



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.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

Book Reviews

Rural Banking and Development, S.C. Anand, UDH Publishing House, Delhi-6, 1990. Pp. xvi+267. Rs. 150.00.

Linking Self-help Groups and Banks in Developing Countries, Erhard Kropp, Michael T. Marx, Ballurkar Pramod, Benjamine R. Quinones and Hans Dieter Seibel, Asian and Pacific Regional Agricultural Credit Association, Bangkok, Thailand and Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) GmbH, Technical Co-operation, Eschborn, Federal Republic of Germany, 1989. Pp. viii+155.

Credit is an important instrument that can effectively be used for adoption/spread of an economic activity at individual level. It is more true for the rural sector of developing economies which are considered capital starved but has the potential to grow. However, the end result of a credit programme would be determined from how efficient the rural credit was managed or who were the managers. The two books under review discuss this subject but in different ways. The first book contains information on growth in rural finance and its current status vis-a-vis rural development. Emphasis in this book is on description of procedures and norms in the implementation of rural development programmes and their financing. The second book is an effort to analyse the scope of organisational intervention.

The first book has 12 chapters. Chapters 1 to 4 are devoted to the description of rural environment in terms of economic activities, rural development and financial infrastructures covering the changes that have taken place due to planned support to various economic, developmental and infrastructural programmes. Chapters 5 to 7 deal with lending to the priority sector, farm sector and non-farm sector respectively. Information is given on various schemes/instruments introduced to provide credit support to identified sectors, activities and sections of population. Details on procedures and norms in implementation of various schemes are also given. Chapter 8 describes the Lead Bank Scheme whereas Chapter 9 gives the contents of poverty alleviation programmes. Chapter 10 is devoted to follow-up of credit and its recovery. It also covers credit guarantee schemes. Chapter 11 gives a brief introduction on National Bank for Agriculture and Rural Development while Chapter 12 gives short notes on some institutions, programmes, approaches, etc.

In this book the author has tried to encompass various aspects of Indian rural economy. As such it does not make a smooth reading. It, however, is quite informative and contains general knowledge material for science students. The book is written keeping in view certain syllabi. It has very little conceptualisation and analysis and as such lacks academic rigour. The author seems to have ignored a lot of literature available on the subject. Not even a bibliography is added. The price is unduly high.

Kropp *et al.* in their study make an attempt to enlist the ideas on linkages between self-help groups and banks and to show how some concepts underlying those ideas helped to improve the lot of the rural poor in some developing countries. The book is divided into seven sections. Section 1 on policy framework and development objectives conceptualises the role of financial policies to promote small enterprises and rural development with the underlying objectives of self-reliance. It also summarises the development problems of the small enterprises. Section 2 defines the target groups for the study and examines the environment to highlight their important features, problems and constraints in financing

them. Section 3 is on financial and organisational support system for the target groups in the formal, semi-formal or informal sector and highlights their strengths and weaknesses. Section 4 gives some idea of intervention strategies of financial intermediation and describes different models with their potential. Section 5 on dialogue and communication process focuses on social aspects of the models/strategies and discusses different approaches. Some special issues are discussed under Section 6, namely, models of institutional linkages, credit saving schemes, credit guarantees, interest rates, legal status of self-help groups, etc. Section 7 contains policy recommendations with reference to different organisations providing financial support to small enterprises.

The underlying theme of the second book is to promote the idea of organising self-help groups of the poor, to do banking among the low income people and as a link between them and formal banking institution. The arguments are built on the basis of experience gained from the programmes involving such linkage and implemented at different places. The recommendations are more idealistic but worth practising wherever feasible. The book is well organised, informative but brief, and focused. It makes an interesting reading on the subject and could be a useful reference material on financial environment.

*Centre for Management in Agriculture,
Indian Institute of Management,
Ahmedabad.*

Gurdev Singh

The Economic Theory of Agrarian Institutions, Edited by Pranab Bardhan, Clarendon Press, Oxford, 1989. Pp. viii+408. £ 40.00.

Eighteen different analytical articles by more than eighteen economists, taking up a total of more than 350 pages - such a book is a challenge to any reviewer. The first task for the reviewer is to decide upon a strategy. Many a reviewer would totally ignore most of the articles and concentrate on a selected few. This involves an *a priori* valuation of the different articles or their authors and that appears to us to be illegitimate. On the other hand, the option of discussing in detail each article is simply not there. Each article, to be seriously assessed, would call for at least a few pages so that to do justice to the book one would have to write a review of at least a hundred pages. We have, therefore, decided to adopt a third course, namely, simply give an account of what one has tried to achieve in the book, without attempting to evaluate the effort either wholly or partially. That of course is highly pedestrian, but we can think of no superior alternative.

Let us begin with the title. In our judgement it is somewhat misleading. The title suggests that there is a single finished theory of agrarian institutions, about which the reader may expect to learn by going through the book. That, however, is not the case. The book presents theoretical treatments of a variety of problems in agrarian institutions. These different treatments do not add up to a coherent theory. It would have been more meaningful if the title were something like "Towards an Economic Theory of Agrarian Institutions". Even that would not have been quite accurate. It cannot be said that the different authors have worked within a common overall framework of analysis, so that there is a minimum of consistency in the approaches taken and assumptions made by the different authors.

The book is divided into five parts. But the division into parts has not been particularly

helpful. Thus in a part with the extremely vague title "Land and Labour", there are articles on share-cropping contracts as well as some other contracts. Another part is titled "Credit and Interlinked Transactions" but contains articles that deal with agrarian class structures, bonded labour contracts, etc. Incidentally, the term 'bonded labour' is misused by T.N. Srinivasan apparently to mean loan-tied labourers. The fifth part has got only three articles but its general title draws attention to as diverse topics as "Co-operatives, Technology and the State".

That there should be so many different subjects is not surprising, nor is it surprising that the treatment of those subjects is quite often inter-related. There must be quite a few other topics that are left untouched and surely no topic is treated in such a fashion as to produce results that may be accepted as final. After all, there has till now been only a relatively small amount of economic theoretical work on such topics as class structure and co-operatives, hence there cannot be any question of anything more than tentative results.

