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BOOK REVIEWS

Production Gains of New Agricultural Technology—A Farm Size-wise Analysis of Punjab Experience, G. K. Chadha, Publication Bureau, Panjab University, Chandigarh, 1979. Pp. xi+144. Rs. 35.00.

Introduction of a new technology incorporating especially the use of non-traditional biochemical inputs and to some extent mechanization of agricultural operations started the process of transformation of traditional agriculture right from the latter half of the sixties. Farmers in Punjab not only benefited most by the availability of new high-yielding varieties seeds of wheat, maize, etc., but they did exploit their potential to a maximum extent compared to any other region of India. However, rapid expansion of irrigation, an input highly complementary with new technology, was a factor of crucial importance in accelerating the process of modernization of agriculture in Punjab. Besides, intensive rural electrification and diversion of substantial volume of institutional credit to the agricultural sector boosted the process further. Obviously, in view of this rapid adoption of technological change, the issue of its scale-neutrality assumed increased importance and became debatable.

It was claimed that due to scale-neutral character of new technology both small and big farmers can equally exploit its potential. Though this presumption was not totally wrong, it did ignore several constrainst, like lower asset ownership, poor potential for investment in current inputs coupled with lack of creditworthiness, under which the small operators have to carry on their farm business.

The book under review analyses in depth the Punjab's experience regarding distribution of production gains of new technology. Though it may not be directly and immediately relevant to many other regions of India, its findings provide important guidelines for future policy of agricultural development.

The author concentrates on two major aspects of farm business in Punjab. The first one relates to intensity and composition of resource use on different types of farms, namely, small, medium and large. He defines operational holdings falling in the range of 2.5 acres to 10 acres as small, those higher than 10 acres but less than or equal to 20 acres as medium farms and the rest with holding size greater than 20 acres as large farms. Thus, very small and marginal holdings were excluded from the analysis. The second major aspect examined in this study is production efficiency of small farms vis-a-vis medium/large farms.

The analysis of the former aspect was mainly based on average use of traditional and non-traditional inputs and on simple regression relationships between farm size and intensity of resource use. The latter analysis extensively used production function estimates to verify whether the efficiency parameters differ significantly for different sizes of farms. The degree of efficiency of farms in terms of their capacity to convert inputs into outputs was also utilized to judge inter-farm efficiency differential. For this purpose different variants

of Cobb-Douglas production function model including or excluding certain dummy variables were estimated. Alternative specifications of production function included farm size, tenancy type and tractor use dummy variables either singly or jointly.

The analysis brings out the differential nature of resource combination, of efficiency of resource use and of production gains from new technology. In general the stock of capital assets including ownership of improved irrigation structures, improved farm machinery and implements was found to be highly skewed in favour of medium and large farms but the ownership of draught and milch cattle was higher on small farms. However, the observed deficiency in the ownership of improved machinery and irrigation structures was almost compensated by hiring of their services. Relatively higher use of human labour, bullock labour, farmyard manure and consequently an intensive use of land were the characteristics of most of the small farms.

Elaborate production function model estimates indicated non-significant differences between small, medium and large farms with respect to efficiency parameters as well as output elasticities of almost all the inputs. Even with respect to some of the major indicators of adoption of new technology (*e.g.* percentage of area under Mexican wheat, etc.) the small farms did not lag behind the medium/large ones. New technology has, thus, generated positive gains to all types of farms by increasing the marginal productivity not only of non-traditional resources but also of traditional resources like human labour and bullock labour. It was found to be especially true for modern wheat technology. At the total farm business level, however, the medium/large farms do enjoy a marginally higher advantage due to qualitatively better composition of owned capital assets. This indicates the need for providing capital services on hire basis to small farmers through the co-operatives so that they will be protected in future from institutional handicaps as more and more crops receive the benefits of new technology.

Conclusions regarding the impact of share tenancy are, however, confusing. It is stated that "The share-crop tenancy does not make a differential impact on maize and total crop output of small, medium and large farms, though it does so on wheat output" (p. 111). But the regression exercise in Annexure II concludes: "In other words, the share-crop tenancy is pernicious to higher output at the level of modern wheat technology as well as (at) other levels of crop technologies" (p. 127). Thus, an element of inconsistency is only with respect to semi-modern maize technology and hybrid farm technology but the author is quite clear and categorical regarding absence of any adverse effect of share-crop tenancy on small farms growing Mexican wheat and interprets it as an indication of "pragmatic adjustment between technology and institutional factors" (p. 115). It is difficult to accept this interpretation without any reservations because the reader has not been informed clearly as to what extent this reflects a preference of small farmers (owner-cum-tenant) to grow Mexican wheat on owned holding rather than on leased-in land.

Apart from the limitation of a single year's (1969-70) data base, the production function analysis suffers from the choice of a functional form which

assumes elasticity of substitution to be unity for all the pairs of inputs throughout the whole range of the output contour. In view of the fact that the degree of intensity of use of human labour, capital and bullock labour differs for different types of farms, an arbitrary restriction of unitary elasticity of substitution becomes unacceptable. It might have introduced a specification bias in the estimates of output elasticities to a varying degree. Despite this obvious methodological limitation, the study has made a substantial contribution in understanding the process of technological transformation of agriculture. The author has also displayed a mature judgment in careful selection and specification of the variables, specification of alternative variants of production function model and above all convincing and integrated interpretation of several statistical exercises. It is an excellent piece of systematic and meticulous research work leading to significant conclusions.

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Cattle, Economics and Development, Raymond Crotty, Commonwealth Agricultural Bureaux, Slough, England, 1980. Pp. xv+253. £18.00.

The aim of this book is to "identify and to explain the principles of pastoral resource exploitation" and it is intended for those who are concerned with grazing livestock, with agriculture and rural development. The author brings to bear upon the book his wide range of experiences, having been himself a farmer in Ireland for 20 years. The book is divided into 12 chapters. The brief introductory chapter is followed by a four-page chapter, giving basic statistics relating to cattle in different regions of the world. Chapter 3 contains a historical perspective of the pastoral resource exploitation in West Europe and North America while Chapter 4 is concerned with the growth of demand for livestock products in a few developed countries.

In Chapter 5, the author presents an "economic model for decision-making by cattle keepers." The model has then been used for analysing the relationship between pastoral resources and activities (products). The resources considered are land (fit only for cattle), time and 'other' inputs such as labour, feed, veterinary services and land that is not specific for cattle. The activities included are (1) rearing cattle for draft or slaughter, (2) cow rearing for breeding and (3) cow keeping for milk. The resources and activities have not been further disaggregated because according to the author "the gains in realism and precision from listing inputs in detail are quickly offset by the loss through increased difficulty in conceptualising and tracing through the use of many inputs." Besides, a more detailed model is considered inappropriate for the expected readers of the book, "some of whom may know little about cattle and others of whom may know little about economics." Although,

according to the author's own admission, the "model is likely to be of limited operational use," nevertheless, he finds the model helpful in understanding the principles of pastoralism over extensive areas of the world and in particular, in understanding "how cattle owners are perceived to allocate resources with a view to maximizing their benefits." Accordingly, on the basis of this economic model the author has worked out a typology of "cattle keeping situations" in the world. The resulting six primary cattle keeping situations roughly coincide with the following geographical regions: West Europe and North America (pre-second World War and post-second World War situations), South America, Africa, South East Asia and India. In Chapters 6 to 11, cattle production systems of each of these regions is analysed with the help of the economic model and in the light of institutional, cultural factors in addition to supply and product demand conditions. The objectives are to establish distinctive regional characteristics, to appraise regional cattle production policy and to identify suitable policies that permit a more socially beneficial application of technology and capital to traditional cattle keeping. The last chapter presents the major conclusions arising out of the analysis in the earlier chapters and suggestions for major changes in policy designed to maximize benefits from pastoralism.

In this review we can't hope to comment on the author's analysis of all the regions of the world. Our comments are, therefore, confined to major conclusions of this study and to the extent these relates to Indian situation. The main conclusion is that "gross misuse of pastoral resources is widespread" and more so "it is the misuse not the paucity of resources that limits pastoral production," the causes of which are many. The important examples of misuse are the large dairy surpluses in the EEC countries, excessive cattle in India and Africa and the excessive use of land for cattle raising in Latin America at the cost of more remunerative crop production. The problem is getting worse by 'explosion' of technical and economic changes, rapidly growing human population, the orientation of government policies in favour of private profits, and the weaknesses of the social scientists who "know little about the countryside, less about farming and, still less about grazing livestock." The author considers that preventive veterinary services only result in "more people having more cattle and the people and the cattle enduring more hunger."

