

BOOK REVIEWS

Malay Farmers Respond by Akimi Fujimoto, Tokyo, World Planning Co.,* 1994, 268 pp.

Malaysia's rice production sector is in decline, yet it is also amazingly alive. Japanese agricultural economist, Akimi Fujimoto, effectively develops this theme in his insightful book, *Malay Farmers Respond*.

The book's content is based on analysis of (1) macro-data dealing with the agricultural economy of the nation and the state of Kelantan and (2) micro-data based on Fujimoto's interviews and informal visits with rice farmers and others in two rice villages in Kelantan and Seberang Prai. These interviews and informal visits took place during six several-week periods and several shorter visits over the span of 1973–93 when Fujimoto lived in the villages. Through these successive periods of village residency, Fujimoto was able to gain insights concerning complex matters that often remain an enigma to outside observers.

A. *Agricultural Decline*

In what ways are Malaysia's agricultural and forestry sector and its most important food component, rice production, in decline?

(a) During the 1980s, the percentage contribution of agriculture and forestry to Malaysia's Gross Domestic Product (GDP) declined by 3.5 percentage points (from 22.2 per cent in 1980 to 18.7 per cent in 1990). During this time, manufacturing replaced agriculture and forestry as the nation's number-one economic sector; manufacturing's share of GDP increased 6.5 percentage points from 20.5 per cent to 27.0 per cent (pp. 36–37).

(b) The number of people employed in agriculture and forestry decreased 4.1 per cent from 1.91 million in 1980 to 1.83 million in 1992. The number of people employed in agriculture and forestry, as a percentage of the total work force in Malaysia, declined 13.7 percentage points from 39.7 per cent in 1980 to 26.0 per cent in 1992 (p. 37).

(c) Rice output (tons) declined 22 per cent from 2.04 million tons in 1980 to 1.59 million tons in 1990. The number of rice households decreased 17 per cent from 140,000 in 1970 to 116,600 in 1984 (pp. 38–39).

(d) Malaysia's estimated percentage rice self-sufficiency increased from the low thirties in the 1940s to 77–80 per cent in the late 1960s, but declined to the low forties in the early 1980s (pp. 53, 59, 79, 84).

(e) As of 1981, an estimated 18 per cent of the total area of 992,000 acres developed for rice production in the country was in continuous disuse for agricultural production. An additional 22 per cent of rice land was idled during the dry season only (pp. 73–74).

(f) Although the percentage of Malaysia's rice households in poverty decreased by 30 percentage points from 88 per cent in 1970 to 58 per cent in 1984, the proportion of rice households in poverty in 1984 was 11–54 percentage points greater than for any other agricultural or urban sector in the country (p. 38).

From the standpoint of economic development, these statistics could be viewed to com-

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municate a rather depressed state of affairs in Malaysia's agricultural economy—especially in its rice villages. Fujimoto's intensive study of rural Malaysia over the past two decades, however, leads him to draw a rather strong counter conclusion.

B. *Overview of Book*

In this book, Fujimoto communicates the nature and implications of developments over the past two decades in (1) the nation's agriculturally related policies and (2) the infrastructural, technological, institutional, and economic environment exogenous to the nation's rural people. He clarifies how Malay rice farmers—faced with these developments initiated and promoted by the government—abandoned, maintained, or improved rice farming. Particular emphasis is placed on the nature and rationale of farm families' behavioral responses—both within and outside agriculture—to the persistent challenges and new opportunities which the farm families faced.

The book's ten chapters can be viewed to consist of four parts: (1) an introduction (Chapter 1); (2) a review of national government agricultural policies, with special emphasis on the rice sector (Chapters 2 and 3); (3) technological, institutional, and economic change in Kelantan (Chapters 4–6) and Seberang Prai (Chapters 7 and 8), with some unusually insightful farmer case studies (Chapter 9); and (4) a conclusion.

In the Introduction, Fujimoto provides an historical overview of overall economic and rice production development in Malaysia, the objectives and methods of his twenty-year study of rice production and rice villages in the country, and a broad description of the study areas and villages.

C. *Government Policies*

The national policy having greatest effect on rice farming during the 1960s involved development of irrigation and drainage infrastructure for double-cropping of rice. The success of this policy is reflected by the increase in planted area of dry season rice from 21,000 acres in 1960 to 394,000 acres (43 per cent of rainy season rice area) in 1971. Attention was also given to developing biochemical technologies (e.g., new varieties, chemical fertilizer, pesticides) for increasing rice productivity, which resulted in annual rates of rice yield increase between 1952 and 1970 during the wet season of 1.6 per cent and during the dry season of 2.9 per cent. Progress in achieving rice self-sufficiency was also realized, with the rate of national self-sufficiency increasing from 63 per cent in 1960 to 78 per cent in 1970. Profits from rice farming increased only little, however, with 88 per cent of rice households below the 1970 poverty line of 130 ringgit per month per household (pp. 57–63).

