



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

Vol XXXVII
No. 1

ISSN 0019-5014

JANUARY-
MARCH
1982

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS



INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

BOOK REVIEWS

Social Cost-Benefit Analysis, D. Aruna, Institute for Financial Management and Research, Madras, 1980. Pp. xiv+124. Rs. 25.00.

The book under review is an attempt to survey the main developments in the literature including basic principles of social cost-benefit analysis (CBA) during the last decade and its application in the Indian context. The book is divided into five chapters. The introductory chapter gives a first look at the social cost-benefit analysis describing the need for CBA technique for inter-sectoral and intra-sectoral decisions pertaining to economic overhead projects, concept of social profitability and its comparison with financial profitability in time context, evolution of CBA and CBA in planning framework. The second chapter presents the theoretical foundation of CBA. To start with, the author describes the conditions of a perfectly competitive economy and welfare economics where market prices fully reflect the social value of goods and services and consider it an ideal situation which is not possible in real world. Further, she describes the existence of imperfect reality and mere intensity of such distortions in developing countries where market prices fail to reflect social value, thus establishing a case of the need for hypothetical prices (called accounting prices). Finally, mechanics of CBA is given. The third chapter attempts to explain (i) the OECD or the Little-Mirrlees approach and (ii) the UNIDO approach to theorisation of CBA. Both these approaches emphasize the need for the use of accounting prices and suggest different methods of doing this. While suggesting the way of calculation, the basic difference between the two approaches is the choice of source of value. Little and Mirrlees convert all values into 'world' or 'border' prices, the UNIDO theorists choose to define their system in terms of domestic value, converting world prices wherever they enter the system into their domestic equivalents by the use of a 'Shadow Exchange Rate (SER)'. Secondly, the UNIDO choice of the numeraire falls on 'aggregate consumption' as opposed to 'uncommitted foreign exchange (savings) in the hands of the Government'. With these distinct points of departure, methods of valuation of traded goods, non-traded goods and accounting price of labour (the shadow wage rate—SWR) in the case of the Little-Mirrlees and valuation of accounting prices at the project level considering willingness to pay for consumer goods, producer goods and for foreign exchange, computation of the shadow wage rate and other national parameters (shadow price of investment and the social rate discount) in the case of UNIDO approach are described. The fourth chapter explains the World Bank approach which is known as the S-T approach formulated by Lyn Squire and Herman G. Van Der Tak. The World Bank approach represents a synthesis of the best of both the systems. In the S-T system, while the L-M convention of valuing all costs/benefits in terms of 'uncommitted public income(savings)', measured in convertible foreign currency, is adopted,

the SER is also computed as in the UNIDO system for purposes of converting domestic values (of non-traded inputs/outputs) into world prices. The essentials of this approach are explained in terms of the numeraire, valuation of wholly traded goods, valuation of tradables subject to finite elasticities, valuation of non-traded goods. Further, the rationale of free trade exchange rate taking into account valuation of potentially traded goods and valuation of labour is given. Commenting upon all these three approaches, the author finds some advantages in UNIDO approach as compared to L-M approach. Although the World Bank approach has solved many of the conceptual issues especially pertaining to policy implications, operational difficulties, however, persist. Among major limitations of CBA, the points raised by the author are, how shadow are shadow prices and operational limitations and minimum data requirement related to trade statistics, customs and excise schedules, commodity publications, joint cost allocations and household expenditure survey are given. Finally, CBA is discussed in the Indian context. It is suggested that CBA as described in this book is still in an experimental stage, mainly used by the World Bank, the Project Appraisal Division (PAD) of the Planning Commission and the Industrial Credit and Investment Corporation of India (ICICI). Further, the author suggests that CBA can be used as a mode of analysis which contributes in the decision process by assisting in the very formulation of the objectives and policies, as well as providing a means of making a choice between alternative policy options. She suggests that a Central Project Appraisal Division should be formed and it should discharge the above-mentioned responsibilities in different phases.

The book is the outcome of notes prepared by the author for the trainees of the executive training programme of the Institute for Financial Management and Research, Madras. As such, it has shaped into a textbook in brief on CBA. However, within this framework, the book suffers from several limitations. For example, the basic questions raised in the very first paragraph of the first chapter about inter-sectoral project decisions and the relevance of CBA are not touched in the book. The book just describes the rationale of CBA for the appraisal of industrial projects only. How do we look at the application of CBA in the fields other than industrial projects? While discussing the theoretical aspect of CBA, an attempt should have been made to establish the relationship between investment criteria and social welfare. Similarly, due share should have been given to higher level objectives and problems related to its incorporation in project analysis along with efficiency criterion. Since an attempt has been made to look into CBA in the Indian context, a detailed analysis of Marglin's theoretical contribution should have been made. In order to give wider coverage to the application of CBA for agricultural projects, social overhead investment projects in the field of education, transport, electricity, health, etc., in the Indian context, an attempt could have been made to look into the various aspects of CBA and its measurement problems and how both benefits and costs become more and more diffused beyond primary level. The major contribution of the book is a good summary of L-M approach, UNIDO approach and the World Bank

approach and valuation of accounting prices in project appraisal.

*Centre for Social Studies,
South Gujarat University Campus,
Surat*

A. S. Charan

Farm Planning and Control, C. S. Barnard and J. S. Nix, Second Edition, Cambridge University Press, Cambridge, England, 1979. Pp. x+600. £ 8.95 (paperback).

Farm planning and management now receive far greater importance in teaching, research and extension activities of the academics than it was a decade ago. This has been primarily due to the growing awareness amongst farmers of the need for business methods in farming to attain a good standard of living and satisfactory financial return to their resources.

The book under review is divided into four parts: The Organization of Resources, The Organization of Enterprises, The Combination of Enterprises and The Control of Resources and Enterprises. In all, the book contains 21 chapters. Chapterwise selected reading is given at the end of the book.

Chapter 1 discusses the purpose of planning including the producers' objectives; scarce resources and their alternative uses; changing resource patterns, technical relationship and prices; factor, product and price uncertainties; and compilation, planning, implementation, control and decision-making as the managerial function and the decision-making process.

In Chapter 2, the basic principles and concepts of planning are discussed. While discussing what to produce, how to produce and how much to produce, the basic concepts such as the law of diminishing returns, the marginal rate of substitution, the law of equi-marginal returns, opportunity cost, diversification versus specialisation, fixed and variable costs and economies of size and scale are discussed with the help of hypothetical data under British farming situations.

Chapter 3 and 4 respectively discuss the organization of capital in general and the organization of capital, machinery, building and land with the help of data obtained from British farms. Discussion in Chapter 3 is focused on the assessment of capital requirements, return on tenants' capital, investment appraisal: principles and application of discounted cash flow; assessment of discounted cash flow and the rate of return; return on equity and the principle of increasing risk; and the rules for capital use on farms. Chapter 4 discusses the justification for mechanization, contractor versus own machine, machine versus manual labour, number and size of machines, replacement and purchase of second hand machines; justification for buildings, types of buildings; renting versus buying land and economics of farm size. Similarly, organization of labour is discussed in Chapter 5.

The organization of enterprises discussed under Part II of the book includes six chapters. There seems to be avoidable duplication in the discussion under

Parts I and II. For example, the contents of Chapter 6 (pp. 157-164), Chapter 7 (pp. 165-180), Chapter 8 (pp. 181-202) and Chapter 9 (pp. 203-225) could have been discussed under Chapter 2 (pp. 19-49). This would have not only avoided repetition and rambling but would have given practical touch to the theoretical concepts discussed in Chapter 2. Chapters 10 and 11 (pp. 226-242 and pp. 243-252) which discuss the influence of season on livestock production and the provisions of replacements are not very useful to the Indian students as they are often not familiar with pig and beef cattle production and replacement under the Indian farming situations. Chapter 12 on "Crops and cropping" again repeats the concepts of variable costs and enterprise relationship discussed in the preceding chapters.

Part III of the book contains six chapters and discusses the principles and procedures in planning enterprise combination; budgeting and programme planning; linear programming; uncertainty and farm organization and planning; further programming techniques; and matrix construction. Budgeting and programme planning are brilliantly discussed under Chapter 14. Discussion in this chapter is lucid, precise and comprehensive. However, while discussing linear programming under Chapter 15, the authors again repeat (pp. 364-367) the assumptions of planning (linear programming) discussed under Appendix 13.4 (pp. 311-312).

Chapter 16 on "Uncertainty and farm organization and planning" discusses the attitudes to uncertainty, and profit maximization; measures to reduce variability and uncertainty in farm incomes; cost of uncertainty; and uncertainty and farm planning. Discussion on decision analysis including decision tree, subjective probabilities, certainty equivalent and the utility function is, however, too brief for a beginner to follow. Integer programming, separable programming, Monte Carlo method, parametric programming, dynamic linear programming, dynamic programming, quadratic programming, stochastic linear programming, game theory, and MOTAD are also briefly discussed in Chapter 17. In Chapter 18, matrix construction is discussed mainly from the viewpoint of linear programming.

The last three chapters under Part IV of the book discuss the control of resources and enterprises. To the authors, control means data recording, data analysis and budgetary appraisal and control in crop and livestock production process.

The book under review makes a significant contribution to the existing literature on farm planning and control. However, without problem exercises at the end of each chapter, the book fails to provide a complete 'package of wisdom' to an intelligent reader and inquisitive scholar. The high cost of the book also precludes a common student to be its owner leaving a limited choice for the libraries to purchase the book.

*Department of Agricultural Economics,
Haryana Agricultural University,
Hissar*

I. J. Singh

The Innovator's Situation: Upper-Middle-Class Conservatism in Agricultural Communities, Frank Cancian, Stanford University Press, Stanford, California, U. S. A., 1979. Pp. xiii + 159. \$ 12.50.

This book is a welcome addition to the literature on adoption of innovations by agricultural communities. The author proposes and tests two basic hypotheses: *Hypothesis A*—In the early stages of the spread of an innovation, low-middle-rank individuals are more likely to adopt it than are high-middle-rank individuals. *Hypothesis B*—In the later stages of the adoption process, the adoption rate of high-middle-rank individuals will increase relative to the adoption rate of low-middle-rank individuals.

Two basic ideas, *viz.*, the inhibiting and facilitating effects of rank and levels of uncertainty associated with initial and subsequent phases of the adoption process, have been welded to yield a more general theory relating socio-economic rank and adoption of innovations. The author has used data from a number of studies spread over developed and developing world. That his hypotheses appear to be generally borne out adds to the strength of this work.

The basic contribution of this work lies in the distinction in the rank-adoption relationship between initial and later phases of the spread of an innovation. In the initial phase, fear of loss of rank inhibits adoption by the high-middle-rank individuals. Low-middle-rank individuals, on the other hand, have less chance of losing in this regard and are, therefore, spurred to adopt. This 'fear', emanating essentially from uncertainty, disappears as the innovation spreads and individuals become more certain about the outcomes. Consequently, in this phase adoption becomes directly related to command over resources (rank).

The above model implicitly assumes differences in risk preferences among individuals belonging to different ranks. It also implies that low-rank individuals are less risk averse than the high-middle-rank individuals. Both these premises will doubtless provoke researchers who are looking at risk in the micro tradition. Indeed, the author accords more importance to this variable than command over economic resources in the initial phase. The author also takes the position that socio-situational context is more important than personal characteristic as determinant of adoption. This is a non-traditional perspective and would doubtless interest research workers in this field. Also, one would like to test the validity of this model in a dynamic setting. For example, we could argue that all individuals wish to improve their rank and, over their life time, several would gain rank by some means (possibly adoption of innovations). So, it is perfectly possible to encounter a person who had a low rank to start with and then, over time, reached up to the high-middle order. Now, does he stop being innovative? Perhaps yes, but this theme has not been followed up in this work.

This is an interesting study and deserves to be read seriously. The last three pages of the book highlight the implications of these findings for

agricultural development policy and offer some provocative ideas.

*Division of Agricultural Economics,
Indian Agricultural Research Institute,
New Delhi*

Dayanatha Jha

Evolution of Food Policy in India, R. N. Chopra, Macmillan India Limited,
New Delhi-28, 1981. Pp. xii + 322. Rs. 125.00.