Finally, we turn to the author's observations about India's cattle economy. He is highly critical of India's dairy policy specially about the supply of cross-bred cattle to small farmers and landless labourers under 'Operation Flood'. According to him, the results are likely to be "diametrically opposite to the stated objectives." The present policy would increase the milk production by the landed, forcing the landless either to abandon production or to rely more on high cost fodder bought from the landed. "The small farmers and landless labourers will be unable to participate, unless their capital costs are subsidised continuously and that is not envisaged. Once the subsidies for cow rearing cease, herd replacement will revert to natural selection, as at pressent." Moreover the present policy would raise further the price of milk in the rural areas

and reduce further the amount of milk, the only available animal protein, consumed by the rural poor. Although, the author has not given any empirical evidence to support his contentions, the points raised, however, are very important and need careful study.

The other issue highlighted by the author is the crucial problem of surplus young cattle in India resulting from imbalances in the number of annual births and the replacement needs of milch and draft animals, and ban on slaughter. The herd stability in India is maintained by starvation of about 50 per cent of annual calves born, after being kept alive during a few months of cows' lactation. The author considers it imprudent to advise Indians to alter their religious belief about slaughter in the interest of maintaining the balance. Instead, he has suggested alternative ways to solve the problem. Firstly, there is a need for the introduction of "genetic lines of cattle that can lactate without calves at foot." Alternatively, young cattle can be profitably exported to developed countries particularly Japan because there is an increasing demand and diminishing supply of beef cattle in those countries. Such trade would also help those countries, particularly Japan which could lessen its rapidly increasing dependence on feed grain imports by drawing on India's surplus young cattle. Here again, the author has not presented any empirical case in favour of the economics of cattle exports. However, this seems to be an important suggestion which needs to be looked into by Indian experts.

Without underrating the importance of the book, one is struck by a number of limitations. Firstly, the author is prone to making sweeping statements without giving evidence in support. Likewise, he fails to properly work out the implications of some of his suggestions for improving the cattle economy of developing countries. Besides, the author has depended too much on his abstract mathematical model for explaining different pastoral situations so much so that, one feels, reality is made to subscribe to the model. Nevertheless, despite these limitations, the book is a significant contribution on the subject of cattle economics and development. The book is the first comprehensive study on livestock covering the entire world. For this reason alone, the book will serve as a useful reference material on the subject.

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Class Relations and Technical Change in Indian Agriculture, Sipra Dasgupta, Institute of Economic Growth, Delhi; Macmillan Company of India Ltd., New Delhi-28, 1980. Pp. xiii+146. Rs. 65.00.

Since the late sixties, Indian agriculture not only showed considerable increase in the productivity of some important crops, but also the sphere of production potential was greatly widened. The process was helped by substantial step up in the investment in irrigation, education, research, extension

and new capital inputs as well as by taking measures toward institutional reforms. The new technology propagated in India has been mainly biological-chemical in its characteristics and mostly suited to the areas having good environment (including irrigation). Wherever new technology was found to be suitable to the environmental conditions, it is reported to have been adopted by the farmers irrespective of their size of farms and tenure status. The process has, however, not been without its side effects. Both the regional inequality and inequality among different sections of rural population in each region are reported to have widened. The main reason for the first has been the suitability of new technology to the environmental conditions of certain regions, whereas the nature of new technology which is land augmenting, has been responsible for the second type of inequality. Because of its land augmenting nature whoever has better hold over the land and complementary resources to new technology has benefited to a greater extent. Agricultural labourers as a class appear to have been by-passed, to a great extent, by the new technology, as their real wages do not seem to have risen to any appreciable extent in most of the States. Further, increase in their employment, to a certain extent, has been slowed down because of the process of mechanization in regions experiencing faster growth in output. Hence in spite of agricultural growth, there seems to be no decline in the extent of desitution. In the light of these issues, the book under review is a welcome contribution to the literature in agricultural economics. The book tries to explore the mechanism underlying the dichotomy in Indian agriculture by focusing on the interrelationship between classes in agriculture and the nature of new technology. It is divided into six chapters excluding introduction and summing up. The book presents a good descriptive account of the issues relating to the adoption of new technology and its implications for different classes of rural population. Some policy matters are also presented lucidly.

In the chapter on historical perspective, the socio-economic background emerging out of two hundred years of colonial rule is discussed. The author brings out with ingenuity the facts regarding the neglect of agriculture under the colonial rule and the emerging patterns of class relations. Although some measures were taken to improve the conditions of the cultivators, the agricultural labourers as a class did not attract any attention of the colonial rulers. Even after Independence, agricultural labourers do not appear to have obtained any benefit from land reform measures, nor were their employment and wage structure regulated.

The author categorizes rural work force into (1) agricultural labourers, (2) small cultivators and (3) big cultivators and examines the impact of technological change on them. The book clearly brings out the fact that in spite of a relatively much smaller proportion of households belonging to the category of big cultivators, their hold over the total land resources and agricultural surplus is so large that their decision plays a major role with regard to technological change, input mix in agriculture and output mix in the capital goods sector. Although the impact of wage rate on mechanization and factor proportions on big and small farms is discussed at a few places in

the book, empirical evidences to the effect are hardly presented. The author has argued that due to skewed land distribution, market wage rate plays a crucial role in determining factor proportions on big farms, as the rapid spread of land saving devices pushes the wage rate high enough to lead to farm mechanization.

The empirical analysis in the book is mainly based on the data of IADP and adjoining non-IADP districts. The IADP districts are categorized into rice districts and wheat districts. The data used in the analysis pertain to the period 1961-62 to 1967-68 for wheat and 1963-64 to 1967-68 for rice, during which the spread of technical change was slow. The analysis includes 4 wheat districts and 11 rice districts. The statistical analysis indicates that the mean yield of rice and wheat in the IADP districts as a whole is significantly higher than that in the non-IADP districts. On the basis of region dummies, good and bad IADP regions are also identified. All the bad regions in the case of rice could be considered as rainfed, according to the author, as none of them has more than 40 per cent land under irrigation. Even after determining good and bad IADP regions, the author goes on mechanically using district dummies in her subsequent models used for examining the effects of new inputs on the yields of rice and wheat. Out of four models used for each crop, only the coefficient of average application of nitrogen per unit of land is significant in all the models for wheat but only in one for rice. Other included real variables do not appear to be important for these crops. Dummy variables for monthly rainfall are used in the equations of wheat but not in those of rice, while one could have expected otherwise. It appears strange when the author herself states that theoretically it is difficult to get significant coefficients for rainfall for wheat. She further says that her results for rice are erratic and the reason for this is partly the wrong specification. Having known these, the remedial measures could have been taken.

As water control has been one of the most important factors influencing the adoption as well as the performance of new technology, the author should have found a way out for including irrigation as an explanatory variable for yield. If the data on irrigation for individual crops were not available from the IADP reports, they could have been obtained from other sources. Or a model could have been tried to explain the productivity of all the crops, taken together, by taking the inputs of fertilizers, irrigation, improved seeds, insecticides, etc., (for which the data were available at the district level) as independent variables. This in fact was very much needed to get an overall view of the performance of IADP as the performance of individual crops appear to vary considerably among the districts (p. 108). Further the number of variables used for fertilizer could have been reduced by clubbing them on certain criteria.

Other conclusions of the book are that the use of new inputs did not increase the yield variability whereas they raised the yield of crops in many areas.

In spite of its good presentation, the book appears to be weak from the empirical angle. Of course, the data chosen by the author for the analyses

were not of the right type either from the viewpoint of technical change or from that of class relations.

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A Study of Viability of a Central Co-operative Bank, B. H. Elavia, The Baroda Central Co-operative Bank Ltd., Baroda, 1980. Pp. 59.

Of late, credit institutions in India have attached some importance to the cost controlling measures. The co-operatives are no exception to this awareness. The brochure under review is an outcome of a project sponsored by a central co-operative bank to take up an in-depth study of the problem of viability of its branches. The study outlined the following objectives : (*i*) to build a model for testing the viability of a branch of the Baroda Central Co-operative Bank, (*ii*) to fix up the norms of viability of the branches of the bank under study, (*iii*) to examine the viability of the branches of the bank under study in the light of the norms and (*iv*) to recommend a rational programme for making the branch network fully viable and provide guidelines for opening new branches in future.

The brochure is divided into six chapters. The first chapter is devoted to the problem of the study, in retrospect. In the second chapter, the agricultural profile of the district is discussed at length. The third chapter gives the growth trends in membership, working capital and advances of the bank. It would have been extremely useful had the author discussed in detail the branchwise growth of variables like membership, working capital, advances, deposits, overdues, establishment expenses together with their impact on the profitability of these branches. The fourth chapter represents a viability model for a branch of a central co-operative bank. Accordingly, on an advance of Rs. 100, the bank under study earns Rs. 3.90 while working capital required is estimated at Rs. 139 for a loan business of Rs. 100. The author has not given any satisfactory explanation for calculating the earnings on advances. Needless to say, the earnings would have been considerably reduced in case it is computed on working capital. Moreover, the available margin of Rs. 3.90 on an advance of Rs. 100 appears to be on the higher side from any reckoning. The weakest link in this exercise of viability model is the portion relating to assumptions which could not bear a close scrutiny. Besides, a viability model for a branch is not a very relevant exercise particularly when banks are expected to open branches at the block level irrespective of the business potentials. The study therefore leads us to a blind alley as it were. It is an uncritical picture and the author often draws self conceived and facile inferences, at times, ignoring the facts and relevant data. The author would have had a creditable work if she had developed a viability model for the bank as a whole with minimum and maximum number of expected branches.