The New Economic Policy introduced through the Second Malaysia Plan (1971–75) called for a shifting of priorities, with income enhancement (to eradicate poverty of Malay rice farmers) becoming top priority, followed by increased rice productivity and self-sufficiency. Efforts to increase rice production were limited to the country's eight double-crop "rice bowl" areas. In those areas, attention was given to enhancing land improvement and rice production technologies. Attention was also given to integrating then existing agricultural cooperatives and farmers associations into a single agency, the Farmers Organization Authority (FOA). FOA branches were developed to provide rice farmers with single sources of technical, input supply, and credit services (pp. 63–66, 84).

However, beginning in the mid-1970s, the government's price policy undoubtedly had the most direct impact on rice farmer income. In 1974, the guaranteed minimum price per *pikul* (136 lbs.) of rice was increased from 16 ringgit to 28–30 ringgit. Beginning with the 1979/80 wet season, a two-part Paddy Subsidy Scheme was introduced. Farmers who were

registered with FOAs received, at no cost, a full supply of the amount of fertilizer officially recommended by the Department of Agriculture for up to 6 acres of rice land (a value of 94 ringgit per acre in 1980). Further, beginning in 1979/80, the government provided an additional output subsidy of 10 ringgit per *pikul* of rice; in 1990, the subsidy increment was increased to 15 ringgit (pp. 104–6). Even with these price subsidies, the small size of rice farm (national average of 3.1 acres per farmer) placed a severe constraint on the amount of income that individual rice households could derive from rice production (pp. 61, 135–36).

To overcome the growing problem of idle rice land and the persistent problem of low rice household income, the government introduced two new strategies—beginning with the Fourth Malaysia Plan (1981–85). Idle land was rehabilitated and agricultural production was promoted on the basis of location-specific economic and technical feasibility. Second, new types of group farming were promoted in which land was rehabilitated and consolidated into large-scale operating units under a variety of types of centralized management.

D. *Rice Farmer Responses*

Fujimoto's study of rice production in Kelantan shows an increase in the area of rice planted in the state during the dry season from 3,000 acres in 1961 to 68,000 acres in 1975. The rate of rice double-cropping increased from 2 per cent in 1961 to 41 per cent in 1975. In the Kemubu Agricultural Development Authority (KADA) project area, which covers roughly one-half the state's wet season rice cultivated area, 70 per cent of rice land was double-cropped in 1975—in response to the government initiatives to develop KADA's irrigation and drainage infrastructure.

Between the mid-1970s and 1981/82, however, the area planted to wet season rice declined by nearly one-half. This was due to persistent technical shortcomings in project infrastructure and off-farm employment opportunities that were luring away potential rice production workers (pp. 92–93). Although rice yields remained rather stagnant during the 1960s and 1970s, the average yield increased by 50 per cent in the 1980s. This was largely due to progress in biochemical technology (primarily improved rice varieties) and incentives for higher yields through fertilizer and output government price subsidies (pp. 93–94).

In the early 1970s, about one-third of the study village's rice farmers depended upon buffaloes for land preparation. Ten years later, none did. With this and adoption of other capital-intensive, labor-saving technology, the wet season physical family labor input—in man-days per acre—declined in the study village from fifty-two in 1973/74 to seventeen in 1983/84.

Between the 1970s and 1980s, farmers made major shifts in rice varieties, with primary attention in variety selection to increased pest resistance. Numbers of paddy seedlings transplanted per hill went up. Farmers' per-acre applications of nitrogen increased by 71 per cent; phosphorous and potassium applications more than doubled. To take maximum advantage of added plant nutrients, farmers relied more heavily on split fertilizer applications. The percentage of farmers applying pesticides in the wet season increased from 31 per cent in 1977/78 to 71 per cent in 1983/84. Each of these practice-changes conformed to FOA recommendations. On the other hand, rice farmers tended to move away from recommended (1) spacing between hills, (2) ages of seedlings at transplanting, and (3) hand weeding.

These findings reflect an amazing dynamic in Kelantan's rice sector over the past twenty-five years. The areas of rice cultivated at certain times have trended up and at other times down. Rice household family members are responding to off-farm employment opportunities, and are substantially augmenting the rice component of rural household in-

comes. The cultural practices of the state's rice farmers have changed greatly over the twenty-year study period, with the vast majority of changes in conformity with recommended practices. Rice yields are substantially higher, as farmers have responded to changes in the technological and institutional environment provided by the government. While rapid changes like these have come to the case study village during the past two-plus decades, however, Fujimoto acknowledges that some villagers—by virtue of age and other reasons—have not contributed to the village dynamic just described.