The book makes a useful reading as the study represents the views of a person who had a hand in shaping the food policy of the Indian Government at a crucial time. It is a refreshing change that occasionally persons holding important positions in the Government come forward after their retirement with books like this wherein policy matters not only receive a realistic touch unlike books written by pure academicians but also they bring to light many facts which would have been missed otherwise by history. While it is easy to criticise Government's policies, it is more difficult to take a sympathetic view, particularly on a subject like food policy where policies regarding agricultural development are shaped by State Governments while the Central Government is expected to formulate a food policy which was expected to suit all lobbies including farm and trade lobbies and State Governments. Only a person who has held responsible positions in Government and helped in shaping policy matters can take a sympathetic view of Government policies.

When one goes through the book, the first impression he gets is that in a book of this size (322 pages) it is surprising to find that there are as many as 32 chapters (including statistical tables at the end)—an average of 9 pages per chapter. With some effort the number of chapters could have been easily reduced. For example, duplication of periods such as 1941-43 in so many chapters could have been avoided. This would have resulted in better presentation and the book would have made a more enjoyable reading. Because of too many chapters and greater elaboration than necessary in later chapters of the same aspects discussed in brief in earlier chapters there have been many repetitions which could have been easily avoided.

The author lacks the sophistications of a trained economist but possesses the wisdom of a seasoned administrator. This may be considered both as a disadvantage and an advantage. It is disadvantageous when one finds that the author mixes up his personal prejudices with policy decisions. For example, on page ix the author mentions that the Government has a food policy which is pragmatic except in the 1947 decontrol under Mahatma Gandhi's pressure and the wheat trade take over in 1973 under some leftist ideological compulsions. Obviously, when the author talks of leftist ideological compulsions, he is mixing up his own personal views with policy matters as there is no such thing as an accepted leftist ideology in matters of food policy in India. For example, take the case of restrictions on inter-State movement of foodgrains. Here it is difficult to draw a line between leftist and rightist points of view.

Perhaps a trained economist would have put the same thing in a different way. The advantage of the author being a seasoned administrator rather than a professional economist is that he can straight go to the crux of the problems and discuss them cogently without presenting arguments in a round-about way as academicians often do.

The author believes, unlike most others, that the Government has a definite food policy whose pragmatism is often mistaken for ad hocism. In all fairness one should agree with the author that in a country of India's size consisting of so many food surplus and food deficit States, a single well chiselled policy for the country as a whole can neither be worked out nor implemented satisfactorily (p.13). While agreeing with the author that gradually over a period of years something like a food policy has been evolved, one need not call the food policy as a pragmatic one. The policy followed has been not only ad hoc but also opportunistic as policy decisions have often been taken under pressure from various pressure groups and State Governments. While earlier the Central Government was normally accepting recommendations of a technical body like the Agricultural Prices Commission in matters of fixation of agricultural prices, gradually the Government has started enforcing prices which are different from those recommended by the Agricultural Prices Commission.

Being a seasoned administrator, the author argues in an informal way. In Chapter 20, the author mentions that many of the State level political figures did not have a clean reputation in the matter of smuggling of grains across the border in order to make quick illegal gains (p. 145). Similarly, the author mentions that the internal health of the Food Corporation of India should not be forgotten—inefficiency and corruption are written much on its face and indiscipline was rampant in its ranks (p. 144). Similarly, while discussing the adverse effects of PL 480 wheat imports, the author observes that it did a lot of harm to the Indian farmer as “the American farmer had taken over from the Indian farmer the task of feeding the Indian people.” According to the author, the ‘price repression’ of wheat could have been avoided if PL 480 imports had been regulated according to price trends in markets. One should agree with the author that the PL 480 wheat imports did considerable harm to Indian agriculture as the Indian farmer lost interest in growing sufficient wheat to feed the Indian people due to the deliberate policy of keeping down wheat prices. However, the question whether utilization of counterpart funds created under the PL 480 Agreement for meeting the budgetary deficits of the Government increased the inflationary pressure or not is a controversial one. It is possible to argue that the counterpart funds did not add to the inflationary pressure as there was continuous import of foodgrains under the PL 480 Agreement as a result of which the adverse effects of inflation were mitigated.

One should agree with the author that the various Foodgrains Enquiry/Policy Committees appointed by the Government for shaping food policy had given practically the same solution and they had the same objectives (p. 13). The author attributes complete decontrol of foodgrains in the period 1951-54 to the former Food Minister, Rafi Ahmed Kidwai's personal abilities. In

the words of the author, "The movement towards decontrol was fast because of the 'Kidwai touch' " (p. 72). While what the late Kidwai achieved as Food Minister did reflect on his leadership qualities, it is not correct to attribute the success with decontrol experiment to one individual without taking into account the economic situation prevailing at that time. It is hardly necessary to say that in that period the food situation in the country was comfortable and the Government could easily go in for decontrol. Thus, the author mixes up his personal admiration for Rafi Ahmed Kidwai with the economic situation which was prevailing at that time.

One should agree with the author that in normal times traders performed their functions efficiently and economically while in periods of droughts and crop failures, the profit motive has led them to hoard supplies and raise prices and create artificial scarcities thereby compelling the Government to intervene. The author's treatment of the Public Distribution System and the problems of storage and buffer stocks in Chapters 27, 28 and 29 is lively.

One the whole, the book makes a useful reading. Since the author had access to important official files he has been able to present some information on Government thinking in matters of food policy which would not have been available otherwise. Though the book gives a clear impression that it was written by a person who does not belong to the profession of economists, it still serves a useful purpose because the author has argued with a reasonable degree of success that the Government had a food policy, however pragmatic it may be.

*Agricultural Economics Research Centre,
University of Delhi,
Delhi.*

H. Laxminarayan

Dynamics of Rural Transformation: A Study of Tamil Nadu: 1950-75,
C. T. Kurien, Orient Longmans Ltd., Madras-2, 1981. Pp. xi+151.
Rs. 52.00.

The dynamics of rural transformation is admittedly a difficult area of enquiry. There is no consensus on either the analytical frame or the techniques to be employed for such an enquiry. The approaches to the analytical frame have been varied. In the 1950s and early 1960s 'dualistic theories' inspired by the writings of Arthur Lewis, Ranis and Fei and Jorgensen and others were quite popular with the economists. Developments in the Third World countries have, however, shown their limited relevance. Since the late 1960s there was a shift towards approaches based on theories inspired by Theodore Schultz in his widely cited popular book "Transforming Traditional Agriculture." The new technology associated with HYVs was quite opportune for adoption of this approach. Empirical facts since the middle 1960s in a wide variety of situations revealed in studies of FAO, ILO, UNRISD and IRRI in several developing countries have shown the complexity of the

interrelationships between technology and rural transformation. The analytical frame inspired by Theodore Schultz has been found to be of limited use either in explaining the changing events or in guiding a policy frame for transformation. A more recent approach which caught the imagination of several rural development enthusiasts is the 'urban bias' thesis associated with the writings of Michael Lipton. Despite its emotional appeal its adequacy in explaining the growing conflict within the rural areas of many developing countries is in question. There is now a general recognition that an analytical frame for a study of dynamics of rural transformation cannot be limited to the discipline of economics. The study is essentially in the complex area of political economy. Marx has much to offer in this area: but, its adaptation to a study of dynamics of 'late-comer' Third World countries rests on a much deeper understanding of the interactions of the social and economic systems and state power and the inability of the poor to force the pace of history. Systematic empirical studies on many dimensions of political economy and interrelationships among them should lead to a meaningful analytical frame towards such adaptation.

Viewed from such wider context, the title of the book under review, "Dynamics of Rural Transformation" is an over-statement; a more appropriate title, in keeping with the content of the book is "Agricultural growth, structural changes and rural poverty: A study of Tamil Nadu, 1950-75." The author is conscious of this, and "no claim is made that these bits are adequate to discover the dynamics of rural transformation in Tamil Nadu even from a limited economic point of view."

The merit of this work lies in a systematic and meticulous examination of empirical facts drawn from diverse statistical sources, and on different dimensions of agrarian economy followed by a meaningful interpretation of the interrelationships which could provide a clue to the understanding of the dynamics. The diverse sources of statistical data include: the decennial censuses; various Rounds of National Sample Surveys covering land holdings and consumption expenditure; Rural Debt and Investment Surveys; Season and Crop Reports; Quinquennial Livestock Census; Studies in the Economics of Farm Management Reports; and Reports of Agricultural Labour and Rural Labour Enquiries. This reviewer finds the empirical approach with a 'defined analytical focus', which is essentially the one pioneered by the late Prof. D. R. Gadgil at Gokhale Institute of Politics and Economics, fruitful for the problem on hand.

The dimension of rural economy covered includes: land and assets; agricultural growth in its various aspects under the chapter title 'Agricultural Transformation'; differentiation within agriculture by size of holding under the chapter title 'Scale Factor'; and rural poverty under the chapter title 'Prices, Wages, and Consumption Patterns'. A vast and diverse range of data from the sources cited earlier are assembled and presented in a meaningful form so as to make the facts speak on developments in each of the dimensions. The task of a meaningful analysis of different dimensions from a variety of sources of data even for a single point of time is not an easy one; a trend

analysis in which conceptual variations over time, and data gaps have to be reckoned with pose greater challenges to the skills of the analyst. It is to the credit of Kurien that he could make his facts speak, and speak convincingly. It is in this respect that this study could serve as a model for similar studies in other States of India. It is a tribute to this work that the Indian Council of Social Science Research has chosen to commission several research projects on similar lines in other States.

Answers to questions relating to trends in proletarianisation, class differentiation and shifts away from semi-feudal forms of agricultural production are pertinent to an understanding of the dynamics of rural transformation. Unfortunately, the study of distribution of ownership holdings, operational holdings as well as capital accumulation within agriculture are limited to the decade of sixties due to data limitations. There are also several intriguing problems in the estimates of rural households from the National Sample Survey (NSS) and also of area for the period 1959-60 and 1971-72. The estimates of rural households show a decline for the latter period despite a rise in the rural population by 17 per cent between 1961 and 1971 as per the decennial census. It is even more intriguing that the owned area of the rural households should decline in 1971-72 as compared to 1959-60 and this is mainly accounted for by the substantial decline in the top six-group of land holdings, presumably due to under-reporting in these groups. Such under-reporting by these groups is likely even in respect of leased-out area. Despite these problems, the data of the NSS together with the data of All India Rural Debt and Investment Survey for 1961-62 and All India Debt and Investment Survey, 1971-72 and Studies on Farm Management are skilfully used so as to provide meaningful answers; they are worth indicating.

The evidence on growing differentiation in accumulation of assets both qualitatively and quantitatively, and the strengthening of the middle peasant group is quite firm. Long-term trends in the decline of area under tenancy are also evident. The evidence on proletarianisation is less clear. The proportion of households not owning land declined between 1961-62 and 1971-72 but the proportion not operating land showed a slight increase. When the proportion of owner/operating households below one acre including the landless are considered, there was a remarkable stability around 60 per cent. Yet based on the decennial census of population there is a suggestion of increasing proportion of agricultural labourers, indicating trends towards a higher degree of reliance on wage labour within agriculture along with growing concentration of assets in the larger size-groups. The puzzle of declining proportion of non-owning rural households along with an increase in the proportion of agricultural labourers is resolvable: quite a few landless got small patches of land under the distribution programme of waste land by the Government and such lands were in many cases not brought under cultivation.