The fifth chapter examines the viability of all the branches of the bank under study. This is followed by testing of efficiency of branches which were not found to be viable. The criteria used for judging efficiency are not only misleading but also highly subjective in nature. It is, however, not clear why the author has applied her analysis of efficiency to the branches which were not found to be viable. A critical analysis is possible only on testing of efficiency of all the branches of the bank with relevant criteria and ensuring their immunity from subjectivity.

The last chapter contains the summary of observations and offer suggestions for making the branch network fully viable. Again the author has gone beyond the scope of the problem and made suggestions quite contrary to findings and observations of the study.

In spite of all these limitations, the brochure is a welcome addition to the existing literature on the subject, as it is the first attempt by an individual researcher.

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Agricultural Development in Punjab, D. P. Gupta and K. K. Shangari, Agricultural Economics Research Centre, University of Delhi, Delhi-7; Agricole Publishing Academy, New Delhi-17, 1980. Pp. XIV+160. Rs. 80.00.

Development process is a complex multi-dimensional dynamic phenomenon. Since we have opted for planned development, an understanding of this phenomenon becomes imperative. It is in this context that the analysis of Punjab's development experience, more so, agricultural development experience of this pioneering Indian State becomes very relevant. It is this convass that has been explored by Gupta and Shangari.

In this work, various manifestations of the development process are discussed in nine chapters. The physical and demographic setting of the regional economy is described in the introductory chapter. This is followed by the income flow descriptive analysis (Chapters 2 and 3). Growth of State income, particularly output of the primary sector, *viz.*, crop output and livestock output during 1960-61 to 1975-76 is described in Chapter 2; and cropwise growth of output, area and productivity during 1952-53 to 1976-77 is dealt with in terms of relevant indices and growth rates in Chapter 3.

This description of agricultural output tendencies is followed by the description of the growth of agricultural inputs, *viz.*, land, labour capital, seed, fertilizers and electricity during the select periods lying between 1951-52 and 1976-77 (Chapter 4). Also discussed in this chapter is the progress of agricultural credit and non-credit societies. In Chapter 5, Cobb-Douglas production function is used to explain the factors supposed to explain the crop productivity during the period from 1955-56 to 1976-77.

From the field of production, the next chapter (Chapter 6) moves into the sphere of factor and product prices. In this chapter, prices of agricultural

crops and agricultural inputs, particularly of labour and chemical fertilizers are described with the help of time-series indices and other growth statistics. This is probably the most meaningful chapter in terms of economic analysis. It discusses price elasticities, output-input price parity and the parity prices received and paid by the farmers.

Chapter 7 deals with the livestock aspect of the agricultural economy. Its focus is, however, on dairy development and growth of milch animals and milk production and per capita milk availability. Besides, it describes the various dairy development programmes initiated by the Punjab Government, particularly the Punjab Dairy Development Corporation.

Chapter 8, entitled Infrastructural and Institutional Development, describes, under the agrarian institutions, the size classification of operational holdings and the prevailing level of tenancy with the help of statistics borrowed from Agricultural Census, Decennial Census and National Sample Surveys. And under the supplies and marketing institutions, it describes the roles played by the Punjab Agro-Industries Corporation, Punjab State Co-operative Supply and Marketing Federation and Punjab Agricultural Marketing Board in providing the services to the farmers. Chapter 9 deals with the strategy that has been adopted by the Punjab Government for agricultural development in the State. This strategy has been discussed with emphasis on irrigation, land reclamation and water conservation, seeds and fertilizers, soil testing and plant protection measures, agricultural machinery and implements, and electricity. It also describes the special programmes initiated in the Punjab, namely, Intensive Agricultural District Programme, Small Farmers' Development Agency, Marginal Farmers and Agricultural Labourers Agencies, Intensive Cotton, Sugarcane, Oil Seeds Development Programmes, and the Integrated Rural Development Programme.

The major contribution of the work is that it has tried to put together, at one place, a select set of time-series information on various aspects of the development experience of Punjab agriculture. It has also listed together the various State policy interventions adopted by the Punjab Government.

However, the authors appear to have lost a fine opportunity to comprehend the development dynamics of Punjab agriculture with the help of statistics they had marshalled at their command. It is very disappointing to find that many of the time-series developed by the authors do not carry any methodological notes, thus making it difficult for the reader to ascertain their reliability and utility. This is particularly so for the time-series used in the multiple regression analysis (Chapter 6). Further, the authors appear to have shied to go beyond describing the tables. Similarly, innumerable printing errors mar the quality of the book; there is hardly any page which does not contain more than two printing errors—unfortunately this holds good for figures presented in the tables as well.

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Peasants in History: Essays in Honour of Daniel Thorner, Edited by E. J. Hobsbawm, Witold Kula, Ashok Mitra, K. N. Raj and Ignacy Sachs, Published for Sameeksha Trust by Oxford University Press, Bombay, 1980. Pp. xiii+319. Rs. 75.00.

This anthology of essays written by the friends and admirers of the late Daniel Thorner, to honour his memory, is distinctly superior to the average member of its class. There are two absolutely brilliant essays in this collection, together with a number of well-researched pieces, a number of flawed but worthwhile essays, and, of course, a number of casual reflections which are bound to 'grace' (if that is the word) any such collection.

My task of reviewing such a heterogeneous collection of essays, which do not have anything except 'peasants', agriculture, or rural life somewhere in the discussion in common between them, is lightened by the fact that Terry Byres has done the job thoroughly in the pages of the *Economic and Political Weekly* (August 2, 1980). Still, even like-minded reviewers will have their own angles of vision with which to survey the terrain, so I will try to make an independent assessment.

The volume opens with a glowing tribute to Thorner by Fernand Braudel, the doyen of the *Annales* school of history (and the patron-saint of the 'world-system' view of world history since the fifteenth,—or is it the sixteenth?, —century). According to him, Thorner's article on "Peasant economy as a concept in economic history" alone would have been enough to establish his reputation. Thus the Chayanovians have now the blessing of the Grand Old Man of French history for their constant struggle to escape from the clutches of the mode of production, nature of the state, configuration of classes, and class struggles. I have argued elsewhere that the concept of a peasant economy is an evasion.[1]

Such an evasion may even be necessary in order to escape the tyranny of unhelpful concepts, and *describe* the many-facted life of peasants. But it cannot serve as a serious analytical category. Fortunately for us, Daniel Thorner also left an enduring mass of work on real Indian history and contemporary Indian economic life; so his memory does not have to depend on codifying an escapist's stratagem.

Braudel's tribute is followed by a brilliant article by Eric Hobsbawm, "Scottish reformers of the eighteenth century and capitalist agriculture". This paper is of much wider import than the title would suggest. Several very large problems have been posed in terms of (*a*) the transformation of pre-capitalist into capitalist relations of production in agriculture, and (*b*) the undermining of the position of independent peasants within a general scheme of private property in land. The first condition has been seen in orthodox Marxist literature as a necessary accompaniment, if not a pre-condition, of the victory of capitalist relations of production in society as a whole. The conjunction of both the conditions has been seen by Barrington

1. A. K. Bagchi, "Daniel Thorner's India", *Economic and Political Weekly*, Vol. XVI, No. 13, March 28, 1981.

Moore as the necessary background for the emergence of bourgeois democracy, and by Brenner for the final triumph of capitalism.

There is something paradoxical about the insistence that private property in land as represented by independent peasant producers must be undermined before capitalism can emerge. The insistence follows from the fact that illiquidity of land as a commodity and the immobility of the peasantry tied to it are serious obstacles against the full flowering of capitalist competition. The main instrument of capitalist competition is the movement of capital, with its power to move 'free' labour when workers have nothing to sell except their labour power. At one extreme, as Lenin pointed out, nationalisation of the land, with the use of land being vested in the capitalist best able to exploit it, would be one method of demolishing the obstacle posed against capitalist growth by the imperfect vendibility of land as a commodity. At the other extreme, the balance of the economy may be altered in such a way that agriculture becomes a marginal activity, and thus the illiquidity of land and the ties of the peasantry to land are dissolved by the working of market forces.