The subject that has received the greatest amount of attention from theoretical economists is, of course, share-cropping, but even in this field the achievements to date are far from satisfactory. This is admitted and elaborately argued in the article by J.E. Stiglitz in the first introductory part in the volume. Stiglitz having himself contributed very largely to the literature on share-cropping, it is significant that his own evaluation of this branch of theoretical research should be so very modest. Thus, after saying that "the theory is a quite rich theory", he writes: "Still, the range of contract forms seems far more restricted than theory would suggest: most contracts have, for instance, shares of one-half, one-third, or two-thirds. Although there have been several attempts to explain this uniformity, none has gained general acceptance." We may add here on our part that none of the theorists who have worked on the problem of share-cropping has even tried to go beyond a single owner dealing with a single tenant or at most n identical tenants. However, for any result to be interesting, the minimum requirement of realism is to consider m owners dealing with n tenants, different owners and different tenants having different endowments. Stiglitz admits the limits of neoclassical economic theory in relation to this problem in the following words: "I suspect that it is here that a broader social/historical theory is required. Individuals are concerned that in their dealings they are treated fairly. Views of fairness are to a large extent conventionally (historically) determined." This surrender of the claims of economic theory before history and conventions cannot but act as a sobering influence on any one who sets out to build an economic theory of institutions.

Quite a few other observations of Stiglitz are also worth quoting even though they refer not to treatment of agrarian institutions but to development economics as a whole. He begins his article by recognising that "Among the 'facts' that any economic theory must come to terms with are the dramatically different standards of living of those who happen to live in different countries." He squarely states that "Modern economic theory has ..., for the most part failed to address this 'fact'." Going into details, he observes that "the pair-wise efficiency of contractual arrangements does not suffice to ensure the *general equilibrium* efficiency of the economy, except under highly restricted conditions." He further adds: "But beyond these concerns, there is a much more fundamental criticism of the 'efficient' markets perspective: establishing that a market is Pareto-efficient says nothing about whether, under an alternative distribution of wealth, national income might not be greatly enhanced. Recent work on economies with imperfect information has established that the classical dichotomy

between efficiency and distribution issues is, at best, misguided." We have thought it fit to quote so much from Stiglitz for the purpose of warning against excessive optimism about the reaches of neoclassical economic theory.

The editor, Pranab Bardhan, in his general introduction restricts himself to giving brief accounts of three approaches that he distinguishes and which he calls the Marxist approach, the Coase-Demsetz-Alchian-Williamson-North (CDAWN) school and the theory of imperfect information (particularly of the Akerlof-Stiglitz vintage). Bardhan's accounts of the second and third schools are informative and useful, but the same cannot be said of his presentation of the Marxist approach.

We can afford to make only a few stray comments on some of the remaining papers. Nirvikar Singh's article promises to provide a survey of the recent literature on crop sharing; but it is not a complete survey and for a survey the importance he attaches to results which are his own are excessive. The conclusion he reaches is far from exciting. It goes as follows: "The common theme, however, is, that share-cropping is a response to uncertainty and asymmetries in information. One may also view it as a response to different types of market failure, in labour, insurance, credit, and capital markets." Surely, one did not require a fresh survey to reach these conclusions.

Bhaskar Dutta, D. Ray and K. Sengupta set out to explain a fact which appears to us to be of doubtful veracity. They write: "Evidence from a variety of sources also indicates that labour markets are often divided into submarkets for 'permanent' labour and casual or 'spot' labour. Moreover, it is usually the case that permanent workers earn wages (or utility levels) that are higher than those of their casual counterparts, although there may be no intrinsic differences in abilities between the two groups." It is somewhat confusing to say that permanent workers earn higher wages than casual workers. In our own field surveys, we have found that the annual earnings of permanent workers are higher than those of casual labourers but the average daily earning of permanent workers is lower than the daily wage rate of casual labourers.

Some of Clive Bell's results depend on the wrong assumption, very largely shared, for reasons unknown to us, by theoreticians working on agrarian problems that markets for animal draught power do not exist in South Asia. Bell refers to Bliss and Stern. We do not know if the responsibility for originating this particular wrong notion lies with them. For the information of Bell, Bliss and Stern and whoever else subscribes to this myth, hiring of animal power along with the human labour and plough going with it is quite a common feature of the labour market in West Bengal. This kind of arrangement goes by the name of 'plough-purchase'.

We particularly welcome the two articles, one on credit co-operatives and the other on production co-operatives, because of the neglect which they have suffered in the hands of economic theorists. A. Braverman and J.L. Guasch attempt "an analysis of the motivation, formation, and design of credit co-operatives and show how their degree of success is likely to depend crucially on the particular incentive schemes, extent of control over resources, quality monitoring, and enforcement of punishment rules."

The article on producer co-operatives "addresses the issues of work incentives under agricultural producer co-operatives, decision on the membership size, and the process of voluntary choice of this institutional form by potential co-operators."

Before we conclude, it is our embarrassing task to point at the incredible fact that the

book, published by one of the best presses in the world, is not free of printing errors. On page 8 (last para, line 2) we have 'in' when it should be 'is' and on page 68 (last para, lines 2-3) it is written: "....explanations of share cropping are necessarily going to be divorce."

*Department of Economics and Political Science,
Visva-Bharati,
Santiniketan (West Bengal).*

Ashok Rudra

The South Indian Economy: Agrarian Change, Industrial Structure and State Policy, c. 1914-1947, Edited by Sabyasachi Bhattacharya, Sumit Guha, Raman Mahadevan, Sakti Padhi, D. Rajasekhar and G.N. Rao, Oxford University Press, Delhi, 1991. Pp. xxvii+292. Rs. 290.00.

In recent years, most of the writings on Indian economy have been concerned with the analysis of the multifarious issues that have cropped up in the post-Independence years. They are both macro and micro level studies. Amidst the plethora of literature of this kind, going back to the economic history of the Indian economy, especially relating to immediate pre-Independence period, appears almost to have been relegated to the background. Consequently, studies of this kind have remained a neglected area. The book under reference is an attempt to fill the void marginally.

The book is a collection of selected papers presented in the seminar on the subject indicated by the main title of the book, organised by the Centre for Development Studies, Trivandrum in 1988. Papers included in the book delve into the economic history of the southern states, except Karnataka and Pondicherry, for the first half of the twentieth century. They bring out sub-regional profiles in the fields of agriculture and industry with a view to exploring the extent of linkages between the two sectors in the course of economic development of the sub-regions. The thrust of the presentations is on the analyses of the course of agrarian change within the sub-regions under reference, influences of the endogenous and exogenous factors, role of the state in propelling the changes, impact of the changes on the agrarian community and the pace of ushering in of the industrialisation process concomitantly. Linkages between commercialisation of agriculture and emergence of industrial activity have been brought out. There is an added dimension to the contents and analysis. Two regions, viz., Travancore and Hyderabad, were the princely states pursuing their own policies as against the wider policies of the British India. All the same, their economies could not be fully isolated from the developments in the country outside these princely pockets. Therefore, at places, we come across, rightly, discussions relating to the influences of the happenings in British India on the course of events in the princely states.