Intensification of capital investments in agriculture and growing differentiation between the bottom and top group in the possession of assets other than land were accelerated during the period associated with HYVs. The top groups among the cultivators seized the opportunities that modern inputs

provided. State policy of subsidies and encouragement to well irrigation helped the acceleration process of growing differentiation. Higher capital investments associated with HYVs and shifts from dry to wet cultivation, from millets to paddy and sugarcane raised the productivity levels. The successes in the transformation of traditional agriculture are matched by the failure in the implementation of reforms for redistribution of land to the poorer groups. Three out of four rural households continued to belong to the category of landless and small farmers with less than a hectare. They accounted only for a fifth of the total area of land operated. As overcrowding within agriculture followed by demographic pressures in the sixties increased the number of agricultural workers per hectare, there were trends of decline in agricultural employment in 1970-71 compared to 1950-51. There is some suggestion of increase in non-agricultural employment per worker over the period but such increase has not been adequate to raise the levels of employment over the previous levels. In fact, there are trends of decline in the wage paid employment of female agricultural labourers and also total employment of the household. The losses in the employment front for agricultural labour households have been found to be accompanied by a rise in the retail prices of commodities consumed by agricultural labourers. Such rise had been faster than the rise in the money wage rates with the slackening of rates of growth of agricultural production and decline in per capita foodgrain production in the late sixties.

The data shown in the Chapter on 'Scale Factor' do not suggest that small farmers lagged behind in irrigation, use of modern inputs, shifts to commercial crops, adoption of HYVs, and in yield levels. Yet, despite the 'static efficiency' of small farmer, given the extremely low and declining average land per worker and declining trends in wage employment, he could not be expected to rise above the poverty level.

The data presented by Kurien on poverty levels are for selected years: 1957-58; 1959-60; 1960-61; 1961-62; 1963-64; 1964-65; and 1969-70. They suggest a reversal of poverty levels to higher proportions noticed in the late 1950s. The rising trends in the proportions of poor and their association with the character of agricultural transformation could be debated. The late sixties were marked by a decline in foodgrain production per rural person. Per capita rural foodgrain production in 1969-70 was lower than in 1963-64. But even a spurt in agricultural production in the seventies did not improve the situation. In 1977-78, as per the figures presented in the Sixth Five Year Plan, the proportions of rural poor in Tamil Nadu rural areas were higher than 1969-70. If the rise not only in the absolute numbers of poor, but also in the proportions of rural poor of Tamil Nadu is established to be a firm trend, it is a clear signal that technological changes, even if size neutral, and middle peasant dominated agriculture cannot be relied upon to bring relief to the rural poor.

Do the dynamics of rural society hold any prospects of reversal of these trends? The answer is not forthcoming from Kurien's work, but Kurien has done a commendable job in bringing to sharp focus the inadequacies of techno-

logical approaches in providing solutions to mass poverty in rural Tamil Nadu.

*Department of Co-operation
and Applied Economics,
Andhra University,
Waltair*

G. Parthasarathy

Impact of Harvest Combines on Labour-Use, Crop Pattern and Productivity, H. Laxminarayan, D. P. Gupta, P. Rangaswamy and R. P. S. Malik, Agricultural Economics Research Centre, University of Delhi, Delhi; Agricole Publishing Academy, New Delhi-7, 1981. Pp. x+177. Rs. 95.00.

A fairly consistent view has been emerging from farm mechanization research that for a country like India, where man-land ratios are relatively high, the type of mechanization desired would be such that it enhances land productivity and does not worsen the income distribution amongst different sections of the society. Binswanger's review of more than 60 tractor studies in South Asia has clearly emphasized this.* The book under review supports this view by studying the harvest combine form of farm mechanization.

The data for this study came from a sample of 179 households—116 users and 63 non-users of harvest combines—in the districts of Ludhiana (Punjab), Karnal (Haryana), and Ganganagar (Rajasthan). An interim report based on *rabi* 1977-78 was earlier released. This is, therefore, a consolidated report for one complete year covering *rabi* 1977-78 and *kharif* 1978. Unlike in the interim report, which this reviewer had an opportunity to review, in this study the authors have presented and interpreted their results in proper perspective.

The methodology used in this study involves a cross-sectional comparison of different types of user and non-user farms of harvest combines. The main limitation of such methodology is that user and non-user farms differ in many respects such as farm size, levels of productive capital, access to credit markets, and asset structure. These differences confound the effects of mechanization and are likely to exaggerate the advantages of mechanization. The authors are cautious of this and have interpreted the results carefully. While tabular analysis is the main analytical tool, regression analysis has also been employed to measure the impact of harvest combines on (i) cropping intensity, (ii) productivity of crops, and (iii) total productivity of farms.

The book contains 12 chapters. The first introduces the approach of the study. A brief review of studies of the economics of harvest combines in India is presented in the second chapter. The review reveals that most of the studies have analysed the relative costs and labour contents of different

*Hans P. Binswanger: *The Economics of Tractors in South Asia*, Agricultural Development Council, New York and International Crops Research Institute for the Semi-Arid Tropics, Hyderabad, India, 1978.

harvesting technologies but have neglected the indirect impact of harvest combines on the farm economy. The third chapter compares the basic economic features of user and non-user farms to see whether there are any significant differences between them. The authors do find significantly higher figures for the users compared to the non-users with respect to owned land, cultivated land, assets per household and per acre, and proportionate area under the most intensive and dependable source of irrigation. These differences are likely to exaggerate the effect of harvest combines and, therefore, are required to be considered carefully.

The fourth chapter presents crop patterns and cropping intensities on user and non-user farms to mark the differences and to attribute these to possible causes including the use of harvest combines. Both the tabular and regression analysis clearly indicate that the cropping intensity differences are mainly because of differences in the levels of irrigation and farm size, and not due to the use of harvest combines. On the basis of farmers' reports and existing cropping patterns, the authors conclude that the introduction of harvest combines has resulted in shifting the crop patterns slightly in favour of wheat and paddy on user farms. However, it is perhaps difficult especially in this type of cross-sectional comparison to decide whether the shift in cropping pattern is the cause or effect of harvest combine use.

The timeliness effect of harvest combine use is addressed in the fifth chapter. The issue of timeliness is gaining importance particularly in the context of double or multiple cropping systems where the time available between harvesting of one crop and sowing of the next crop is critical and any delay in these operations is likely to cause considerable reduction in total output. The user-non-user plot comparisons offered very limited support for the early completion of harvesting operation, for the early initiation of ploughing operation and for the advancement of sowing dates of the next crops due to harvest combines. However, this does not deny the fact that the use of harvest combine takes much less time than alternate harvesting methods. Hence the above results have to be viewed in the context of inadequate availability of harvest combines and that of differences in other factors (*e.g.*, availability of bullocks, tractors, irrigation, etc.) which may neutralise the possible impact of harvest combine. The figures within parentheses in the tables given in this chapter are percentages of area covered but are very often referred to as percentages of plots, creating some confusion in the reader's mind.

The distribution of farms and area of wheat and paddy under different harvesting methods, *viz.*, harvest combine, intermediate technology, and traditional technology are given in the sixth chapter. Chapter 7 discusses the impact of harvest combines on yields of paddy and wheat measured in both physical and value terms. One important feature of this study is that it has households where both the techniques of harvesting were employed on the same farms. To a large extent, such a comparison between two technologies made here will avoid confounding effects arising from inter-farm differences.

In the case of wheat, the authors infer that the saving of grain under harvest combine is neutralised by the loss of straw. The higher output per acre on the pure harvest combine farms over that on pure intermediate technology farms should be due to differences in other inputs rather than due to harvest combine use. In the case of paddy, the results failed to indicate any significant differences either in yield or in total value product. The marginal advantage observed in the case of harvest combine over traditional technology on the mixed farms might be due to the negligible value assigned to paddy straw which is lost completely under the harvest combine.

In regression analysis, the effect of harvest combine is isolated by using intercept dummies. The intercept differences indicate the differences between mean yields of intermediate technology/traditional technology farms and harvest combine farms after accounting for variations in yields due only to other variables included in the equation and should hence be interpreted carefully. In addition, inclusion of slope dummies could have captured the interaction effect, if any, between mechanization and farm size which has relevance in judging the scale neutrality of mechanization.

The overall results of regression analysis are quite consistent with the earlier results obtained from tabular analysis. In the summary to this chapter, one would have expected the authors to have emphasized that the harvest combine had insignificant impact on either output or productivity.

Chapter 8 presents total farm productivity and expenses on irrigation and fertilizer on different categories of user and non-user farms. With the help of both tabular and regression analysis, the authors have pointed out the direct relationship between gross productivity and expenses on irrigation and fertilizer and the insignificant impact of harvest combine on total farm productivity.

The much debated issue of labour displacement effect of mechanization is dealt with in Chapter 9. On an average, the per acre labour displacement caused by the use of harvest combine is 8.8 and 17.5 man-days for wheat and paddy respectively. These account for about 95 per cent of labour requirement for harvesting, threshing and winnowing operations taken together under the alternate technologies. Casual labour is the worst affected with a reduction of 5.5 man-days/acre in the case of wheat and 14.6 man-days/acre in the case of paddy, while the position of migratory casual labour is still worse, the displacement being up to 100 per cent. The substantial displacement particularly for casual labour both in relative and absolute terms highlights the adverse effect of harvest combine technology on distribution of incomes and of gains, if any, from such technology.

A small section in this chapter tries to correct some of the data deficiencies arising out of the survey method and reports under-estimation of total labour use and over-estimation of employment of casual labour. It would have been useful if the authors had re-estimated labour displacement effects using these adjusted data.

The study also provides estimates of labour displacement per harvest combine in the survey area and displacement in the Punjab State. These

estimates hopefully will help policy makers and scientists to judge the social costs of such a large scale displacement of human labour which has yet far inadequate employment opportunities.

Chapter 10 describes the operation of rural labour market in the Punjab State. While discussing the issue of private cost in using harvest combines, the authors have found that there is a marginal cost advantage in the use of harvest combines compared to intermediate technology in the case of wheat. With regard to paddy, there is hardly any difference between the costs of harvest combine use and traditional technology. Moreover, whatever little cost advantage shown will possibly disappear if one considers the over-reporting of wage rates as pointed out by the authors.

Having obtained the results consistently against the use of harvest combine, the authors are better placed to draw the implications for policy. They conclude by recommending no further extension of harvest combines and suggest efforts to ensure an organized flow of labour from surplus areas of the country to remove the imbalance in the supply and demand for labour during the harvesting seasons.

The implication of these conclusions, as Professor Sukhamoy Chakravarty has suggested in his Foreword, should receive serious attention from those concerned with policy making. A part of the answer to the question of inadequate and unreliable supply of labour may lie in monitoring systematic information on migratory labour and on labour demand in different areas. The conclusions also call for adequate research on labour migration issues both in areas wherefrom labourers come and in areas where they migrate.

*Economics Program,
International Crops Research Institute
for the Semi-Arid Tropics,
Patancheru, Hyderabad*

R. D. Ghodake

Project Evaluation Criteria and Cost-Benefit Analysis, Edited by K. Puttaswamaiah, Oxford & IBH Publishing Co., New Delhi-1, 1980. Pp. xv+159. Rs. 50.00.

Significant attention has been paid during the last decade on project formulation and evaluation so as to make the best use of scarce financial resources. The book under review is an addition to the literature in this field. The editor has attempted to provide the literature on project appraisal and evaluation in a capsule form. The book contains ten articles/essays from eminent men in the field. The first five chapters deal with introductory aspects of project evaluation while the last five chapters directly relate to the cost-benefit technique.

The first two chapters by R. K. Dar and the editor himself serve the purpose of setting the background for discussion on the evaluation methodology. Dar in his paper entitled "Philosophy, Perspectives and Objectives of Evaluation"

(Chapter 1) gives an overview of the approach. He describes evaluation as a stock taking exercise based on application of standards of rationality in the performance of the visualised tasks. It has to be selective since time and resources are limited. An evaluator researches for factors which favour or hinder the achievement of the objective of a programme. The process of evaluation needs a good deal of patience on the part of the evaluator as well as the other participants.

The paper entitled, "Objective, Scope and Methods of Evaluation" by the editor (Chapter 2) emphasizes evaluation as an essential aid to policy. The objective, scope and methods of conducting such an evaluation are broadly discussed. The problem has to be spelled out clearly, must be looked from the angle of measurable data and obtainable information and the design of study must be chalked out adopting suitable sampling technique. The impact of the programme has to be assessed objectivewise including economic, social and intermediate indices. Evaluation should be based on the implementation of the programme, the techniques of enquiry and analysis adopted. The organization of the programme can be fruitfully evaluated under the headings of personnel and material resources. The main priority is to get some measure of the working and impact of the programme and to indicate the causes of its failure or success. The evaluator's major responsibility is to bring his findings to the notice of those who frame and run the programmes.