The changes taking place in Seberang Prai were generally similar to those in Kelantan. Most significant differences are (1) earlier and more intensive adoption of direct-seeding and combine harvesting of rice; (2) expansion in size of individual farms (average rice area operated per study village farmer increased from 2.84 acres in 1978 to 3.26 acres in 1987) in response to economic incentives associated with labor-saving rice production technology and more profitable rice production; and (3) a more thorough absorption in off-farm employment of potential "surplus" labor in rice villages. Many of these differences derive from Seberang Prai's proximity to the strong labor demand in nearby city centers of Butterworth and Georgetown on Penang Island.

E. *Large-Scale Rice Production Projects*

Malaysia's experiment with large-scale rice production under centralized management is being undertaken in the form of rice estates, mini-estates, group farming, and *kelompok tani* (the different terms do not appear to have distinctive meanings). The purposes of the group production efforts are to rehabilitate idle rice land and expand the geographic areas from which individual rice households can earn farm income. Two associated factors favoring introduction of this institutional innovation are (1) recently developed labor-saving rice production technologies and (2) expanded off-farm employment possibilities in Malaysia and Singapore which contributed to off-farm labor migration (pp. 75–77).

Individual large-scale rice production projects, undertaken beginning in 1981, have involved rice field areas ranging from several 10s to several 100s of acres. All projects involved government-subsidized infrastructural rehabilitation and land reshaping (as much as 8,000 ringgit per ha). All involve use of one or more different forms of labor-saving rice production technology, e.g., four-wheel tractors for land preparation, chemical rather than hand weed control, direct-seeding of rice, and combine harvesting.

Beyond that, a variety of approaches have been followed in different projects. Some projects have been developed by the private sector. A larger number have involved major services and, in some instances, management from the public sector. Roles of rice field owners in various projects range from operator to fixed cash renter, to share renter, and to contract field worker. In some projects, particular cultural operations are organized and carried out at the group level and, in others, by members of individual participating households. Under certain project conditions, seedlings are transplanted; under others, direct-seeding is followed. In certain projects, business activities extending beyond rice production have been undertaken.

Fujimoto describes the origin and development of several of these large-scale rice production projects and indicates their present status. He indicates specific ways in which particular projects have achieved success and other ways in which they have failed. Overall, only a few projects appear to have been successful; many have either failed or appear to be on weak footing. Even in instances in which group projects have failed financially, participating individual landowners now have much improved rice fields and have seen demonstrated possibilities for labor-saving rice production technologies and much-larger-

than-traditional-sized production units—factors which could benefit both them and the country in the future.

In summary, I believe that Fujimoto's in-depth insights concerning (1) individual household family responses to the persistent challenges and new opportunities created by the government in rice production and associated private sector initiatives and (2) the unique documentation of Malaysia's recent attempts at large-scale rice production presented in *Malay Farmers Respond* will prove to be an invaluable resource for policymakers in Malaysia and students of infrastructural, technological, and institutional change in rice-based rural economies of Asia.

(Donald C. Taylor)

India's Textile Sector: A Policy Analysis by Sanjiv Misra, New Delhi, Sage Publications India Pvt Ltd, 1993, 278pp.

India's textile industry has been suffering from a host of problems such as slow growth, high incidents of "sick mills," increasing obsolescence, and low levels of modernization. This book provides an understanding of why this has been so, and why India's experience in textiles has been so different from that of other developing countries. According to the author, the most crucial difference is that the textile sector in India has been subject to a degree of state control and regulation which has few parallels.

The author sets forth two major observations. The first is that the real problems of India's textile industry are sectoral (structural). He shows that there have been peculiarly Indian linkages among and within sectors in the continuous textile production process, and these linkages are an inherent part of the inefficient production structure. The modern (organized) sector has coexisted with the relatively "backward" (unorganized or decentralized) sector; textile spinning and processing have been carried on exclusively by the modern sector, while the weaving process has been done by the "backward" sector. At the same time within the "backward" sector itself there has been a "dualism" in the weaving process where powerlooms compete with handlooms (representing different degrees of "backwardness").

The second observation is that this peculiar Indian production structure was largely created and developed because of the heavy doses of state intervention which have continued unabated even since the mid-1980s when the government began promoting economic liberalization.

To analyze the problems he has presented, Misra sets out three specific questions: (1) What are the main problems and interests that have determined textile policy over the years? (2) What has been the impact of state intervention on the structure, growth, and evolution of the textile sector as a whole? (3) What lessons can be derived from past experience in formulating new policy options for India's textile sector?

The first question is discussed in Chapter 2. The author points out five problems confronting the textile sector: (1) regulations over inter-sectoral competition between handlooms and mills employing powerlooms for manufacturing cloth, (2) the providing of cheap cloth for the weaker sectors of the industry, (3) a state fiber policy to ensure the predominant use of cotton in textile manufacture and to limit the competition posed by synthetic fibers and yards, (4) modernization, and (5) the rehabilitation of "sick mills."