

Assigned by the Ministry of Agriculture, Forestry and Fisheries

**Report on the Survey of Rural Population
and Agricultural Development
in Asian Countries
— Malaysia —**

MARCH 1993

**The Asian Population and Development
Association**

Courtesy call on Speaker of Parliament, Malaysian Parliament
 From left:
 Tsuguo Hirose, preliminary survey team leader
 T.S. Zahir Ismail, Speaker of Parliament
 Hji Ibrahim Ali, Head of Committee, Malaysian Forum of Parliamentarians on Population and Development.

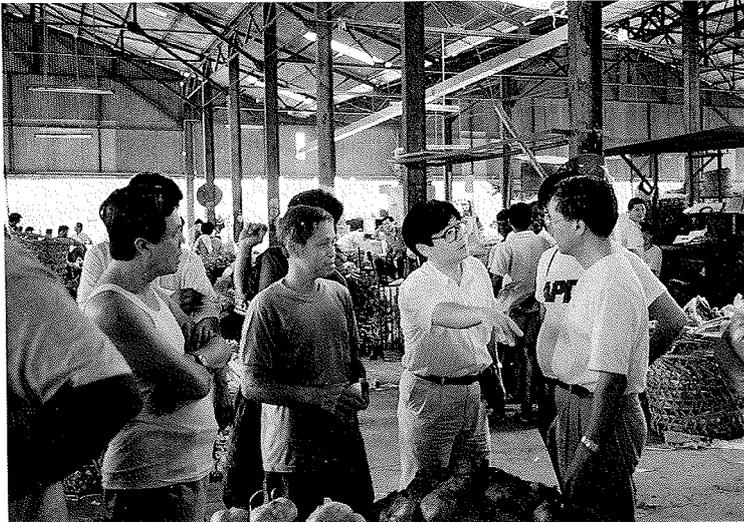


◀ Courtesy call on Embassy of Japan
 From left:
 Seiichi Fukui, research team leader
 Hiroshi Fukuda, Ambassador
 Tomomi Otsuka, research team member
 Osamu Kusumoto, research team member
 Chan Tong Seng

Visit to Malaysian Ministry of Agriculture
 Second from left:
 Abdul Jamil Mohad Ali, Director General, Department of Agriculture
 Third from left:
 Beng Paik, Assistant Director



Muda Jaya Kinabalu ▶
Visit to farmers'
association.



◀ Ipoh city central wholesale
market, Perak.

Paddy in Kerian area, Perak. ▶



Foreword

The following report represents the results of a "Survey of the Rural Population and Agricultural Development in the Asian Countries," consigned by the Ministry of Agriculture, Forestry and Fisheries in 1992, and entrusted to be implemented by the Asian Population and Development Association (APDA) for Malaysia. The survey and compilation of the results were carried out mainly by members of APDA's survey committee (Chairperson: Dr. Shigeto Kawano, Professor Emeritus, the University of Tokyo).

The survey was conducted to pursue the following objective: In Extending cooperation in terms of rural and agricultural development to Asian countries, it is necessary to give due considerations to enhance productivity, to develop rural community, and to improve the standards of rural life. In particular, special note must be taken to assist in sustenance of rural population carrying capacity. For this goal, a field survey will be conducted in a model district selected from among the Asian nations to determine the rural community and agricultural development programs to be implemented, with the objective of maintaining and enhancing the population carrying capacities. The results will establish a guideline for Japan's international cooperation in the area of agriculture, forestry and fisheries.

The field survey in Malaysia was conducted with the guidance and cooperation of the Hon. Ibrahim Ali, member of Parliament and Head, Committee Malaysian Forum of Parliamentarians on Population and Development. Also, members of the Japanese Embassy in Malaysia Mr. Hiroshi Fukuda, Ambassador, Hidenao Sawayama Second Secretary.

In Japan, members of the International Cooperation Division, Economic Affairs Bureau, the Ministry of Agriculture, Forestry and Fisheries, and Aid Policy Divisions, Economic Cooperation Bureau, the Ministry of Foreign Affairs, cooperated in the guidance of the survey substance and arrangement of the field survey. I would like to extend my deepest gratitude to these people.

I sincerely hope that this report would hopefully contribute to the advancement of the rural community and agricultural development programs in Malaysia, as well as support the Japanese Government's cooperation there in an effective manner. Furthermore, I would like to note that this report was compiled by and is the sole responsibility of APDA, and does not reflect any views nor policies of the Ministry of Agriculture, Forestry and Fisheries or the Japanese Government.

March, 1993
Fukusaburo Maeda
Chairman
The Asian Population and
Development Association

Contents

Foreword	5
Chapter One Outline	9
1 Issues Facing Rice Production in Malaysia	9
2 Possible Cooperation Policies in the Development of Rice Farming	11
Chapter Two Overview of Agricultural Economics and Agricultural Policies	15
1 Importance of Agriculture in the National Economy	15
2 Changes in Rice Policies	16
3 Idle Land Problem and Farmers' Organization	18
Chapter Three Rural and Agricultural Development in Surveyed Areas	27
1 Description of Surveyed Areas	27
2 Survey of the Muda Area	29
3 Kerian Area	33
4 Insights Gained From the Survey	34
Chapter Four Survey Members and Itinerary	47
Major Materials Collected, Sample Survey Questionnaire	57

Chapter One

Outline

1 Issues Facing Rice Production in Malaysia

The purpose of this report is to clarify in what sense and forms Japan can offer its cooperation and assistance effectively for the development of agriculture in Malaysia.

We conducted intensive deliberations at study meetings both before and after the on-site survey in order to determine first of all the current situation of rice-growing in Malaysia, what kinds of policies the Malaysian government has with regard to this situation, and what types of foreign cooperation and assistance it deems necessary to deal with these problems. However, at the time of our survey, the contents of the "New National Agricultural Policy" which is expected to indicate new objectives had not yet been announced, so we were not able answer these questions directly. We were only able to discuss such issues as the types of cooperation and assistance which could be envisioned if we consider the issues based on the continued development of Malaysian agriculture, and in particular rice-growing, along the lines it has taken over the past 20 years.

Agriculture in Malaysia has a complex structure, just as the country has a complex ethnical structure. There is both plantation-style agriculture for such products as oil palm and rubber and peasant farming agriculture for rice and other products. Furthermore, the

Malaysian economy, due in part to its development during colonial times, has the distinctive feature of benefiting from such important resources as petroleum, natural gas, and tin and other mineral resources.

Thus, over the past 30 years the Malaysian economy has developed rapidly with emphasis on industrialization, but this naturally gave rise to the rapid absorption of labor into the industrial sector from the agricultural sector. This led to labor shortages in the plantation and peasant farming sector and increasing amounts of idle land in the rice-growing regions. The plantation sector dealt with this by adopting such measures as the active importation of foreign workers, but the rice-growing sector came to face such problems as the relative poverty of ethnic Malay farmers and the reduction and instability of the rice self-sufficiency rate.

However, the poverty of ethnic Malay farmers goes against the goal of Bumiputra policy (prioritizing ethnic Malays), and the drop in the rice self-sufficiency rate is by no means desirable. Because of this, in 1971 the government established the "New Economic Policy" which reconsidered the previous comprehensive rice policy centering on the construction of large-scale irrigation facilities and the introduction of high yield varieties, and called for various priority, strategic programs for the modernization of rice production. Furthermore, in 1984 the government established and began implementing the "National Agricultural Policy" which included measures for promoting further mechanization, the development and diffusion of direct seeding techniques, the rationalization of management through the introduction of group farming, etc.

These policies led first to new land development projects by governmental organizations, the construction of large-scale irrigation facilities, and the introduction of high-yield varieties of rice, and in a second stage to the reinforcement of the policy focusing on Muda and seven other major paddy regions.

In concrete terms, stress was placed on the promotion of basic land development such as the installation of small-scale irrigation facilities, and the promotion of technological reforms such as mechanization and the development and spread of direct seeding techniques. In addition, for the rationalization and increased stability of paddy production, the policy called for maintaining the guaranteed minimum rice price system for farmers (which had been in place since 1949) and strengthening price subsidies and monetary subsidies for fertilizer. Furthermore, to implement and promote these measures, the National Padi and Rice Board was established as an organization for regulating the distribution of rice, the Malaysian Agricultural and Development Institute for conducting testing and research for technological development, and such agencies and organizations as the Rural Credit Society, Farmers' Association and Farmers' Organization Authority were set up to deal with these issues at different stages.

As a result, the surface of idle land which at one time was said to be as high as 160,000

hectares in peninsular Malaysia in the 1970s gradually began decreasing, most of the land in such regions as Muda where there is a high density of large and small irrigation networks and developed land is once again being used to grow rice (some has been converted to other agricultural products), and farm management has become more efficient through rationalization in the form of mechanization and direct seeding and through the introduction of high-yield varieties of rice.

However, if we look at the rice self-sufficiency rate, the targets themselves have gradually been lowered from 100% in the 1960s to 90%, then 80%, and the actual self-sufficiency has dropped to 73% in 1990 (as compared to 89% in 1980). The new policy to start in 1992 is expected to reduce the target even further to 65%. Furthermore, regarding the problem of food security, the Malaysian government is rather optimistic considering the possibility of importing a stable supply from such neighbors as Thailand. This view could be supported by possible development in industrialization, increased exports of petroleum, palm oil, and rubber, and the imports these increased exports will allow.

On the other hand, the National Agricultural Policy whose target year is the year 2010 (Chapter 3, Table 10) projects what would seem to be prodigious progress, with an increase in the total cultivated area of 12% over 1990 levels while the total paddy field area remains at current levels, and an increase of the average yield in unhulled rice per hectare in the eight large paddy regions from 3.34 tons to 7.00 tons, in order to maintain a self-sufficiency rate of 65%. These projections are no doubt based on the premises of active population policies centering on family planning which foresee a lower population growth rate but still an average growth rate of over 2.20% and a doubling of the population in 20 years, but it should be noted that in this project the per capita rice consumption is expected to remain at current levels. If the per capita consumption were expected to rise due to economic growth, future domestic production would have to increase even more to maintain the self-sufficiency rate at 65%.

2 Possible Cooperation Policies in the Development of Rice Farming

Thus, we must realize that rice policies in Malaysia will still be encounter major problems in the future. In addition, in areas other than the Muda plain where irrigation facilities and land development is insufficient, the problem of idle land is still one which cannot be overlooked, as discussed in the report on the local survey. Furthermore, plans call for redeveloping 42,000 hectares of the current 67,000 hectares of idle land by the year 2000 (Chapter 3, Table 11).

What methods and forms of cooperation and assistance can be envisaged in view of the problems rice-growing is currently facing in Malaysia?

First, the per capita national income in Malaysia has already exceeded \$2,000, so in

principle Malaysia is no longer eligible for receiving interest-free financial aid. Thus, assistance can only take the form of technological cooperation or offering low-interest loans, and for the latter the effective utilization of such financing is naturally a major issue.

Second, financial aid offered by Japan in the form of low-interest loans has in the past mainly been for the establishment of economic infrastructure (energy development, transportation infrastructure, etc.), and in the case of agriculture it has been limited to a relatively narrow scope, such as the construction of ureal fertilizer factories and rice-cleaning plants, or the employment of trainees, the rationalization of non-grain irrigation zones, and the participation in surveys for crop diversification plans.

Cooperation and assistance must be based on the policies and requests of the benefiting country, but as previously mentioned, we can expect Malaysia's rice policies to meet many difficulties in the future.

Malaysia's plans are based on such premises as the redevelopment of idle land and the increase in cultivated area, and as such will require more irrigation facilities and land development, and naturally this will require increased public investments. Increasing the yield per hectare may be possible through the introduction of further improved varieties of rice and the increased use of fertilizers and chemicals. However, it is important to keep in mind that rice production is currently supported to a substantial extent by price subsidies and low-interest financing. If this will continue to be the case as the production of rice increases in the future, the financial burden will be formidable. The only ways to avoid this are by reducing the costs of fertilizers and agriculture medicine, large-scale mechanization, the extensive spread of direct seeding, improvements in efficiency in all stages of production and distribution, and the promotion of rationalization of farm management. However, basically this will entail improvements in production efficiency at all stages, for which research materials and facilities will be required for testing and research, and the training of the human resources necessary for management is also important. Though there are many points which are still unclear concerning the procedures for redeveloping idle land, it goes without saying that this will first of all require the active awareness and capabilities of the farmers themselves, through for example the promotion of planned planting focusing on group farming ("kelompok tani"). The same is true for breaking away from the strongly governmental character of the farmers' organizations, and semi-governmental character of cooperatives and their non-efficient management. The same is basically true for the rationalization of the distribution and marketing of rice, including polished rice, as well.

In this sense, generally speaking, the fundamental conditions required for improving productivity in rice production are the supply of various types of materials, as well as the training of researchers, extension workers, and other technicians, and the improvement of the levels of education and awareness of the farmers themselves. This will depend on the

programs for assistance and cooperation which Malaysia itself proposes.

This survey has focused mainly on the production of rice and therefore the proposals made herein target the development of rice production, but in principle the same can be said of other agricultural sectors if conditions on the Japanese side allow.

Chapter Two

Overview of Agricultural Economics and Agricultural Policies

1 Importance of Agriculture in the National Economy

For the past 10 years, the agricultural sector in Malaysia has achieved an annual growth rate of nearly 4% on a GDP basis. However, the relative importance of agriculture is dropping due to the rapid development of the manufacturing sector and other modern sectors (see Table 1).

Agriculture in Malaysia is characterized by the production and export of such primary products as oil palm, natural rubber, timber, marine products and cocoa. Of these, the production of natural rubber, previously an important traditional product of Malaysia, has decreased due to the decrease of demand in the world market, and in its place the production of oil palm is increasing notably (see Table 2). Three of the reasons for the growth in production of oil palm are: ① that high yield varieties of oil palm were introduced in the 1960s; ② that from the mid 1970s many oil factories were constructed and oil palm came to be used as a raw material for industrial products; and ③ that in the framework of the Bumiputra policy, production was promoted through new land development projects by such governmental organizations as FELDA and FEICRA, through the introduction of state management type farm management and administration, and through technological improvements.

If we look at the trend in agricultural products from the trade standpoint, growth for all products other than oil palm is stagnant and their importance for trade is decreasing notably. In 1991, the share of imports of the major agricultural products on a monetary basis had decreased substantially to 9%, from 27% in 1980 (see Table 3). Though the share of imports of agricultural products is dropping, the amount of imports is increasing steadily, reflecting the stagnation of domestic production of food products.

This trend is shown from viewpoint of land use in Table 4. It indicates that the amount of land used for oil palm increases, that for natural rubber decreases, and as for rice, it is constant.