In Chapter 3: "Approach to the Formulation of Criteria in Evaluation", J. P. Bhattacharjee has lucidly brought out the role of formulation of criteria in evaluation, how difficult and how important it is in the course of determining the methodology. The competing issues in evaluation methodology and chronological steps in evaluation are also discussed. The formulation of hypotheses should be specific and clear and the criteria of evaluation are derived from these. The end product of any evaluation is correct judgment in regard to the problems in implementation and in suggesting remedial measures. He has also mentioned that evaluation studies should be objective in its approach, adopt the scientific method for analysing and interpreting the results. Once the programme for evaluation is selected hypotheses based on objectives, sampling design and schedules for collection of data have to be framed. Afterwards data have to be analysed and interpreted and recommendations have to be implemented.

In Chapter 4 "Some Issues in Methodology of Evaluation with Large Social Content," R. K. Dar and C. S. Grewal have discussed evaluation and survey methods. They have mentioned that evaluation studies may be broadly classified into three broad categories. The first is intended to generate factual information of a type required by the planners. The second category covers special programmes like the Drought-Prone Area Programmes, Small Farmers Development Agencies, etc. The third category of programmes includes current programmes of a pilot nature. The formulation of the sampling design and determination of appropriate sample size are the important aspects. At the primary level the sample selection is subjective while at other stages it is based on the laws of probability. The

soundness of statistical design is the primary consideration. However, there is no mention about the statistical testing of the results and their interpretation.

The main focus in Chapter 5: "Household Approach in the Evaluation Studies" by J. N. Tewari is on the beneficiary. He has briefly pinpointed that the broad strategy in evaluation study is to cover all the crucial units of operation of the programme, may be the household, works, institutions like panchayats, through which the programme is operating. The schedules have to be so structured so as to get the detailed information through the household approach and finally data have to be integrated for causal analysis. He concludes that evaluation study determines whether the household approach shall be able to deliver the goods or whether it is to be combined with the establishment and institution approach.

In the first five chapters there is too much repetition of concepts which the editor could have very easily avoided. It would have been extremely useful had the editor invited some articles on aspects such as formulation and evaluation of agricultural or industrial development projects, characteristics of projects and various aspects to be considered in its preparation and appraisal problems and peculiarities in the appraisal of agricultural or industrial projects, various kinds of data required for project appraisal and planning and statistical tools required for final testing of the results.

Chapters 6 to 10 have direct relevance to the cost-benefit analysis. In Chapter 6, S. Venu discusses E. J. Mishan's approach of consumer's surplus and its areas of application. The commonly used method is the accounting approach. Mishan suggests that four types of risks have to be considered: direct risk people normally assume; the involuntary risk; the financial risk; and the psychic risks associated with concern for other people's lives. A number of theories have been propounded, still the consumer's surplus is of relevance in many areas of cost-benefit analysis.

Chapter 7 on the "National Accounting System, Social Costs and the Quality of Life" by S. Venu examines the attack on the cult of growth and 'growthmania'. The GNP does not measure social welfare in the sense of 'happiness' or 'sorrow' caused by growth, etc. The GNP and per capita national product also draw a veil on the inequalities in the distribution of income and wealth. He has also indicated that though the cost-benefit analysis (CBA) has not made much headway in the field of income distribution, it pays some attention to the quality of life too. It highlights environmental pollution, a phenomenon completely omitted by the GNP. At the end, the "quality of life" model of Nordhaus and Tobin is also examined. In both of these chapters (6 and 7) there are discrepancies in the notations used in the text and in figures.

J. N. Tewari in his paper on "Social Cost-Benefit Measurement in Education and Transport Sectors" (Chapter 8) stresses the need for identification of benefits in project appraisal and their quantification and measurement. Adequate data base is necessary for completing the appraisal exercises. The project has to be appraised on the various assumptions and has to be considered from the angle of the availability of data and also the time schedule.

Tewari has dealt with the quantification and measurement of benefits with reference to transport and education, using regression analysis. The production function approach used for evaluation purposes by the author is a static one and hence it cannot be applied under dynamic situations. In this context, the author could have used the standard techniques of evaluation incorporating sensitivity analysis too. Besides, the various assumptions to be considered for project appraisal could have also been listed by the author.

The last two chapters are contributed by S. K. Gandhe. Chapter 9 entitled "Little and Mirrlees Technique of Project Appraisal—A General Assessment" describes the technique of project appraisal by Little and Mirrlees. As an introduction to the chapter, a capsule history of the development of the theory of cost-benefit analysis is given. Later, social cost-benefit analysis is distinguished from the commercial and financial appraisal. The various aspects such as shadow wage rates, accounting prices for traded and non-traded goods, accounting rates of interest, income distribution and linkages and externalities have also been discussed. He has also mentioned that it is extremely useful for micro level planning in India.

In the last chapter on "A Social Cost-Benefit Analysis of a Sugar Production and Refining Project in Goa—An Application of the Little and Mirrlees Techniques of Project Appraisal", the aspects such as pricing of sugarcane and sugar, costs and benefits of cane production and factory operation, farm and factory levels of operating costs and benefits, shadow prices, social values of project costs and benefits, income distributional effects of the project and sensitivity analysis of the project costs and benefits have been discussed. But due consideration for externalities involved in the cost-benefit analysis of sugarcane project has not been given. It would have been extremely useful had the editor incorporated the various evaluation techniques such as Performance And Cost Evaluation (PACE), Programme Evaluation and Review Technique (PERT) and the Critical Path Method (CPM).

However, the book will be extremely useful for those who, in some way, are involved in the project formulation, appraisal and implementation.

*Directorate of Project-cum-Plan Formulation,
Haryana Agricultural University,
Hissar*

U. K. Pandey

*Micro-Plan for Full Employment—A Case Study of a Block in Karnataka,
K. Puttaswamaiah, Oxford & IBH Publishing Co., New Delhi, 1981.
Pp. xx+333. Rs. 100.00.*

Economic planning at the macro level having failed to solve the unemployment problem in India has generated faith in what has now come to be known as micro level planning. The latter is advocated mainly as a measure for developing the weaker sections and the backward areas. But

in India the technique of micro level planning having had a climb down from the district planning exercises to the block plans is for all practical purposes meant to be a plan for employment generation. In conformity with this practice, in the last five years or so attempts are being made to prepare block plans for full employment in the selected taluks. The book under review is one such attempt.

The objective of block plan being the achievement of full employment for the area in question, its methodology which has to be built around this objective should be such as to (1) help in an assessment of the extent of unemployment and under-employment, (2) take an inventory of the natural resources and infrastructure availability with a view to assessing the employment potential in the area, and (3) based on such resources, technical and economic feasibilities, undertake an exercise in identifying a set of employment generating schemes and projects.

Obviously, the block plan exercise will call for collection of a mass of reliable field level data. The three important requirements of good data generation exercise are (1) clarity in the concepts used, (2) a fool-proof sample design, and (3) a satisfactory organization of data collection. Puttaswamaiah appears to have done a good job in this regard having ably organized data collection from Chikkanayakanahalli taluk of Tumkur district by canvassing three sets of questionnaires. But unfortunately, the data collection skills are not matched by the skills of interpretation and reporting. As a result, the entire write-up makes a poor reading. The passages such as on pp. 13-16 which make no sense except to produce a queer feeling of monotony in the reader could have been avoided.

The monotony in the write-up apart, the interpretation of the tables which are literally numerous also needs much to be desired. If the trends and points that emerge from the tables had been highlighted and interpreted, instead of simply repeating what is given in the tables, the reader would have been spared much of the agony and a lot of space too would have been saved, leading possibly to a proportionate reduction in the price of the book !

In the selection of the households for study, a disproportionately large number of scheduled caste and scheduled tribe households to their actual number has been selected (Tables 1 and 2). The survey does not explain the rationale behind the larger weightage that is given to this particular social group. If the households were selected with the help of the random number tables as the author claims (p. 6), then the question arises, is such method which gives disproportionately larger representation to a particular social group fit to be followed at all.

Setting out the objective and methodology of the study and presenting an inventory of resources in the first two chapters, the author proceeds to estimate the number of unemployed and under-employed, the employment needs of the taluk (total as well as target groupwise numbers projected to the year 1985) and to devise a plan of action to generate employment in different spheres of activity by proposing a series of projects and programmes. It is estimated that by 1985 some 48,824 persons comprising the unemployed (with

an employment duration of less than 60 days in a year), severely under-employed (61 to 120 days), under-employed (121 to 180 days) and moderately unemployed (181 to 240 days) will need employment of the order of 68.77 lakh man-days. Out of this, the educated unemployed will be 5,725 and the rest will belong to the categories of small and marginal farmers, agricultural labourers, artisans and other weaker sections. An interesting line of inquiry pursued by the author was to ascertain from the respondents their views on the type of employment preferred. The development projects meant for generating the needed employment proposed in the study costing about Rs. 33 crores consist of irrigation, mulberry cultivation, afforestation, agricultural development, coconut and arecanut plantations, animal husbandry, small scale industries such as coir units, handloom units, woollen blanket manufacture, mini cement plant, coconut shell powder units and so on.

The employment potential of the proposed investment in each of these projects has been ascertained by the norms method, *i.e.*, in terms either of personnel-project ratio or wage-investment ratio. Surprisingly, the author has shown an utter disregard for the indirect employment effects of the proposed projects. The indirect employment that is likely to be created by a proposed investment of the order of Rs. 33 crores would be considerable particularly in the induced activities like the consumer goods supplying and the material input supplying industries, even granting that a part of this will be leaked out of the taluk economy. If this is taken into account, then the projects proposed by Puttaswamaiah might end up generating more employment than is needed for the taluk !

There is a general tendency among recent studies on block planning to bog down in arithmetic exercises on the number of unemployed and the under-employed in a taluk without actually looking into the economic logic behind such figures. It is high time that such studies are conducted in the consistency framework of planning giving due importance to the economic interrelationships that exist in the area. The block plan for employment generation can never be a lasting solution to the unemployment problem unless it is integrated into a consistent overall economic plan meant for maximizing output, income and employment in the area.

*Institute for Social
and Economic Change,
Bangalore*

Abdul Aziz

Reflections on Economic Development and Social Change: Essays in Honour of Professor V. K. R. V. Rao, Edited by C. H. Hanumantha Rao and P. C. Joshi, Institute of Economic Growth, Delhi; Allied Publishers Pvt. Ltd., New Delhi, 1979. Pp. xiv+486. Rs. 100.00.

This book is a collection of essays by well-known Indian and foreign social scientists to honour Professor V.K. R.V. Rao on the occasion of his 70th birthday. The essays (24 in number) have been grouped into six parts each dealing with

a broad theme: Rethinking on Development; Economic Structure and Policy; The Demographic Dimension; Development as a Social Process; and Perspectives in Social Sciences. The last part gives a bibliography of Professor Rao's writings.

The essays on "Rethinking on Development" deal with some broader issues relating to economic theory and development. A. K. Das Gupta, while recognizing the importance of questions relating to the content of production and income distribution, maintains that scarcity and choice, being a common feature of all economic systems, should rightly be the central concern of economic theory. S. Chakravarty discusses the relevance of the Keynesian and the classical models to developing economies. His main point, which is developed lucidly, is that while the classical formulation does indeed capture the essential features of such economies, Keynesian insights into the determinants of aggregate demand and the inadequacy of the market mechanism in the context of uncertainty remain quite relevant to planning and policy in these economies. P. R. Brahmananda presents a new classical growth model as an alternative to the existing macro economic growth models.

H. W. Singer traces the gradual shift of emphasis in discussion of development from such aggregate indices as GNP per capita, to level of living and concept of basic needs. A. K. Cairncross emphasizes the crucial role of technological improvement in the development process, and the problem of transfer and adaptation of technology. B. N. Ganguli's essay is a thoughtful restatement of the need to view technology in relation to the prevalence of large scale unemployment and under-employment. He points to the failure of the accumulation-modern-technology-centred development strategy to solve unemployment and poverty and goes on to suggest that the development strategy to solve unemployment and poverty and choice of technology should focus on harnessing unutilized manpower and that such a strategy is also capable of generating surplus for increasing employment and productivity.

