

*Economic Development of Tropical Agriculture: Theory Policy, Strategy, and Organization* edited by W. W. McPherson. University of Florida Press, Gainesville, 1968.

This book consists of 15 papers by different authors, some of whom contributing more than one chapter. The papers were presented in a series of seminars given on the University of Florida campus during the period between January and November 1966. As such, the authors were not brought together as is increasingly the case nowadays when one sees a collection of papers related to the problems of economic development and agriculture. Each author worked independently of the others. As the editor admits, there are duplications of ideas as well as differences in ideas among the authors. Editorial revisions of the papers were kept to a minimum and the reconciliation of these duplications and differences is left to the reader.

If one were to look for a single thread running through all the diverse papers included in this book, one would find the main theme in the structural problems that have plagued economic development of tropical (and subtropical) countries. Heady emphasizes the lack of understanding of the existing circumstances relating to the political, cultural, intellectual and similar restraints, largely exogenous to the agricultural development process *per se*. King and Glenn L. Johnson are concerned with product and factor markets respectively, and the structural reforms that are called for. Harry Johnson refers to the structure of protectionist policies and currency overvaluation in developing countries as structural impediments to exploiting possible benefits of trade preferences.

Ruttan emphasizes the environmental conditions that determine the regional differences observable in yields of rice in Southeast Asia, concluding that lack of development of environmental control of water (irrigation and drainage) and crop diseases and pests have prevented farmers from achieving yield potentials inherent in existing varieties and will present an equally severe limitation on future varieties. Gaitskell, in reviewing the Indus Basin investment in West Pakistan where the world's most extensive irrigation system is available, points out that the basic principles of distribution of water were dictated by engineering, financial and general administrative considerations than by any other (farmer-oriented) objective of obtaining maximum yields.

John C. H. Fei and Alpha C. Chiang present a concise theory of economic stagnation using simple mathematics and ingenious diagrams. They demonstrate that when a static technology subject to the law of diminishing returns is coupled with a persistent population pressure, economic stagnation (in the sense that per capita consumption standard does not rise in an unbounded manner) is bound to result. Since a persistent population pressure and the lack of technological progress constitute a sufficient condition for stagnation, they conclude that, in order to enjoy economic progress, it is necessary to have either a continual process of technological improvement over time, or population control, or both. The conclusion is nothing novel. The merit of this chapter may be found in its simple and easy exposition of the fundamental classical-neoclassical theorem without the use of much mental gymnastics.

One of the important running themes in Arthur Gaitskell's papers is the question: "To what extent in our pressure for maximum growth, and in the conviction that encouragement of private enterprise initiative is the quickest means to this end, are we risking the danger of serious inequity and the social and political tension which might follow from it"? He pays special attention to the remark made by W. A. Lewis, regarding a conflict between growth rate of GNP and the proportion of the population that shares in the gains (to be measured by the "misery rate") particularly in India and Jamaica. Gaitskell adds the observation warning the so-called "success stories" of Mexico and Pakistan, where "50 per cent of the population is still in rural areas, hungry and poor and underemployed". The conflict is increasingly recognized (as is evident in Pakistan's socio-economic objectives of the Fourth Five Year Plan, for example). However, the reviewer believes that one can easily put too much emphasis on this type of conflict. The crucial problem seems to be the choice of strategy aiming at both enlarging the "size of the cake" and improving distribution of the cake, by exploiting what Muhammad Anisur Rahman calls "interdependence between distribution and the product itself that is to be distributed".

Earl O. Heady suggests appropriate guidelines for establishing priorities within agriculture under different sets of conditions. In a typical case where farm output is low, diets are miserable, hunger prevails, both agricultural and

industrial sectors are characterized by labour unemployment or underemployment, and export possibilities are unfavourable for farm products, Heady recommends the following priority guidelines. Crop biology should be given precedence. The capital items required are improved seeds, fertilizer, insecticides, and irrigation where it is uncostly and has a high short-run payoff. These capital inputs serve as substitutes for land. Emphasis should not be given to mechanization and labour substitutes. He argues for the necessity of investments in knowledge and technology (adapted to the conditions of the country) and for checks on birth rates in connection with long-run policies. The reviewer believes that the agricultural strategy of this type proves to be most effective in embracing the mass of farmers in the satisfactory process of agricultural growth without creating the "left-outs" who cannot share the fruits of progress.

Vernon W. Ruttan comes to a diametrically opposite suggestion for strategy in his paper on "Strategy for Increasing Rice Production in Southeast Asia" by examining the yield increases of the last decade and the yield differences among major rice-producing regions in the Philippines and Thailand. His conclusion is that: "After the effects of the environmental factors (irrigation and drainage) are taken into account, there is little yield increase or yield differential left to be explained by such factors as new varieties, better cultural practices, more intensive use of technical inputs such as fertilizer and insecticides, or economic and social differences among regions and between Thailand and the Philippines". (We may be permitted to add those between East and West Pakistan.) The implication of this analysis is clearly that substantial investments in irrigation and drainage will be required.

Richard A. King explores some possible improvements in product markets in order to stimulate the desired output of farm products and to entice into the market economy those producers who are outside commercial agriculture. An imple model of price differences over time, space, and form is suggested as an analytical tool for evaluating alternative strategies for market improvement.

Glenn L. Johnson discusses factor markets and economic development with special reference to Nigeria. He identifies the problems that limit development in that country as largely structural, and argues for structural changes in the agricultural credit market (cheaper government credit), in the land market changing the exploitive marketing board levies on the economic rent of land and in the rural labour market. With respect to the labour market, Johnson observes that governmental and business labour is unionized and overpaid, and that this, when combined with the government's heavy taxation of agricultural export crops, will create what appears to be a premature, mass exodus of labour from agriculture to join the ranks of the urban unemployed/underemployed.

One paper that is somewhat incongruous with others that mainly focus on tropical agriculture is Harry G. Johnson's referring to the 1966 UNCTAD

proposal for trade preferences in industrial products to be granted by the advanced countries. Johnson argues that the difficulties of developing countries in industrial exporting are largely attributable to the domestic policies of import-substitution-cum-currency-overvaluation they practise. His analysis on effective protection lines indicates that, within existing tariff structure, trade preferences for developing countries might provide powerful incentives for the expansion of their industrial exports, since value added of the domestic industries in advanced countries is taxed implicitly by their national tariff schedules. But, as the price and cost levels of export industries in the developing countries are often well above world market levels (and more importantly in many cases the excess is substantially greater than the tariff-created excess of domestic over world market prices in the developed countries), preferences would be of no avail unless they were accompanied by drastic reform of the currency-overvaluation and protectionist policies of these countries.

Not only the book covers many problem areas such as theory, agricultural policy, product and factor markets, trade, planning tools and strategy, but also covers some specific problems in geographical areas as diverse as Latin America, countries of Southeast Asia and Pakistan. Granted that there is a merit in presenting a group of experts who provide an overview of the diverse problems, organizations, policies, and ideas for getting agriculture going, one wonders if the editor's responsibility to the reader is quite as easily absolved as the professor's obligation to the students during an academic year.