This relative reduction in the importance of the agricultural sector is reflected by the share of agriculture-related expenditures among the government's total financial expenditures. Table 5 shows the percentage of the budget allotted for agricultural and rural development projects among the government's developmental expenditures. We can see that in the past ten years, aside in the mid 1980's, this share has been dropping steadily.

Even for oil palm, whose production has increased dramatically over the past 10 years, the speed of growth is expected to decrease due to cutbacks in new land development projects and the labor shortage, thereby further accelerating the decline of the relative importance of the agricultural sector.

Under these circumstances, only rice is still important as a "political crop", and the government is maintaining the protective policies for rice (Table 6).

In the following section we will review changes in agricultural policies in Malaysia, focusing mainly on rice policies.

2 Changes in Rice Policies (*1)

Since the 1960s, the productivity of rice farming has improved due to the installation of irrigation facilities and technological reforms. From the mid 1970s on, however, as the productivity of oil palm and other sectors using the estate system improved, the rate of improvement of productivity for the sectors relying on traditional small-farm management such as rice became lower than that of the industrial sector and began stagnating. As a result, there was an outflow of labor from the rice-farming sector to the industrial sector, the amount of idle land increased substantially, the rate of self-sufficiency for rice decreased, the low productivity did not improve and the significant number of rice farmers remained in poverty (see Tables 7 and 8).

In response, in order to alternate the previous agricultural policy in some aspects, the government provided the basis for future agricultural development policy by enacting the "National Agricultural Policy".

(1) Rice policy up to 1983

In the 1960s, the government implemented a policy for the modernization of agriculture which focused on the construction of large-scale irrigation systems and the introduction of high yielding varieties, with the objectives of: ① supporting the income of farmers; ② distributing rice to consumers at a reasonable price; and ③ achieving 100% self-sufficiency.

In 1971, the New Economic Policy and the Bumiputra policy were implemented. The goals of the rice policy were to be continued, the following new policy measures were adopted:

- ① The target of self-sufficiency was lowered to 80 - 90%.
- ② It was decided to implement no new large-scale irrigation projects.
- ③ The Integrated Agricultural Development Projects for the land improvement and technical innovation were to be concentrated in eight granary regions (Muda, Kemubu, Kerian Sungai Manik, etc.).
- ④ The guaranteed minimum price system for farmers which had been in place since 1949, was decided to be maintained and the government agreed to increase the minimum price in 1973. Besides price support, a 100 percent fertilizer subsidy scheme was introduced with the size limit 2.4 ha or less (see Table 9).
- ⑤ The LPN (National Padi and Rice Board) was established in order to improve rice marketing and to well operate guaranteed minimum price system through the unification of imports and the introduction of a license system for domestic distributors.
- ⑥ MARDI (Malaysian Agricultural Research and Development Institute) was established with the awareness of the need to increase yield and reduce production costs in order to improve the income of farmers, and research and experimental organizations for technological development were strengthened.
- ⑦ In 1973, under Farmers' Organization Authority the Rural Credit Society and farmers' associations were unified in order to provide low-interest credit, financing and technical assistance through farmers' organizations.

(2) National Agricultural Policy

Despite this rice policy, the problem of low productivity in the rice-farming sector persisted, and the structural problems of rice farming became apparent in the form of increases in idle land.

To deal with this situation, the government unified its agricultural development policy which previously had been different for each product, and in 1984 established a new "National Agricultural Policy". The differences between this new policy and the previous policy can be summed up as follows:

- ① The rice self-sufficiency target was reduced from 80 - 90% to 80 - 85%.

- ② This target would be reached not by developing new paddy fields but by improving productivity in the eight large paddy regions.
- ③ The increase productivity, had been pursued by infrastructural change increasing and technological innovation such as the modern seeds varieties and mechanization. In addition to it the development and diffusion of direct seeding technologies would be promoted to cope with the rural labor shortage.
- ④ To resolve the poverty problem of rice farmers, the programs in land consolidation and in farm size expansion, such as the promotion of group farming or mini-estates were implemented as well as the technological innovation and the adoption of profitable crops. Thus, these organizational and technological innovations are characteristics of this new rice policy.

A new national agricultural policy is expected to be announced in 1992. It has not yet been made public, so we do not know the details, but we believe it will carry over the existing National Agricultural Policy though reducing the self-sufficiency target to 65% (see Table 10).

3 Idle Land Problem and Farmers' Organization

Finally, before we proceed to the results of our field survey, we need to describe the overview of the idle land problem which characterizes the structural problems of agriculture in Malaysia, and the organization of farmers.

(1) Measures to cope with the idle land problem

The problem which has been considered most serious among structural problems in the small farming sector is that of idle land.

The area of idle land began growing from the mid 1970s and reached 160,000 hectares in 1980, or approximately 40% of the total area of paddy fields (see Table 11).

As for this increase in idle land, ① the shortage of agricultural labor, and ② the low profitability of rice farming are the basic determinants. The detail discussions about this are developed in the next chapter.

Aimed at the reduction of idle land, the Malaysian government began a land rehabilitation project which consisted mainly in:

- ① Attempting to improve productivity through the installation of irrigation facilities and the promotion of technical innovation in the major paddy regions while encouraging crop switch overs in other regions.
- ② Improving productivity by organizing small rice farmers through the introduction of group farming and mini-estates.

These land rehabilitation projects along with the strengthening GMP and the fertilizer subsidy program led to improvements in profitability of rice production, and over the past 10 years the amount of idle land has decreased rapidly. The Malaysian government plans to continue reducing the amount of idle land for the more effective use of resources, and by the year 2000 expected to eliminate idle land in all states other than Pahang and Kelantan.

(2) Organization of farmers

To raise the level of productivity in the rice-farming sector, it is essential to deal with farmers in an organized fashion when implementing policies for the improvement of social infrastructure, the purchase of input, the price support and the diffusion of technology.

In Malaysia, in 1922 when the country was still a British colony, a Department of Cooperative Society was established and six Rural Credit Societies were also established following Raiffeisen type of credit cooperative. After independence in 1959, farmers' associations were established under the Department of Agriculture independently of the Rural Credit Society with the purpose of effective agricultural extension, and since then these two separate farmers' organizations had coexisted.

As already stated, in 1973 the Farmers' Organization Authority was established under the Ministry of Agriculture and the above two farmers' organizations were amalgamated to form a new organization in an attempt to promote organizational innovation and commercialization of the small farming sector.

The farmers' organizations are literally organizations of farmers and are under the jurisdiction of the Farmers' Organization Authority. There are three structural levels in the organization, the National Farmers' Organization at the top, followed by the State Farmers' Organizations and Area Farmers' Organizations, and under the Area Farmers' Organizations are many Small Farmers' Units and Agro-based Cooperative Societies (see Figure 1).

The Area Farmers' Organizations are operated by a board of directors consisting of 11 members. Four of these directors are appointed by the Minister of Agriculture, the remaining seven are elected by the representatives of the Small Farmers' Units.

The main activities of the Farmers' Organization are to provide the integrated services such as extension, buy and sell, credit, processing and marketing, mediation of land transaction. These activities are carried out under a General Manager by officials employed by the Farmers' Organization Authority, and are reported to have relatively good success. As a result, over the last ten years since 1981, the Farmers' Organization has grown remarkably from 207,700 members (30% of farmers) and 169 Area Farmers' Organizations to 207,700 members (66.5% of farmers) and 264 Area Farmers' Organizations. In the future, it is expected that the Farmers' Organizations will become independent of state control and be progressed towards self-reliance.

Notes:

- *1 The comments in this section owe largely to Akimi Fujimoto, "Evolution of Rice Farming Under the New Economic Policy", the *Developing Economies*, 1991, Vol. 24, No. 4, pp. 431-454.
- *2 For the historical process behind agricultural cooperative societies in Malaysia, refer to Kenzo Horii, "The Development and Problems of the Agricultural Cooperative Society Movement in Malaysia, Takigawa and Saito (ed.), "Agricultural Cooperative Societies in Asia", 1973, Asian Economy Survey Study Series No. 209, and Akimi Fujimoto, "Modernization of Agriculture and Farmers' Organizations in Malaysia - In Particular Since 1973", Tsutomu Takigawa (ed.), "Changes in Agriculture and Farmers' Organizations in Southeast Asia", 1985, Asian Economy Survey Study Series No. 327.

Table 1 Importance of Agriculture, Forestry and Fishery Industries in the National Economy

(M\$ millions, in 1978 prices)

Year	1980	1985	1990	Annual growth rate		
				1981-85	1986-90	1981-90
GDP	44,512	57,093	79,155	5.10	6.75	5.93
Agricultural sector	10,190	11,854	14,828	3.07	4.58	3.82
Share (%)	23	21	19			
Share of exports (%)	40	29	19			
Share of total employment (%)	40	31	28			

Source: Malaysia Plan

Table 2 Added Value of Agricultural Products

(M\$ millions, in 1978 prices)

Product	Oil palm	Natural rubber	Timber	Marine products	Cocoa	Livestock	Rice	Others	Total
1985	3,604	2,276	2,051	1,316	545	N.A.	N.A.	N.A.	11,854
(%)	(30.4)	(19.2)	(17.3)	(11.1)	(4.6)				(100)
1990	5,264	2,001	2,521	1,480	1,191	744	607	1,020	14,828
(%)	(35.5)	(13.5)	(17.0)	(10.0)	(8.0)	(5.0)	(4.1)	(6.9)	(100)

Source: Sixth Malaysia Plan, 1991-1995, MOA data

Table 3 Trade in Main Agricultural Products

(M\$ Million)

Product	Year	1980	1988	1990	1991
Total exports		28,171.6	55,260.0	79,646.4	94,496.6
Natural rubber		4,618	5,255.9	3,026.6	2,689.8
Palm oil and products		2,818.5	5,161.8	4,922.4	5,509.2
Cacao beans		161.9	708.3	448.5	408.0
Pepper		107.7	158.5	117.6	86.6
Total imports		23,451.1	43,293.4	79,118.6	100,831.1
Milk and dairy products		199.7	436.6	528.5	383.8
Wheat		203.0	320.2	390.4	501.0
Rice		129.5	212.0	269.8	350.5
(1000t)		(167.6)	(283.9)	(330.3)	(399.9)
Maize		253.7	454.6	571.2	566.1
Sugar beet and sugar cane		419.9	431.6	602.2	617.6

Source: Yearbook of Statistics, 1991, Department of Statistics

Table 4 Trends in Planted Area for Major Crops

(1,000ha)

Year Crop	1980	1985	1990
Oil palm	1,023	1,482	1,984
Natural rubber	2,005	1,949	1,811
Cacao beans	124	304	420
Paddy	716	649	664
Others	472	568	601
Total	4,340	4,952	5,480

Note: For peninsular Malaysia only.

Source: Fifth and Sixth Malaysia Plans and Malaysia Agricultural Directory & Index 91/92, Pantai Majh Sdn. Bhd.

Table 5 Weight of Agricultural Sector Among Governmental Expenditures

(M\$ Million)

Area	Year	1980	1985	1990	1991
1) Governmental expenditures		21,155	27,208	37,794	41,198
2) Government expenditures for development		7,463 (100)	7,142 (100)	10,689 (100)	10,363 (100)
① Security		1,222 (16.4)	629 (8.8)	1,061 (9.9)	2,378 (22.9)
② Social services		1,185 (15.9)	2,093 (29.3)	2,617 (24.5)	2,580 (24.9)
③ Economic services		4,816 (64.5)	4,303 (60.2)	6,701 (62.7)	5,078 (49.0)
Agriculture and rural development		1,138 (15.2)	1,287 (18.0)	1,298 (12.1)	1,051 (10.1)
④ General administration		240 (3.2)	117 (1.6)	310 (2.9)	372 (3.2)

Source: Economic Report 1991/92, Ministry of Finance, Malaysia.

Table 6 Rate of Protection of Major Products

Product Period	Rubber (estate)	Rubber (small farm)	Palm oil	Rice
1960-64	-8	-15	-8	20
1965-69	-7	-15	-8	-1
1970-74	-9	-19	-12	4
1975-79	-23	-25	-16	39
1980-83	-19	-20	-15	76
Average for total period	-13	-19	-10	26

Source: Jenkins, G.P. and A. Lai, 1989, Trade Exchange Rate and Agricultural Pricing Policy in Malaysia, A World Bank Comparative Study, Washington D.C.

Table 7 Trends in Self-Sufficiency for Rice in Malaysia

Year	Total cultivated area (1,000 ha)	Total production (1,000t polished rice)	Self-sufficiency (%)
1980	716.9	1,318	89
1981	710.8	1,303	80
1985	656.4	1,258	75
1987	704.0	1,096	85
1990	650.4	1,138	73

Source: Department of Statistics and MOA data

Table 8 Incidence of Poverty by Occupation

Year Occupation	Incidence of Poverty (%)	
	1976	1984
Rural sector:	47.8	24.7
Rubber, small farmer	58.2	43.4
Rice grower	80.3	57.7
Farm worker	—	19.7
Fisher	62.7	27.7
Coconut, small farmer	64.0	46.9
Other agricultural workers	52.1	34.2
Other industrial workers	27.3	10.0
Urban sector	17.9	8.2
Average	39.6	18.4

Source: Fifth Malaysia Plan, 1986-1990

Table 9 Trends in Farmer Take-home Rice Prices

年	(M\$/ton)			
	Guaranteed minimum price (GMP)	Subsidy	Farmer take-home rice price	Consumer price index (1985 = 100)
1949	265		265	—
1973	381	33	414 (794.6)	52.1
1980	496	168	664 (833.1)	79.7
1990	496	248	744 (672.1)	110.7

Note: Figures in parentheses are the farmer take-home rice prices calculated at 1985 prices.
Source: Jenkins and Lai (see above) and data provided orally at MOA.