Jan Tinbergen's main point is that though slower growth in developed countries would not be necessary for conservationist reasons, it is desirable as a means of reducing the international income disparities to tolerable levels. Further, using an aggregate model, he seeks to demonstrate that such slow growth is not inconsistent with the maintenance of high productivity, competition and technical progress.

Most of the contributions in Part II deal with themes of particular interest in the Indian context. M. Mukherjee's paper on an improved method of constructing constant price index numbers of general applicability, and Colin Clark's discussion of the methods of estimating real output indices in the tertiary sectors are of general methodological interest but nevertheless relevant to the Indian context. K. N. Raj focuses on the inadequacies in conventional explanations for the prevalence of high interest rates in agrarian economies like India. He argues that the phenomenon cannot be properly understood except in relation to the nature of economic organization viewed in its historical context and, in particular, to the structure and functioning of the market for credit taken in conjunction with the markets for land, labour and

commodities.

P. N. Dhar provides an informative review of evolution of policy relating to small industry and a rather impressionistic critique thereof. J. N. Sinha's paper is largely concerned with a review of wage trends and with the major issues of wage policy in the organized industrial sector. He challenges, with supporting facts, the widely held belief that real earnings of factory labour have declined in recent years.

Hanumantha Rao's thesis is that increased cropping intensity is superior to the HYV-fertilizer technology from the viewpoint of promoting rural employment and that the latter has a further disadvantage being biased in favour of the large, better endowed, farmers. He goes further to suggest that the development of the HYV technology reflects the large farmer bias in research. The argument seems rather overstretched inasmuch as irrigation by itself can raise output only to a limited extent; and high yields per hectare require use of better seeds and intensive fertilization. In any case, the facts cited in the paper suggest that the increase in per hectare employment is substantial in both types of techniques.

V. M. Rao presents a promising new approach to the use of village level data from censuses, supplemented by relatively simple surveys, to mapping the differences in structural characteristics of villages arranged by the size. While one may be skeptical about the usefulness, under existing arrangements, of this approach as a tool for better planning of rural development, there is little doubt that Rao's way of looking at the data opens up quite exciting possibilities for analysing certain aspects of rural socio-economic structure and change. R. J. Chelliah's paper discusses the economic and political merits of the proposal to merge sales tax with the central excise and makes some suggestions about how to mitigate the defects of the existing system as a possible prelude to two-tier (Central and States) value added tax.

In the section on demography, Rati Ram and T. W. Schultz deal with the positive effects of increased life span on the health of workers, their willingness to acquire new skills and knowledge, and hence on productivity. Asok Mitra's paper stresses the need to combine and integrate population control programmes with more intensive programmes for socio-economic betterment. P. B. Desai and S. C. Gulati's paper on changes in the spatial distribution of population suggests that, contrary to expectations, districts with relatively low density do not always record higher growth rates of population. The relation between initial density and growth rate of population is either weak or strongly positive in four out of the six inter-censal decades studied. The attempted explanation of this picture in terms of exceptional circumstances (like the influenza epidemic, depression and partition) is however not wholly convincing. Ashish Bose's paper is a chronological review of the evolution of urban development programmes and policy since Independence.

Part IV includes contributions by a political scientist (Rasheeduddin Khan), a sociologist (T. N. Madan), and an eminent educationist (J. P. Naik). The theme of Khan's paper, namely, the character of political culture and institutions and factors which have shaped it, is too vast to permit more than

a very broadly brushed sketch. By contrast, Madan deals with a very specific aspect of Indian society, namely, the effect of linguistic diversity. Naik, discussing the failure to achieve the objective of universal primary education, traces it to a complex of factors but emphasizes the fact that the ruling class, dominated as they are by the upper and the middle classes, had but a weak commitment to this goal.

Joshi's paper in Part V makes several important and perceptive observations relating to the state of social science research in India. He draws pointed attention to the narrow and fragmented perspectives of social sciences, the commercialisation of research, ideological fanaticism and the difficulties in building research institutions. Ramakrishna Mukherjee deals with the problem of valuation in social sciences.

It is difficult to attempt a critical review of contributions of such wide ranging scope and variety. The very nature of *festschrifts* generally, though not always, makes it difficult to get contributors to write on a coherent, well-knit, theme. For this reason, it is perhaps more appropriate to assess such books by the quality and seriousness of the contributions. By this criterion, the volume under review is clearly superior in its class and adds upto a handsome and well deserved recognition of Professor V. K. R. V. Rao who has achieved distinction as an academician, as an institution builder and also a holder of high political office.

*Centre for Development Studies,
Trivandrum*

A. Vaidyanathan

Change in Bengal Agrarian Society, c 1760-1850, Ratnalekha Ray, Manohar Publications, New Delhi-2, 1979. Pp. x+339. Rs. 80.00.

The book under review has grown out of a thesis, the aim of which is to examine the nature of the impact of the Permanent Settlement on the agrarian society of Bengal. The author has attempted with detailed case studies to show that any idea that the agrarian social fabric in the pre-British period was simple and comparatively more egalitarian than the post-Permanent Settlement one is hardly warranted by facts. The earlier view on this point held briefly that as a result of the Permanent Settlement, a new idea of absolute property was vested on the zamindars, and this created a market for zamindari titles. The new rigour of government demand soon caused a massive transfer of landed property rights from the ancient zamindars with time honoured rights to the surplus, to a band of profit hungry 'businessmen' who systematically began to turn the screw on an otherwise egalitarian peasantry. A process of subinfeudation began which further increased the burden on the peasants who had to take recourse to moneylenders. Commercialisation of agriculture contributed to the spread of rural indebtedness and a class of landless labourers and share-croppers emerged at the lower end of the scale.

The present work argues convincingly on the basis of detailed case work

that such a view of things tends to ignore the reality. In actual terms agrarian society in pre-British Bengal was much more complex with the rights to the surplus being shared between a wide range of claimants from ancient principalities to territorial magnates to co-sharers of parganas, to a class of village-based land holders, the *jotedars* on whose acquiescence the system of rent collection either by the *zamindari amlah* or the revenue farmers depended.

It also attempts to show that at the level of the village, there was hardly much egalitarianism to hand around. The *jotedars* managed to have large holdings at extremely low rates of rent on the basis of their links with the *zamindari amlah* and the revenue farmers, as well as their position of almost complete domination over the mass of the peasantry through their control over land, capital and labour. Their position as rural moneylenders and financiers of cultivation and participation in trade further helped reinforce their position of control. Their lands were cultivated by a mixture of share-croppers, as well as tied labourers, who were bound to them for sheer survival. Their caste composition might vary with area to area, but their relationship with the zamindar was full of contradictions. If the zamindar was strong he might wrest some more of the surplus. But on the other hand, "when the zamindar happened to be a female or a minor, or when there was a dispute over succession to the zamindar dominant village groups were encouraged by this struggle for power above them to withhold revenues."

The author has presented a detailed analysis of the land holding pattern in the pre-British period to prove the above (Chapters 2 and 3). She has pointed out that while it is difficult to date the emergence of this class of village oligarchs, the famine of 1770 and the developments of the succeeding years helped this class which could take over abandoned holdings and bring them back to cultivation, due to their control over capital, and could also take advantage of the increased monetisation of the economy and commercial agricultural production. Through the credit mechanism they could be assured of control over labour.

This situation in Bengal can be compared to that which prevailed over parts of Bihar specially Purnea where this phenomenon of a powerful village-based land holding class known variously as *gutchdars*, *kumdurrah* ryots, etc., holding large areas which were cultivated by share-croppers *adhiyadars* functioning as rural creditors, traders, and posing a challenge both to the zamindars and the government in their attempt to rationalise rent rates and rent collection in their favour. This phenomenon of a village-based dominant peasantry which could hardly be dislodged even with changes in the upper echelons of the zamindari hierarchy was to be found in other areas of Bihar in greater or lesser degree.

The author defines the change brought about in the position of the zamindars by the Permanent Settlement as one which destroyed the zamindari as a public to revenue collection. Here a contest was bound to erupt with a zamindari attempting to use the newly emergent bureaucratic state machinery to increase their share, while the village-based dominant peasantry was unwilling to allow itself to be dislodged. Where they won out over the land-

lords was in their physical association with land and its cultivation and the power stemming out of this association and control.

Case studies of select zamindaris by the author show different outcomes in different cases but even with the zamindar who adapted most successfully to the changed situation created by the Permanent Settlement by sub-infeudation, the Burdwan Raj changes at the top hardly went down to the village level. The *Sadgop* caste of dominant peasantry continued and improved their positions specially under the *patni* system.

In the Bishnupur case, the zamindari disintegrated largely as a result of its inability to control the surplus which was appropriated by the *amlah* in collaboration with the village-based land holders: In these case studies the point also emerges clearly that contrary to the view that the Permanent Settlement inaugurated a free market for zamindari property, the main beneficiaries of the auction sales were other zamindars, *talugdars* and *jotedars* who had an intimate local knowledge of the land situation. When outsiders did come such as the Tagores, they had to struggle with the powers on the land for control, and had to create their own centres of local power by granting substantial *jotes* (holdings) to their own men.

A further conclusion of the study is that which Cohn found in Benares, and we have found in Bihar, that the old zamindars not only managed to survive but prospered in the nineteenth century.

There is a wealth of detail in the book on different aspects of developments of several notable zamindar houses and the book is of considerable interest and value in general to students of Indian economic history, and in particular to students of agrarian society as it has evolved under colonial rule down to the present day situation.

*Institute of Social Studies,
The Hague, Holland and
Indian Council of Historical Research,
New Delhi*

Manoshi Mitra

Urban Growth and Rural Stagnation: Studies in the Economy of an Indian Coalfield and Its Hinterland, Edited by Dietmar Rothermund, Erhard Kropp and Gunther Dienemann, Manohar Publications, New Delhi-2, 1980. Pp. xxvi+493. Rs. 150.00.

Indian planners have always faced the problem of a dual phenomenon of rural stagnation, on the one hand and the rapid growth of urban centres, on the other. Only a search into historical facts relating to the growth of towns might be able to explain the truth behind this phenomenon. These striking contrasts provide an highly unexplored and fertile field for empirical researchers. The book under review is one such bold attempt to unravel the mysteries of economic dualism which is persisting in Dhanbad and its neighbourhood. This book is the second of the three-volume project entitled

“South Asia Interdisciplinary Regional Research Programme: Dhanbad Research Project Report”, under the general editorship of Dietmar Rothermund.

The main focus of this book is to highlight the striking contrasts of the rapid growth of urban centres with the most backward rural hinterland in the coalfield areas of Dhanbad district. There are ten papers in this volume dealing with various aspects of urban growth and rural stagnation in the study area. The book begins with a general Foreword and Introduction by Rothermund followed by two sections, *viz.*, the Rural Economy and the Urban Economy. There are six papers grouped under Rural Economy section and three under Urban Economy section. At the end, an Epilogue is written by Rothermund. In addition, the volume has two appendices. In selecting the papers for this volume, the editors seem to have given great emphasis to issues relating to rural stagnation (six papers) as compared to urban growth.

The first paper contributed by Erika Moser Schmitt provides an interesting analysis of the transformation of tribal groups into secondary peasant-who later emerged as a part and parcel of “Secondary Peasant Society” of the area. The author concludes that, “in the study area there is not any real traditional indigenous ‘peasantry’ in the rural region of Dhanbad.” It was only in the 19th century that a “secondary peasantry” came into being forced by the British colonial influence, as a result of acculturation with groups of people immigrating from traditional agricultural “Hindu peasant societies” (p. 48). The two diagrams provided by the author to depict the social structure and the social mobility of tribal as well as peasant societies in Dhanbad region are well conceived. The author has made a painstaking probe into the entire study region—both the growing urban centres and the backward rural areas—and he has succeeded in reconstructing the demographic and the migration pattern along with ethnic history and has shown that normally the areas dominated by tribals do not get much attention for development as compared to areas with Hindu domination (p. 15). The emergence of urban centres, the problems of land alienation and the historical facts allied to these issues have been discussed in this paper succinctly.