Of the eight papers comprising the book, seven are directly related to the theme exposed by the title. The first three papers are related to Andhra. G.N. Rao and D. Rajasekhar have attempted a comparative analysis of the commercialisation of agriculture in the Coastal Andhra Pradesh and Rayalaseema regions, the former being a wet region and the latter a dry region. The paper by A. Satyanarayana concentrates on the same sub-regions of Andhra for examining the specific aspects pertaining to expansion of commercial agriculture as also trader-usurer capital and the peasantry. The third paper in this sub-group by D. Rajasekhar contains an analysis of changes in the spheres of commodity market, credit market, land

market and inequalities of land holding in Kurnool district of Andhra. These papers drive us to some broad conclusions. Commercialisation in agriculture led to changes in the cropping pattern in favour of cash crops like paddy, groundnut, cotton, sugarcane and tobacco at the cost of low value grain crops. Developments in transport system and price movements were helpful in this respect. However, these changes promoted land alienation from small farmers to big ones. The agrarian elites became major property owners, as a result driving many small land holders to the rank of agricultural labourers. Big farmers and the elite classes of the rural areas indulged in acquiring land holdings through usurious practices mingled with commercialisation of agriculture, so that inequalities in land holdings widened through the decades.

There is the sole paper on Tamil Nadu. K.N. Nair and A.C. Dhas studied agrarian changes in this region vis-a-vis demographic pressures. They noticed that during the pre-Independence years, population pressure on land did not propel changes conducive to noteworthy developments in the agricultural sector. On the contrary, scope to expected changes was delimited by adverse situations like slow expansion of irrigation and its deterioration, inadequate availability of draught power and lack of inputs like manures and fertilisers. But the picture underwent a sea change in the post-Independence period as the above-mentioned constraints were removed and the increasing pressure of population on land unleashed the forces leading to agricultural transformation.

The book further includes a set of three papers which deal with the industrialisation activity in the princely states of Hyderabad and Travancore, besides exposing the fate of labour in the tea gardens of South India. Industrialisation in the princely state of Hyderabad, as brought out by C.V. Subbarao, was a product of state initiative and executive power wielded by the elite bureaucracy tied to each other by caste, religion, social status and kinship relations. Such a bureaucracy working within feudal social order could not provide opportunity for private industrialists to thrive. The state was involved frequently in social and political crises. Result? Industrialisation of the state had a weak base so that on the threshold of the liberation of the state for merger into the Indian Union, the impact on the social order was mostly negligible.

Compared to Hyderabad, the case of Travancore was rather better. It thrived on plantations (particularly tea) and agro-based industries like coir, coconut oil and cashew processing. It progressed well in the area of modern industrial activities like textiles, sugar, fertilisers, chemicals, cement, etc., but much of this credit goes to immigrant entrepreneurs (Indian and foreign). This phenomenon restricted the emergence of local entrepreneurship and local capital. The princely state paid this price in lieu of adoption of external-oriented policy of industrialisation.

K. Ravi Raman's paper narrates the story of exploitation of labour in the tea gardens of South India with details of the mechanism. The last paper by V.R. Muraleedharan highlights the anti-malaria measures adopted in the Madras Presidency and throws light on their deficiencies.

A brief account of the contents of the book would certainly enthuse any curious reader to get more details in order to grasp the developments in their full dimensions. The authors have, indeed, taken pains to cull the necessary data and details in order to derive meaningful conclusions. In spite of data constraints, they have succeeded in exposing many details on a wide canvas so as to arouse interest among researchers in economic history. Actually, it

is very difficult to integrate the contents of all the papers to find out some empirical inferences, for the simple reason that the sub-regions varied considerably in agro-climatic conditions, natural endowments, social ethos, government policies, etc. Therefore, the process of agrarian change did not exhibit any set pattern, nor was the process of industrialisation. Similar studies of other regions of the country would generate a lot of new information, which, perhaps, may be useful in deciphering the macro level pattern, if possible, otherwise, in attempting inter-regional comparison. Therefore, this work should serve as a pace-setter for researchers in economic history of India.

The contents of the book have been profusely supported by facts and figures. The last paper on health care, however, does not fit well into the underlying current of the rest of the papers. It largely details the controversy over the use of quinine for control of malaria, and then gives us a case study of a taluk in the Madras Presidency, bringing in the reference to irrigation project causing spread of malaria. Better, this paper should have been dropped by the editors.

*Department of Economics,
Shivaji University,
Kolhapur (Maharashtra).*

R.R. Doshi

Nutrition Planning in India, Rajaram Dasgupta, Navrang, New Delhi, 1989. Pp. xiii+224.

This is a good book, well worth reading by nutritional planners and agricultural economists. The nutrition problem is presented in a language that is simple and easily understood. Equally simple is the presentation of a case for agricultural production to solve the nutrition problem within available technical knowledge; the two go hand in hand to bring out optimal strategy that the author advocates to solve the problem. This integration assumes importance because, to quote the author, 'it is now accepted that economic growth of a poor country is dependent on the nutritional status of the population'. Integration assumes special importance for India because the nutrition status of her people is among the lowest in the world. In support, the author shows that the magnitude of undernutrition is very large exceeding 50 per cent and secondly this magnitude is sensitive to changes in nutrition norms, so sensitive that even production of inferior cereals scores relatively higher in least-cost diets. The study shows that if properly managed, we should be able to meet the country's needs by achieving substantial increase in employment and income of the poor.

The pioneering nature of the study is evident. The author observes, and rightly in my view, that nutrition is primarily a poverty problem, and therefore, one of ineffective demand rather than supply. One way to go about solving it is to increase the production first, but such an approach is more likely to help the rich than the poor. A successful nutrition policy must be accompanied by a successful food policy but to evolve such a policy the author requires data for identifying the undernourished group. Here arises the author's major difficulty because he requires information both on energy requirement and intake, and finds that different authors recommend different figures. To illustrate, P.V. Sukhatme argues for 1,900 calories per caput, V.M. Dandekar and N. Rath argue for 2,250 calories per caput and ICMR for 2,360 Kcals. The author ascribes these differences to the fact that medical science is yet to work out the minimum requirement below which people either cannot survive or

do not live as healthy human beings with impaired functional capacity for work. They can of course adapt themselves at a low level of vitality without realising that they are undernourished. But he says that survival is not the main issue; the aim must be positive health for all. Such a requirement varies with age, sex and intensity of work and climatic conditions. The norms for these requirements have been worked out by ICMR and accepted by the Planning Commission. He therefore, prefers to use these norms as the minimum nutritional goal.