In actual practice, in societies undergoing a transition to capitalism, a combination of policies lying between the two extremes are adopted for effecting the transition from feudalism to capitalism in agriculture, which is a basic condition for transition from a feudal or semi-feudal society to a bourgeois society. The great virtue of the Scottish reformers who form the subject-matter of Hobsbawm's essay, was that they saw the *internal* requirements of a transition to capitalism in agriculture very clearly. The obstacles listed by them can be classified into three groups (apart from mistaken implementation of fiscal policies or policies relating to enclosures): "First, there are those standing in the way of adequate bourgeois property or lease-rights, due to peasant custom..., feudal rights and practices... or possibly both.... Second, there are those inhibiting effective capitalist enterprise even with adequate legal conditions, *e.g.* the formation of productive units of adequate size, or shortage of capital.... Third, there are deficiencies in the infrastructure, notably in transport and communications...." (p. 9).

The Scottish reformers took increase in effective demand for granted. From a social point of view, they had less to fear from feudal lords who would gladly exchange aristocratic wealth for lordly poverty than from peasants who had little between their small plots of land and starvation. Once legal and economic conditions matured to weed out the small peasants from the land, the major worry for the Scottish reformers was the accumulation of capital. For, capitalist agriculture was also capital-intensive.

If a land near the heart of metropolitan capitalism could take the growth of effective demand for granted and create appropriate, institutional conditions for the mobilization of capital for investment in agriculture, on the other side of the world, in Indonesia, such conditions could not be taken for granted. In a cogently argued paper, "The relevance of Chayanov's macro theory to the case of Java," Svein Aass has demonstrated the irrelevance of Chayanov's theory to the case of Java under Dutch rule. His paper is more than just a

refutation of Chayanov's theory. It shows, *inter alia*, how external constraints imposed by colonialism can thwart the growth of private property in land, how the continuance of domination of peasant agriculture by foreign-controlled plantations can slow down the emergence of genuine private decision-making in agriculture, and how the failure of capital accumulation can stifle the growth of indigenous capitalist agriculture. Aass' paper should be required reading for anybody who believes in the progressive role of capitalist colonialism or in the inexorable nature of diffusion of capitalism.

One point that comes out of this paper is that communal tenure whose breakup officials and others came to deplore or welcome was in large part a perversion of private ownership—a perversion forced on the peasantry by the extremely exploitative *kulturstelsel* system introduced by Governor Van Den Bosch in the 1830s. Of course, the earlier private rights in land were also not equivalent to full bourgeois property rights, and they were " 'crammed' by collective or higher-order rights, 'imbedded' in collective tenure to speak" (p.228). As in the case of pre-British India, so in the case of pre-Dutch Java, the property rights are best viewed in terms of a field theory rather than as bundles of separable rights. However, these rights were made nonsensical by the measures of the Government, forcing the peasant to put anything up to half of their land and labour at the disposal of the Government for the cultivation of commercial crops. The so-called communal tenure was then a measure of self-defence against extreme exploitation, not a cherished inheritance threatened by market forces.

With the cessation of *kulturstelsel*, Dutch-owned sugar plantations took over the task of growing sugar, coffee and other plantation crops. The peasants contracted with the plantations for growing the crops on their land on the basis of long leases. They in effect exchanged a new kind of servitude (that of debt) for the older variety. (The Government was, of course, there to enforce contracts—however unequal they might be.) At the same time, Japanese textiles and other handicrafts were destroyed partly through competition of imported goods and partly through the inability of the peasant to find time to carry on his traditional, part-time, occupations. From the 1890s onwards, Java began to produce free, landless labourers—either peasants who had lost their land or landless workers whose links with the traditional village had been finally severed. Aass rightly focuses on this phenomenon as a key factor in the growth of commercial agriculture. However, the sheer weight of plantation agriculture, the subject of peasants to debt-bondage and the enormous draught on private and public savings made by plantations stunted the growth of capitalist agriculture.

Besides the two challenging papers of Hobsbawm and Aass, the volume contains an essay by Elizabeth Whitcombe, which stands on its own because of the sheer elegance and economy of its style. In her essay Whitcombe traces how, in Uttar Pradesh, unviable *zamindari* was transformed into profitable land holding, and particularly through the process of land reforms set in train after Independence. Her paper is a corrective against the naively held views about *zamindari* irrationality or the demise of the *talukdar or zamindar* in the

wake of land reforms. As she puts it pithily, " Ex-*sir*, nicely indeterminate, provided the basis for economic viability; compensation, the capital with which to achieve it" (p. 179). It was the earlier *system* rather than their irrationality which had kept the *zamindars* in squalid grandeur; and it was the formal abolition of *zamindari* accompanied by the new stream of subsidies and extension work by the state which released the *zamindars* from their semi-feudal responsibilities and allowed them to consolidate their holdings and their gains.

An essay by Witold Kula, "Money and the serfs in eighteenth century Poland" pinpoints the fragmented nature of money and the limited role it performed in the economy of the serfs and the magnates. The situation is reminiscent of that of the Tiv people of central Nigeria, as analysed by Paul Bohanan.[2] But, of course, the Tivs were not enserfed but subjugated to foreign merchants and rulers. There are striking parallels as well as differences between servile societies and societies under the sway of capitalist colonialism; but such parallels still remain to be explored through intensive research.

There are four essays concerned with Russia. In an interesting paper, "Drink in old Russia", R. E. F. Smith shows how the enserfment of the Russian peasantry in the seventeenth century was accompanied by laws depriving them of the right to brew their spirits. Feudalism struck at the peasantry not only through the direct expropriation of their labour but also through the taxation of their drink. While the lords were allowed to produce spirits, the state exacted its tribute through its monopoly at the marketing end. In a paper on the *kolkhoz* and the Russian *muzhik*, Moshe Lewin has stressed the disproportionately large role the private plots played both in the family economy of the peasantry and in the marketed surplus of agriculture, after the collectivization of land in Russia. In a complementary paper, "Peasant family economy in the USSR today", Basile Kerblay shows how the Soviet state succeeded in curbing the influence of the private sector in agriculture, although it seemed to play such a vital role in the 1930s. The labour-intensive family plots, and the raising of livestock on a family basis continue to play a vital role in Soviet agriculture, but these activities are largely subordinated to the requirements of the large-scale *sovkhozes* and *kolkhozes* which produce the bulk of the grain and meat products.

Teodor Shanin has contributed a pretentious essay with the title, "Measuring peasant capitalism: The operationalization of concepts of political economy: Russia's 1920s—India's 1970s". Shanin is fond of grandiose methodological statements and uses unnecessary jargon to express simple thoughts. Talking about studies of peasant budgets carried out by Russian statisticians, he writes, for example: "Despite considerable technical and methodological difficulties, the Russian scholars persistently developed Budget Studies, turning them into a basic tool to monitor and reveal actual processes rather than to assume them on the basis of the empirical studies of their results, if only that" (p. 97). Or writing about what seems to have been an interesting method of classification of peasant activities and associated assets into 'entrepreneurial', 'independent' and 'dependent' evolved by V. S. Nem-

2. "The Impact of Money in an African Peasant Economy", *Journal of Economic History*, 1959.

chinov, Shanin writes: "Nemchinov suggested the definition of every peasant household in accordance with the basic *topological categories* expressing its input in monetary terms divided into the entrepreneurial component (a+d+j+k), the dependency component (b+c+i+l) and independent operation component (e+f+g+h)" (p. 93, italics ours). From such apocalyptic pronouncements, it is very difficult to fathom the basic rationale of the methods of measurement suggested.

Shanin's article is mainly valuable in drawing our attention to some of the work carried out by Russian economists and statisticians on the classification and behaviour of peasant household in the 1920s. His comments on the Indian work and on the work of Lenin, Mao or the Chinese students of peasant behaviour are practically worthless, marred as they are by chauvinistic and/or anti-Marxist prejudice and ignorance.

There are several studies of peasant behaviour or fortunes of the poor in India. Of these, easily the most workmanlike piece is by Amartya Sen, "Famine mortality: A study of the Bengal famine of 1943". The exact number of persons who died in Bengal in 1943 as a result of the famine (apart from 'normal' deaths in a land of high mortality) has been a matter of controversy. After reviewing critically all the major pieces of evidence available, Sen concludes: "there is evidence that an estimate of around 3 million would be nearer the mark than the figure of 1.5 million arrived at by the official Famine Inquiry Commission (and widely quoted in later works)" (pp. 214-215). It is interesting that the figures cited in popular literature are found to be much nearer the truth than those given by the high-brow Inquiry Commission.

K. N. Raj, in an interesting (but sadly incomplete) piece, questions the official optimism about the trickling down of benefits to the poor, or a greater degree of equality of land holdings among the peasantry. His data base are a series of three studies centred on the same village in Thanjavur, carried out by Gilbert Slater and his students in 1916, P. J. Thomas and a colleague in 1936, and Margaret Haswell in 1961. His analysis would perhaps have gained in focus if he had related it to the study of long-term changes in production relations in Thanjavur carried out by Kathleen Gough.

