

## BOOK REVIEW

*The Agricultural Development of Japan: A Century's Perspective* by Yujiro Hayami and Saburo Yamada et al., Tokyo, University of Tokyo Press, 1991, xviii+276 pp.

This new book brings together the many research articles which professors Hayami, Yamada, and their four co-contributors have written on the long-term development of Japanese agriculture. As the title of the book indicates, it is an analysis of the development of Japanese agriculture during the course of the past one hundred years. It is composed of eight chapters divided into three parts. Part I, "Overview," covers the first two chapters. Chapter 1 deals with quantitative aspects of Japanese agricultural development, while Chapter 2 takes up institutional aspects. Together they provide a panoramic account of agricultural development over the past century.

Part II, entitled "Historical Growth Elements," is divided into four chapters which deal with a number of conditions that were important in supporting agricultural development. These include the diffusion of improved rice varieties (Chapter 3), land infrastructure (Chapter 4), fertilizer application (Chapter 5), and the tradeoff between food and industrial crops (Chapter 6). Part III, "Adjustments to Rapid Economic Growth," covers the last two chapters—Chapter 7 dealing with farm mechanization, scale economies, and structural change, and Chapter 8 which takes up the causes for the growth in agricultural protectionism. These two chapters deal with the adjustments that have taken place in the agricultural sector since World War II, especially during the last thirty years when Japan achieved rapid economic growth. Chapter 7 discusses the progress of mechanization in agricultural management based on economies of scale. While this process was taking place, however, the growth in agricultural protection also became extremely evident; Chapter 8 tries to explain the background and basis for this growth in protectionism.

The book concludes with two appendices: Appendix A, Historical Data for Japan; and Appendix B, International Comparative Data for the Regression Analysis of Agricultural Protection.

The analytical perspective taken by the book is set forth concisely in the Introduction and concerns how and what role agriculture played in the long-term development of the Japanese economy. To quote the authors: "During the early periods, the agricultural sector supported the development of the nonagricultural sectors as a supplier of resources as well as a market for urban products. Later, agriculture became a sector supported by the rest of the economy by means of border protection and subsidies" (p. 4). In other words, in the early stage of Japan's economic development, the development of agricultural production made possible the acquisition of investment capital, labor, and the supply of food required for the development of the nonagricultural sectors, especially manufacturing. But after a while agriculture came to be supported by the nonagricultural sectors. In another passage, the authors say the following about this "later" time period. "Underlying the increases in agricultural protection during the process of rapid economic growth is the sharp decline in comparative advantage in agriculture" (p. 226).

As mentioned above, the authors analyze the background to Japanese agricultural

protection, however the greater part of the book is given over to analyzing the structure and process of development in agricultural production which sustained the development of the nonagricultural sectors. The authors say the following about the direction of their analysis. "A major focus is placed on the evolution of an economic organization that enabled farmers to acquire the new productive inputs and technical knowledge needed. . . . Especially, we are concerned with the investments in social overhead capital, such as land infrastructure, agricultural research, and farmer education" (p. 3). The authors likewise point out the importance of the linkage between agriculture and the nonagricultural sectors that takes place via the market. They comment that, "Another key is the proper linkage of agriculture with the nonagricultural sectors, through which farm products are marketed and modern farm inputs such as fertilizers and machinery are supplied" (p. 3). Then in summation they say the following: "Our principal concern is to investigate the process by which the development of agricultural production infrastructure and interindustrial linkage was induced by economic forces through dynamic interaction among farmers, public agents, and nonfarm business entrepreneurs" (pp. 3-4).

It is not easy, however, to analyze the agricultural sector in its entirety with this methodology. Thus in its second part the book limits its analysis to the developments that took place in rice and silk cocoon production. Rice makes up the major part of Japan's agricultural production, and the expansion of production and maintaining stable supplies to the market were important factors supporting the growing population employed in the nonagricultural sectors. Likewise silk cocoon production was an agricultural sector that played an important role in securing foreign exchange during the early stage of Japan's economic development. By analyzing the production and development of these two major commodities using the aforementioned methodology, the authors examined the essential part of Japanese agricultural development. The development of rice production was sustained by three factors: improved varieties, land infrastructure, and fertilizer application; and as already mentioned, these are analyzed in separate chapters.

The above broadly sets out the organization of the book and outlines its analytical methodology. But I would like to point out a number of other features. The authors have kept to a common methodology; they have made a careful examination of the source materials; and they have aimed as much as possible at a quantitative analysis of each of the areas they have written on. As they state in the Introduction: "Our analysis is concentrated mainly on the side of real input-output relations in agriculture" (p. 3). Thus while the book is a compilation of the authors' various works, the first chapter has tried to explain from a unified perspective the course of Japanese agricultural development in quantitative terms.

The authors have also made an effort to place the Japanese situation in an international context through comparisons with developing and developed countries as well as in general international terms. This is particularly true of Appendix B. It would seem, therefore, that the authors also intend for this book to be used as a reference source on developing countries.

Another notable feature of the book is that the quoted literature and source materials in Japanese have been given in romanized form, and when necessary the reader is even provided with the original Japanese text. This will be extremely beneficial for researchers who use this book.

One more feature I would like to point out is the unity and overall analysis shown in Chapter 2 which deals with the institutional aspects of Japan's agricultural develop-

ment. The chapter covers the century since the Meiji Restoration, but the author of this chapter also takes up the present situation and the remarkable decrease taking place in the agricultural population but without any concomitant increase in the scale of farm operations. He makes a few policy suggestions to cope with the situation. I accept as appropriate the chapter's division of time spans, which run from "Transition to Modern Agricultural Growth" through "Interwar Stagnation" to "Agricultural Development since World War II." I also agree that the important function of agriculture is to maintain political and social stability, which as the author points out is one of the foundations of existing agricultural policy.

In all, this is a valuable work as a history of Japanese agricultural policy and as a quantitative analysis of agricultural development, and which at the same time provides a political and social perspective. However, in reference to the developing countries, I would like to express two personal thoughts. One concerns the significance of the land reform after World War II. In itself it was highly significant for Japanese agricultural development, but it would have been troublesome to carry out if there had been no political compulsion. My second thought concerns the existence of the present food control law which the authors point out protects and props up agriculture. This law, however, was not enacted for the purpose of protecting agriculture. It was enacted for a completely opposite purpose and function, and I would like to point out that the intentions of the military occupation authorities at the time of the Korean War were heavy involvement in the law's continued existence. In other words, the present protectionist policy, rather than being something that came about through postwar legislation, could be characterized much more as something that grew out of the holdover wartime food control system.

(Shigetō Kawano)