Table 10 Rice Production and Self-Sufficiency by 2010 as per New National Agricultural Policy

Year	1990	2000	2010
Population (in millions)	18,010	22,608	40,000
Annual per capita rice consumption (kg)	87	75	65
Rice consumption (million tons)	1,567	1,696	2,600
Rice production (million tons)	1,138	1,102	1,690
Self-sufficiency (%)	72.63	64.99	65.0
Average yield of eight large paddy regions in unhulled rice (t/ha)	3.34	4.20	7.00
Total paddy field area (ha)	240,938	240,938	240,938
Total cultivated area (ha)	386,874	425,156	433,688

Source: MOA data

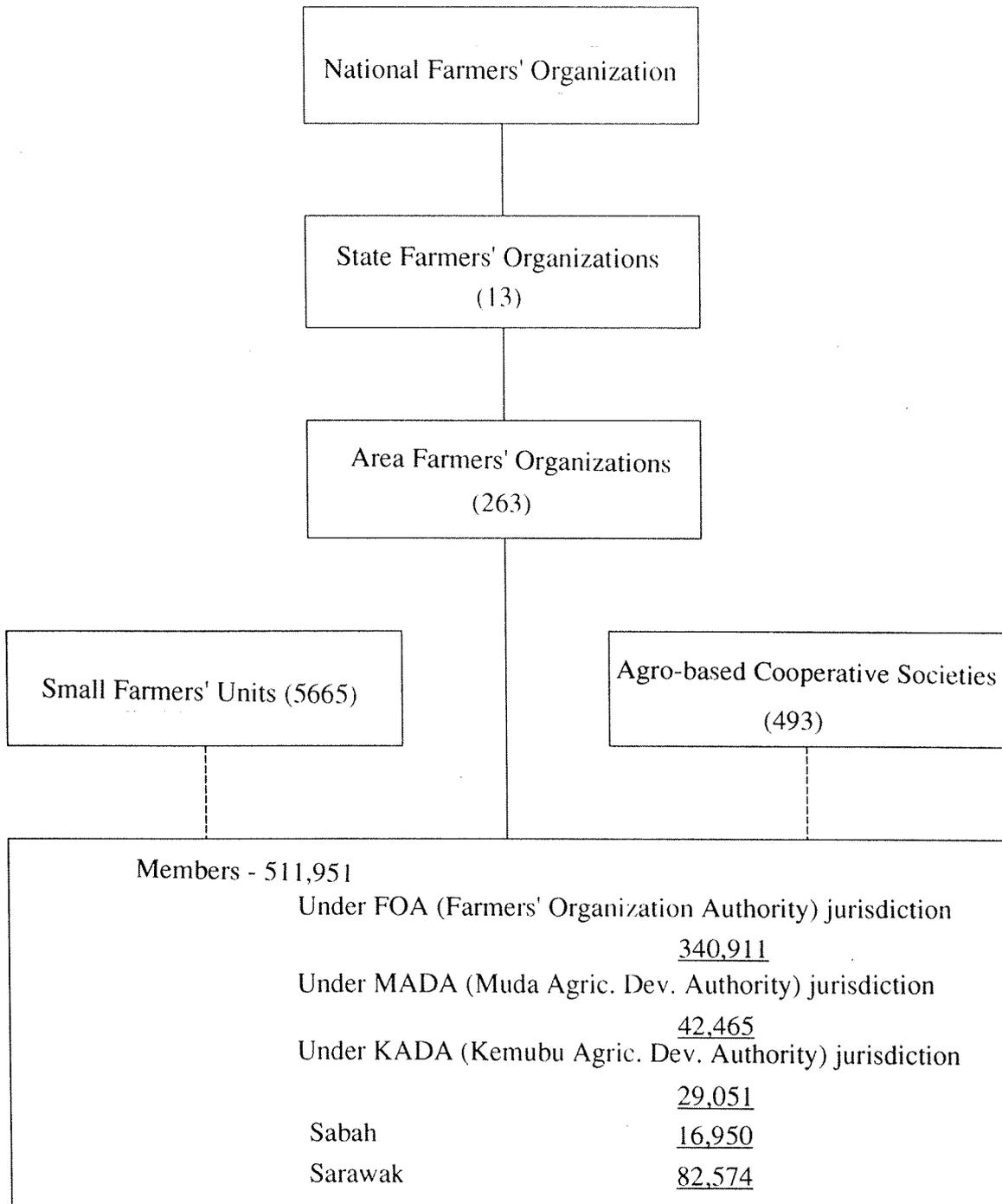
Table 11 Trends in Idle Land by State

Year	(ha)					
	1980	1981-85 redeveloped area	1986-90 redeveloped area	1986-90 redeveloped area 1991 (as per plan)	Area to be redeveloped from 1991 to 2000 (as per plan)	
Perlis	1,880	300	1,580	—	1,580	1,580
Kedah	4,646	236	7,339	5,867	1,472	1,471
Penang	6,473	5,833	4,017	7,319	—	—
Perah	11,771	1,936	10,466	2,699	7,767	8,000
Selangor	1,720	336	1,427	705	722	722
N. Sembilan	14,426	2,486	10,285	1,738	8,546	8,545
Melaka	6,584	1,114	3,250	1,078	3,127	3,126
Johor	2,563	22	2,018	296	1,722	1,721
Pahang	11,621	807	20,282	1,770	18,512	7,985
Terengganu	17,130	690	7,141	2,479	4,663	4,662
Kelantan	82,049	6,903	23,398	3,680	19,718	4,866
Total	160,863	20,663	91,203	27,631	67,828	42,678

Note: Includes paddy field area idle during dry season only.

Source: Akimi Fujimoto, 1991, "Changes in Rural Areas and Agricultural Structure Under the Policy of Industrialization", Kenzo Horii (ed.), "Industrialization in Malaysia - Evolution of a Multiracial Nation and Industrialization", Asian Economic Institute and MOA data.

**Figure 1 Structure of Malaysia's Farmers' Organizations
(as of December 31, 1990)**



Source: "A Brief Note on the Authority and Its Role in Accelerating Rural Development in Malaysia", FOA

Chapter Three

Rural and Agricultural Development in Surveyed Areas

This survey was performed orally and through questionnaires in the Muda area of Kedah State and in the Kerian area of Perak State. The following is a description of the surveyed areas and a summary of the survey. The aggregated results of the survey questionnaires are included at the end.

1 Description of Surveyed Areas

Currently there are six regions in Malaysia in which irrigation improvements are being conducted with priority. The six irrigation projects are the Kemubu/Lebal Irrigation Scheme in Kerantan State on the northeastern coast, the Besut Irrigation Scheme in Terengganu State on the eastern coast, the Muda Irrigation Scheme in Kedah State on the northwestern coast, the Kerian Irrigation Scheme in Perak State on the western coast, the Sungai Manik Labu Kubong and Changkat Jong Irrigation Scheme also in Perak, and the Tanjong Karang and Sabak Bernam Irrigation Scheme in Selangor State, in which the capital Kuala Lumpur is located.

Of these, we selected to survey the Muda area of Kedah State and the Kerian area of Perak state.

(1) Muda area

The state of Kedah is in northern peninsular Malaysia adjacent to Thailand and facing the Strait of Malacca. It was the first developed region of Malaysia, being a relay point for East-West trade, and is said to be the oldest state in Malaysia. Kedah is also a typical Malaysian rice-growing region and is called the "rice bowl" of Malaysia. It covers an area of 9426 square kilometers, and its population is 72% Malay, 19% ethnic Chinese and 8% ethnic Indian. The population was estimated at 1,412,000 in 1990.

The state capital, Alor Setar, is located 462km from Kuala Lumpur. Kedah is the home state of Prime Minister Dr. Mahatir Mohamad and has played a central role in the development of northern Malaysia. This development includes the establishment of the Northern Malaysia University (UPM), the preparation of land for an industrial zone, and agricultural development, and the region is one of the major centers of regional development in Malaysia. Japanese firms, including Nichias, Onkyo and Takagi Ceramics have located in the industrial zone. The region also putting stock in its tourism resources, with the Langkawi island to be developed as a resort island like Penang island.

Muda is the flat area extending along the Muda River in approximately the center of the Kedah coastline. It is famous as the granary of Malaysia, and is a typical Malaysian rice-growing area. The overall development plan of the Muda region is being promoted by MADA (Muda Agricultural Development Authority). Though the Muda area of Kedah state is called the "rice bowl" of Malaysia, the an increasing diversity of crops are being grown here. Highlands not suited for paddy field cultivation are being used for growing mangoes, while along the coastline ducks are raised for producing salted eggs, and with the rising demand for meat in Malaysia, rabbits and sheep are raised using the undergrowth of rubber plantations. However, rice farming is still by far prevalent. The farmers' associations are under the jurisdiction of MADA instead of the Farmers' Organization Authority of the Ministry of Agriculture.

In this area under MADA's jurisdiction, the installation of an irrigation system has made direct sowing possible and eliminated the harsh work of transplanting rice seedlings, and rice subsidies have increased 1.5 times, so that rice farming has come to be profitable for farmers and idle land is being recultivated. There is now virtually no idle land in the area.

(2) Kerian area

The state of Perak is located on the western coast in the center of peninsular Malaysia, and is the birthplace of Malaysia's current king. Perak is the second largest state in peninsular

Malaysia, covering an area of 12,005 square kilometers. Its population was estimated at 2,222,400 in 1990, of which the ethnical composition is: 45% Malay, 41% Chinese and 14% Indian.

Perak is also famous as a tin producing area along with Selangor. The state capital, Ipoh, faces the Cameron Highlands, a major vegetable-producing area, and is also a vegetable center.

The Kerian area is located in the northernmost part of Perak State, bordering with the state of Penang. It has the oldest irrigation system in Malaysia, installed around 1905. Because of the poor drainage, direct sowing is not possible, and rice seedlings must be transplanted. The drainage system is now being improved.

2 Survey of the Muda Area

(1) Institutions visited

In the Muda area of Kedah, MADA is in full control of the area's agricultural development. MADA commands 22 farmers' associations (FAs) in Kedah and 5 in the state of Perlis, for a total of 27. We visited and received briefings at the MADA Head Office and three farmers' associations, the Muda Kuala Sungai FA, the Muda Jaya Kinabalu FA, and the MADA A-IV FA. We learned that the MADA Project, one of the six irrigation schemes in Malaysia being conducted with priority, has the objectives of promoting overall agricultural production and rural advancement in such areas as irrigation improvement plans, the development of farmers' associations, and the diffusion of technology.

(2) Land use in the MADA areas

The breakdown of land use is as follows (see Table 1): of the 125,987ha of land under MADA's jurisdiction, 95,856ha or 76.2% is used for paddies, 16,110ha or 12.8% (around villages) is used for growing vegetables, etc., 6,417ha or 4.7% is used for roads, bunds and canals, towns or buildings stand on 1,965ha or 0.9%, forests or grazing cover 2,634ha or 2.1%, swamps cover 1,882ha or 1.5%, and the remaining land area is 1,123ha or 0.9%.

By type of ownership, 29.3% own and cultivate their own land, 28.6% cultivate leased land, 33.3% cultivate both their own and leased land, and the remainder is 8.8%. Land leasing takes the form of fixed rate tenancy, and the average price per season per hectare is 732 Malaysian dollars (ringgits). At this level, tenants currently turn a profit after paying their rent

from the income received for harvested rice plus the income from subsidies. This increase in economic profit is said to be the reason that idle land has virtually been eliminated in the areas under MADA jurisdiction.

Most of the land currently idle in the areas under MADA jurisdiction is residential land or land along major roads which is waiting to be converted to industrial use. Actually, in 1991 there was 3.31ha of land not being cultivated, of which 2.45ha was "too far from home" and 0.86ha was "flood prone".

Also, farmers have little attachment to their own land. We heard that there are cases where they part with their land relatively easily if it can be sold for industrial use at a high price, then purchase a larger plot with the capital, even if the plot is less convenient. Such cases are evidence that if rice production is high, profits can be made thanks to subsidies.

Currently, the average size of paddy land is approximately 2.0ha. Compared to the average size of 1.3ha in 1965, this is an increase of approximately 1.6 times. The increased size of paddy land, based on structural adjustments, has led to increased economic efficiency. Though the average size has increased, there are still substantial differences in the size of individual parcels of paddy land cultivated. In the largest cases, the parcels cover 80 to 100ha in the form of mini estates. For individual farmers as well, there are some farmers who cultivate more than 8ha of land, others only 0.11ha. Thus, there are major differences.

(3) Role of farmers' associations

Some 63,000 farmers live on the 126,000ha of land under MADA jurisdiction, and of these 43,619 or 69% are members of farmers' associations. The average number of members per farmers' association is 1,616, and this number is increasing yearly (see Table 2). The farmers' associations can be divided into two sectors of activity: one sector playing a role for social, cultural and political development, the other for economic development.

The sector of the farmers' associations which plays a role for socio-cultural and political development and carries out various projects for the development of consumption goods and the development of the community. This includes the spread of technology, the development of human resources, the improvement of productivity and the pooling of farmers' labor and capital. These plans are carried out by the Coordination Committee and the Consultative Council of the chairmen of the farmers' organizations.

The sector of the farmers' associations which is in charge of economic development conducts projects for economic development such as increasing productivity and also joint economic development projects with MADA. A typical example is the SPPM (Syarikat Perniagaan Peladang MADA: MADA Farmers' Trading Company). The SPPM is financed

9% by MADA, with the remaining 91% financed by the farmers' associations affiliated with MADA. The SPPM owns a high-rise building in the center of Alor Setar, the capital of Kedah, as well as three supermarkets, and is involved in construction, the manufacture of furniture, the supply of fertilizer, the import of rice, the sale of home electrical appliances in monthly installments, and the sale of agricultural chemicals, etc.

Other activities include the establishment of the MADA Farmers' Education Foundation for improving the level of education and knowledge of farmers. These functions of the farmers' associations are considered as activities for unifying the production activities and joint operations of farmers based on plans of the Ministry of Agriculture.

(4) Organization of the farmers' associations

The farmers' associations are basically considered to be self-supporting and autonomous. They are run by board members selected by the individual members and a Chairman elected by mutual vote of the board members. There are 27 farmers' associations in the area under MADA jurisdiction, so there are 27 Chairmen, one for each association. Each association has six to eight public servants, including a General Manager and Chief Clerk, who run the local association office. These six to eight public servants are in charge mainly of the association's accounting, and are officials belonging to the Ministry of Agriculture. Their salary is paid by the federal government, and as such is direct financial assistance to the association. However, in order to increase the autonomous character of the farmers' associations and promote economic independence, financial assistance, including the salaries of the six to eight officials, will be completely cut off starting next year for some of the farmers' associations whose activities are running smoothly.

(5) Financing for farmers

Basically, financing for farmers takes the form of direct financing from agricultural banks. However, it is difficult for farmers to request financing directly without going through farmers' associations, so it is an advantage to be a member of a farmers' associations to receive financing. This is one of the reasons membership in farmers' associations is currently increasing. Members undergo rigorous screening from the farmers' associations on financing qualifications. This screening is done by Credit Committees. Credit Committee screening sessions are attended by the Chairman, the General Manager, two board members, the official in charge of credit as secretary, and the clerk in charge of credit. The outcome of the Credit

Committee's screening virtually determines whether or not the farmer will receive financing. Loans from agricultural banks are in principle interest-free. Thus, when farmers need financing, they first go to agricultural banks, next to commercial banks, and finally to finance companies. Needless to say, commercial banks charge higher interest rates, finance companies even higher rates.