But in following this argument, the author ignores a lot that is already known to nutrition science and unwittingly limits the applicability of his conclusions. The reviewer can only list some of these omissions in a review and not all, the purpose of listing them is that the reader may see for himself their implications for nutritional planning.

1. Requirement by definition is an average intake (or energy expenditure) specified for each group of individuals of similar age, sex, activity and living under specified climatic conditions. To say that everyone eating below the norm is undernourished is to grant that everyone with intake above the norm is overnourished and, therefore, open to the hazard of obesity. The author is aware of this limitation but he ignores it because he says he is concerned with the undernourished and the poor and not with the obese and the rich, even though the latter by definition are malnourished.

2. Poorer individuals and populations with low food intake may be small but they work long and hard. There is plenty of evidence to show that the relationship between their intake and physical work output is small. As an example, women engaged in preparing bread in our community kitchen are found to vary in their intake from 1,500 calories to 2,200 calories but their work productivity remains about the same. Such a phenomenon is impossible to explain, unless they metabolise their energy intake with greater efficiency at the lower than at the higher end of their intake.

3. Experiments in our metabolic ward confirm that moderate reduction in habitual energy intake primarily influences the basal metabolic rate (BMR) and not the work output. There is therefore no reason to assume that absolute energy intake is the determinant of work output.

If the current belief that BMR is essentially fixed for the given body size and climatic region were true, then work output would increase rapidly following introduction of food intervention at low level of intake. Thus for a small man, with a BMR of 1,400 calories per day a change in intake from 1,900 to 2,400 calories a day would double his potential for productive work from 500 to 1,000 calories. But the empirical evidence does not corroborate this expectation because basal need is more determined by compensatory mechanism than by man's body weight.

4. The vicious cycle of low intake leading to low body weight, low body weight leading to lower work output, lower work output leading to lower earnings and still greater poverty is simply not true. In other words, there is little or no relationship between food intake and work output over the hemostatic range. Likewise, metabolic experiments in our laboratory have confirmed that when habitual intake is shifted by 10 to 20 per cent under sustained perturbation of external environment, BMR is also altered by 10 to 20 per cent in the same

direction as the intake. The implications of this conclusion are far reaching for the relationship between intake and work output and have been completely ignored by the author in drawing up his nutritional plans.

The following data illustrate our experience:

Intake group	Mean energy intake (Kcals)	BMR/mm	Height (cm)	Weight (kg)	Basal need per day in (Kcals)
High intake group	2,754	1.32	162.0	52.1	1,900
Low intake group	1,773	0.68	161.6	52.8	980

It relates to two groups of individuals, one with high mean intake and the other with low mean intake. They were all engaged in the same activities and had the same mean height and body weight. The data show that even when the intake of one group is two-thirds larger than that of the other group, the work output remains unaltered. This is so because the energy expenditure on maintenance is twice as high for the higher intake group than for the low intake group. In our book on *Diet, Disease and Development*, published by MacMillan, W.C. Edmundson and the reviewer have given data for several other experiments, which confirm the above result, viz., work output per calorie intake remains approximately constant over the range of 1,950 to 2,800 calories; that is to say, the intake is metabolised with greater efficiency at the lower end of the hemostatic range.

5. The major problem of low intake is not starvation nor restricted to developmental or economic activities, it is that forced adaptation results in marginal reserves which may be insufficient to cope with external stress. In the data that we have quoted the intake per kg of our subjects is of the order of 40 to 45 kilo calories.

6. Briefly, in the reviewer's view, the author has failed to consider human variation and adaptative regulation. Failure to meet recommended levels as indication of impaired labour power or permanent hunger is therefore a mistake.

7. Undernutrition of course exists but its incidence and significance is much less important than malnutrition from inadequate vitamins and minerals in the diet. The common belief that supplementary interventions will help to improve body weight and height and thereby improve nutritional status is not confirmed in actual practice, unless simultaneously we ensure that morbidity and infections were reduced. If food interventions have failed in India it is because our authorities have failed to understand the role of synergistic relationship between intake and disease. The same is found to happen in the relationship between work output and energy intake in the case of adults. The first evidence of this came in 1981 when M.C. Immink and F.E. Viteri realised the difference between total physiologic and economic energy expenditure in their work in Guatemala. They found absolutely no increase in the productivity of workers even after giving energy supplement. Total physiological energy expenditure increased after supplementation but economically productive work did not change either in intensity or duration. In the data reported by W. Edmundson from his work in Indonesia and in village Kattavi in India, he found a very small correlation between the intake and work output. Our Indira Community Kitchen data confirm this. This is not to deny that heavy work output is facilitated by large body size but we find that time spent on heavy work in the normal course of one's duties is hardly more than half an hour or so a day.

8. The data collected by us in the villages around Pune show that the primary cause of malnutrition is infection like diarrhoea, dysentery, upper respiratory diseases, etc. A child with infections will simply not grow as well as he would in the absence of infections. The same happens to work performance and productivity of adult men with infections. The key health problems in India are polluted water, human excreta, inadequate sanitation, lack of personal hygiene, etc. We have plenty of data from Integrated Child Development Services to confirm that nutrition interventions have failed over the years to improve nutritional status, and this is not surprising when morbidity continues to be high. The lesson to learn is that diet and disease are both important components of nutritional status. Diet is simply not effective as long as disease is not under control.

9. The author almost completely omits any reference to the phenomenon of homeostasis. The fact is that increase in intake is simply not effective in improving nutritional status unless it is accompanied by a fall in episodes of diarrhoea and other related illnesses; both go hand in hand. On the other hand, when morbidity falls the improvement in nutritional status is rapid as shown by the example of Japan. During the post-war years Japan concentrated its efforts on improving the macro inputs such as water, sanitation and toilets. The result was that the life expectancy there was increased by some 10 to 12 years in as many years.

To omit reference to homeostasis is to ignore the fundamental hypothesis in life science, viz., that it is not body weight alone which determines energy needs for basal maintenance of man, but it is also the level of intake. The larger the intake, the larger is the BMR and yet work output remains about the same over the entire homeostasis range.

