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REVIEWS IN BRIEF

Agricultural Production in Communist China 1949-1965, Kang Chao, University of Wisconsin Press, Madison, Wisconsin, U.S.A., and London, England, 1970. Pp. xv + 357. \$ 16.50.

This volume contains a critical reassessment of the success or failure of China's agriculture in feeding her population. Divided into three parts and 12 chapters, Part I traces the evolution of the Chinese policies of socialist transformation of agriculture with particular reference to land reform, mutual aid teams, agricultural co-operativization and collectivization, communes, and state farms. It also discusses the organizational details of various rural institutions that existed in the Communist period and analyses the economic impact of the institutional changes in rural China which were carried out at high speed under the policy of socialist transformation. Part II deals with inputs utilization and technological transformation of Chinese agriculture. The specific technological measures discussed in this part include agricultural mechanization and improvement of farm implements, irrigation and rural electrification, use of chemical fertilizers and changes in cropping systems and seed-breeding. In Part III an attempt is made to estimate the production of grains in China during 1949 to 1965. The task is rendered difficult because of non-availability of reliable data and under-reporting of land utilization and farm production figures. It is pointed out that the Chinese Communist experience in developing agriculture has been far from satisfactory. The agricultural policy of the regime consisted of socialist and technological transformations which were characterized by uneven development, with abrupt escalations and sharp reversals. In reviewing the variations of agricultural policy after the early economic recovery, three periods are distinguishable *viz.*, 1952 to mid-1955, mid-1955 to 1960, and 1960 to 1965. The first period laid more stress on marshalling resources for industrialisation, relegating agriculture to a supporting role. Both socialist and technological transformations were carried out slowly and cautiously. The conclusion emerging from this study is that collectivization has not been viewed as an effective developmental policy for agriculture as it was feared that collectivization might affect agricultural production adversely. The positive effects of technological transformation on farm production were never doubted but it was not implemented at great speed because the planners were unwilling to divert a substantial portion of investible funds from industry to agriculture. Besides, there was a shortage of technical manpower to carry out such a transformation on a large-scale. In the second period both transformations were greatly accelerated. An important factor underlying the policy changes in this period was the constraint on industrialisation created by an agriculture which had stagnated. Agricultural collectivization came to be used as a development policy, but its eventual result was catastrophic. The technological policies adopted in the second period were in the nature of crash programmes to be enforced uniformly and mandatorily in the whole country,

or in a large part of it, in a short period of time and on mass scale, as reflected in the mobilization of traditional inputs and the production of modern inputs with native resources and indigenous methods. A rising trend in the use of modern farm inputs was observed in the first decade under the Communist regime but the application was not sufficiently widespread to make an appreciable impact on the total agricultural output.

The period 1961-65 witnessed normalisation in agricultural policies. Highest priority was given to agriculture above all the other economic sectors and a large share of investment was channelled to agriculture for augmenting agricultural production. The socialistic nature of farm organization was also reduced, step by step. It is claimed that the reversal in the policy has brought about economic recovery.

The above conclusions are substantiated by the statistics of agricultural production. After making adjustments for the under-reporting of farm data in the early years of the Communist period, the data of grain output showed an annual growth rate of 7.4 per cent for 1949-52 due mainly to the recovery momentum. But the average annual rate of increase for 1952-57 was as low as 2.3 per cent which represented a stagnant level of per capita output. On the basis of reconstructed data on grain production for the period 1960-1965, it is estimated that the per capita grain output must have declined by about 1.5 per cent over this time interval. The analysis of the government's experience in developing agriculture indicates that it has not been entirely successful.

This book contains a penetrating analysis of Communist China's agricultural performance and would prove useful to scholars specialising in the study of Chinese agriculture.

A Regional Profile of Indian Agriculture, Edited by Vadilal Dagli, Commerce (1935) Ltd., Vora & Co., Publishers Private Ltd., Bombay-2, 1974. Pp. iv + 311. Rs 50.00.

This volume contains the profiles of agricultural development in each of the 21 States and seven of the Union Territories and gives a synoptic but comprehensive view of agriculture in each region. Effort has been made to describe the trends in the development of agriculture during the past two and a half decades. The regional profile provides information on a uniform pattern for each of the States relating to the area, population, agricultural income, cropping pattern, land utilization, trends in production, growth rates of production and productivity, soil types, water resources, agricultural inputs, mechanization, infrastructure facilities available, internal trade, flood and flood control measures, impact of planning and land reforms. In addition to the regional profiles, this volume carries an Introduction by the

Editor and another contribution on "Indian Agriculture since Independence" by Narottam Shah. The Introduction highlights the failures in agricultural development and the underlying causes for such failures in the different fields of agricultural development and stresses the need for a shift in the development strategy for providing the resources for growth under conditions prevailing in India. It critically examines the role of non-official and official agencies and other service institutions in the regeneration of the rural economy and outlines the measures for achieving the twin objectives of growth and elimination of poverty in the rural areas. A critical evaluation of the agricultural developmental efforts since Independence presented in the paper on "Indian Agriculture Since Independence" shows not only no evidence of any acceleration of the growth rate of agricultural production during recent years but a distinct deceleration of the rate of growth in agriculture. It then examines the causes for the failure of development efforts to accelerate the rate of growth in agricultural production, the variations in the productivity of land and the productivity of agricultural workers.

A wealth of data has been assembled and intelligently sifted and analysed in this volume which would prove useful to the researcher and the students of agricultural economics.