(6) Other advantages to membership in farmers' associations

In addition to the fact that being a member in a farmers' associations makes it easier to receive financing, another advantage is technological transfer. MADA has offices adjacent to the farmers' associations' offices for agricultural guidance and technological transfer. In fact, agriculture in the area under MADA jurisdiction is characterized by the introduction of new variety of rice called MR84 and cultivation of paddy fields using direct sowing. Currently, 97.5 to 98% of farming is in the form of direct sowing. This has become possible through the introduction of a new variety of rice and through irrigation management, and is a strong feature of paddy field management by MADA.

MADA also carries out a variety of other functions, including mediation with agents and AIDS testing upon entering Malaysia when workers are brought from Thailand when extra labor is needed, such as for sowing and harvesting. MADA has an office on the Thai-Malay border for bringing workers to Malaysia.

(7) Group farming

During this survey, in addition to MADA and the three farmers' associations mentioned above, we also observed a site of group farming (called "kelompok tani") in the village of Matang Pinang in the MADA D11 area.

MADA is promoting group farming. The main reasons are to arrange sowing and harvesting seasons in order to allow transplantation using machinery and thus reduce costs, to facilitate the transfer of technology, to facility capital investment, to increase political influence, and to unite agricultural land into more economic sizes, since it is becoming increasingly divided up due to equal part inheritance according to Islamic law.

In 1985, there were 128 group farming and semi-estatized projects, involving 4,693 people and 7,124.4ha of land. In 1991, this had increased to 327 projects, 11,908 people and 15,399.99ha, 16% of the area under MADA jurisdiction. By 1995 it is expected to increase to 1,416 projects, 25,000 people and 42,480ha.

The "kelompok tani" (group farming project) in Matang Pinang consists of 31 households and 150 relongs (1 relong = 0.29ha). Some advantages brought about by creating this project was that it made it possible to borrow 5,000 ringgits from the farmers' association, to reduce expenses for harvesting and cultivation, and made it easier to receive agricultural guidance from MADA.

We were told that Malaysian villages ("kampung") are groups with little attachment to the land and little sense of unity, so the success or failure of such group farming projects will depend greatly on the character of its leaders.

There is another reason for which there is a growing necessity for such group farming. In the area under MADA jurisdiction, the population is aging. The average age now at 54 to 56 years, and the number of households involved in other activities aside from farming is increasing, since children with a high level of education go to work in factories. Considering this, it will be necessary to rationalize farming within the next ten years.

3 Kerian Area

(1) Survey in the Kerian area

As already mentioned, the Kerian area is the oldest irrigated area in Malaysia, its system having been installed around 1905. We visited the Project Kerian-Sg Manik Agricultural Component and Kampung Parit Haji Hassan, an area in which there is much idle land.

The farmers' associations in the Kerian area are under the direct control of the Farmers' Organization Authority. They have the same organization, management and functions as the farmers' associations under MADA jurisdiction described above, so here we will discuss the situation of idle land in the Kerian area.

(2) Reasons land is left idle

Despite the fact that the Kerian area borders Penang state in which idle land has been completely eliminated, there is still idle land in Kerian. Though we were not able to obtain data, we were told that due to expanded subsidies, the amount of idle land has decrease as compared to 3 or 4 years ago. The land that is still idle has been idle for the past 5 to 15 years.

One reason for idle land in this area is that rice seedlings must be transplanted and much labor is necessary for harvesting.

The aging of the population in the Kerian area is quite advanced, with the average age of

farmers being 56.6. Thus, there is very little young labor for doing this harsh work. In addition to this problem of age composition, the direct sowing introduced by MADA in the Muda area is virtually impossible here at this stage. The reason is that since the irrigation system is old, it is not possible to regulate the amount of water in fields or level off the land. In addition, paddy field drainage itself is poor, making the fields deep and rendering it impossible to use heavy machinery. Because of this, rice seedlings must be transplanted and the crop harvested manually, demanding harsh work. This not only increases costs for labor, but the yield is also low due to the poor drainage.

With the expansion of subsidies, a substantial amount of land which was previously idle is once again being cultivated. Most of the land that is still idle has been idle for the past 5 to 15 years and will now be difficult to recultivate, but there is also some land which has become idle relatively recently due to the shortage of labor.

Trees have grown on some of the land which has been idle for many years. In general, when idle land is redeveloped, no rent is demanded for the first 2 or 3 seasons, after which the rent is gradually increased for rice fields which have been idle for two or three years on which weeds have grown but redevelopment is relatively simple. For land which has been idle for some 15 years and whose redevelopment is difficult, there is no need to pay rent for 5 years (7 to 10 seasons).

There is currently a project under way for redeveloping the irrigation system in the Kerian area. This consists of redevelopment of irrigation, leveling off of land, and the lowering of the water level in paddy fields by creating deep "ponds" to improve drainage.

4 Insights Gained From the Survey

(1) Rapid changes in the agricultural sector within the process of economic development

The problem of idle land is said to be serious in Malaysia. The Malaysian government and its related agencies are aggressively trying to deal with this problem. One typical example is the idea of extending the functions of the farmers' associations, promoting the leasing of idle land from the owners by farmers who want to cultivate it, and attempting to increase the scale of land managed. However, in our survey, though this may have been due to local factors, despite the sense of crisis in the government and central agencies, we saw almost no idle land, and officials of regional organizations had an extremely optimistic view of this problem. In fact, the amount of idle land has decreased rapidly from 161,000 hectares in 1981 to 48,000 hectares in 1991 and is continuing to decrease. So what are the reasons for the abrupt change? First let us consider the factors which led to the increase in idle land and the factors for the subsequent decrease.

① Factors for the rapid increase in idle land

1) Influence of Islamic law and economic development

The first factors for the rapid increase in idle land which we will discuss are the influence of Islamic law and economic development. These factors have had an extremely strong impact.

It is well known that the introduction of foreign workers during British colonization made Malaysia a multi-ethnic nation. (Malaysia's population consists roughly of 60% Malays, 30% ethnic Chinese and 10% ethnic Indians.) The Malays follow Islām, the ethnic Chinese Taoism or other Chinese religions, and the ethnic Indians Hinduism. As there are major differences in lifestyles and customs between these races and religions, the possibility of a fusion of these races is currently extremely small, and the effects of this racial diversity are felt strongly in many areas. For example, many ethnic Chinese are business persons, many ethnic Indians are workers, while many Malays are bureaucrats and farmers.

Even today, the majority of Malaysia's rural society consists of Malays who believe in Islam. Naturally, the standards for their lifestyles come from Islamic law. Islamic law and economic development have a major effect on the problem of idle land. Let us consider this problem through a comparison with another Islamic developing country in South Asia, which we will call country B.

Figure 1 shows an outline of this comparison. Under Islamic law, inheritances are divided equally among the deceased's children. Thus, in rural areas land is divided up equally among the children. After several generations, it becomes difficult to make a living off of agriculture alone. This leads to the existence of what in Japan are called "tawake-mono", a term now used in the sense of "fool", but originally meaning "a person who divided land". Up to this point, the situation is the same in Malaysia and in country B.

However, major differences appear in the process after this point. In country B, economic growth is low (particularly in the industrial sector), so there is no sector other than agriculture which can offer employment. However, the rural people must earn a living somehow. These people do so by selling their land to obtain a cash income. As a result, land tends to accumulate among large landowners, and the number of people with no land who offer their labor, in other words landless laborers, increases.

On the other hand, in Malaysia where economic growth (in the industrial sector) is high, a completely different situation arises. In Malaysia, the economy is growing steadily and there is a strong demand for labor in the industrial sector. Thus, even if it is impossible to make a living off of agriculture, employment can be found in the industrial sector, and work in this sector is not as rigorous as farming. There is also no need to sell one's land, because in the

process of economic growth, the value of land as an asset is increasing. There is no need to sell one's land if it can be sold in the future at a high price. Under these circumstances, it is natural that the amount of idle land and the number of nonexclusive farmers should increase.

2) The problem of successors

The problem of successors in the agricultural sector is a major factor leading to idle land. With the effects of the strong demand for labor in the industrial sector and the increased level of education in rural areas, a substantial portion of the sons of farmers finds employment in the industrial sector. When the parents can no longer farm due to old age or sickness, the sons inherit the land but do not cultivate it. In fact, of the farmers we surveyed, there were many households in which the parents farmed but the sons worked in factories. We also saw some land which became idle for this reason.

It is certain that the problem of successors is one factor contributing to idle land. However, it is not possible to reach a simple conclusion on this problem's effect. We cannot automatically consider households in which the sons are employed in the industrial sector as households which will lead to idle land in the future. This is because there are many people in rural areas who begin farming after retiring from their factory jobs.

Though not directly related to the problem of idle land, the effect of the labor shortage is also important in the same sense as the problem of successors. For example, for 40 years FELDA (Federal Land Development Authority) has been actively promoting settlements. However, some of the settled land has run into management problems for lack of successors and is now being managed by FELDA subordinate organizations. The labor shortage has also become a serious problem in the plantation sector in recent years. Because of this, the Malaysian government has decided this year (1992) to begin introducing foreign workers.

3) Insufficient irrigation facilities and profits

Irrigation facilities and profits are also major factors in the problem of idle land. During our survey, we saw land which had once been idle but is again being cultivated, and land which still remains idle. The major difference between these two is the condition of the irrigation facilities. Land presenting poor conditions, that is land with no irrigation facilities, does not provide the profits consistent with the amount of effort put into farming it. Thus, such land is left idle as soon as a more profitable source of income appears. We saw land for which lessees appeared or which the owner began reworking when the poor conditions were improved. Farmers are extremely pragmatic when it comes to economic rationality. It seems safe to say that much of the land which became idle in the process of economic development was land presenting such poor production conditions.

② Factors for the rapid decrease of idle land

Next we will look at the factors for the rapid decrease of idle land. Of the factors for the increase of idle land, there is not much the government could do about factors 1) and 2). Thus, the decrease of idle land must be related to the third factor, irrigation, and a number of other factors. We can say that idle land in Malaysia has decreased due to the compound effect of these various factors. The cause and effect relationship between these factors is shown in Figure 2. Here we will discuss this issue along the lines of this figure.

The major factors here are: (1) improvements to irrigation; (2) the introduction of agricultural equipment (tractors, etc.); and (3) the introduction of an improved rice variety. First, improvements to irrigation are important for rice farming, because providing both water supply and drainage channels makes it possible to control the level of flooding in the paddy field. The government has made efforts at improving irrigation, as can be seen in such large projects as the Muda and Kemubu Schemes. Second, agricultural equipment is of major importance for farming using wage workers. As in Japan, tilling and planting require many workers, but with the rapid growth of the industrial sector, labor began to be short starting from the 1970s, and wages also increased. Contracting out for farm work leads to a reduction of these expenses. The final factor is the introduction of an improved rice variety, called MR84. This newly developed variety offers excellent properties, and provides the same yield whether the traditional method of transplanting rice seedlings or direct seeding, in which the seeds are sown directly in the field, is used. To put it more concretely, if MR84 is used, there is no need to pay workers for planting.

The combined effect of these three factors made it possible to sow the rice seeds directly and thereby greatly reduce personnel costs. In order to be able to use this direct sowing method with MR84, it must be possible to regulate the level of flooding of the paddy field (direct sowing is difficult if the water is deep), and the land must be appropriately tilled beforehand. Increases in profits can be expected if direct sowing is possible. In addition, in 1990 the government increased subsidies for rice farming by 50%. As a result, farmers can expect high profits from rice farming. Naturally, there are now farmers who are once again beginning to grow rice in their idle fields, and other ambitious farmers who are leasing idle land and expanding their acreage. In addition, larger acreage results in higher profits through the economy of scale. Incidentally, in the Muda Irrigation Scheme area, the use of direct seeding for the first crop has increased from 0.7% in 1980 to 89.5%, and for the second crop from 0.9% in 1980 to 76.0% in 1989. MR84 is used for 84% of all rice farming. However, since a single variety is cultivated over a large, continuous area, there is the fear that a viral disease could cause disastrous results.

This is no doubt the process behind the abrupt decrease in the amount of idle land. However, there are other problems as well. Table 3 shows the situation of irrigation facilities in the Muda area. As can be seen, the density of water channels in the Muda area is extremely low compared to Japan, Taiwan, and the recommendations of the Asia Development Bank. This means that though primary water channels (main courses) are established, there is still a lack of secondary and tertiary (tributary) water channels. This tendency is likely true for the entire country. Improvements in this area may lead to substantial increases in rice yield, but will require great expenses.

(2) Role of farmers' associations and rice farming

As stated in the previous section, great expectations are being placed in the farmers' associations for solving the problem of idle land. However, it does not seem that the farmers' associations have much power. Here we will consider the reasons for this.

First, let us consider the distribution routes for rice (refer to Figure 3). A look at these routes gives a picture of the problem. In Malaysia, there are three routes for the distribution of rice. First, rice produced by farmers is collected by farmers' associations then delivered to the National Rice Board. Second, rice produced by farmers is collected by private rice mills and dealers then delivered to the National Rice Board. In these cases, it goes without saying that the farmers' associations and the private rice mills and dealers are under the supervision of the National Rice Board. The third route is when the National Rice Board decides to import rice. This distribution route expresses the basic structure of the various problems involved in rice farming in Malaysia.

As already stated, though much is expected of the farmers' associations, the role they have played has been surprisingly small. This problem is related to the percentage of organized farmers. Of the farmers' associations we visited during our survey, there were some in which the number of households which were members of the association was under 50% (normally it is between 60 and 70%). We were told that the major reason for this is that farmers place importance on their relations with rice mills and dealers. This is because the tangible and intangible benefits they gain from the rice mills and dealers are greater than those gained from the farmers' associations. The benefits from joining a farmers' association are not so great. For example, farmers' associations do not offer loans directly - they only conduct the credit screening in lieu of the agricultural bank which is to offer the financing. This screening is also said to be quite rigorous. Most farmers' associations also distribute agricultural chemicals, etc., at market prices. If the profits made by the farmers' associations were distributed among the farmers, the sum the individual households would receive would be small.

For these reasons, farmers place great importance on personal relationships and value their relationship with private firms which offer them benefits, so the membership in farmers' associations does not increase. Because of this, the government is forced to support the farmers' associations. Figure 4 shows the organization of the farmers' associations. A prominent feature of this organization is the composition of the Area Farmers' Organizations. Four of the members of the board of directors are appointed by the Minister of Agriculture, and the salaries of the General Manager and sectional clerks are paid by the government. Thus, the core of the farmers' associations, originally intended to be independent, is managed by the government. The question therefore arises of just what is the actual role of the farmers' associations at the present stage. The chairman of one farmers' association told us that the role is to exert political pressure on the government. It seems that this political power played an important role in the increase in subsidies. However, there is room to doubt the political power of the associations, who rely on the government as their source of finances.