10. And finally, we have conducted a large number of experiments in our metabolic laboratory at Maharashtra Association for the Cultivation of Science, Pune, which show that one can live on a range of intakes without altering work capacity. This is so because energy balance has a stable variance which implies a pattern or the process of variation in energy balance such that man can regulate living anywhere in the range of homeostasis using the strength derived from endocrine glands and nervous system.

*University of Poona,
Pune.*

P.V. Sukhatme

Food Processing Industries: Development and Financial Performance, B.M. Desai, V.K. Gupta and N.V. Namboodiri, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1991, Pp. xiii + 142. Rs. 95.00.

This study analyses the development and financial performance of selected food processing industries, whose products are for mass consumption rather than for the relatively better off. These industries, include foodgrains, edible oils processing, sugar factories and dairy products and account for more than two-thirds of the output and capital and labour, employed in all food processing industries in the organised sector alone. The specific objectives of this study are: (a) to analyse the main features of the selected food processing industries; (b) to study the financial performance of these industries; (c) to draw a relative priority among the selected industries, and (d) to identify some broad policies to improve development and financial performance of these industries and their contributions to

rural-led economic development. The study is based on both secondary data and case studies of selected co-operatives. For secondary data two sources have been drawn upon. One is large scale sample survey data of the Annual Survey of Industries (ASI) and the other is small scale sample survey data of the Reserve Bank of India (RBI). The case studies are on co-operatives engaged in selected food processing industries. The secondary data are used to analyse performance at the industry level, the case studies portray the sample at the unit/firm level. The main features of the selected food processing industries considered for secondary data analysis are their form of organisation and/or raw material; working capital and labour intensities. The case study based analysis of this aspect considers organisational structure including vertical integration and the nature and relative importance of various functions/activities, besides the raw material, working capital and labour intensities. The performance of the selected industries is analysed by considering their inputs and factory productivity, liquidity/working capital management efficiency, solvency management efficiency, profitability, operating surplus to investment and liquidity and solvency cushion criteria. The study has shown that sustained growth in primary output of food commodities is essential for higher growth performance of the chosen food processing industries. Such growth in primary food commodities not only relaxes the constraint of supply of raw materials but also relaxes the demand for products processed from them because the former is produced by those whose budget share for the consumption of the concerned food products is very high.

The study has made an attempt to prioritise selected food processing industries on the basis of potential for use of raw material, working capital and labour. Although it makes sense to talk about potential for labour use and the need to economise on capital, yet it hardly seems worthwhile to talk about potential for use of working capital. However, the study has done well to prioritise food processing industries on the basis of efficiency in resource use and profitability, based on different criteria for different sets of data. It is interesting to note that the average ranks obtained on the basis of resource use efficiency and profitability are coincident on the basis of ASI data and almost the same on the basis of RBI data. However, the ranks obtained on profitability criteria are much different from those obtained on the basis of resource use efficiency for the case studies.

Similarly, the ranks obtained on the basis of liquidity management and solvency management are somewhat at variance on the basis of ASI, RBI and case studies data. Likewise, the ranks for liquidity cushion and solvency cushion are also different on the basis of three sets of data. So the authors are at pains to suggest some priorities to justify that the whole effort has not been quite futile. Indeed they go a step further to identify broad policy package that food processing industry and the other concerned industries can consider for adoption. This package can include, in the words of the authors, (a) location of the food processing industries under study; (b) public investment (both capital and current including subsidies) and institutional finance to develop these industries and their backward and forward linkages; and (c) forms of industrial organisation that could be encouraged for these industries. Strictly speaking, the proposed package hardly flows from the analysis. The whole analysis is devoid of any discussion about location of food processing industries and their backward and forward linkages. It is also silent about public and institutional finance. As regards the relative efficiency of different forms of industrial organisation, a valid comparison could be made only if detailed data were available on a comparable basis for public, private and

co-operative sector organisations. The study compares the liquidity and solvency management and liquidity and solvency cushion management for grain mills, sugar, edible and vanaspati oils from RBI data and dairy products, rice, edible oils from Gujarat State Co-operative Oilseeds Growers' Federation (GROFED) and Madhya Pradesh Oilseeds Growers' Federation (OILFED) from the case studies. Given the availability of RBI data, data from co-operative case studies should have been selected carefully to match the RBI classification and it should not have been difficult to identify grain mills covering not only rice but other grains also to compare with RBI data on grain mills. Sugar co-operatives should have been identified for intensive study which has not been done. Similarly, for oilseeds and other edible oil industries, a number of co-operatives could have been identified or at least data from GROFED and OILFED could have been pooled to compare with oil industry under RBI classification. Thus the present study suffers from basic methodological defects of conception.

Nevertheless, this study represents a useful attempt to analyse the development and financial performance of selected food processing industries. It is hoped that it will generate sufficient interest in the scholars to probe deeper and will prove helpful to the policy makers in reorienting their priorities regarding development of these industries.

*Department of Economics and Sociology,
Punjab Agricultural University,
Ludhiana.*

A.J. Singh

*Co-operative Societies and Rural Development (A Politico-Economic Study), S.K. Dutta,
Mittal Publications, New Delhi, 1991. Pp. xii+206. Rs. 195.00*

The book is based on an empirical study of performance of five Gaon Panchayat Level Samabay (Co-operative) Samities (GPSS) of Dibrugarh district of Assam. The author has examined the social bases of the GPSS leaders, politicisation and vested interest in GPSS, the role of GPSS in rural development and constraints faced by the GPSS in the process of their growth and development, besides giving an account of the co-operative movement in Assam.

The book is divided into eight chapters. Chapter 1 covers the statement of the problem, its importance, the theoretical framework, the objectives of the study, the methodology followed, study area and reference year, etc. It also gives a brief outline of the Dibrugarh district. While discussing the theoretical framework for the study, the author has started with defining the term co-operatives and the importance of co-operation in rural development. He has referred to various Committees, Commissions and other documents which highlighted the importance of co-operatives and their expected roles in rural development. This obviously cannot form a "Theoretical Framework" for any scientific enquiry. The sample selected for the study is based on the performance of the GPSS for 1982-83, 1983-84 and 1985-86 which is not uniform for other agencies.

The profile data of Dibrugarh district provided in the study refer to different years for different institutions/agencies, which could have been avoided. No reference period is indicated while discussing the profile of selected GPSS. Six different interview schedules were used to collect the data from the respondents, besides participant observations but the

details are missing at many places.