Maitham Ajam has attempted to analyse the agrarian market structure of the study area keeping in view the close interdependence of prices and market conditions. After identifying three types of commercial centres (markets, hats and fairs) the author goes on to explain several socio-economic issues relating to the location, the quantum of activity and the infrastructural facilities of different types of markets. It would have been useful if the author had distinguished the salient characteristics of these three types of commercial centres instead of providing a generalised definition of a market as “a place where a variety of services and information are exchanged besides goods” (p. 52). A glance at the map given (on p. 53) indicates the hierarchical differences among these three market types. But it is not clear whether fairs are bigger in terms of quantum of transactions and frequency of occurrence than hats. However, Ajam has an important point to make about the lack of integration among markets and thus giving room for the existence of a split market situation in Dhanbad district. This has put the growers of perishable

goods into a disadvantageous position leaving both the growers and the consumers in urban centres at the mercy of wholesalers who capitalise on the prevailing split market system by manipulating the prices to their own advantage.

Harald Hänsch's paper "The adoption of agricultural innovations", throws light on the extent of awareness and response of hinterland farmers to new agricultural trends. Hänsch has formulated twelve hypotheses to find out the influential socio-economic factors which are responsible for adoption/non-adoption of new varieties of crops and use of improved inputs like chemical fertilizers, etc. After laborious exercise, the author has found out a strange pattern of lack of sufficient demand for the increased production due to innovations in the nearby urban centres. As in Ajam's paper, Hänsch also comes across lack of interest among farmers for intensified vegetable cultivation near urban centres. Hänsch's findings confirm the persistent backwardness of the rural hinterland.

In the next paper, Erhard Kropp has attempted to explain the difficulties in the formation of real capital under the prevailing land system "characterized by small holdings, predominance of extreme fragmentation and increasing division of land resulting from the pattern of inheritance" (p. 126). Historically speaking, Kropp feels that feudal land system in spite of its exploitative nature "could give some impulse to the intensification of agriculture due to the self-interest of the landlord in maintaining his tenantry in an adequate condition" (p. 129). Kropp continues and says, "there were hardly any such days without work at least for small tenants while the landlords still held sway over the countryside" (p. 129). In spite of Kropp's arguments and data, it is difficult to believe that the replacement of peasant agricultural system in place of feudal land system alone is responsible for the lack of capital formation in agriculture. Most of the data used for Kropp's study ends with 1970-71 period and the use of Census data for the study is taken from 1961 Census records though the present book has been published in 1980. During the 1970s many changes have taken place in the rural areas of India which are significant enough and should not be missed by such studies. The minimum that a reader would expect is some sort of supplementary notes on the salient changes till 1980. The impact of certain special programmes like SFDA, MFAL, etc., implemented during the 1970s, are worth noting and, for example, Dhanbad district was covered under SFDA programmes from 1975-76 and by 1978 many (37,359) small and marginal farmers were identified for taking suitable follow-up action to help them.

Hans-Dieter Roth's paper on issues relating to long-term agricultural credit in the study area is in the nature of a fact finding report about the loan policies and distribution of the local land development bank. It was an all-India phenomenon that institutional credit agencies contributed very little to meet the credit needs of the small farmers and hence the farm activities of the small farmers remained backward. But as noted earlier, much water has flown down the river between the year of investigation and the publication of this book.

Ram Naresh Maharaj's paper is the longest included in the volume.

Maharaj has tried to highlight the ineffectiveness of government's machinery in fulfilling the developmental goals it has set for improving the economic conditions of the rural people. Maharaj has used the technique of 'intensive survey' of villages to understand the nature of the impact of state policy on agriculture in the study area. The author has selected six villages on a purposive sampling basis. Maharaj's idea of intensive village survey is, however, restricted to collecting detailed data on agricultural and related activities rather than gathering greater details regarding social, political and other factors which are at work in determining the nature of change that is being experienced by Indian villages. Even the classification of Hindus into broad groups is not satisfactory (p. 182). Some of the findings are quite obvious regarding the lack of effective implementation by different administrative and developmental agencies.

The second section dealing with certain non-agricultural aspects of Dhanbad coal-mining region opens with an introductory note on the three papers included in this section. These papers deal with "questions of remuneration of the workers and the structure of management in the coal-mining area" (p. 261). While dealing with the issues concerning the structure of labour force and wage policy, Gunther Dienemann has tried to analyse the income and consumption levels of the labourers in the study area. Interesting survey results have been presented in all the three papers and they serve to give insights into the economy of the coal-mining area. On the question of the need for a conceptual framework for a study, Dienemann raises a few methodological issues and in the process develops a two-step framework to analyse and interpret the data he has collected for his own study. Gunther Tiemann writing on the entrepreneurial aspects of the iron-processing small scale industry in the coalfield, presents the picture of a region where most of the industrial entrepreneurship came from outside the State, mainly from 'entrepreneur regions' like Gujarat, Maharashtra and West Bengal. Gernot Ruths' analysis includes intersectoral transactions of economic goods and services, to show the relative strength or weakness of the region in its economic activities. Ruths has estimated direct transfer of Rs. 300 million and indirect transfer of Rs. 555 million out of Dhanbad area. This huge transfer of funds might have resulted in the conspicuous stagnation of the study area (pp.449-450). Further, Ruths concludes that this huge transfer of funds might be due to the low value of regional multiplier which is the result of the low income stimulus effect of such public sector units as Sindri Fertilizer industry and Bokaro Steel Mill in the region.

The book ends with an useful epilogue by Rothermund who has underlined the persisting rural stagnation in spite of urban growth in the study area. According to Rothermund, the urbanisation in the region is characterized by the chaotic growth and mismanagement of towns.

The collection of papers selected for this volume deal with a varied range of issues concerning the rural and the urban economic activities. Therefore, the reader has to struggle through to find a common link to understand the regional economy of Dhanbad area. This book can be recommended for

scholars who are interested in getting a kaleidoscopic view of the study area.

*Rural Economics Unit,
Institute for Social and Economic Change,
Bangalore.*

H. G. Hanumappa

Marginal and Small Farmers: Perspectives, Problems and Prospects (A Study with reference to North Bihar), Surendra Prasad Sinha, Manisha, Muzaffarpur, 1978. Pp. viii + 195. Rs. 50.00.

The book has five chapters and contains a Foreword written by Shri Jagjivan Ram when he was Minister of Defence, Government of India. The first chapter deals with the perspectives of the study; second with the setting of the problem; the third and fourth chapters deal with the problems and prospects of the study area. The last chapter gives the findings and suggestions.

The Green Revolution came with the introduction of HYV seeds, chemical fertilizers, pesticides, irrigation, etc., for the already well-to-do farmers. The small and marginal farmers were silent spectators to this revolution. They were not able to reap the benefits of this revolution either in terms of improving their standard of living or in the improvement of their social status, or in the improvement of their employment opportunities, all of which were ushered by this revolution in some pockets of the country. The planners have tried to solve the problem of small and marginal farmers by launching special programmes such as Small and Marginal Farmers Development Agency, Drought-Prone Area Programme, the Command Area Development Programme, the Tribal Areas Development Programme, etc.

In the beginning of this book, the author has quoted so many definitions of small farmers and has tried to say that "a small holding in terms of physical acreage cannot but be arbitrary and notional" (pp. 4-5). He says that "the grouping done on an ad hoc basis for facility of presentation of data" by the All India Report on Agricultural Census "upto 1.0 hectare as marginal, between 1.0 and 2.0 hectares as small holdings, has been adopted in the present study." It is an obvious contradiction.

Almost all studies, including the one under review, have shown that upto the present stage of rural development the small farmers were not given needed credit and were thus credit-starved. Now that many agencies have been started by the Government for the economic uplift of these farmers and credit is being provided to the weaker sections for various activities (including dairy, for example), none of these studies has seriously worked out the optimum quantity of credit needed under this new condition, *i.e.*, the finances now needed so that the farmer should stay in his new business of dairying and the optimum finances needed by the banking institutions for these priority enterprises. It is always assumed that after a good cattle is given to the farmer, he will somehow or the other will maintain the cattle, completely ignoring the point that the improved breed of cattle cannot sustain itself without getting concentrates and other important feed ingredients. One such study is currently under

way at Himachal Pradesh Krishi Vishva Vidyalaya, Palampur. It is concluded that for the small and marginal farmers of Sirmur district of Himachal Pradesh, the optimum credit needed by a farmer for maintaining a cross-bred cow (Jersey-cross) is Rs. 2,523.60 (Rs. 1294.10 for *kharif* season and Rs. 1229.50 for *rabi* season). More such studies are required to be done in different parts of the country so that the exact amount needed by small and medium farmers is known and wastage in terms of more than or less than this optimum need is checked and given to other needy farmers or other sectors of the economy.

In the section on "Problems of Disinterestedness" (p. 101) the author concludes "...the most disinterested group (for improving farm practices) is big farmers." This finding is contradictory to all other reported works. Almost everywhere in the country studies have shown that the *big* farmers adopted new practices as soon as they were out from the research stations, because something other than farm produce is standing in between his family and starvation and thus they can take risks. In some cases they adopted certain practices (Mexican wheat varieties, for example) even when they were on the research stations and the researchers were not sure even of their recommending these varieties. If the finding of the author of this book is to be accepted, then what should we infer? Should we say that the big farmers are not interested in adopting new technology; a wrong notion indeed! It may be that in reporting and/or in interpreting the data, something has gone wrong somewhere. In saying that the big farmers are not interested in improvements is a finding which is not easily acceptable. On the other hand, sometimes even the farmers are not interested in their economic uplift. As an example, the farmers of Bharmaur area of Chamba district of Himachal Pradesh (an economically backward tribal area declared by the State) do not want to adopt HYV seeds or even chemical fertilizers, as they argue that once they use these modern inputs and if their economic conditions improve all the benefits being given to them under various Tribal Schemes will be withdrawn by the Government. And thus they do not want to loose. Studies are needed here, not economic studies only but may be extension education studies and then demonstrations to teach such backward tribal farmers the advantages of adopting newer and improved—at first, scale neutral—technology and at some later stage of development may be scale non-neutral technology.

It is a known and well established fact that the marketable surplus is directly related to the farm size. That is, the higher the farm size the more the marketable surplus. It is shown in the study that 77.9 per cent (161 in number) of the sample farmers did not have any marketable surplus. Out of 106 farmers (in the size-groups 2.5 to 5.0 acres), 81.13 per cent did not have any surplus and of the 59 farmers belonging to the size-group 0 to 2.5 acres, 98.3 per cent (58) did not have any surplus to offer to the market. And here lies the crux of the problem. The Government has to carve out agricultural projects in such a way that this most vulnerable group of farmers should get some relief. They must be able to have something to offer to the consumer so that with their earnings they may be able to purchase such items through the use

of which they may improve their standard of living; and they may also be able to send their children to schools so that they are able to earn more and become enlightened citizens of the country.

Chiefly keeping this in view, the planners started SFDA. In the past, due to several discriminatory policies based on incorrect assumptions or due to wrong policies, several schemes were started which were detrimental to the interests of small and marginal farmers. One way of improving the lot of these farmers is by inducing them to adopt scale neutral technology. But without the availability of water the adoption of HYV seeds, fertilizers, etc., is more ruinous. Irrigation is more often considered to be not scale neutral, and cannot be adopted by small farmers and hence the use of scale neutral technology has no effect on their farms. A second way for improvement is shifting the attention from crop farms to other types of farms, *i.e.*, livestock farming (poultry, dairy, etc.). Out of these, dairy has a great potential under existing conditions. It is because poultry needs special type of feed and housing which must be purchased from the market. But because of shortage of finances with small and marginal farmers they are unable to purchase these fixed assets. On the other hand, cattle need fodder which is easily available in the village: on field boundaries, green tree leaves, etc. It has been amply shown that adoption of cross-bred dairy cattle is most profitable on such farms. This has given the opportunity for higher income along with more employment of the farm family labour.