Another point deserving attention is the fact that the National Rice Board has decided to import rice. In fact, Malaysia imports rice from such countries as Thailand and Pakistan. It may seem strange that Malaysia, which is aiming at self-sufficiency in rice, would import rice. However, this demonstrates the situation in the country which must promote regional economic exchanges. In other words, Malaysia exports palm oil to Thailand and imports Thai rice in an effort at establishing regional economic exchange. The purpose of the goal of self-sufficiency in rice is said to be to "food security" in case of emergency. Thus, Malaysia is aiming at "food security", a political issue, through economic exchange. From this one can see the character of rice as a "political crop".

The third point we will consider is the people's conceptions about rice. In Japan, farmers and the nation as a whole are sensitive to the issue of liberalizing rice imports. This sensitivity about the import of rice is not seen in Malaysia. In fact, most people are of the opinion that there are advantages to importing inexpensive, good quality rice. We can say that this is because Thai rice is of the same type as the rice produced in Malaysia, so the people feel that importing it is natural. Thus, if rice imports are liberalized, Malaysia's self-sufficiency will drop rapidly, hindering the policy of food security. We can say that this is why the Malaysian government is actively promoting self-sufficiency for rice.

The fourth point we will consider is the elimination of the market mechanism. The Malaysian government is in principle following a policy of liberalization for all types of agricultural products, leaving their prices up to the market mechanism. For rice, however, it has totally eliminated the market mechanism, and the control of the National Rice Board is impressively absolute. Under this control, the government is following such protective policies as subsidies for rice farming. One problem involved with these subsidies is the change of the significance of rice policies within the process of economic development. In the past,

the purpose of subsidies for rice farming and control of prices was to aim at a stable supply of rice. However, with rapid industrial development, the phenomenon of the relative impoverishment of the agricultural sector arises. The increases to subsidies for rice farming are likely a result of this impoverishment. In fact, we often heard this from officials of the farmers' associations we visited. In this sense, Malaysia's current rice policy is beginning to show clear signs of being a policy which is designed to protect the livelihood of farmers.

(3) Summary of surveyed areas

Malaysia's economic development has in many ways been remarkable. Many of the problems this development gave rise to are similar to problems which Japan has faced in the past. It is as if the problems of agriculture which Japan experienced have all emerged suddenly in Malaysia due to the country's extremely rapid economic development. The rapid increase then rapid decrease of idle land is a typical example of an agricultural problem of this type. Malaysia's neighboring countries will also no doubt experience this type of problem as their economies develop.

Notes:

The statistical data for the Muda area is based mainly on Wong Hin Soon, "Farm Management and Socio-Economic Series No. 1, MADA 1991", MADA 1992, and oral inquiries at farmers' associations.

For detailed information on group farming in the Muda area, refer to Kumi Yasunobu, "Present Situation and Problems of Kelompok Tani in Malaysia", Kokusai Nouringyou Kyouryoku, Vol. 14, No. 2, 1991.

The main sources of information on the Kerian area are oral surveys, questionnaires, and oral inquiries at the Agricultural Component, Project Kerian Sg. Manik, Perak.

Table 1 Use of Land in the Area Under MADA

Application	Hectare	%
Paddy	95,856ha	76.2%
Mixed crop around village	16,110ha	12.8%
Roads, bunds and canals	6,417ha	4.7%
Towns and built-up areas	1,965ha	0.9%
Secondary forest & grazing	2,634ha	2.1%
Swamps	1,882ha	1.5%
Others	1,123ha	0.9%

Source: Wong Hin Soon, Farm Management and Socio-Economic Series Report No. 1 Demography, Land Tenure and Asset Structure Among Paddy Farmers in 1991, p. 2, MADA 1992.

Table 2 Trends in Membership in Farmers' Associations in the Area Under MADA

Year	No. members	Membership rate (%)	No. members per FA
1969	490	1	490
1970	5,378	9	384
1975	18,539	29	687
1980	25,137	40	931
1985	34,968	56	1,295
1990	42,465	67	1,572
1991	43,619	69	1,616

Source: Dato' Haji Ismail Bin Arshad, The Experience of MADA Farmers' Organization in Business Activities, Appendix II, MADA 1992.

Table 3 Situation of Irrigation Facilities

	In the Muda area	In Japan and Taiwan	(Unit: Sg.Meter / ha) Recommendation of Asia Development Bank
Density of water channels for irrigation	10	80-120	50-80
Density of water channels for drainage	9	80-120	50-80

Source: Hideto Fujii, "Outline of Irrigation in Muda", duplicate, August 1990.

Figure 1 Comparison of the Influence of Islamic Law

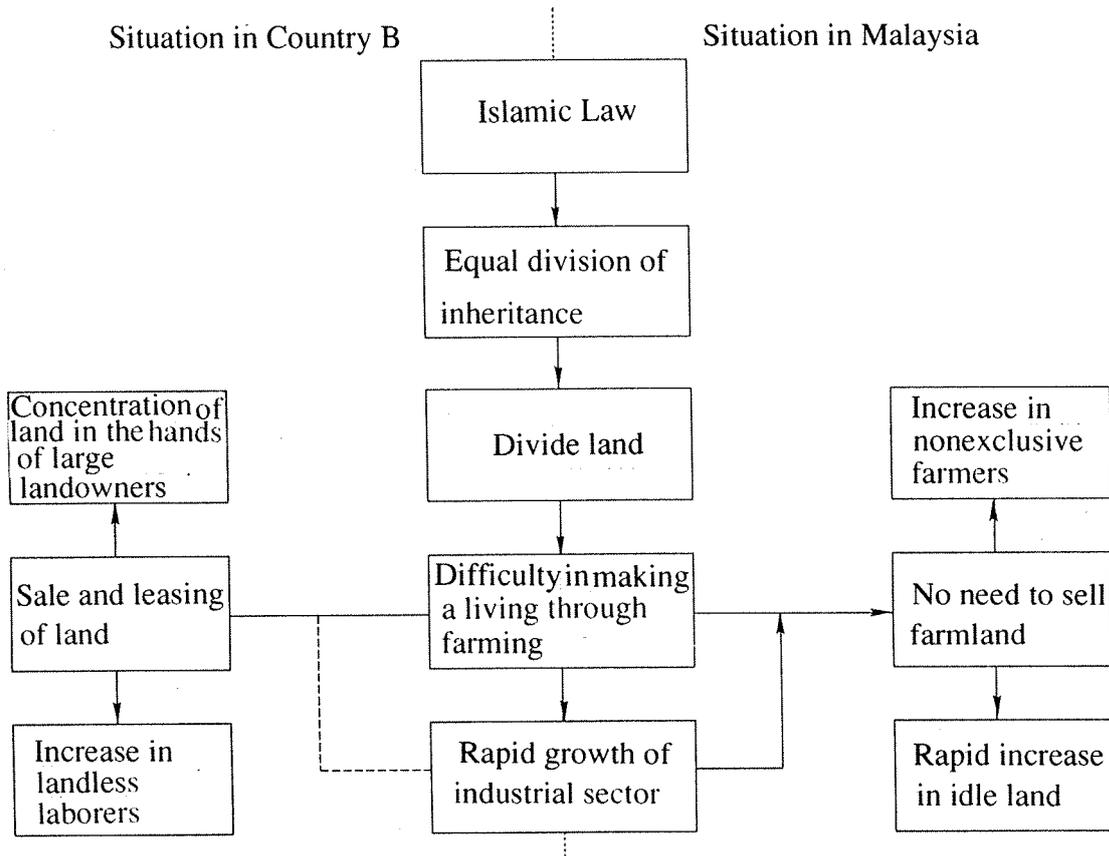


Figure 2 Cause and Effect Relationship of Factors

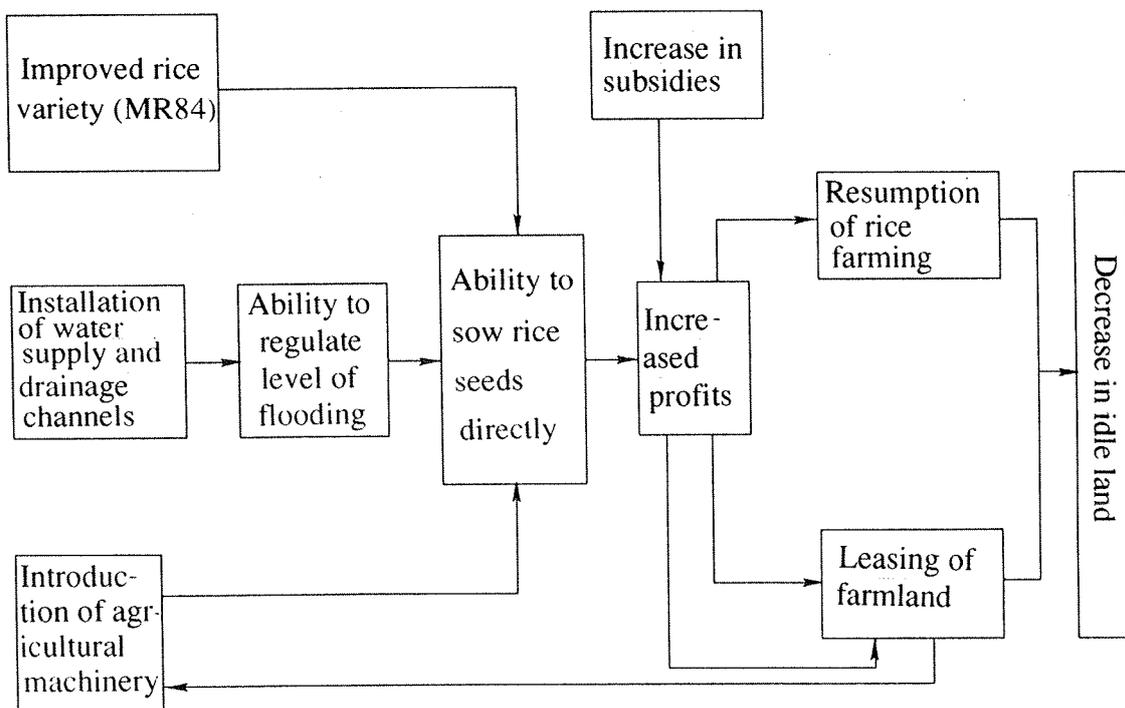


Figure 3 Rice Distribution Routes

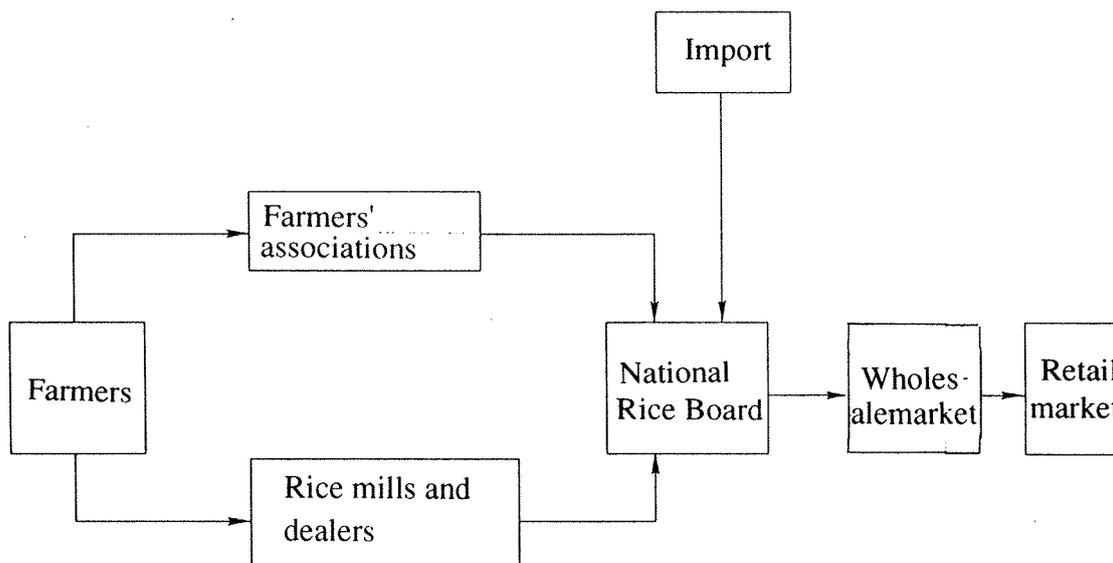
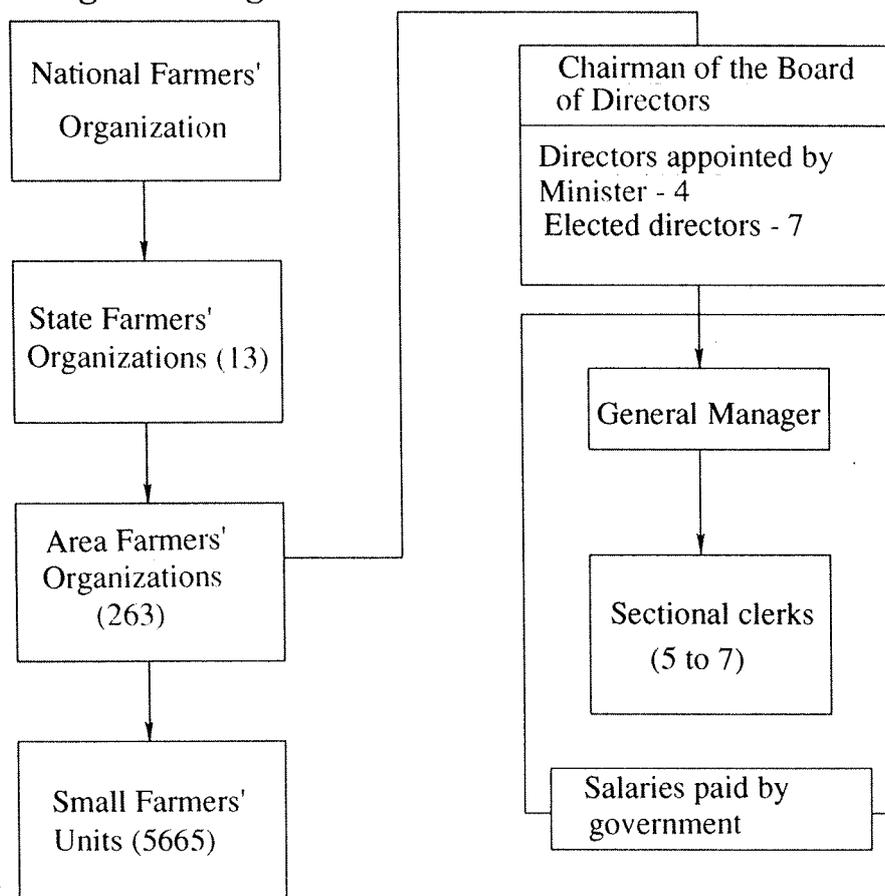


Figure 4 Organization of Farmers' Associations



Note: Figures in parentheses indicate the number of organizations.