Chapter 2 gives a review of the co-operative movement in Assam. The details of the origin and growth of the co-operative movement in Assam with reference to the GPSS are discussed before and after Independence. The growth of non-credit, primary agricultural credit, non-agricultural credit and primary credit societies in Assam during 1950-51 to 1983-84 is discussed at length. Instead of this, the author could have discussed the growth of GPSS in the state in more detail as this is the main concern of this study.

Chapter 3 deals with the management of co-operative organisation with special reference to GPSS of Assam. The discussion of the concept of 'Management', 'Co-operative Management', Democratic Management of Co-operatives and its relevance to the management of the GPSS could have improved the quality of the book. The author has rightly pointed out that the state laws and by-laws are repugnant to the principle of democratic management of the GPSS.

The findings pertaining to the social bases of the leaders of the GPSS have been presented in Chapter 4. It is reported that the role of traditional factors like age, high caste, land holding, income, occupation and nature of families is on the decline and being replaced by the factors like education, social participation, political background, etc. Based on this, the author has concluded that the rural society is, no longer, a static one; it has reflected the socio-political changes brought about after the attainment of Independence. One wonders how such a generalisation could be drawn based on five GPSS.

Chapter 5 examines the question of politicisation and vested interest in GPSS. It was found that methods like employing near relations in the paid services of the society, granting liberal loans to and non-recovery of overdues by concealing the truth and using the apparatus of the society for such business were not noticed in the GPSS studied. These findings have great significance for the success of the GPSS. The author could have examined the question of politicisation and vested interest of each of the five GPSS as a case study rather than making a general statement. Since the sample size being small, generalisation of this sort becomes questionable.

The concept of rural development, evolution of rural development programmes, etc., discussed in Chapter 6, do not fit well in the theoretical framework. It could have been avoided. The performance of the GPSS against the objectives stated in the model by-laws shows the pitiable condition of the GPSS, as an agent of rural development. The finding reported by the author regarding the role of the GPSS in rural development that ".... they have become the hunting ground of a handful of rural elite, cornering whatever benefits available for their own interest", appears to be contradictory to the earlier reported observation in Chapter 4.

In Chapter 7, the factors responsible for inhibiting the growth and working of the GPSS are reported by the author. The author could have studied the constraints faced by the members and the societies, instead of studying all constraints which are common to any developmental activity in rural areas, like poor infrastructure, absence of effective flood control measures, inadequate number of bank offices, etc. The suggestions offered by the author do not directly relate to improving the quantity and quality of services of the GPSS. For ensuring better management of the GPSS, the author has offered many suggestions, which need to be implemented as a package by the State Government. The author has stated: "No elected representative for the offices of Chairmanship and Vice-Chairmanship should

be allowed to assume their offices without (necessary) training" in their duties, obligations and roles. This is a very important suggestion, but how this could be done is not clearly spelt out in the book.

The blurb claims that the book is likely to prove highly useful to the researchers, academics and policy makers, but it is a tall claim; it does not satisfy anyone of them, since the sample size is very very small. It would have been a very interesting and useful reading, had it been presented in a case study form. Some of the portions included in the book are very elementary and should have been avoided.

*National Institute of Bank Management,
Kondhwa Khurd, Pune.*

N.B. Shete

The Political Economy of Rural Poverty: The Case for Land Reform, M. Riad El-Ghonemy, Routledge, Chapman and Hall Ltd., London, 1990. Pp. xviii+337. £ 40.00.

As its sub-title suggests, the book under review makes an attempt to build a fresh case for land reforms in the less developed countries (LDCs). The major point adduced in favour of land reforms measure is that it has great potential of alleviating rural poverty: the contribution of this measure, according to the author, lies in promotion of employment and improved land productivity which together ensure food security to the rural poor. It is on this point that the case for land reforms is built. In his attempt to build such a case, the author has taken a lot of pains to garner a good deal of statistical and other material and articulated it in an analytical framework developed specifically for the purpose. In the opinion of this reviewer, the author has largely succeeded in this attempt.

Coming as it does in the present context of so much pessimism regarding the effectiveness of land reforms, this book will certainly revive academic interest on the subject. It must be admitted that with two to three rounds of land reform legislation in the less developed countries fixing ceilings, regulating (and in some cases abolishing) tenancy, etc., there is a considerable measure of hesitation to go in for another round of legislation. For, in countries like India a view had emerged in the eighties that there hardly was any scope for another round of land reforms. The book under review, by cogently arguing that land reforms could be employed as an instrument of poverty alleviation, provides a strong rationale for undertaking studies on the subject and gives a new lease of life to land reforms which otherwise would have been dismissed as a non-issue.

The author admits that rural poverty is partly a structural problem but holds that it is largely the consequence of unequal distribution of wealth particularly the land resource. Hence, in his opinion, any attempt at alleviating poverty ought to focus itself on the land reform measure which ensures transfer of land to the landless and provides opportunities of work. Such a course of action will at least ensure food security to the poor - an entitlement which goes a long way in meeting the most basic human need.

This thesis is propounded using two analytical approaches: One is the political economy approach wherein the rural development experience is examined in the historical and political context. And the other where the neoclassical economic approach which presents the quantitative analysis of cross-sectional data to assess the efficiency of resource allocation across different size classes of farm land holdings. The subject of analysis for experience

gain is a group of 14 developing countries, of which five countries - China, South Korea, Iraq, Cuba and Egypt - were studied in detail in a case study framework. These countries fall under one of the following three categories: (a) those with a complete land reform policy; (b) those with a partial land reform policy - dividing the agrarian system into reform and non-reform sectors; and (c) those which had no redistribution of privately owned land, leaving the market and political power structures unaltered.

A review of land ownership pattern and production relations in the countries under study throws up the following points: (a) land ownership is more commonly secured by institutional means (grants by rulers, land grabbing, etc.) than by the market mechanism; (b) the lower the concentration of land holdings, the lower the level of absolute poverty; and (c) realising high rates of agricultural growth is not conditional upon high land concentration and dominance of large farms.

Point (a) provides an ethical base for undertaking redistributive and regulatory land reforms. Point (c) suggests that there could be no economic (efficiency) constraint to undertaking land reform measures. And point (b) endows to land reforms a socially and politically acclaimed role, viz., of alleviating rural poverty. While the review of land reforms across the countries studied suggests that both the pace and the extent of reduction in poverty incidence is conditional upon land reform and its scale, there is also a catch to this proposition. And that is, without further changes in the agricultural infrastructure and in the non-farm activities, land reforms could indeed be less effective. Therefore, the input that we get for policy making is that land reform measures should be immediately followed by the government, also provisioning the required institutional and other support to the beneficiaries if the full impact of this measure is to be felt.