The official optimism finds its outlet in a typical form in V. S. Vyas' "Changes in land ownership pattern: Structural changes in Indian agriculture". It is surprising that an economist of Vyas' experience should not know that, given the enormous variations in sizes of ownership and operational holdings, in the nature of tenancy and in the degree of concealment of facts about ownership over time and space, practically nothing can be inferred from changes in all-India, aggregative, data about land ownership patterns, as thrown up by official enquiries. Despite all odds against such an inference from such a study, Vyas concludes: " It is suggested that, even in our present system, enough pressures could be generated by legislative and administrative processes to enable small producers in the countryside to hold their own.... The Indian experience of recent years is important inasmuch as it shows that the hegemony of the rural rich can be challenged by a combination of legislative, market-induced, and 'extra-constitutional' moves, but a different approach

and strategy is required to enable small and marginal farmers to consolidate their gains" (p. 192). That admission about 'extra-constitutional moves' shows the chink in the official armour, but how will the knights charge now?

In his rather slight piece, "The Indian village: Past and present", Andre Beteille allows his fancy to range freely, unrestrained by considerations of time, place or any mundane facts whatever. Jacques Ponchepadass' paper, "Peasant classes in twentieth century agrarian movement in India", cannot be taken as a guide to the field (it does not mention the work of Hashim Abdul Halim, Suprakash Ray, P. Sundarayya, Gyanendra Pandey, Hitesranjan Sanyal, A. R. Desai or Gail Omvedt, to mention only a few of the omissions). Nor can it be regarded as an exercise in logistics enabling the student to come to terms with such a variegated terrain. Peasant movements in India need to be analysed as well as described, and theories using ill-defined or undefined categories of 'middle peasants' and 'poor peasants' and failing to comprehend the epidemic nature of such movements will not answer.

Charles Bettelheim's paper, "The people's commune of Mao Lo", is just a series of field notes on a visit made in September 1975. It may perhaps be regarded as a period piece, since the present Chinese leadership is so keen to repudiate so much of Mao Tse-tung's teachings, which were still reflected in the responses of the members of the commune in 1975.

Finally, we have the inevitable "reflections on development". Erich Jacoby wrote what can be considered as a testament of faith of an old fighter in his paper "Has land reform become obsolete ?". Louis Dumont seems to discover the conventional history of economic thought in his "Agriculture and the birth of classical economics: The *Docteur* Quesnay". Economists might applaud the efforts of a social anthropologist to learn more of their subject, but on soberer reflection, they would perhaps discourage such an ostentatious duplication of effort. Ignancy Sachs in his "Energy and the village", propounds a sensible, co-operative solution to the problem of finding enough energy for carrying on life in the Indian villages, but knows enough of the politics of the country to warn: "Even if we make due allowance for the impact of Gandhi's constructive and generous ideas on the organization of rural life, it is hard to believe that Indian villages will be collectivized simply in order to improve energy production, water supply and sanitation. The agrarian propsect of India depends now as ever on institutional change. The agrarian problem to which Daniel Thorner devoted his talent and a lifelong study looms large behind the present day discussions of appropriate technologies and energy profiles" (pp. 266-267).

Bert Hoselitz, in his "Economic growth: Income or wealfare", offers the usual after-dinner thoughts on this fashionable topic.

All in all, this is a nicely turned out volume, which caters to a variety of tastes, but students of rural life in general will want to browse in it.

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Policy and Practice in Rural Development, Edited by Guy Hunter, A. H. Bunting and Anthony Bottrall, English Language Book Society and Croom Helm Ltd., in association with the Overseas Development Institute, London, 1978. Pp. 520. £2.35.

The book under review is a low priced edition of an earlier volume first brought out in 1976 containing various key papers presented at the Second International Seminar on Change in Agriculture organized by Reading University and Overseas Development Institute (ODI) at Reading in 1974. The first seminar in 1968 had apparently thrown open two major issues: (1) 'near-fatal' weaknesses in the implementation of policies pursued upto 1968, no matter whatever the merits of these policies; (2) Absence of any theoretical framework which could help in the analysis of the existing literature on implementation leading to the identification of the organizational formats suiting different human, market and administrative contexts. Thus, as a sequel to the first seminar, joint research effort launched by Reading University and ODI led to the triggering of investigation in several more challenging aspects of rural development policy and its implementation.

To encompass the complexity of the subject in the framework of the seminar, the discussion on the organizational forms and institutional capabilities for implementing rural development policy was pursued from the following five angles: (*i*) political, (*ii*) technical, environmental and economic factors, (*iii*) the state of rural society: farmers' organizations and services, (*iv*) the commercial function and (*v*) administration.

It may be pertinent to mention here that the purpose of the seminar was not merely to prepare a state-of-art report on Rural Development Policy and Implementation, instead as E. M. Martin puts it in the Plenary Address, the aim was to forge such a co-operation between the aid-giving and aid-recipient countries of the world, that rural development could be accorded a higher priority at both the ends. The conference was to suggest the possible ways in which increased flow of resources to poorer countries (expected as a sequel to the conference) could be justifiably utilized.

The volume contains apart from the introductory papers by Martin, Yudelman, Bunting and Guy Hunter, 35 papers grouped under the earlier mentioned five areas of investigation.

In the section on Politics, Paul-Marc Henry asserts that "Politicians have been unduly vilified" and "that the technicians are far too arrogant, because they still keep in their minds the idea that if only technical solutions were accepted everything would work well." Arthur Gaitskell tries to argue that despite apparent contradictions between the policies of developing nation states and the international aid agencies, in view of what he calls global consciousness towards world food problem, there is a possibility of working out feasible compromises. He admits, "Most of the choices discussed above (in the context of Mekong irrigation project in Thailand) clearly involve vital political decisions by the social forces within the country itself, and interest in them from outside is very easily felt to be interference in the sove-

reignty of individual nations." This issue has acquired renewed importance in view of the increasing influence that multinational aid agencies like World Bank are acquiring in the policy planning set up of developing countries. Schran referring to Chinese strategy for agricultural transformation feels that there is scope for developing countries to learn from Chinese decentralised planning and management system. Barraclough drawing upon Latin American experiences traces developmental strategy followed by each country as having been determined by the dominant socio-political forces of that country. The hegemony of worker and peasant power in Cuba resulted in the success of state farm concept which found little support in most other developing nations. In Mexico, the fate of co-operativization of developmental effort is closely linked to the changing complexion of the ruling elite. After giving examples of Peru and Chile, Barraclough argues, "Development is not just economics or sociology or technology *but history.* How it proceeds depends to a large extent on how power is distributed among different social groups.... Rural development for the low-income majorities requires fundamental and often revolutionary reforms in social institutions." The Chilean experience only highlights that international capitalist interest often would not allow transition to more egalitarian social structures to take place smoothly in any aid-recipient country: A lesson that most often is lost sight of. Stanal describes Yugoslavian experience to demonstrate how the creation of socialist forms of agriculture coupled with other techno-economic measures has led to the fuller utilization of economic potential of the country.

Among the summaries of papers included in the section on Politics, the paper by Kuldeep Mathur demonstrates how various agrarian reform measures have been frustrated by the combination of socio-political factors at the State and lower levels leading to the proliferation of Centrally sponsored developmental agencies like SFDA, MFALDA, etc., in India. The observation becomes important in the light of recent Government decision to merge the various small farmer developmental institutions at district level into some form of district Rural Development Societies without in any way changing the assumption of such institutional interventions.

The next section on Technical Environmental and Economic Factors includes interesting papers by Jahnke and Rutherberg on Livestock Development in Dry Areas, Baker on Nomadic Pastoral Societies, Adams on Planning in Sudan, Thornton on Organization of Irrigated Areas, Okigbo on Farming Systems, Norman on Constraints to Planning in Dry Land Regions, besides summaries of several papers. Okigbo disputes the several widely held conceptions about agricultural policy such as: "That the main purpose of agricultural policy is to increase 'agricultural production' and that it is total output that counts irrespective of how it is produced...." Perhaps this is an issue which has not lost even the slightest relevance today. It is difficult to agree with the contention of Norman who has discussed at length the organizational convergences of social and economic constraints and policies in dry land areas. He suggests, "In the short run it might be cheaper and more effective to work through individuals or existing village-

governing institutions than to try to build an expensive viable new grouping." Our experience shows that graduation from existing interest groups to newer groups which could allow poorer farmers to have a greater say almost never comes about.