Source: Ministry of Agriculture data and oral inquiries.

Aggregated Results of Questionnaires

1 Age

~ 19	0
20 ~ 29	3
30 ~ 39	2
40 ~ 49	5
50 ~ 59	3
60 ~ 64	1
65 ~	2
Total	16

2 Membership in farmers' association

Members	13
Non-members	3
Total	16

3 Activities of farmers' associations

a. Water control	0
b. Financing	11
c. Purchase of agricultural chemicals, etc.	13
d. Sale of produce	9
e. Management and technological improvements	12
f. Granting of credit	2
g. Share	2
h. Guidance to farmers	2
i. Purchase and sale of consumption goods	1

4 Ownership of farmland

Size (ha)		Land cultivated	Land owned	Land rented
	< 0.5	0	0	0
0.5 ≦	< 1.0	1	4	2
1.0 ≦	< 1.5	9	2	7
1.5 ≦	< 2.0	1	0	3
2.0 ≦	< 2.5	4	1	2
2.5 ≦	< 3.0	0	1	0
3.0 ≦		1	0	0
		16	8	14

6 Annual income from rice farming

Income (M\$)	No. households
< 2,000	1
2,000 ≤ < 3,000	3
3,000 ≤ < 4,000	3
4,000 ≤ < 5,000	0
5,000 ≤ < 6,000	3
6,000 ≤ < 7,000	2
7,000 ≤ < 8,000	1
8,000 ≤	3
Total	16
Average income	M\$ 3,783/ha

5 Rent for tenancy (M\$/Relong/Crop)

Rent for tenancy	No. households
< 100	3
100 ≤ < 150	2
150 ≤ < 200	4
200 ≤ < 250	1
250 ≤ < 300	3
300 ≤	0
Total	13

7 Plans to extend cultivated land

Yes	14
No	2
Total	16

8 Conditions for extending cultivated land

a. Capital	4
b. Labor force	2
c. Land	6
d. Agricultural instruments	4
e. Irrigation	3
f. Others	0

9 Source of capital

i) Agricultural cooperative	1
ii) Agricultural bank	7

10 Successor of Land

a. Son(s)	15
b. Brother	3
c. Daughter	1
d. Friend	0
e. Others	0

11 Will successor cultivate land

	Muda	Kerian
Yes	12	1
No	2	1
Total	14	2

12 Conditions for successor to cultivate land

a. Capital	12
b. Land	10
c. Labor force	7
d. Income	6
e. Others	0

Chapter Four

Survey Members and Itinerary

1 Survey Members

(1) Committee in Japan

Shigeto Kawano	Professor Emeritus, the University of Tokyo
Yonosuke Hara	Professor, Institute of Oriental Culture, the University of Tokyo
Seiichi Fukui	Associate Professor, Faculty of Agriculture, Kyushu University
Tomomi Otsuka	Assistant Professor, College of Humanities and Sciences, Nihon University
Tsuguo Hirose	Executive Director, Secretary General, Asian Population and Development Association (APDA)
Masaaki Endo	Assistant Secretary General, Asian Population and Development Association (APDA)
Osamu Kusumoto	Senior Researchist, Asian Population and Development Association (APDA)

(2) Preliminary Survey Members (August 3 - August 8, 1992)

Tsuguo Hirose	Research team leader (see above)
Masaaki Endo	Research team member (see above)

(3) Field Research Team (September 14 - September 26, 1992)

Seiichi Fukui	Research team leader (see above)
Tomomi Otsuka	Research team member (see above)
Osamu Kusumoto	Research team member (see above)

2 Cooperators in Malaysia

(1) Embassy of Japan

Hiroshi Fukuda Ambassador
Hidenao Sawayama Second Secretary

(2) Government and Institutes

Tan Sri Zahir Ismail	Speaker of Parliament, Malaysian Parliament
Y. B. Hj. Ibrahim Ali	Head, Committee Malaysian Forum of Parliamentarians on Population and Development
Abdul Jamil Bin Mohd. Ali	Director General, Department of Agriculture, Ministry of Agriculture
Ramil Jaafar	Agriculture Director, Department of Agriculture Penang
Wan Kelthom Wan Hassan	Assistant Director, Planning and Evaluation Branch, Department of Agriculture
Beng Paik	Assistant Director, Department of Agriculture, Ministry of Agriculture
Chan Han Hee	Agriculture Project Officer, Agricultural Component, Project Kerian Sg Manik, Perak
Tan Juat Hong	Agriculture Officer, Department of Agriculture, Ministry of Agriculture
Ghazali Zakaria	Agriculture Officer, Department of Agriculture
Hashim bin Hassan	Agriculture Officer, Department of Agriculture Penang
Ngoo Tow Yea	Agriculture Officer, Agricultural component, Project Kerian Sg Manik, Perak

Muhamad b. Jafar	Agriculture Assistant, Agricultural Component, Project Kerian Sg Manik, Perak
Chan Tong Seng	Agricultural Extension Training Institute, Department of Agriculture, Ministry of Agriculture
Abdull Ghaffer A. Tombi	Assistant Secretary, International Division, Ministry of Agriculture
Thomas Mathew	Assistant Secretary, Planning and Policy Division, Ministry of Agriculture
Johari bin Said	Assistant Secretary, Planning and Policy Division, Ministry of Agriculture
Sohine bin Ahmad	Assistant Secretary, Planning and Policy Division, Ministry of Agriculture
Roseky Khalid	Agriculture Officer, Planning and Policy Division, Ministry of Agriculture
Mohad Arif Simth	Agriculture Officer, Planning and Policy Division, Ministry of Agriculture
Hji Mohd Shankar b. Othman	Principal Assistant Director, Farmers' Organization Authority
Raj bi Abdul Karim	Director General, National Population and Family Development Board (NPFDB)
Nurhalah bi Hashim	Public Relations Officer, IEC Division, NPFDB
Asma Hussein	Administrative Officer, Research Division, NPFDB
Baharum bin Yusoff	Administrative Officer, Planning and Coordination Division, NPFDB
Wan Hashim	Administrative Officer, Planning and Coordination Division, NPFDB

Aziz bin Othman	Head of Division, Communications and Operations Division, Department of Statistics
Kuan Boon Wan	Statistician, Communication and Operation Division, Department of Statistics
Mokhtar Tamin	Professor, Faculty of Economics and Administration, University of Malaya
Alang P. Zainuddin	Professor, Director Center for Extension and Continuing Education, Agricultural University Malaysia (UPM)
Saidin Bin Teh	Associate Professor, Agricultural University of Malaysia (UPM)
Haji Mahmood Jaafar	Head, Training Unit, Agricultural University of Malaysia (UPM)
S. Jegathesan	Head of Planning and Evaluation Unit (MADA)
Shuaib B. Hashim	Senior Agriculture Officer, Agribusiness Division, Agriculture Division, (MADA)
Adzaudin B. Saleh	Agriculture Officer, (MADA)
Tuan Haji Salleh Bin Ismail	Chairman, PPK I—II MADA Kuala Sungai
Che Rus B. Shaffie	General Manager, PPK I—II MADA Kuala Sungai
Mat Raub Biw Ahnad	Member, PPK I—II MADA Kuala Sungai
Hjjah Che Roe Hajjah Md. Din	Member, PPK I—II MADA Kuala Sungai
Abmad B. Pudoh	Member, PPK I—II MADA Kuala Sungai
Tuan Haji Saud bin Mahamud	Member, PPK I—II MADA Kuala Sungai
Syadid bin Saffie	Member, PPK I—II MADA Kuala Sungai

Hasim bin Hassan	Member, PPK I—II MADA Kuala Sungai
Mohad Funas Bin Omar	Member, PPK I—II MADA Kuala Sungai
Saibunbin Md Noor	Board of Director, PPK Muda Jaya Kinabaru
Shaari bin Mustapa	Unit Leader, PPK Muda Jaya Kinabaru
Abd Halim B. Ismail	General Manager, MADA DIII
Ariffin B. Abu	General Manager, MADA AIII
Zohiri Ahmad	Member PPKSB, MADA DII
Ikram b. Hj Ismail	Assistant Agriculture Extension, PPK MADA A—IV
Mohd Aidid B. Yaakub	Assistant Agriculture Extension, PPK MADA A—IV
Ismail B. Abdullah	Assistant Agriculture Extension, PPK MADA A—IV
Yaakub G. Hji Wohid	Assistant Agriculture Extension, PPK MADA A—IV
Shaari b. Hamid	Assistant Agriculture Extension, PPK MADA A—IV
Makhtra G. Mohd Zain	Assistant Agriculture Extension, PPK MADA A—IV
Muhammad Aswa Baharuddin	Assistant Agriculture Extension, PPK MADA A—IV
Che Ahmed G. Yaacob	Assistant Agriculture Extension, PPK MADA A—IV
Bakar B. Desa	Agriculture Assistant Officer, PPK MADA A—IV
Abd. Malik B. Mohd Saad	Pengurus Kompleks Kanan, National Rice Board, Telok Kechai, Kedah
Ramlah Mohd Isa	Head, Public Affairs Unit, Malaysia Agricultural Research Development Institute (MARDI)

Zanifa Md. Zain	Principal Assistant Director, Research and Planning Division, Ministry of Human Resources
Abdul Ghafar Wahab	Director, Federal Land Development Authority (FELDA)
Norhayali Sharif	Public Relation Officer (FELDA)
Chong Pit Loo	Assistant Director, Planning Department (FELDA)
Yoshinori Morooka	Team Leader, Tropical Agriculture Research Center, MADA office

Preliminary Survey Itinerary
Period: August 3, 1992 - August 8, 1992

Date	Outline of Survey
August 3 (Mon.)	<ul style="list-style-type: none"> • 10:30 - Departure from Narita (flight MH089). • 16:20 - Arrival in Kuala Lumpur.
August 4 (Tues.)	<ul style="list-style-type: none"> • Visit to Embassy of Japan. Courtesy call on Ambassador Hiroshi Fukuda. Discussion of survey outline with Second Secretary Hidenao Sawayama. • Courtesy call on Hon. Ibrahim Ali, Head of Committee, Malaysian Forum of Parliamentarians on Population and Development.
August 5 (Wed.)	<ul style="list-style-type: none"> • Visit to Ministry of Agriculture. Briefing on Malaysia's economic policies, agricultural policies and farmers' associations activities by Mr. Ghaffar A. Tambi. • Visit to Ministry of Human Resources. Briefing on labor policies, changes in the labor population and changes in the rural labor population in Malaysia.
August 6 (Thurs.)	<ul style="list-style-type: none"> • Visit to FELDA (Federal Land Development Authority). Briefing on Malaysia's land development projects by Mr. Abdul Ghafar Wahab, Director of the Planning and Budget Department. • Visit to Universiti Pertanian Malaysia (UPM). Briefing on rural and agricultural situation in Malaysia. • Report of survey findings to Hon. Ibrahim Ali, Head of Committee, Malaysian Forum of Parliamentarians on Population and Development.
August 7 (Fri.)	<ul style="list-style-type: none"> • Visit to agricultural park. • Visit to Embassy of Japan. Report of survey findings.
August 8 (Sat.)	<ul style="list-style-type: none"> • 09:30 - Departure from Kuala Lumpur (flight MH092). • 17:00 - Arrival in Narita.

Survey Itinerary

Period: September 15, 1992 - September 26, 1992

Date	Outline of Survey
September 14 (Mon.)	<ul style="list-style-type: none"> • Departure from Narita at 10:30 on flight MH089, arrival in Kuala Lumpur at 16:20 (Tomomi Otsuka and Osamu Kusumoto).
September 15 (Tues.)	<ul style="list-style-type: none"> • Visit to the Department of Agriculture, Ministry of Agriculture. Deliberations on survey activities with Beng Paik, Assistant Director. • Visit to National Population and Family Development Board, courtesy call on Raji bi Abdul Karim, Director General. Briefing on Malaysia's population policies by Asmabt Hussein, Administrative Officer, Research Division.
September 16 (Wed.)	<ul style="list-style-type: none"> • Visit to the Malaysian Department of Statistics. Briefing on Malaysian agriculture and population statistics by Aziz bin Othman, Head of Division, Communications and Operations Division. • Visit to Faculty of Economics and Administration, University of Malaya. Briefing on economic development and agriculture in Malaysia from Mokhtar Tamin, Professor, Faculty of Economics and Administration. • Departure from Fukuoka at 17:30 on flight MH083, arrival in Kuala Lumpur at 22:25 (Seiichi Fukui).
September 17 (Thurs.)	<ul style="list-style-type: none"> • Visit to Embassy of Japan. Pay courtesy call on Ambassador Hiroshi Fukuda. Discussion of outline of survey with Second Secretary Hidenao Sawayama. • Courtesy call on Hon. Ibrahim Ali, Head of Committee, Malaysian Forum of Parliamentarians on Population and Development.
September 18 (Fri.)	<ul style="list-style-type: none"> • Visit to Ministry of Agriculture. Briefing on Malaysia's agricultural policies and farmers' organizations by Abdul Jamil Mohad Ali, Director General.

Date	Outline of Survey
September 19 (Sat.)	<ul style="list-style-type: none"> • Move from Kuala Lumpur to Alor Setar in Kedah state (northern Malaysian paddy region). • Visit to FELDA (Federal Land Development Authority) settlement and oil palm factory.
September 20 (Sun.)	<ul style="list-style-type: none"> • Visit to MADA (Muda Agricultural Development Authority) headquarters. Briefing on MADA irrigation projects by S. Jegathesan, Head, Planning and Evaluation Unit. • Visit to MADA Kuala Sungai area farmers' association. Visit to farmers' association organization in the area. Briefing on farmers' association organizations and financial and credit granting systems. • Briefing on situation of training farm successors. • Visit to MADA-DIII area farmers' association.
September 21 (Mon.)	<ul style="list-style-type: none"> • Visit to MADA-AIV area farmers' association. Interview survey with non-members of association. • Observation of rice mill of National Rice Board in Muda Telok Kechai area. • Visit to MADA-DII area group farming, interviews with farmers. • Visit to Kedah province industrial zone. • Visit to Northern Malaysia University. • Move from Alor Setar to George Town in Penang state.
September 22 (Tues.)	<ul style="list-style-type: none"> • Visit to Penang Department of Agriculture. Briefing on agriculture in Penang state by Ramil Jaapar, Agriculture Director. • Move from Penang to Perak. Visit to agricultural office in Parit Buntar area. Briefing on idle land in Perak state. • Visit to land idle in Kerian Sungai Manik Padi Project area. Interviews with farmers.
September 23 (Wed.)	<ul style="list-style-type: none"> • Move from Penang to Kuala Lumpur. • Visit to Ipoh city central wholesale market.

