Book Reviews

The Economics of Agricultural Development by John W. Mellor. Ithaca: Cornell University Press, 1966. Pp. 400.

The Economics of Agricultural Development is an important book. Throughout the book, Mellor uses economic analysis to organize, extend, understand, and evaluate the economic facts of the agricultural sector in a developing country. He treats agricultural development within the framework of overall economic growth and highlights the interaction between agriculture and the rest of the economy. ("Agriculture and Foreign Exchange", for instance, is the title of one early chapter, "Agriculture and Capital Formation" is the title of another.) It is not enough, for instance, to show that chemical fertilizer can have significant influence on agricultural output in a developing country. It is also necessary to consider alternative uses of the scarce foreign exchange it requires and alternative uses of industrial capital. Also it is necessary to decide when to stop increasing fertilizer supply and turn to other activities. This essential *integration* of agriculture into overall development activity acts as a useful antidote to the special pleading that tends to surround sectoral planning for so large and politically powerful a sector as agriculture and to those economic theorists who ignore this sector, which produces 50-90 per cent of GNP.

The substance of the analysis is presented in three parts, each of which supports but is separate from the other. Part I sets the tone of an integrated analysis of the development of agriculture and the rest of the economy. In addition to the now-traditional discussion of "what is meant by economic development", there are very useful sections on development with special reference to agriculture — development as measured in caloric intake, development as it increases food and other agricultural demand, development as it makes demands on agricultural labour and agriculture's ability to accumulate capital. This integration, it should be noted, sounds like part of a very expanded presentation of the pioneering paper by Johnson and Mellor, and it is. And in this section it becomes apparent that though Mellor is an economist and makes no pretense to the contrary, he avoids the economists' disdain for those parts of a situation that cannot be presented with respectable rigour. This section contains a very useful and pertinent discussion of the changes in rural attitudes that come with development.

Part II presents both a description and some analysis of the traditional

agriculture of the underdeveloped country. It serves to detail the conditions from which the modernization of agriculture must proceed — the point of departure for development. And, especially in Chapter 9, "Labor Use and Productivity", this section contributes significantly to our understanding of traditional attitudes and behaviour in peasant agriculture.

Part III is the meat of the book, analysing the transition from a very large, very low-productivity agriculture to a small, highly-productive agriculture. While clearly rejecting the inevitably simplistic "stages" of growth, Mellor usefully distinguishes, in the departure from traditional agriculture, a period of increasing productivity with little capital as against a stage in which high productivity is attained with a lot of capital. He stresses, for developing countries, the immediate opportunities for increased productivity *without* the use of much scarce capital. In this he usefully, if not explicity, points to the fallacy of "imitative planning" in agriculture — planning that mimics the technology and especially the capital intensities of advanced, capital-rich countries in guiding the capital-poor developing country.

Mellor deemphasises simple injections of capital to increase agricultural productivity. Instead, he lays primary stress on induced technical change, *i.e.* on shifts in the production function that make all factor inputs more productive. This emphasis on technical change leads to two major corollaries: *i*) the complementarity of inputs is usually an essential aspect of technical change; and *ii*) *basic* research may be transferable from developed agricultures but applied technology demands local research. The stress on complementarity serves both to explain some of the widely-reported failures in agricultural innovation (as when fertilizers prove unprofitable for lack of water) and to warn against depending on uncoordinated introduction of single elements of a many-dimensional technological change (as when new seeds are provided without adequate pesticides). The stress on the need for locally-relevant agricultural experimentation — even given the large body of internationally available basic research — serves to warn against easy solutions which relieve underdeveloped countries from direct responsibility for their agricultural programmes. Interestingly, in putting the problem of agricultural development as a problem of inducing a continued stream of technical change, Mellor's analysis has striking similarities with industrial analysis in advanced countries where, again, technical change has become institutionalized.

Another merit of this contribution is that a highly-specialized and nicely-integrated analysis has been presented in a manner that makes it accessible to non-economists also. I don't mean to imply that the book is either trivial or that it is easy reading, because it is neither of these. It is a book whose major contribution can be understood by intelligent non-professionals — by people

dealing with policy in agriculture and development planning and finance — only if they are willing to put out a good deal of effort. It won't be easy reading for them and, stylistically it won't be much fun. But its insights into agricultural development as an essential part of the development process are worth the considerable effort of anyone working in or near agricultural planning in a developing country.

(GORDON C. WINSTON)