The section on Farming Community deals with comparatively lesser researched questions of "motivation, risk aversion, management capacity, dependence, communication, and some pattern of response (by farmers) to change which is a result of multiple and often conflicting desires and fears." Guy Hunter ridicules the popular tendency of change agents to presume rural society as comprising undifferentiated mass of people. He rightly cautioned the participants of the seminar to avoid falling a prey to the temptation of prescribing generalised policies basing on experience of very micro level specific ecological contexts. In the case of the current emphasis on universalisation of Amul model under Operation Flood-II, this observation becomes important. The other papers on co-operatives or grouping of farmers by Khan, Texier, Hyden, Young Johns, Griffith Jones, Higgs, Uma Lele and K. Subramaniam discuss some of the now familiar issues in the context of farmers' participation in decision-making.

The next section on Commercial Function includes several provoking papers on agricultural marketing, free market in vegetable in Kenya, pesticides in India apart from three papers on credit. Bottrall discredits the 'cheap credit first' approach. Quoting AID—Spring Review on Small Farmer Credit, he asserts that the issue deserving greater attention is 'Savings Mobilisation' and not cheap credit. Incidentally, the Ohio school of thought, of late, has also been arguing that the potential for mobilizing savings has been grossly under-estimated by the protagonists of cheap credit. The question left unexplored here is, who in fact are the target groups of cheap credit and from whom can savings be mobilized? Pischke analyses the lessons of a Co-operative Saving Scheme in Kenya started in 1970 and finds, apart from other reasons, linkage with credit particularly helpful. In two very interesting notes, Barbara Harriss mentions some of the implications of fertilizer scarcities as affecting small farmers and also the effects of paddy rice levy on free market prices in the case of Tamil Nadu.

In the last section of the book, the relationships between Policy Planning at the Centre with implementation machinery and methods at local level are traced under the head of Administration.

Sivaraman approaches the problem of Spread of Agricultural Extension in consonance with credit and input support. The problem is posed as identifying a framework in which small farmers could organize themselves into such small groups as to make the task of receiving new technology at lesser cost and energy. Belshaw drawing upon the experience of rural development management in Kenya raises several issues of vital importance such as decrying the universal craving for greater co-ordination, reorganization of ministries whereas the field level administration might be in need of change and calls for greater discipline and hard work without probing why in the first place they were absent.

Belshaw also notes a conspicuous absence of international efforts for resolving the problem of management of change at field level in the specific context of technology transfer. Thomas and others raise issues regarding distributional aspects of investments in public works. Haldipur argues for effective decentralisation even if it results initially in unwelcome effects.

The book ends with the excellent winding up remarks by Mathieson and Guy Hunter. The final comments by the editors emphasize interestingly the 'managerial' issues in rural development over the 'structural' ones, arguing that structural changes have not always been followed by better management systems. This could well be a subject of debate in the next seminar of this type.

Those who have not read the earlier edition of this book should find this cheaper edition a handy reference volume. Indeed, the ideas grow not very fast, for many, if not most issues raised in the book are still occupying central concern of most of the contemporary work in the field of Management of Rural Development.

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Share of the Small Farm Sector in Agriculture: A Case Study of Village Palanpur in Western U. P., Usha Nagpal, Research Study No. 79/4, Agricultural Economics Research Centre, University of Delhi, Delhi-7, 1979. Pp.68.

This study attempts to examine the changes in the share of crop output of the small farm sector and to estimate the share of growth of purchased inputs on small and large farms in Western Uttar Pradesh between the years 1964-65 and 1974-75. The analysis is based on the survey and resurvey data collected by the Agricultural Economics Research Centre, Delhi for Palanpur village in Moradabad district of Western Uttar Pradesh at two points of time. The study covered 78 farm households in 1964-65 and 81 in 1974-75.

Divided into six chapters, the introductory chapter sets out the objectives and scope, methodology followed and the limitations of the study. The second chapter describes the pattern of agricultural development of the village. The third chapter deals with the changes in the size of the small farm sector while the fourth and fifth chapters assess the share of the small farm sector in crop output and purchased inputs respectively. The last chapter summarises the main findings of the study.

The significance of the study lies in the fact that it contradicts the widely held view that the gains from technological change represented by the 'Green Revolution' have accrued disproportionately to the bigger farmer, and the small farmer because of his resource constraint has been by-passed. The Palanpur study reveals that judged by a number of indicators

the disparity between the small and big farmer has narrowed between 1964-65 and 1974-75.

Let us first note a few structural changes which have taken place in the village during this decade. The total population of the village increased by 30.7 per cent, but the population of the cultivating households increased by only 26.5 per cent. In the latter group, the population for small (less than 5 acres) cultivator households increased by 65.4 per cent, but that of big (10 acres and above) decreased by 45.8 per cent. The occupational structure also changed significantly. There was an increase of 37 per cent in the cultivator class and a decline of 52 per cent in the agricultural labour class.

While the geographical area remained the same, there was an increase of 4.5 per cent (22 acres) in net sown area and an increase of 31 per cent (6 acres) in land put to non-agricultural use. There was a decline in all other categories of land use—forests, fallow, permanent pastures and cultivable waste land. The net and gross irrigated area recorded an impressive increase of 113 per cent. The percentage of gross irrigated area to gross cultivated area increased from 29 to 56 per cent.

Significant increases took place in the production of wheat—from 514 to 2,449 quintals—and of maize—from 24 to 184 quintals. Productivity (yield per acre) increases were spectacular—over 200 per cent—in wheat, rice and bajra. The consumption of all types of fertilizers went up by three times during this period. It seems Palanpur did experience a Green Revolution.

Our real interest however is in the distribution of the gains of this remarkable growth between the small and the big farmer, leaving aside the medium one. Between 1964-65 and 1974-75, the number of small cultivator households increased from 46 to 52, the area owned by them from 77.5 to 265.6 *bighas* and the area operated from 753 to 817 *bighas*. In contrast, the big cultivator households declined from 11 to 5, the area owned declined from 1118 to 1109 *bighas* and area operated from 882 to 691 *bighas*. It appears that the big cultivator had stepped up leasing out to medium cultivators whose share in leasing in (in total leased land) increased from 15 to 50 per cent.

During this period the share of the small cultivator in the value of the total crop output increased from 29 to 45 per cent and that in 'residual income' —after deducting paid-out costs—increased also by the same percentage. On the other hand, the share of the big cultivator in the output decreased from 36 to 15 per cent and his share in residual income from 37 to 14 per cent. On a per acre basis, the value of output (at 1971 prices) of the small farmer has increased by 211 per cent between 1964-65 and 1974-75 and his residual income by 226 per cent. On the other hand, the corresponding increases for the big farmer were 151 and 174 per cent. True, even in 1974-75, per farm residual income of the big farmer was Rs. 22,660 as against Rs. 6,747 of the small farmer, but in between this period the ratio of per farm income of the big and small farmer came down from 5 to 1 to 3 to 1. In 1964-65, none

of the 46 farms had an income of more than Rs. 3,000; in 1974-75, 38 out of 52 small farms had an income above Rs. 3,000.

We have looked into the per acre and per farm data. Let us see the change in the per worker value of output and residual income on small and big farms. The gross output per worker on small farm increased by 355 per cent, the same on big farm by only 140 per cent. Per worker residual income on small farm increased by 376 per cent, that on big farm by 138 per cent. The differential in per worker income on big and small farm which was roughly in the ratio of 6.5 to 1 came down to 3.3 to 1.

This relative improvement in the economic status of the small farmer came from improvement in his access to credit, farm inputs and irrigation. His share in the total irrigation input increased (between 1964-65 and 1974-75) from 28 to 47 per cent and that of the big farmer declined from 38 to 13 per cent, mainly as a result of the development of canal as a public source of irrigation. Similarly, his share in the use of fertilizer input increased from 23 to 35 per cent, while that of the big farmer declined from 31 to 19 per cent. The share of small farmers (presumably) in institutional credit also increased from 10 to 31 per cent.

The overall impact of improved production and productivity of the small farmer is reflected in his asset position. In 1964-65, "the value of the assets under small farm sector was only 5 per cent of the total assets. A small farmer owned an average capital of Rs. 700 against Rs. 5,000 by a big farmer. Now, the share of the small farm sector is calculated at 21 per cent of the total assets in the village."

Is Palanpur an exception or are the data and/or the analysis flawed? Admittedly, only the crop sector of the economy has been analysed, non-farm or allied activities like dairying and non-farm income are not considered. But these limitations are not likely to invalidate the main finding of the study, namely, the technological change which came with the advent of the Green Revolution or synchronised with it (*e.g.*, expansion of canal irrigation) benefited the small farmer more than the large farmer, a finding quite contrary to the widely accepted opinion among the academic community in India and abroad.

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Agricultural Development in Nepal: A Search for New Strategy, Y. P. Pant and S. C. Jain, Second Revised and Enlarged Edition, Vora & Co., Publishers Pvt. Ltd., Bombay-2, 1979. Pp. xii+162. Rs. 35.00.