Date	Outline of Survey
September 24 (Thurs.)	<ul style="list-style-type: none"> • Visit to Malaysian Agriculture Research and Development Institute (MARDI). Briefing on agricultural techniques in Malaysia by Ramlah Mohd Isa, Head of Public Affairs Unit. • Visit to FELDA headquarters. Briefing on land development projects in Malaysia by Chong Pit Loo, Assistant Director.
September 25 (Fri.)	<ul style="list-style-type: none"> • Report of survey findings to Embassy of Japan. • Report of survey findings to local counterparts.
September 26 (Sat.)	<ul style="list-style-type: none"> • Departure from Kuala Lumpur on flight MH1086 at 09:00, arrival in Nagoya at 16:35, departure from Nagoya at 18:30, arrival in Fukuoka at 19:43 (Fukui). • Departure from Kuala Lumpur on flight MH092 at 10:10, arrival in Narita at 17:20 (Otsuka and Kusumoto).

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- Wong Hin Soon, *Farm Management and Socio- Economic Series No.1 MADA 1991*, MADA 1992.
- Yoshinori Morooka, Atumu Ohnishi, Kumi Yasunobu, *Family Farm and Group Farming*, Tropical Agriculture Research Center, Ministry of Agriculture, Forestry and Fishery Japan.

Sample Survey Questionnaire

*farmer with idle land

Kerian Sungai Manik
Padi Project

Survey Questionnaire

Rural Population and Agricultural Development

in Asian Countries - Malaysia -

September, 1992

Area *Kampung Parit Haji Hassan* Age *62* Sex *male* Name *Yahya Itam*

I. Are you a member of Agricultural Cooperative? Yes / No

If Yes,

A. What kind of function do your Agricultural Cooperation perform?

a. Management of Irrigation and Water Distribution

b. Finance

c. Selling and Distribution of Agro-Chemicals

d. Purchase and Sale of Crops

e. Improvement of farming Technology and Management

f. Others in detail. *fertilizer subsidy*

II. How many "ha" do you cultivate? (ha) *4 Ekar*

A. How many "ha" do you own? (ha) *2 Ekar*

B. How many "ha" do you rent from others? (ha) *2 Ekar*

C. How much is the rental ^{paid} collected? (Malaysia Dollar)

\$75 / ekar / season

III. How many "ha" do you have exclude the above mentioned?

- A. How many "ha" do you rent to others (0 ha)
B. How much do you earn from that land? (0 Malaysia Dollar)
 C. How many "ha" of your land are idle? (ha) 1 Ekar

IV. What kind of crops do you plant? *Padi*

- A. How many times do you harvest? *3 times in 2 years*
B. What kind of crops/order? *padi*
C. How much total revenue do you get from the agricultural crops? *Gross income of \$3400 per season* (Malaysia Dollar)
D. How much crops do you consume (eat etc.) in your house/in terms of money? *About 10 bags @ \$50.00 = \$500 for home consumption.* (Malaysia Dollar)

V. Questionary on your idle agricultural land. *1 Ekar*

- A. What is the main reason for your land being idle?
 a. Land condition, e.g. Water condition *land is soft and water is deep.*
b. Too expensive of Agricultural Labour Force.
 c. Decline of family labour force, e.g. migrate to urban area.
d. Others, in details. *Now, land is improved but difficult to rehabilitate because of weeds and labour shortage*
- B. Do you have a plan to use others idle land? *shortage*
a. Yes, I have a plan.
 b. No. I have no Plan. *because idle land is covered with weeds/jungle*
i. Because, too expensive tenant free (How much? Malaysia Dollar)
ii. Because, too expensive agricultural labour force cost.
What is the reasonable level of wage rate? ()
What is the average wage rate now ()

VI. Do you have a plan to extend the cultivated land? Yes / No

A. In the case of Yes,

Whats are the nessessary conditions?

- a. Capital b. Labour force c Land
- d. Agricultural Instrument
- e. Irrigatted water f. Others, in details

B. As for answer a,

Where is the source of capital,

- i) Agricultural Cooperative
- ii) Bank iii) Friend iv) Kinship V) Others

For i) and ii), Interest rate: ()

C. In the case of No,

What are the reasons in details?

VII. Whom do you think will be your successors of your land?

- a. Son(s) b. Your Brother c. Daughter d. Friends
- e. Others, in details.

VIII. Would you think your successor will take over your land for cultivation?

Yes / No

A. If yes. Whats are nessessary conditions?

- a. Capital
- b. Land
- c. Labour force
- d. Income
- e. Others, in details.

B. If no. Whats are the reasons?

- a. Low Income
- b. Severe Labour Condition

c. Lack of desire on successor to take over

children are working outside in town.

C. In the case of c. What is a main reason?

i. He or She does not have interest for Agriculture

ii. He or She wants to engage to other jobs. In details:

Construction work

In this case. What is the expected salary of other job?

\$400 / month (

Malaysia Dollar)

iii. Others, in details

D. If you have no sucesor, do you want to sell your land to others?

yes / No

D.1. If yes, how much do you hope?

(Malaysia Dollar)

D.2. If no, what is the reason? In details.

IX. Where do you educate them (he/she)?

a. School in Local, in details

b. School in Urban Area. Name of Urban

c. Others, in details. *working outside*

INFORMATION PAPER ON CREDIT SYSTEM AFO I-II MADA KUALA SUNGAI

1.0 INTRODUCTION

Credit is an important element in the business transaction of every organization, but a well organized credit system and an assurance to recover loans are very important. A stringent set of Regulations governing credit and an effective repayment system must be formulated, without which credit activity will fail.

2.0 CREDIT ORGANIZATION STRUCTURE

A Credit Committee was formed which was chaired by the Credit Bureau Chairman and 2 members of the Board of Director and an Officer (Credit Officer) as Secretary. This Committee will meet a week before the Meeting of the Board of Director to scrutinize all loan/credit applications of its members. At the moment, loan is given for agricultural inputs only. To ensure that the credit/loan is approved where the power of approval rests with the Secretary (Credit Officer), various factors which must be considered are as follows:-

Individual Credit

1. The loan value must be less than the share of the applicant. (maximum of 80% of share) - not to applicants of semi-estitized projects.
2. Repayment period of one season.
3. For things such as water pumps, grass cutters - repayment period is 12 months (2 seasons).
4. In cases where the applicants are not qualified for the total loan applied for, the applicants must produce guarantors whom must own enough share for the amount wishing to borrow.

3.0 GROUP CREDIT

This type of credit is only for participants of semi-estitized projects.

3.1 METHOD USED TO GIVE CREDIT

Members of Semi-Estitized Projects (SEP) have to forward their applications to the Project Committee. The Project Committee will process the loan on a group basis and prepare a list of names and the inputs required. The Semi-Estitized Project Committee will forward the loan to the AFO. In such case, the AFO will give loan to the SEP and not to the individual members.

3.2 PAYMENT FOR SERVICES

Payment for services for individual is 6% while loan for group is 3% only. Payment for services is made before inputs are given.

4.0 LOAN REPAYMENT

For individual loans, all borrowers must repay their loans after harvest and before the following season. A loan repayment reminder letter will be issued to every borrower when the padi turns yellow. In cases where the borrowers are unable to repay their loans, the amount outstanding will be adjusted with their shares and also with their guarantors.

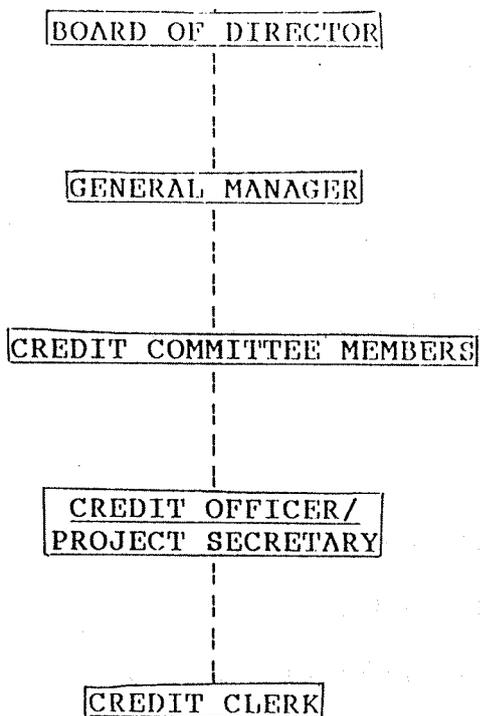
5.0 GROUP CREDIT FOR SEMI-ESTATIZED PROJECTS (SEP)

With the list of borrowers, the credit officers of AFO, SEP officers and SEP Chairman will deduct the loans at the time padi sale payments are made to the AFO.

APPENDICES

- Appendix 1 - Credit Organizational Structure of AFO I-II
- Appendix 2 - Total Credit and Repayment Collected 1988-1991.
- Appendix 3 - Credit Application Form
- Appendix 4 - Borrower List

CREDIT ORGANISATIONAL STRUCTURE AFO I-II



Appendix 2

The AFO in the last 4 years has given out agricultural input loans as follows:-

Year	Season	Borrower Number	Value	Repayment	Service Charge
1988	I	433	50,761.60	50,761.60	3,045.60
	II	401	55,275.40	55,275.40	3,316.50
1989	I	509	59,113.80	59,113.80	3,516.80
	II	433	47,512.40	47,512.40	2,850.70
1990	I	479	60,451.30	60,451.30	3,627.00
	II	499	60,423.10	60,423.10	3,625.30
1991	I	343	43,431.40	43,431.40	2,605.80
	II	316	54,279.15	54,279.15	3,256.70
Total			431,248.15	431,248.15	25,874.40

Area Farmer Organization I-II Kuala Sungai
Km 6, Jalan Putera, Alor Setar, Kedah.

(Application Form For Farm Production Credit)

1. Name : _____
2. Membership No.: _____
3. Address/Farmer Unit : _____
4. Age : _____ 5. Identity Card No. _____
6. Share Capital : _____ 7. Savings : _____
8. Credits Required :-

No.	Materials	Quantity	Value (\$)

9. Aim of Credits: _____
10. When Credits required : _____

I confirm that all the above information is true.

Date : _____ (Signature) _____

11. Confirmation by Unit Head : _____

Date : _____ (Signature Unit Head) _____

For AFO Use

1. Date Application Received : _____

2. Application Number : _____

3. Maximum Level : _____

4. Total Amount Approved : _____

5. Approval - Date : _____

- Total : _____

6. Date of Repayment : _____

Recorder Name : _____ Credit Officer.

Signature : _____

Date : _____

FARMER ORGANIZATION KUALA SUNGAI

Farm Production Credit Agreement

Reference : _____

Extra Ledger Page : _____

I _____ (Identity Card NO. : _____
_____) (After which called the Borrower) addressed at _____

herewith agrees to receive the Farm Production Credit materials
valued at \$ _____ (Dollars Malaysia _____)
from Area Farmer Organization _____ (after which called the
Organization), and agrees to repay the farm production credit
together with profit and service cost as follows:-

Number	Material Received	Quantity	Value	Service Cost	Total Repayment

The Borrower also agrees to fulfil the following conditions :-

I) Credit duration from _____ to _____

II) Date of Repayment (capital value) and service cost is at _____

III) Service Cost total : _____

IV) Fine Rate for late Repayment : _____
_____ 1% every month.

V) The Borrower will use all materials listed above for the
purpose _____

The Organization can collect repayment (capital value) with service cost at any time if the Borrower uses the credit materials for other purposes _____

VI) The Borrower agrees to receive the supervision and guidance of the Officers given the task on the use of the credits from time to time and at any time to ensure that the credits is used correctly.

VII) This Agreement is enforced the moment the Borrower signs it.

VIII) We who sign on behalf of the Borrower below agree to be responsible, jointly and individually, guarantee the repayment (capital value) and service cost and to forego our right to any legal action.

Sign for and on behalf of the Borrower :

i. Name : _____ (Borrower)

Identity Card No. : _____

Signature : _____

Witness

Name : _____

Identity Card No. : _____

Address : _____

Signature : _____

ii. Name : _____ (Guarantor I)

Identity Card No. : _____

Signature : _____

Witness

Name : _____

Identity Card No. : _____

Address : _____

Signature : _____

iii. Name : _____ (Guarantor II)

Identity Card No. : _____

Signature : _____

Witness

Name : _____

Identity Card No. : _____

Address : _____

Signature : _____

Sign for and on behalf of Organization :

i. Name : _____ (Chairman AFO)

Identity Card No. : _____

Address : _____

Signature : _____

ii. Name : _____ (Board of Director Member)

AFO : _____

Identity Card No. : _____

Signature : _____

Witness

Name : _____

Identity Card No. : _____

Address : _____

Signature : _____

iii. Name : _____ (General Manager)