Project Evaluation : Collected Papers, Arnold C. Harberger, The Macmillan Press Ltd., London, 1972. Pp. xii + 330. £ 9.50.

This book contains a collection of 12 published essays by the author dealing with the theory of project evaluation and its applications, with emphasis on public sector investments designed to promote economic development. A general theoretical overview of project evaluation is presented in the first two chapters. An attempt is made in the first chapter to bring into focus some of the important practical issues that face development planners in the field of project appraisal. It focusses attention on the fact that the relevant prices may change through time. The discussion in this chapter is concerned with the problems of real wage changes and future changes in the discount rate, the choice of a time path for discount rate and of the level of the discount rate, shadow prices for labour and capital and time paths of other prices and of demand functions. The second chapter presents a critical survey of literature on cost-benefit analysis for industrial project evaluation. The third chapter deals with the choice of the appropriate rate of discount for use in cost-benefit analysis and project appraisal. Chapter 4 sets out a measure for the social opportunity cost of capital in an economy with a reasonably well-functioning, though distorted capital market. Chapter 5 briefly restates in summary mathematical form the contribution made in the previous chapter. It shows how the social opportunity cost of capital, material inputs and foreign exchange depend directly upon both the response parameters of private sectors and the distortions (mostly taxes) which cause social

and private valuations to diverge. A method is presented in Chapter 6 for estimating the rate of return to capital in Colombia from national accounts data. Chapter 7 presents a general analysis of the social opportunity cost of labour; its novel contribution is a demonstration that in most cases of chronic (as distinct from cyclical) unemployment, the social opportunity cost of labour, far from being zero as is often supposed, is actually likely to be in the range of observed market wages. An attempt is made in Chapter 8 to evaluate the economic rate of return to society as a whole of investment in physical capital on the one hand, and of investment in secondary and higher education, on the other, based on data from India. The general principles underlying the analysis of electricity projects and transportation projects are presented in Chapters 9 and 10 respectively. Similarly, Chapter 11 presents the principles for evaluating the benefits of irrigation projects and applies these principles in a preliminary study of the Ullum Dam in Argentina. It is shown that a methodology based on the market value of water rights is likely to provide the most accurate way of assessing the irrigation benefits of the project in question. The last chapter deals with various issues connected with U.S. foreign aid to less developed countries.

This book is an invaluable reference work which the teachers and the students of agricultural economics would find it rewarding.

Fertiliser Use in Gujarat—A Micro View (A Study of Baroda and Junagadh Districts), Arun S. Patel, Gujarat State Fertilizer Company Ltd., Fertilizernagar (Gujarat), Distributed by Good Companions Booksellers and Publishers, Baroda, 1973. Pp. 141. Rs. 15.00.

This book attempts to examine the factors affecting fertilizer consumption in two typical regions of Gujarat, viz., Baroda and Junagadh districts, the behavioural pattern of the farmers in the area studied, the impact of prices and the role of opinion leaders in diffusion of information about fertilizer use. Divided into seven chapters, the first chapter of the book reviews the efforts made to spread fertilizer use at the all-India level and in particular in the districts of Gujarat. The second chapter deals with the objectives, design and methodology of a survey conducted in five villages each selected from the two districts covering a sample of 160 cultivators in 1969-70. The social and economic profile of the selected cultivators is presented in Chapter III. In addition to presenting a detailed break-up of the sample farmers into users and non-users and their social and demographic characteristics, an attempt is made in this chapter to examine land ownership and tenancy, land utilization, cropping pattern, yield and borrowing. The factors determining the level of fertilizer use and the pattern of fertilizer use among the different crops are examined in Chapter IV. An attempt is also made to analyse the factors which determine the variations in the rate of use of fertilizers by using multiple regression method. The findings of an opinion survey of 40 fertilizer

users from Baroda district and 63 fertilizer users from Junagadh district as regards their knowledge about fertilizer use, their opinion regarding place of purchase, packing, services, price of fertilizer, role of the Gujarat State Fertilizer Company, etc., are presented in Chapter V. The factors which impede the use of fertilizers are examined in Chapter VI. The main conclusions and policy implications of the study are given in the last chapter.

The study revealed that 54 per cent of the selected cultivators in the Baroda district and 83 per cent of them in the Junagadh district used fertilizers on their farms. In 1969-70, 36 per cent of the total cropped area of the selected cultivators was fertilized in the Baroda district and the corresponding figure for the Junagadh district was 62 per cent, indicating the scope for the spread of fertilizer use in the two districts. The rate of use of fertilizers in the irrigated fertilized areas was 48.41 kg. and 28.99 kg. per acre respectively for the Baroda and Junagadh districts. The rate of fertilizer use in the unirrigated fertilized area in these two districts was 14.29 kg. and 13.49 kg. per acre respectively. It is noted that the fertilizer use even in the irrigated areas was much below the optimum and for some of the commercial crops like cotton in the central and southern regions of the Gujarat State and groundnut in the Saurashtra region, the fertilizer use was found to be low. The results of the multiple regression analysis showed that the relative area irrigated was the only factor significantly related to the use of fertilizers. It is also observed that in both the districts, fertilizer use increased with the increase in the size of operational holding. Lack of finance, lack of irrigation water, preference for farmyard manure and high price of fertilizers were the important factors which did not allow the non-users in both the districts to apply fertilizers on their land. The need is stressed for making the farmers aware of the technical aspects of fertilizers. In this context, the role of fertilizer manufacturing companies in providing technical extension service is considered important.