This is the second edition of the book originally published in 1969. It has been revised keeping in view the significant changes that have occurred in the agricultural sector vis-a-vis planning for agricultural sector in Nepal since 1969. It is divided into seven major chapters which discuss the various aspects of agricultural development and planning in Nepal. The first two chapters provide a bird's eye view of the Nepalese agricultural resources and

the main problems that are being faced by the farmers, researchers, administrators and policy makers in sustaining a steady growth in agriculture. The next four chapters discuss in detail land reforms, credit and price policy and agricultural planning as the key forces influencing agricultural development in Nepal. In the last chapter a strategy of agricultural growth has been presented incorporating regional specialisation in crop activities in combination with some supporting activities like fruits and vegetables, dairy, piggery, etc.

The authors seem to have recognized, in the beginning itself, the importance of geographical and agro-climatic factors and the implications they may have for the development of the agricultural sector in Nepal. However, little attention has been paid in the book in differentiating the agricultural resources, problems and programmes separately for plains (Tarai) and hills. From the planning point of view this distinction would have provided valuable information.

While discussing a plan for better use of resources, at the end of Chapter I, it is emphasized that the individual farm plans are the key factor for the allocation of resources which are in the hands of the Government. The authors contend that summation of these individual farm plans through village, district, zone and national levels would give the total requirement for agricultural resources. The resources with the Government should be allocated according to the requirements of farm plans. This procedure, the authors say, will leave no room for mal-allocation of any resource and greater service to the society will thus be rendered silently. While this procedure is subject to serious controversies regarding its feasibility, it clearly ignores the planning of factors of public ownership.

Chapter II discusses the main problems of agriculture in Nepal. The discussion has mostly been in general terms for the nation as a whole, rather than specific to particular regions in the country. The chapter would have been more informative but for this generalisation. While discussing the fertilizer problem, the authors simply make a passing remark to the importance of organic manures as a substitute for inorganic fertilizers. However, this point needs further investigation especially in the light of the fact that farmers in Nepal, particularly in hills are traditionally using large quantities of farmyard manure on their lands and use little, if any, of chemical fertilizers. It is desirable to analyse the trends in the availability and use of farmyard manure based on the livestock population and the potential of this source to replace or supplement the chemical fertilizers especially when they are so scarce. While discussing the problem of surplus labour force it is concluded that the only challenge is the formulation of programmes and projects that could absorb the surplus rural labour force and thereby generate more savings in the agricultural sector for productive investment. This aspect, however, should have been given more importance in specifying the relevant programmes and projects for surplus labour absorption. Similar abstract measures have been suggested, rather than specific programmes, for many of the other problems.

Chapter III provides a detailed review of the land reforms and related institutional changes that have occurred in Nepal since 1951. Similarly, Chapters IV and V discuss in detail agricultural credit, co-operative development and agricultural marketing and price policy. Other important factors influencing agricultural development like land and water management, human resource mobilization, development and management should also have been discussed in the book.

At the end, the authors present a strategy of agricultural growth. This strategy incorporates several aspects of rural development and related programmes in the fields of agricultural, industrial, infrastructural and social service sectors so as to bring about overall integrated rural development.

For agricultural development, the authors propose what they call an "integrated agricultural development programme" under which planning and implementation could be effected in four different stages. Similar strategies have been suggested for industrial development, infrastructure and social service development, and finally an overall integrated rural development strategy which is a programme of co-ordinating all the above strategies. However, how this integration and co-ordination occur is not clear from the presentation.

In presenting the agricultural strategy, the country has been divided into three regions, *viz.*, Tarai, Hills and Mountains. Specialised and supporting activities have been specified for each of these geographical regions. But the basis for demarcating these geographical regions and specifying the regional chart of activities is not clear and no supportive evidence to this end has been provided. Further, the agricultural development strategy ignores planning of factors of public ownership, makes no reference to important activities like forests and pastures, does not specify land and water resource management as well as human resource development.

In general, the book endeavours to acquaint the reader with the problems of agricultural development faced by a typical developing country. But from the title of the book one may expect some analytical approach to specific problems of agricultural development in Nepal and derivation of appropriate policies. But this has hardly been the course of presentation of the book. On the whole, the book is a well written essay on Nepalese agriculture rather than an analytical piece of work on agricultural development in Nepal.

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Concealed Tenancy and Its Implications for Equity and Economic Growth, Kripa Shankar, Concept Publishing Company, New Delhi-15, 1980. Pp. 147. Rs. 42.00.

The book under review is a study on concealed tenancy and its implications for equity and economic growth. The study is based on a sample

of 220 lessee households—the households who lease-in land for cultivation. It is based on a survey of ten villages in ten out of 15 districts in Eastern Uttar Pradesh covering all lessee households in each village. The reference period of the study is the agricultural year 1976. The villages with greater incidence of tenancy have been selected purposively.

The book is divided into 15 chapters. The evolution of the conditions leading to the emergence of concealed tenancy, concepts and hurdles in investigation are discussed in the first four chapters. Investigation on tenancy is a highly sensitive issue and such an effort is bound to meet resistance from lessors. It is not surprising that an initial straightforward inquiry on the subject in a village in the pilot study had to be abandoned due to resistance. Hence, the whole inquiry was conducted by canvassing pseudo questionnaire on problems of agriculturists and was addressed to the lessee households only and carried out almost in the form of economic intelligence gathering. Chapters 5 to 7 analyse the land profile of the lessee households, the magnitude of tenancy and characteristics of the lease market. Chapter 8 provides information on agricultural production efficiency in terms of application of modern inputs, cropping pattern and yield on owned and on leased-in land. Chapters 9 to 12 are concerned with income levels, assets holding, saving, investment and indebtedness of these lessee households. Chapter 13 examines the caste composition of the lessee and lessors' households while Chapters 14 and 15 give details on attitudes to lease-in, relationship with the lessors, awareness of and access to modern institutions, etc. Policy suggestions are contained in the last chapter.

It is striking to note that despite purposive selection of the sample and considerable caution and care in the approach to investigation, the study revealed that leased-in land as a percentage to sown area was only 4 per cent and the lessee households accounted for 11 per cent of the cultivators. Tenancy therefore emerges from the data as a non-issue.

Further, it is interesting to note that if one combines the land owned by the lessee and lessor households in the study, on an average, a household will have 5.5 acres of land of which between 60-70 per cent is expected to be irrigated. The lessors, on an average, leased out 20 per cent of this land, the average operational holding for them being 10.14 acres. Only about 8 households, *i.e.*, 4 per cent had an holding of above 30 acres each. A lessee household leased-in 1.29 acre and owned 0.67 acre. Most frequently they operated between 1.57 to 2.49 acres of land. The data in the study show that even a drastic redistribution of land seems to promise limited land availability to the toiling masses. It rather sharply reflects on the failure to generate alternative employment avenues for the rural poor.

The new seeds-fertilizer-water technology has turned agriculture into a profitable enterprise particularly to those who have access to water and credit. This is what seems to have happened on a large scale in Eastern Uttar Pradesh. Medium and even big landowners have found it feasible as well as profitable to manage their land through wage labour and to hire new agricultural implements which they need not even own.

This has obviated the necessity to lease out and thereby eliminate the risk of loosing land to the tenants under the tenancy law. Hence, the lease market in land has shrunk due to new technology as well as due to tenancy law. The author seems to advocate abolition of wage labour in agriculture and land ownership only to those who physically work on land. However, such steps cannot be viewed in isolation from the overall inequality and poverty in the economy. Moreover, it is a moot question whether even a drastic redistribution of land can ensure a level of income above the poverty line due to rising population, and without transfer of surplus population to non-agricultural activities.

As one reads through the chapters, the reviewer finds that the study lacks a conceptual framework in the context of which the phenomenon of tenancy can be examined. As a result, information on crucial aspects such as different forms which tenancy contracts assume and inter-village and may be intra-village variations in terms and conditions in contracts is missing. An outline indicating the land distribution in each village, occupational structure of population and pumpsets and electric motors/tubewells owned by different categories of farmers would have provided a context to understand the tenancy phenomenon. The study, for example, does not contain any information on tenant switching by lessors. The lessee households would have thrown good light on this aspect. Moreover, it is not known whether any household in these villages was conferred occupancy right under the tenancy law and if so details on who lost and who gained land would have provided a valuable insight.

Similarly, the lessors would be expected to influence the cropping pattern as well as application of modern inputs like fertilizers particularly the shared ones. This is because, through such a policy, they can extract the maximum surplus by exploiting the family labour of tenants. It is, however, surprising to note that the cropping pattern on leased-in land and owned land of lessee households show 'striking similarlity' and fertilizer application, though shared, is lower on leased-in land than on owned land. The per acre yield on owned and leased-in land in respect of major crops of paddy and wheat only differed marginally (8 per cent) from each other. Similarly, the lessee households have invested on land improvement on leased-in land which probably indicates the security of tenure in the conventional sense.