AFO : _____

Identity Card No. : _____

Signature : _____

Witness

Name : _____

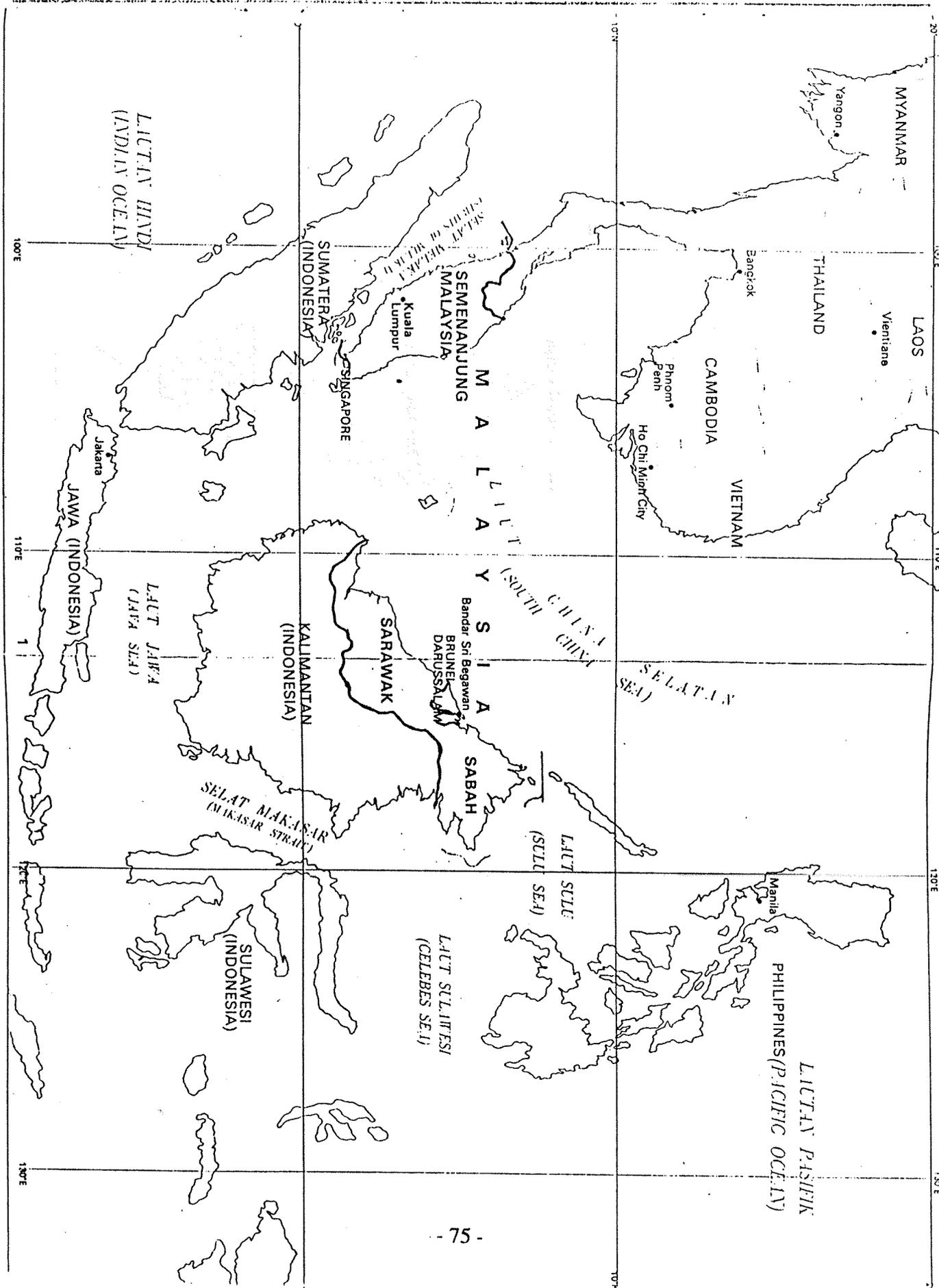
Identity Card No. : _____

Address : _____

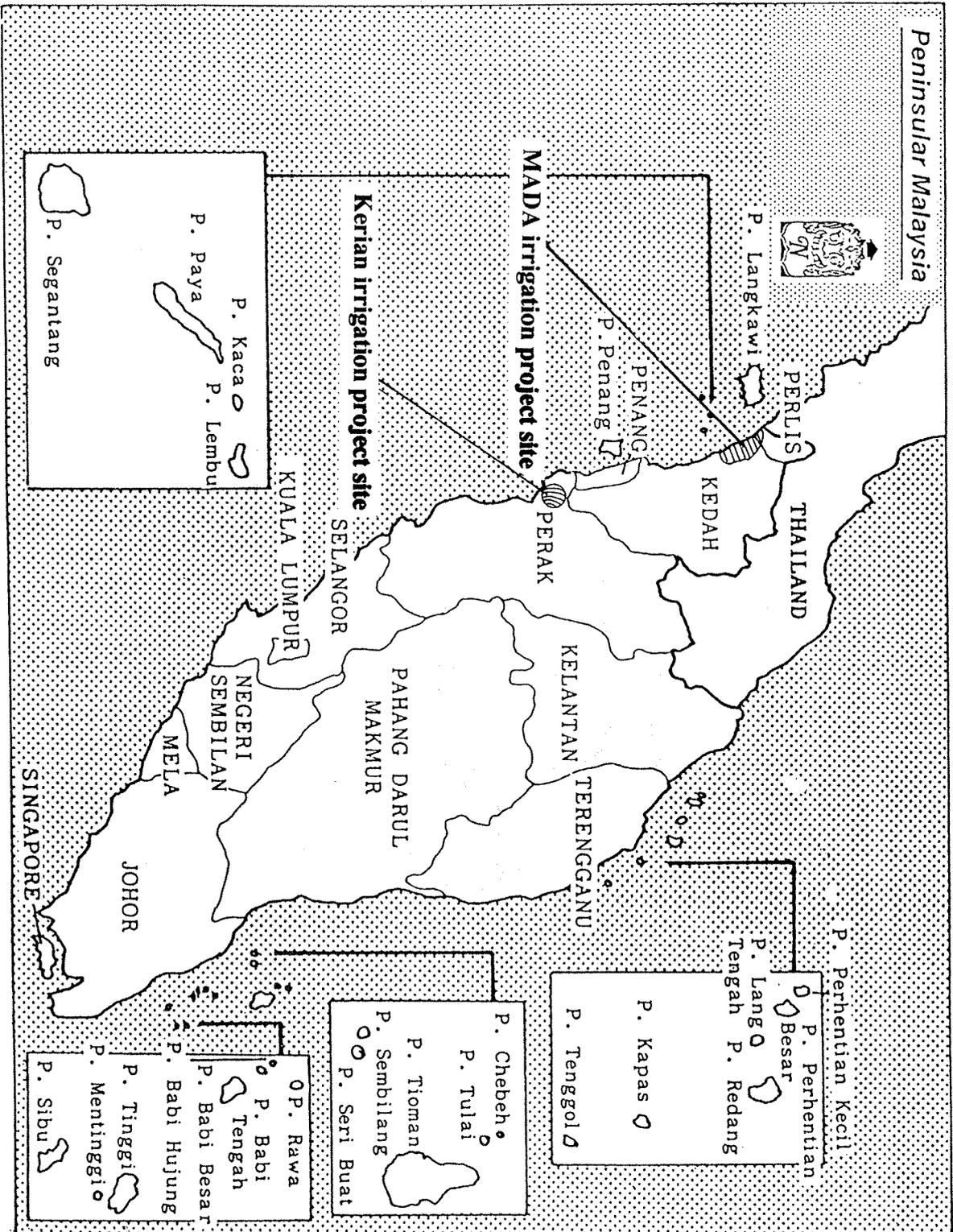
Signed on day _____ month _____

_____ year _____

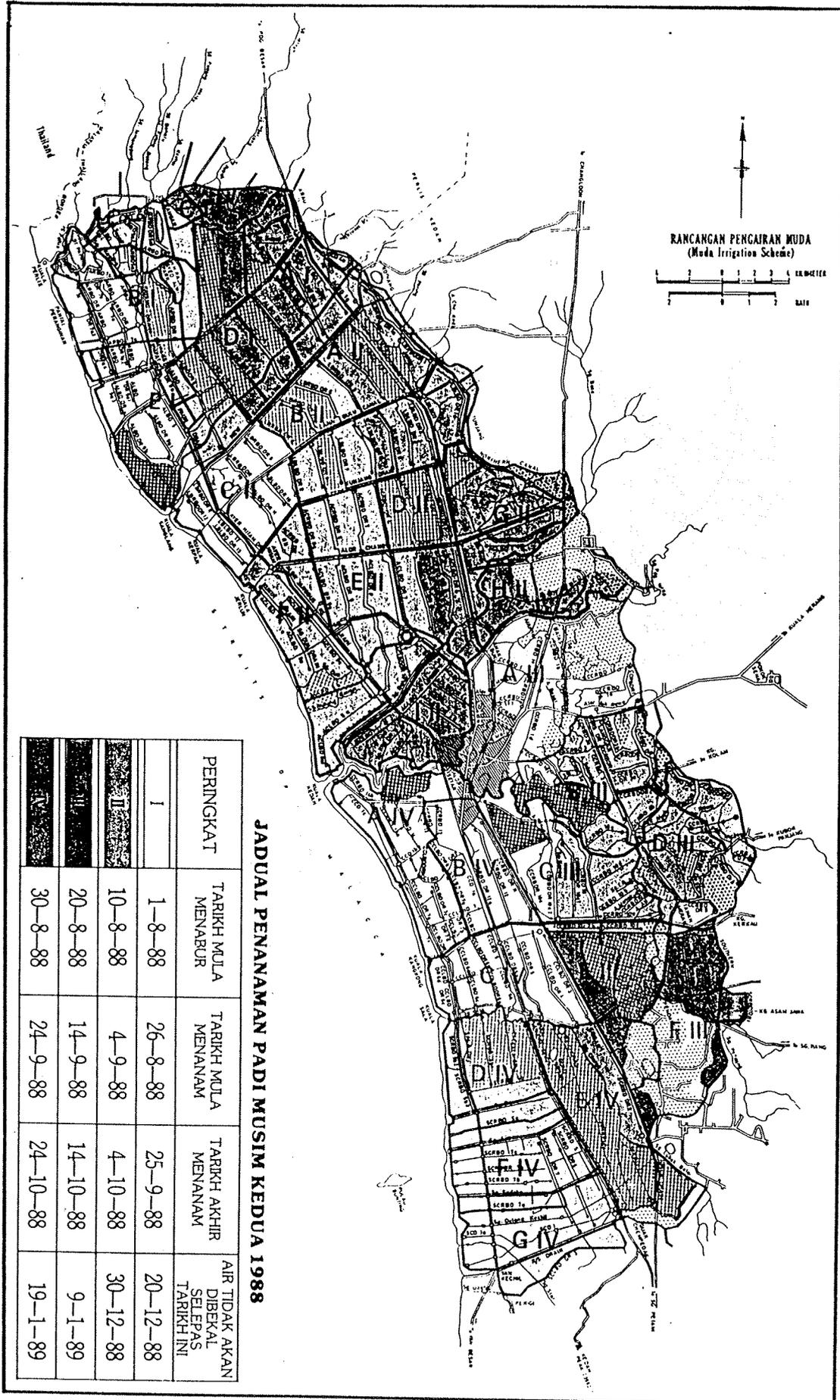
Map of Malaysia



Peninsular Malaysia



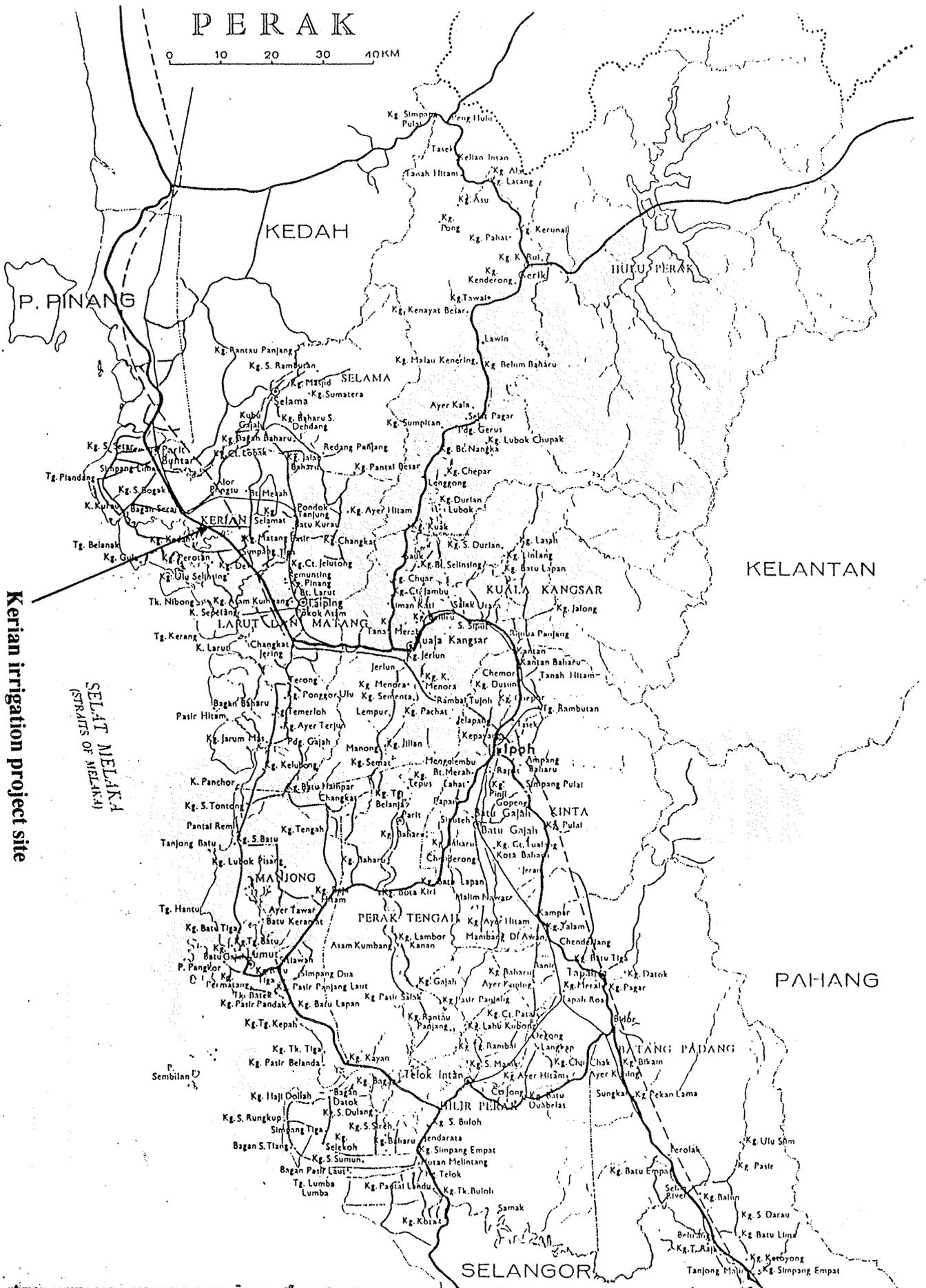
Sectional map of MADA irrigation project site



JADUAL PENANAMAN PADI MUSIM KEDUA 1988

PERINGKAT	TARIKH MULA MENABUR	TARIKH MULA MENANAM	TARIKH AKHIR MENANAM	AIR TIDAK AKAN DIBEKAL SELEPAS TARIKH INI
I	1-8-88	26-8-88	25-9-88	20-12-88
II	10-8-88	4-9-88	4-10-88	30-12-88
III	20-8-88	14-9-88	14-10-88	9-1-89
IV	30-8-88	24-9-88	24-10-88	19-1-89

Map of Perak State



PERAK

0 10 20 30 40KM

KEDAH

HULU PERAK

P. PINANG

SELAMA

KELANTAN

KUALA KANGSAR

Kerian irrigation project site

SELAT MELAKA
(STRAITS OF MELAKA)

IPOH

KINTA

MANJONG

PERAK TENGAH

PAHANG

BATANG PAIDANG

SELANGOR