In a study of the kind which looks up data from countries with diverse social and political vintages, there are, of course, both advantages and disadvantages. However, country studies would certainly throw up propositions which deserve closer examination by undertaking detailed and in-depth studies. The present work in that sense provides inputs both in terms of the propositions to be evaluated in the field context and methods of analysis to be followed in such studies.

That apart, the book under-review is also of interest to those of us who are curious about the implications of the structural adjustment policies induced by the international financial institutions and foreign creditors. A full chapter is devoted by the author to explore the sharp swing in development thinking in the system of economic analysis and policy prescriptions for tackling the problems of rural under-development. As part of this exercise, he traces the shift on the part of the aid-giving authorities away from the pre-1980 focus on land reforms, equitable distribution of income and poverty-oriented policies to the so-called 'market friendly' policies of privatisation, liberalisation and no-nonsense of subsidised supply of goods and services to the poor and the vulnerable sections. Keeping the experience gained from countries which initiated the aid-giver induced structural changes, he presents the implications of the market friendly policies to rural development. From the past experience it appears that these policies are likely to: (a) cause a fall in employment in the food sector of agriculture and a corresponding fall in productivity and farm incomes; (b) widen inequality of income between food producers and export crop producers; and (c) raise the share of imported food in total food availability and put heavy pressure on the scarce

foreign exchange reserves as a result. That means, the book rings a warning bell to those of the LDCs which are going all out to accept market friendly policies without developing appropriate safety nets for the poor and the vulnerable sections of the society.

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

Abdul Aziz

Forests, Environment and Tribal Economy: Deforestation, Impoverishment and Marginalisation in Orissa, Walter Fernandes, Geeta Menon and Philip Viegas, Indian Social Institute, New Delhi, 1988. Pp. 363. Rs. 50.00.

The Indian Social Institute along with eight other voluntary organisations conducted a study on "Forests, Environment and Forest Dweller Economy in Orissa" in 1983 and 1984. The present book is an outcome of this study. The study started as a concern for 'just share' for the tribals and then joined issues against the forest policy of Government of India. The study wanted to change the forest policy in favour of the tribals. Originally, nine studies across the country were planned but only four could see the light of the day.

The authors start by presenting grim facts regarding the situation of forests. As deforestation is a serious problem known to everyone, they try to analyse the causes for deforestation. As a result, they plan to arrive at a new and 'tribal friendly' forest policy. The task is well set with a double objective of participatory as well as scientific approach to the problem. By using an appropriate combination of methodologies, the authors want the 'voice of the people heard at the decision making level'.

The first important position that the authors take is in regard to the causes of deforestation. They consider pressure of population only a small part of the whole situation. To them the main cause is the exploitative and anti-people (tribals and other poor) stance of development. They consider indebtedness and land alienation as deeper reasons behind this. The authors consider commercialisation and exploitative connivance between middlemen and government agencies as another cause leading to massive deforestation.

While the arguments are built up in favour of the tribals, a nagging issue remains in the back-drop of the entire length of the book. It pertains to the philosophy of development. One may not dispute much the point that the tribals were enjoying a sustainable life system in the past; but was it or was it not a low level equilibrium trap? The authors seem to concede that the tribals are not museum pieces and have to be brought into the mainstream but from this angle the entire path of developmental approach is not one of sustaining environment *per se*. If it is an issue of forest based (or for that matter village based) life system, then one hardly has an option but to approach the Gandhian frame of reference.

Time and again, the authors raise their voice against serving the needs of industry. At times it reaches a shrill crescendo! Naturally, the arguments are raised against the paper industry; but we need a paper industry even to publish such an important book! While one may very much like to recline in '.... lovely, dark and deep woods,' one may miss a tree for wood if industrial and commercial interests are looked down upon with contempt. Basically, the conflicts of development can be best resolved by building into the system a proper distributive justice.

The authors exhibit a special affection for China, they want us to believe that China has a beautiful slogan of '100 trees per man', which has made it green from five per cent to nearly a quarter of their area. While, on the other hand, India has gone down from 22 per cent to 10 per cent. Well, even if the Chinese data were true we cannot replicate them in India unless the political system was changed.

The book is, however, a very useful addition to the literature on tribal-forest relationship. It documents trees and other botanical species by their uses and value. It surveys the tribal situation in the context of developmental process which, very truly, is apathetic and at times antipathetic to the requirements of tribal development. The study carefully examines the evolution of forest policy. Because of its participatory approach, the study focuses powerfully on the issues resulting in tribal sufferings by case studies which are worked out with perseverance matched only by concern.

Looking at the title, however, one wonders if the word 'Environment' could have been substituted by 'Forest Policy' but then the title could have twelve words and not eleven! The study would prove useful to the reader because of its perspective though some may disagree with the prescriptions.

*Sardar Patel Institute of Economic and Social Research,
Ahmedabad.*

Rohit Shukla

Geographical Perspectives on Irrigation, Edited by Ram Kumar Gurjar, Rawat Publications, Jaipur-4, 1990. Pp. xiii+239. Rs. 225.00.

Irrigation is the most important resource in scarce rainfall regions to sustain agricultural production. The book under review deals with the geographical aspects of irrigation. It is a collection of 23 articles, divided into five parts. The Introduction highlights the importance of irrigation in increasing yield and cropping intensity and in enabling farmers to substitute crops in favour of high-yielding varieties and high value crops. It also summarises the broad themes of different parts.

Part I of the book consists of six articles, which are diverse in their contents from the main theme. These address a wide range of issues related to irrigation development, irrigation intensity, water management, groundwater quality and crop characteristics in problem soils in Rajasthan. Part II on environmental impact of irrigation includes three articles. One deals with the influence of irrigation on micro-climate, and the remaining two deal with (a) changes in cropping pattern and (b) some positive and negative effects of irrigation.

Major irrigation projects in Rajasthan form Part III of the book. Three projects, namely, the Indira Gandhi Canal Project, the Mahi Bajaj Sagar Project and the Chambal Command Area, provide feeble profiles on geographic, agronomic and socio-economic aspects. Their broad conclusions unequivocally reveal that the major irrigation projects paved the way for agricultural prosperity in Rajasthan.