It will also be noted that the lessors are not important creditors of the lessee households. It is pointed out by the author that the practice of *savai* on kind loan either of grain or seeds implied more than 100 per cent rate of interest in kind. However, only 10 per cent of the total loans advanced to the lessee households have come from the lessors and the kind component was only 13 per cent. Usurious moneylending is not ruled out. However, the lessors do not emerge as an important class in such practices.

The element of exploitation can enter in the lessors' practice to lease out small parcels of land if they have the objective to ensure regular labour supply on their own farms in peak periods and wages for such labour are lower than the ruling wage rates. About 40 per cent of the time of the lessee

household is hired out in wage employment. Unfortunately, there is no information on the lessee households' wage employment on the lessors' farms and the differential in wage payment, if any. Details of terms and conditions of the lease contract would have also thrown some light. But they are not available in the study. Hence, the exploitative edge of tenancy which the author mentions does not emerge from existing information.

Despite these gaps, this book is a welcome addition to the subject. It throws up a number of issues on crop sharing tenancy which can be taken up for further research. Tenancy has declined and exploitative edge of tenancy, if any, needs to be studied in depth.

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Agrarian Reform as Unfinished Business: The Selected Papers of Wolf Ladejinsky, Edited by Louis J. Walinsky, The International Bank for Reconstruction and Development/The World Bank, Washington, D. C.; Oxford University Press, New York, U.S.A., 1978. Pp. xi + 603. £10.25.

After the Second World War many countries in the Third World came out of the clutches of the imperialist powers. But the main problem before these newly independent countries was whether they should adopt the path of capitalist development or should follow the so-called 'non-capitalist path.' As to India, she officially opted for the latter but actually followed the former one. And particularly from the mix-sixties, to overcome the 'stagflation' in the economy, the Indian ruling class adopted 'Green Revolution' as the principal strategy of rural development. The economic idea of 'Green Revolution' was based on the doctrine of Theodore W. Schultz, *i.e.*, the backwardness of agriculture is nothing but 'the problem of technology'. But the political justification of this economic argument is quite often found in the writings of Wolf Ladejinsky, the man behind 'agrarian reforms' in India.

The book under review provide us with almost all the important works of Ladejinsky. Out of his total 142 articles, 62 (written between 1935 and 1975) are included in this volume. Ladejinsky's major contribution to the successful land reforms in Japan (1946-48) brought him almost instant renown and led to requests for his advice and assistance in many other countries. He made a significant contribution to the land reforms in Taiwan in the early post-war years, encouraged and provided guidance to agrarian reform efforts in India in the early 1950s, was a prime mover in the land reform of South Vietnam in the late 1950s, and provided guidance to the policy makers for initiating agrarian reforms in Nepal, Indonesia and the Philippines in the early 1960s. And most of his last ten years (he died in July 1975) were spent in dealing with the problems of agrarian reform in India. Most of the papers presented in this volume had arisen out of his experiences from the

agrarian reform efforts in the Third World, particularly in the above-mentioned countries, and was written for the government and development institutions for which he worked.

The major thesis of Ladejinsky can be summarised as follows: (*i*) Agricultural progress is basic and essential to economic development. He states, "More immediately to the point (as an obstacle of agricultural progress) is.... the heavy bias in favour of industrialization in the typical underdeveloped, agrarian country as against setting its agrarian house in order.... *the overemphasis on industrialization in relation to agriculture*" (p. 353). (*ii*) Where the land-man ratio permits, redistribution leading to widespread land ownership for the great mass of cultivators is the best way to provide the incentives necessary to the agricultural investment and modernization (p. 10). The satisfactory implementation of land redistribution programs requires active participation and execution by local or village land commissions, at least half of whose members should be tenant farmers (p. 109). (*iii*) "In conditions of rural poverty even redistribution of the land will not suffice unless it is accompanied by the necessary means to work and improve the land" (p. 356). (*iv*) Because of the peasants' desperate need and hunger for land, basic agrarian reform is inevitable and its character essentially revolutionary. The transfer of ownership is "quicker in a country where the government is bent on implementing a reform, slower where a government has neither the strength nor the desire to activate the issue" (p. 199). Land reform "involves a drastic redistribution of property and income at the expense of the landlords. It becomes a revolutionary measure when it passes property, political power, and social status from one group in the society to another" (p. 361). (*v*) "Technical expertise in preparing and administering the necessary legislation is indispensable, but experts do not make reforms. Politicians, and only politicians, make good or poor reforms or do not make them at all. They control the political climate, which determines the will or lack of will to proceed with the task,.... the drive or lack of drive behind the enforcement of the provisions of the law.... The built in landlord opposition, abetted by public servants, can be dealt with successfully if the political leadership is bent on carrying out its goals. This is especially important because the peasantry has not developed a popular political movement of its own capable of effectively representing and advocating its own cause" (p. 302). But if governments fail to act, or act only in a half-hearted way because "Government authority, after all, usually is controlled by the very forces likely to be adversely affected by progressive economic and social development" (p. 11), then "There is ample proof that sooner or later the dispossessed will take the law into their own hands, to the utter destruction of the governments and classes who failed to grant them peacefully what they (will) otherwise try to acquire through violence".... "Communist China is a lesson and a warning of the shape of things to come when the economic and social aspirations of the peasant are sacrificed for the sake of an outdated status quo" (p. 280).

All the above-mentioned ideas of Ladejinsky on economic development and agrarian reforms, with which we agree very much, were formulated with

only one political goal, *i.e.*, to safeguard the interests of the Western capitalist world that can only be achieved by preventing the people in the Third World countries from adopting the path of communism. He thinks, " The only way to thwart communist designs on Asia is to preclude (such) revolutionary outbursts through timely reforms, peacefully, before the peasants take the law into their hands and set the countryside ablaze" (p. 132). Hence, "the existence of the Western, democratic world will depend upon the choice, free or accidental, of the underdeveloped countries, between following in the communist path or proceeding with Western aid"..... "the future course of the underdeveloped countries, in co-operation with the West, is a necessary part of the conditions for Western survival" (p. 206). But whatever his political goal, his mission was to analyse and state the truth. Ladejinsky did not stint on his advice, but he did not stint on telling the truth either.

Out of the 62 papers included in this volume, 21 articles were on Indian milieu. According to Ladejinsky, during 1954 "India's needs for technical farm improvements are overwhelming and Nehru, for example, is well aware of it. But he is just as conscious of the urgency for a concurrent land reforms program which will give the Indian peasant an incentive to improvement and a sense of social responsibility. Nehru's motivation is economic, social and political. 'If we don't do it', I heard him say, 'they will'. And 'they' are the Communists. He stressed, therefore, that the land tenure problem must be placed 'in the center of the piece' " (p. 209). So Ladejinsky evolved, "a practical national plan with this order of priority: (*a*) land reform, (*b*) irrigation, (*c*) fertilizers, (*d*) farm organizations, (*e*) farm credit, (*f*) plant and animal disease, (*g*) seed multiplication, (*h*) animal breeding, (*i*) rural health, and (*j*) audiovisual education" (p. 134). The Indian Planning Commission adopted these courses of action as the strategy for economic development. About the successful implementation of the agrarian reform measures in India, Ladejinsky suggested two major steps. One was to prepare " a basic record of tenancies", another "*A committee should be set in every village made up of two tenants, one part owner-part tenant, one owner cultivator, and one landlord* to help the patwari and other revenue officials to prepare the record of rights" (pp. 397-398). Government of India accepted his recommendations in early seventies.

But in spite of all the honest attempts made by Wolf Ladejinsky for the success of 'Green Revolution' and agrarian reform measures in India, they failed due to lack of political will. Finally, Government of India in its report on Economic Survey 1975-76, has to acknowledge that, "There is (also) clear evidence that the initial impetus of the green revolution seems to have been exhausted" (p. 8) And as to the agrarian reform measures, the very preconditions of the capitalist development were taken by the Government in early fifties, but their successful implementation, which implies the breaking up of the feudal structure, was not visible even in the late seventies. Ladejinsky also noted this pehnomenon during 1973. He concluded, taking from the lessons of Punjab, the land of green revolution, "The implementation of agrarian reforms in India cannot be carried out so long as many in authoritative positions are essentially anti-reformist in outlook and practice" (p. 542).

In fact, this proves one of the major thesis of Ladejinsky stated earlier, namely, without strong political will of the ruling class, no agrarian reform can be successfully implemented. This also indicates that "Ladejinsky did not just write reports, he lived through them."*

The volume under review contains a very good introduction of the writings of Ladejinsky by the editor Louis J. Walinsky. A complete chronological Bibliography of Ladejinsky is given at the end. The selected papers of Wolf Ladejinsky would be of immense help to anyone interested in the agrarian reform but its cost would prevent many from possessing a copy.

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* Ashok Mitra on "Wolf Ladejinsky", *Economic and Political Weekly*, Vol. X, No. 29, July 19, 1975.