On the whole, the book is useful to researchers and policy makers who are concerned with rural development.

*Department of Agricultural Economics,
Himachal Pradesh Krishi Vishva Vidyalaya,
Palampur*

Parkash Mehta

An Introduction to Agricultural Systems, C. R. W. Spedding, Applied Science Publishers Ltd., London, 1979. Pp. ix+169. \$ 8.00.

This study deals with a systems approach to 'agriculture'. The author has rightly stated, "this book will serve as a useful introductory text in the teaching of agriculture as a whole." The title of *Agricultural Systems* gives an impression that the author is going to describe many systems operating within agriculture which may be independent or interdependent. There is no attempt to apply the concept of the system approach to 'agriculture' as a whole so that it can be related to the economy as a whole. The definition of a system is given as follows: "A system is a group of interacting components, operating together for a common purpose, capable of reacting as a whole to external stimuli: it is unaffected directly by its own outputs and has a specified boundary based on the inclusion of all significant feedbacks" (p. 18).

This definition could be applied for agriculture as a whole and a concept of the agricultural system can be developed. This reviewer has developed

such a concept and used it in his paper.¹

The author has used figures and diagrams profusely to illustrate the points pertaining to agricultural systems. In the first chapter where he discusses the purposes of agriculture, he describes agriculture rather narrowly. This is equivalent to the agricultural production sub-system of the concept of the agricultural system which this reviewer has evolved.

Agriculture is defined as follows:

“Agriculture is an activity (of Man), carried out primarily to produce food and fibre (and fuel, as well as many other materials) by the deliberate and controlled use of (mainly terrestrial) plants and animals” (p. 5).

This definition is pertinent to agricultural production activity which differs much from the description of the agricultural system which includes the following sub-systems:²

- (1) Agricultural Supply Sub-system (ASS).
- (2) Agricultural Production Sub-system (APS).
- (3) Agricultural Processing Sub-system (APS).
- (4) Agricultural Distribution Sub-system (ADS).
- (5) Agricultural Research Sub-system (ARS).
- (6) Agricultural Education Sub-system (AES).
- (7) Agricultural Extension Sub-system (AES).
- (8) Agricultural Credit Sub-system (ACS).
- (9) Agricultural Regulatory Sub-system (ARgS).

The author has shown that of the total energy used in agriculture, huge losses occur and actually 8.6 per cent of energy is really used in the form of food products actually eaten (p. 14) per head of total world population. The author rightly emphasizes the need for future developments which will involve less waste, greater recycling and energy from renewable resources but not at the cost of lowered food output per unit of land (p. 14).

In the second chapter, “A Systems Approach to Agriculture,” the author has explained through illustrations, what is a system. The understanding of a systems approach helps in the identification of various components and also the criteria which could be used to improve the system.

Chapters 4 and 5 explain what is understood in economic jargon as technical and economic efficiencies. While explaining economic efficiency, the author has referred to the law of diminishing returns but has not related the response curve of sugar beet to applied nitrogenous fertilizer with price ratios of sugar and nitrogenous fertilizer (p. 65) and hence has not explained the real meaning of economic efficiency.

Chapter 6 on “The Contribution of Science” does not seem to fit in with the main theme of agricultural systems and appears to have been superimposed in the text.

Chapters 7 to 13 give good descriptions of various “agricultural production

1. D. K. Desai, “Agricultural System with Special Emphasis on Agri-business,” in C. H. Shah and C. N. Vakil (Eds.): *Agricultural Development of India: Policy and Problems*, Orient Longman Ltd. Bombay, 1979, pp. 542-559.

2. D. K. Desai, *Management of Agricultural System* (unpublished).

systems". The classification of agricultural systems shows that agricultural production systems can be classified in a variety of ways depending on the purposes of classification. The author has followed a classification of farming systems which in some way indicates various developmental stages in world agriculture such as (1) Subsistence farming and shifting cultivation, (2) Pastoral nomadism, (3) Mixed farming systems, (4) Crop production systems, (5) Animal production systems, (6) Industrial food production systems.

One chapter is devoted to describe each of the above classes of agricultural production systems. These descriptions are very informative but they do not present a theme for a developmental strategy for agriculture.

A very interesting discussion is given in Chapter 14 on "The Relative Efficiency of Production Systems". It is shown that crop production is generally more efficient than animal production in the output of dietary protein and energy on land that will grow crops. Crop production is more efficient in the use of solar radiation, water, fertilizer and support energy (p. 146). It is also shown that the price per kilogram of protein is much less for that obtained from crop sources than from animal sources. After comparing the two systems, the author has not drawn any conclusion and has left the readers to draw their own conclusions.

At the end when the author discusses the importance of agriculture, he comes very close to the concept of agribusiness developed by Davis and Goldberg.³ In the descriptions of various agricultural systems, a special emphasis is put on the problem of energy utilization. The thrust is on the importance of agriculture as a renewable source of energy and also encouragement of those systems which would supply food and fibre to the mankind and at the same time would not depend too heavily on fossil fuels.

The last chapter on "Agriculture and the Community" is directed towards the community of U.K. in particular and perhaps to the community of the developed nations. For the citizens of the developing world, the importance of agriculture is not to be explained. Most of them are connected with agriculture either through direct or indirect participation in agricultural production activities or the sub-systems of the agricultural system. They are an integral part of the "hungry world". To them most important is to know how to move the agricultural systems so that the food problem can be solved. However, it is important to understand how the educated citizens of the developed world view the agricultural system or agricultural systems so that they would have a helping attitude in solving the problems of the hungry people in the world.

The book on the whole is very informative particularly to the agricultural students at the beginning of their University careers in U.K. and perhaps in other developed countries.

*Indian Institute of Management,
Ahmedabad*

D. K. Desai

3. John H. Davis and Roy A. Goldberg: A Concept of Agribusiness, Harvard University, Boston, 1959.

The Fieldworker and the Field: Problems and Challenges in Sociological Investigation, Edited by M. N. Srinivas, A. M. Shah and E. A. Ramaswamy, Oxford University Press, New Delhi, 1979. Pp. xii+288. Rs. 70.00.

The volume deals with one particular technique of data collection, called 'participant observation', usually adopted by anthropologists. The method of data collection using this technique is known as fieldwork. One of the strong points of participant observation in data collection is that it enables the investigator to establish the meaning which the subject attaches to his behaviour, which is very important in understanding social phenomena.

Participant observation as a method of investigation is useful especially when one is studying cultures other than one's own; because in such situations the subjects who have different worldviews and values would have distinctive meanings to actions, which are likely to be different from those of the investigator. However, it is not always in a foreign country that the social scientist encounters a strange cultural setting; one often finds such situations at one's doorstep as it were; a middle-class person going to a city slum, city-bred people going to the countryside and visitors to large scale organizations, are all people likely to meet with situations never experienced by them before. The fieldwork technique therefore has its uses when the investigator is making a study in his own society also, but in a setting to which he is not accustomed.

There are eighteen papers in the present volume, all but one of which are written by Indian authors and the remaining one is contributed by a West German. Everyone of the papers deals with the fieldwork experience of the respective author. Fourteen of the Indian authors did their fieldwork in India and three in foreign countries, while the foreign author conducted her study in India.

The studies were conducted in different settings. M. N. Srinivas, A. M. Shah, Anand Chakravarti, K. Raman Unni, P. C. Joshi and S. Seshaiiah studied rural communities, the last named author studying a village in Japan. Veena Dua, Beba D. Varadachar and Maren Bellwinkel did their fieldwork in the slums of the Indian cities. Sunanda Patwardhan, R. Jayaraman and Triloki Nath Pandey relate their experiences in conducting studies among ethnic groups such as castes and tribes. N. R. Sheth, E. A. Ramaswamy, B. S. Baviskar, Aneeta A. Minocha and Chitra Sivakumar did their studies in complex organizations such as a factory, a trade union, an industrial co-operative, a hospital and a college respectively. Finally, Khadija A. Gupta's fieldwork was done in the setting of a small town.

The authors have, by and large, confined themselves to a discussion of problems of securing entry into strange communities and of establishing rapport with strangers, and of the manner in which they coped with such problems. Each setting has features and problems peculiar to it. But together the papers indicate the typical problems a fieldworker is likely to face in his field. Among others such problems relate to issues such as (a) whether or not the investigator should assume a particular role, (b) to what extent he should rely on knowledgeable persons as informants, (c) should he

offer advice or involve himself in the solution of the practical problems of the respondents, (*d*) to what extent he should reveal his background to the respondents and (*e*) how should he respond to moral problems resulting from his own values clashing with those of his respondents. Discussions on such issues are also found in the existing treatises on fieldwork. But coming as it does from the Indian scholars or relating as it does mostly to the Indian situations the discussion of these issues in the present volume is bound to be more meaningful to the Indian readers.

As are the problems, so is the response of the investigator, unique to each situation. Therefore, an aspiring fieldworker is not likely to get any general guidelines in this book for participant observation. All that the work can do is to sensitize the scholar to the various issues so that he can respond creatively to his own situations.

The papers in the volume, however, harp on the positive side of fieldwork without calling attention to its drawbacks. One of the refrains which one comes across in these papers is the authors' confession about their own personal growth as scholars because of their encounter with different cultures with different sets of values. All this is understandable. But the authors have not commented upon the limitations of the knowledge they have been able to contribute. Almost none of them had any important question or hypothesis to guide their investigation. Theorizing, if any, was done on a post-factum basis.

Participant observation as a technique of data collection has serious flaws inasmuch as it is highly subjective and unsystematic. Thus the information collected tends to be unreliable. In fact, there are classical instances of anthropological studies where two famous scholars studying the same universe by participant observation but arriving at opposite conclusions. Therefore, what needs to be emphasized is the fact that whereas fieldwork is especially suited to studying an uncharted universe, the knowledge acquired through it is of a tentative nature and hence requires to be further tested by carefully designed research employing more objective and systematic instruments of data collection.

But the most unfortunate part of the volume is the introduction by the editors, Srinivas, Shah and Ramaswamy. The editors, instead of putting the technique in its proper perspective, are at pains to show that fieldwork is the major technique of sociological investigation. This they do by naive reasoning. They argue that there has been a blurring of distinction between sociology and social anthropology particularly in India. The fieldwork technique is used not only by anthropologists but also by sociologists, psychologists, political scientists and others (p. 1). Fieldwork has a special significance in India. Therefore, sociology and social anthropology should be field-oriented in India (p. 2).

It seems that the authors are aware of the inadequacy of fieldwork by itself to acquire scientific knowledge. But in their eagerness to advocate this technique as the most important method of study in sociology they go to the extent of saying that sociology after all is not a scientific discipline.

Fortunately, sociologists do not rely too much on the technique of fieldwork. They distinguish between different kinds of research designs such as exploratory, descriptive and experimental studies which succeed in acquiring knowledge with different degrees of refinement. Among these different types of designs the exploratory design is used mainly for the formulation of the problem and hypotheses in areas where sufficient knowledge is lacking for more sophisticated studies, and it is in exploratory studies that participant observation is recommended as one of the techniques in sociological research. If fieldwork were employed as the major method of research in sociology as recommended by the editors of this volume, then sociology would doubtless cease to be a scientific discipline. It is therefore not advisable for sociologists to commit themselves to a particular technique.

The introduction of the editors apart, which is misleading, the papers in this volume make absorbing reading because they deal with piquant situations resulting from the encounters of the researchers with strangers and strange situations.

*Department of Sociology,
Panjab University,
Chandigarh*

Victor S. D'Souza

The North Indian Peasant Goes to Market, Leon Swartzberg Jr., Motilal Banarsidass, Delhi-7, 1979. Pp. xiv+166. Rs. 50.00.

The North Indian peasant goes to market and has been doing so throughout this century. In the village of Phula Tolia, a typical North Indian village in Bihar, which is the subject matter of this book, a place some 10 miles south-west of Patna, the peasant first sold poppies for opium. For much of this century he sold milk to be processed for curd, butter and ghee for local and Calcutta markets, and he displaced women from plying this trade as soon as it assumed more than trivial volumes. Now, potatoes and onions are being sold instead, milk production having declined in response to the pressure on grazing land of the food needs of growing populations.

