annual consumption expenditures per farm households
in 1976 by zone.

Unit : Baht per h.h.

Category	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
1. Food (eating out)	241.33	274.80	262.00	465.00
2. Travelling exp.	208.67	352.80	298.75	235.60
3. Clothing	762.00	955.60	893.00	623.00
4. Housing	1,800.00	192.00	795.00	3,520.00
5. Furniture	1.33	2.00	1.75	20.00
6. Ornaments	61.00	38.80	47.13	53.00
7. Medical care	496.67	296.80	371.75	250.00
8. Educational exp.	367.33	238.40	286.58	418.00
9. Merit making	380.67	243.20	294.75	240.00
10. Ceremony	442.00	72.80	211.25	30.00
11. Gifts	13.33	4.40	7.75	-
12. Amusement	45.33	82.40	60.50	107.00
Total.	4,819.67	2,753.68	3,529.43	5,961.60

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Table 37 Percentage distribution of households by silk worm rearing status, 1976.

Category	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
1. Traditional silk worm rearing	20.00	12.00	15.00	--
2. FWD's sericulture project	--	--	--	n.a.
3. USOM's Sericulture project	--	--	--	n.a.
4. Will soon join the project	6.67	16.00	12.50	n.a.
5. Stop rearing silk worm	--	16.00	10.00	--
6. Never reared	73.30	56.00	62.50	100
Total	100	100	100	100

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Table 38 Percentage distribution of heads of farm households by reasons for not joining the sericulture training program, 1976.

reasons	zone 1	zone 2	total
(1)	(2)	(3)	(4)
1. too old	--	4.00	2.50
2. busy with other work	6.67	4.00	5.00
3. afraid of being in debt	--	--	--
4. family member already joined	--	8.00	5.00
5. project not yet started	--	4.00	2.50
6. unaware of the project	--	4.00	2.50
7. not interested	--	--	--
8. could not grow mulberry	--	--	--
9. unqualified for training	--	--	--
10. not yet applied for	--	--	--
11. quit rearing	--	--	--
12. others	--	--	--
13. no answer	--	4.00	2.50
14. not applicable	93.33	72.00	80.00
Total	100.0	100.0	100.0

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Table 39 Percentage distribution of farm households on reasons children not joinint the training project, 1976.

reasons	zone 1	zone 2	total
(1)	(2)	(3)	(4)
1. too young	6.67	4.40	5.0
2. afraid of being in debt	--	--	--
3. busy with other work	13.33	4.0	7.5
4. unable to receive training	--	--	--
5. children grown up	--	--	--
6. project not yet started	--	4.0	2.5
7. unaware of the project	--	--	--
8. wait for mulberry growing	--	--	--
9. children not interested	--	--	--
10. prefer traditional method	--	--	--
11. family member already joined	--	--	--
12. have no children	--	--	--
13. could not grow mulberry	--	--	--
14. others	6.67	4.0	5.0
15. no answer	--	--	--
16. not applicable	73.33	84.0	80.0
Total	100.0	100.0	100.0

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Table 40 Percentage distribution of farms classified by decision made toward sericulture project, by zone, 1976.

Category	Zone 1	Zone 2	Total
(1)	(2)	(3)	(4)
1. already joined the project	33.33	20.00	25.00
2. will not join the project	6.67	20.00	15.00
3. not applicable*	60.00	60.00	60.00
Total	100	100	100

Note : * "not applicable" includes 'not aware of',
'not eligible', and 'not ready to join'.

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Table 41 Percentage distribution of settlers by ownership of silk
worm rearing house by zone, 1976.

Category	Zone 1	Zone 2	Total
(1)	(2)	(3)	(4)
yes	6.67	4.00	5.00
no	20.00	32.00	27.50
not applicable*	73.33	64.00	67.50
Total	100	100	100

Note : * not applicable includes those who have not
decided to join the sericulture project.

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Table 42 Percentage distribution of settlers who are aware of sericulture project classified by opportunity of answering questions about the project to other settlers, by zone 1976.

Category	Zone 1	Zone 2	Total
(1)	(2)	(3)	(4)
1. Those who have been asked	13.33	4.00	7.50
2. Those who have never been asked	20.00	12.00	15.00
3. Not applicable*	66.67	84.00	77.50
Total	100	100	100

Note : * "not applicable" includes those who are not aware of the project themselves and those who are not eligible to join the project.

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Table 43 Percentage distribution of settlers by decisions made toward joining the sericulture project after having informed about the project by other settlers, by zone, 1976.

Category	Zone 1	Zone 2	Total
(1)	(2)	(3)	(4)
1. will join the project	13.33	4.00	7.50
2. will not join the project	--	4.00	2.50
3. not applicable*	86.67	92.00	90.00
Total	100	100	100

Note : * "not applicable" includes those who have never been informed about the project and those who are not eligible for the project.

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Table 44 Awareness of family planning program in the settlement of settlers, by source of information and by zone, 1976.

Unit : %

Category	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
private source	-	-	-	-
government source	46.67	36.00	40.00	50.00
unaware	40.00	56.00	50.00	40.00
not applicable (no need of the program)	13.33	8.00	10.00	10.00
Total	100	100	100	100

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Table 45 Percentage distribution of settlers by form of birth control practiced by zone, 1976.

Category	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
not practiced	53.33	44.00	47.50	70.00
abstinence	-	-	-	-
female sterilization	6.67	-	2.50	10.00
male sterilization	-	-	-	-
IDU	33.33	44.00	40.00	10.00
condoms	-	4.00	2.50	-
injection	-	-	-	-
pills	6.67	8.00	7.50	10.00
traditional medicine	-	-	-	-
others	-	-	-	-
not applicable	-	-	-	-
Total	100	100	100	100

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Table 46 Percentage distribution of farm households by number of member migrated out, 1976.

Category	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
1) Farm h.h. with no member migrated	73.3	52.0	60.0	50.0
2) Farm h.h. with member migrated	26.7	48.0	40.0	50.0
No. of member migrated :				
1	13.3	20.0	20.0	30.0
2	-	16.0	10.0	-
3	6.7	-	2.5	20.0
4	-	-	-	-
5	-	4.0	2.5	-
6	6.7	4.0	5.0	-
7	-	-	-	-
8	-	-	-	-
Total	26.7	48.0	40.0	50.0

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Table 47 Percentage distribution of problems by farmer group, 1976.

Problems	Settlers			Non-settlers
	Zone 1	Zone 2	Total	
(1)	(2)	(3)	(4)	(5)
<u>About farming</u>				
Weather	80.00	72.00	75.00	20.00
Insufficient capital	20.00	36.00	30.00	60.00
Cropdiseases & insects	40.00	36.00	37.50	70.00
Low quality land	13.33	16.00	15.00	10.00
Monopoly farm trader	40.00	56.00	50.00	20.00
Agricultural extension	-	-	-	-
<u>General</u>				
Crime	20.01	16.00	17.50	10.00
Communications	20.00	32.00	27.50	10.00