According to the author, however, we would be wrong to infer from this history a process of increasing commercialisation of agriculture. While agriculture is in "quiet frenzy" (p. 85), the sale of crops is stated as being peripheral to the household economy (p. 92, pp. 147-149). The mere existence of lively commodity markets does not apparently alter the relations within the village between land, labour and capital, the prices for which neither reflect relative scarcities nor operate in the manner of a market economy according to the laws of demand and supply. The relation between kinship patterns and property ensures that land is kept "off the market". 'The market' in land is so distorted by secrecy and fraud as to stretch indecently the definition of that term. Commercialisation leads not to a division of labour (that issue is not discussed), rather to a division of management of assets accommodable within the social frame of the joint family. The local big landlord family, with

mercantile and moneylending interests, is not analysed in terms of differentiation but instead in terms of entrepreneurship. Entrepreneurship gets itself a definition, rather late in the book, as comprising risk taking, expansion of new activities, and assumption of managerial activities. Interestingly, the local landlords finally fail by such standards, their investments characterized by diversification rather than expansion, imitation rather than risk taking, and by their failure to invest productively in any major way other than in land for renting out.

Thus the market economy ends in the local town, its tendrils stretch to the village but do not make fast there. The peasant economy actually *hinders* the development of the market economy.

This book is an unrevised doctoral thesis written in 1969 and based on fieldwork carried out in 1964-65. Readers looking for an anchorage of the author's material in debates on the nature and role of the peasantry, the relationship between peasant and State, the differentiation of the peasantry will be disappointed, and the latest references are for 1968. In places these references to the work of other scholars are handled gauchely, rather more as self-conscious bits of Ph. D. ritual than as integral to the argument. In any case, readers looking for 'theory' might do well by reading the final chapter first. It is here that concepts are defined as well as an attempt at a generalised induction made.

The book is biased fairly uncritically towards the one large landowning family (whose hospitality may unwittingly have been Swartzberg's scourge). Their activities, involving at times fraud, coercion, speculation, blackmarketing are regarded as entrepreneurial (Chapter 3). The mass of producers in the village were not subject to any systematic research and analysis and it is not possible to conjecture how the interpretation might have differed had this been done.

Agricultural economists, puzzled by the paradox of apparent response of land use to changes in the relative prices of commodities, on the one hand, and repeated assertions, on the other, that sales to the market were of marginal economic significance will find no quantitative data on production, prices, margins, marketed surplus and the distribution of incomes to help them to resolve this.

The delay of 16 years between field observations (pre-"Green Revolution") and publication makes the major conclusion hard to accept as generalisable. Our own research (based on large samples) on the investment of mercantile profits in two regions at different ends of the seventies shows (a) that land is not a major focus of investment (in one region precisely because of the type of kinship mechanism described by Swartzberg), (b) that investment of commercial profits in commerce itself characterized one region in the early seventies, (c) that investment of agro-commercial profits in productive industry characterized another region in the late seventies. Sample size, location in time and space must qualify the conclusions made about limits to the extension of the market economy and the types of mechanism that act as limits.

This book has, however, some unusual qualities. It tries to consider the linkages between markets. It is deeply historical, using oral and documentary evidence. It is highly empirical. It is written in a simple style that at times verges on that of a yarn (though a yarn for the American imagination). It begs, however, for a systematic, analytical updating, which is an extraordinary thing to have to conclude about a book newly published. It is hoped that it provokes such work.

*Nutrition Policy Unit,
Department of Human Nutrition,
London School of Hygiene and Tropical Medicine,
London*

Barbara Harriss

Transnational Corporations in Food and Beverage Processing, United Nations Centre on Transnational Corporations, New York, U.S.A., 1981. Pp. xii + 242. \$ 17.00.

Transnational corporations play an important role in the expanding food and beverage processing industries of many developing countries. About 130 of the largest food industry companies based in developed market economy countries have investments in more than 750 food processing affiliates in independent developing countries. Investments by these large firms probably constituted 85 to 95 per cent of the foreign-based food industry affiliates in those countries.

Developing countries agree to the foreign-owned corporations to operate food processing affiliates within their territory in response to diverse clienteles and perceived national needs. These factors include (a) augmenting the availability of capital, management and technologies, (b) expansion of direct industrial employment, (c) increasing the commercial demand for local agricultural raw materials, (d) gaining access to external markets with a view to increase foreign exchange earnings and (e) improving local availabilities of food. However, the transnational corporations are not motivated by these national development goals. Their aim will be to earn a satisfactory rate of return, as perceived by the corporations, on the capital invested. Therefore, it is possible that the aims of the host country and the transnational corporations may be of a conflicting nature. Because of the dominant role of transnational corporations in the food and beverage industry of a number of developing countries and because of the possible conflicts of interest between the host country and the corporations, the Commission on Transnational Corporations had requested the United Nations Centre on Transnational Corporations, New York to carry out an in-depth study on the effects of the operations and practices of transnational corporations in developing host countries. The book under review is the outcome of this study.

The stated aim of the study was to explore (a) the nature of the food processing investments of transnational corporations in developing countries, (b) the impacts of these activities on the development potentials of the host

countries, and (c) the policies evolved by host countries to improve the performance of transnational corporations.

The study focuses on the two major influences which most affect the strategies and behaviour of transnational corporations operating in developing country food processing industries: the competitive structure of the industries at the global and national levels, and government policies which affect the sector. The findings of the study are presented in four chapters and six technical appendix, each incorporating a number of tables. The first chapter identifies the leading members of the international food and beverage processing industry. A more detailed examination of the evolution of transnational corporation investments in specific developing country food processing industries is presented in the second chapter. An examination of transnational corporation food industry operation in terms of host country interests and development objectives is available in the third chapter. The fourth chapter reviews the policy measures evolved by developing host countries to channel and control the food industry activities of transnational corporations.

The overview of the large firms in the food and beverage industries indicates an increasingly conglomerate and flexible character of the large food firms. These large firms show an increasing willingness to shift into or out of food or other investments as conditions alter short-term returns and/or growth potentials. It is also of importance to the developing countries to note the tendency of attaching increasing priority by the large scale food firms to product differentiation, and the limited involvement in primary, industrial-type products, or in the direct operation of raw material producing activities. Though developing country investments in food processing have played an important role in the growth of most of the leading food industry firms, it is expected that new foreign firm entrants into developing country activities may be fewer than in the past.

While examining the aims and means of transnational corporations in setting affiliates in developing countries, a distinction is made between investments that are oriented essentially to the export of raw materials and those that are directed towards processing for local or regional markets. Export-oriented affiliates are expected to provide raw materials or products to the parent firm at lower cost or with greater security than would result from open market purchases. In the case of processing operations for local markets, an affiliate is established to capture a place in a growing market. Most import-dependent food processing affiliates of transnational corporations have enjoyed preferential treatment by their home countries in respect of finance or access to raw materials. The activities of foreign firms are discussed in the report under the commodity groups of (a) meats, (b) dairy products, (c) cereals, (d) fats and oils, (e) fruits and vegetables, (f) sugar and related activities, (g) alcoholic beverages, (h) tropical beverages and (i) fisheries.

It has been established that there are important differences in developmental relevance, industry performance, and policy options of the host countries among the three broad food industry sub-sectors of (a) staple food

for domestic consumption, (b) branded food for domestic markets and (c) export-oriented food product industries. The three sectors can be distinguished as regards their importance in and impact on meeting nutritional needs and in their growth prospects, links to local agriculture, scale, technological levels and degree of transnational involvement.

The policies and programmes evolved by host countries to fit transnational corporation activities to national development goals and priorities include various incentives and regulations, as well as the fostering of commercially viable national alternative. It has been pointed out that, in general, the expectations of the governments of host countries that sought foreign investments have been only partially met. In some cases foreign capital has employed domestic labour, but has displaced workers from local enterprises. Though imports were reduced in some cases, the appropriateness and cost implications of some products have been called into question. In the protected markets offered by many governments of host countries, transnational corporations have become an important element in the food systems of developing nations, but not necessarily in conformity with the long-term expectations of governments. The policies which host countries have evolved to deal with these problems are reviewed in detail on a sector-by-sector basis for the three sectors of (a) staple food, (b) branded food and (c) export food.

The major contribution of this study is an excellent review of a large number of other studies with a bearing on one or other aspect of the operations of transnational corporations in developing countries. A number of independent studies are reviewed within the framework of a nice conceptual scheme. The issues raised in the study are quite genuine. The inherent conflicts involved in the desire of developing countries to involve transnational corporations in the domestic food and beverage sectors and in the aims of participating corporations are clearly brought out. Considering the global nature of the study, it is worth pointing out that the materials presented in the report provide a fairly comprehensive evaluation on the operations of transnational corporations.

The possible drawbacks of the study are pointed out in the report. The major source of drawback could be the data constraints, particularly non-availability of data relating to the total value of output, estimates of employment, output and value added for food processing and beverage industries in both large and small scale industrial sectors in individual countries. Currency conversion could also be a problem. The exclusion of China and the other Asian centrally planned economies is also a major gap. Since policy considerations for individual countries require a full consideration of the interaction among policies and priorities within the different sub-sectors within the context of an overall national food policy, a few case studies of individual countries could be a good supplement to this study.

Unemployment in Karnataka South India, Franklin Chinna Swamy Vivekananda, Uppsala Studies in Economic History 19, Acta Universitatis Upsaliensis, Uppsala; Almqvist & Wiksell International, Stockholm, Sweden, 1979. Pp. 176. Sw. kr. 62.50.

The present book under review is the product of the author's post-doctoral research work. It is based on one-point reference year data which were collected by the author from 6,000 households spread over in the rural and urban areas of 19 districts of Karnataka. The purpose of this study was two-fold: (a) to estimate the magnitudes of unemployment; and (b) to analyse the socio-demographic characteristics of employment (as well as unemployment) in the context of rural and urban areas of the State.

The book is divided into nine chapters. The first chapter is, as usual, introductory in character which concerns mainly with the characteristic features of the State. The second one is devoted to the conceptual and methodological issues of measuring unemployment. Next three chapters (III to V) attempt to estimate rural and urban unemployment and also analyse the socio-demographic characteristics of employment/unemployment situation prevailing in rural and urban Karnataka. Chapter VI highlights the shortcomings of the employment exchange service so far as the delivery of its noble purpose is concerned. Chapters VII and VIII deal with the analysis of employment-oriented economic policy and the formulation of appropriate employment policy respectively. The last chapter sums up the main aspects of unemployment for building a case for an appropriate strategy of employment in the State.

It is not required nor desirable to critically review the whole book and its all chapters. There are two things of reviewer's interest which need to be focused: the first is methodological and the second is related to the analysis of different employment characteristics which in fact follow from the methodology used by the author to measure the rates or magnitudes of employment and unemployment.

The methodological aspect of the study is full of surprises. Firstly, the study is supposed to be one of the Uppsala Studies in Economic History, although it has nothing to do with the historical aspects or characteristics of employment situation prevailing in the State from the past. Secondly, the structured questionnaire schedule used by the author for collecting information is so simple that it seems to be an automatic and self-recording and tabulating information system, although the author has recognized the difficulty of measuring 'unemployment in underdeveloped economies' arising from the existence of a large size of 'self-employment'.

The third surprise is related to the selection of 'real' labour force period-wise among the labour force estimated to be during the reference period for measuring the rates of employment and unemployment in the State. Consequently, the declining rates of employment and the increasing rates of unemployment from 1955 to 1975 appear to be more mysterious than real so far as the methodological aspects of the study are concerned.

The socio-demographic characteristics and categorisation of employment, as followed from the methodology used by the author to estimate employment and unemployment, seem to be attractive in tabular form but do not generate penetration into the problem which an under-developed economy faces along with poverty. What is more important in undertaking this type of study is the perception of the problem and its conception in the light of under-development and development which exist and operate in the economy.

*Giri Institute of Development Studies,
Lucknow*

G. P. Mishra