Seven articles under Part IV describe the socio-economic aspects of canal irrigation. These are concerned with the management of problem soils, human settlement, agricultural research, irrigation culture, political issues and water management. These articles put forth the experiences on problems in the irrigated areas related to human settlement and land

degradation due to lack of proper irrigation culture and absence of desired co-ordination among various departments in managing irrigation water. It is suggested that adoption of recommended practices based on agricultural research and adequate participation of irrigators may solve several man-made problems. The articles emphasise the need for the social organisations and mechanism to develop irrigation culture for judicious use of precious water. On the political aspect of canal irrigation, an article elaborates that the Indira Gandhi Canal acts as a defensive boundary between India and Pakistan.

Part V on water management for irrigation consists of four articles. Two articles discuss the water distribution system and the recommended number of irrigation for wheat cultivation along with the advantages and disadvantages of day and night irrigation. One article explores the non-participation of irrigators in managing irrigation water management. The last chapter gives the future of irrigation. To the dismay of the interested readers, it is a general description without any attempt made to highlight specific issues on irrigation in arid and semi-arid regions and particularly in Rajasthan.

On the whole, the book fails to provide a clear insight on the geographical perspectives on irrigation. It is a poorly edited book. The articles under different parts of the book are not chosen carefully. A few articles do not have much relevance with the main theme of the concerned section and so with the book. For instance, the section on water management is completely a misfit in the context of this book. Alternatively, its scope should have been widened. Similarly, a few articles deal with water management but included under different sections. Most of the articles give an impression as if these were prepared very casually. Some articles mismatch with their titles, problems and results. The conclusions are abrupt and often do not emerge from the discussion. Even the proof reading is done so casually that there are several printing mistakes to irritate the reader.

The above criticism, however, does not dim the admiration of the reviewer for the pain-taking efforts of the editor in assembling articles on a variety of topics from several authors on a subject of topical interest. The book contains a mass of data on important aspects of irrigation in Rajasthan. These may be of some use to the researchers and students. The price of the book is very high in view of its uneven quality and content.

*Central Soil Salinity Research Institute,
Karnal (Haryana).*

P.K. Joshi

National Rural Employment Programme (Its Impact on Himachal Pradesh), Agro-Economic Research Centre, H.P. University, Shimla, Mittal Publications, New Delhi-35, 1988. Pp. 139. Rs. 125.00.

Despite all round development in our country, the incidence of poverty and unemployment continues unabated. Since the early seventies, a large number of poverty alleviation programmes has been implemented. The National Rural Employment Programme (NREP) is one among many such programmes. The main objective of this programme has been to provide gainful additional employment to unemployed and under-employed persons through creation of durable assets which are capable of inducing rapid growth in the rural economy

and steady rise in income and consumption level of the rural poor. The implementation of this programme is highly relevant in a hill state like Himachal Pradesh where the rural infrastructure is very weak and agricultural production and absorption of labour in agriculture are quite low. Since no study is made so far to highlight the operation of the programme in the state, the present study is an attempt in that direction.

This study was undertaken by the Agro-Economic Research Centre (AERC) of Himachal Pradesh University, Shimla. An attempt was made to critically examine the NREP in the state with regard to the procedure for selecting areas and projects, fixing of targets, physical and financial achievements, nature of the assets created, identification of beneficiaries, changes in the rural economy, employment and income, etc., and problems in the implementation of the programme. To pursue the objectives, the study depends on both primary and secondary information. On the basis of the percentage expenditure on NREP to the total financial allocation, two districts - one good (Kangra) and the other poor (Sirmur) - were selected. Similar procedure was also adopted to choose two blocks from each of the selected districts. Still further, the villages were chosen from among the selected blocks where employment under this programme was at the maximum. However, the number of villages chosen from each block and the total number of villages selected for the study are not indicated. On the whole, the study is based on a random sample of 237 households representing 163 beneficiaries and 74 non-beneficiaries, pertaining to the year 1983-84 only.

The book consists of nine chapters and seven appendices. The first two chapters deal with poverty and unemployment and related issues in Himachal Pradesh. The methodology is discussed in the third chapter. The limitation of the study is spelt out at the end of the chapter. The NREP and its need, programme planning and fixing priorities, programme implementation and impact of the programme are dealt with in the subsequent chapters. Suggestions and policy implications are given in the eighth chapter. However, the last chapter ('An Overview') is unwarranted as it is a mere duplication of the earlier chapters in general and the eighth chapter in particular.

The study indicates that the achievements under this programme have been poor due to the non-recognition of the local and immediate needs as well as lack of necessary co-ordination with other developmental programmes such as Drought Prone Area Programme and Integrated Rural Development Programme. It also mentions that the decision regarding the shelf of projects is based on political considerations which defeat the very purpose of the programme in general. Faulty implementation of the programme is also responsible for the poor performance. The programme was executed during the agriculturally busy season, but it should have been the other way. Further, wage payment was not made in time. The distribution of foodgrains as a component of wages was made without regard to nutritional needs and the liking of the workers. The study concludes that these defects at the implementation level must be rectified at least in the future. Otherwise, the very purpose of the programmes would be defeated. On the whole, the AERC of H.P. University, Shimla deserves congratulations for having made a critical study of NREP. It has brought out a lot of material which would be useful to the planners and for the execution of development plans in the future.

However, the limitations of the study are as follows: (i) The objectives mentioned in the

study are not pursued in depth. (ii) Selection of villages, size of the sample and the selection of non-beneficiaries in the methodology are puzzling. And (iii) the pages are not properly numbered and the price of the book seems to be quite high.

*Department of Agricultural Economics,
School of Economics,
Madurai Kamaraj University,
Madurai (Tamil Nadu).*

G. Subramaniyan

Climate and Food Security, International Rice Research Institute, Manila, Philippines in collaboration with American Association for the Advancement of Science, Washington, D.C., U.S.A., 1989. Pp. 602.

Climate Change and World Agriculture, Martin Parry, Earthscan Publications Ltd., London, 1990. Pp. xv+157. £ 9.95.

Growth of population, diminishing land availability for agriculture and slow but steady damage inflicted on the life support systems of soil, water and air suggest an urgent need to review the whole question of global food security on ecologically sustainable basis. Although self-sufficiency has been achieved in many of the less developed countries (LDCs), the nutritional security and economic access to adequate food remain an elusive dream. Under this continued pressure arm twisting tactics against the vulnerable LDCs are likely to be used quite often. To worsen the matter there is a scientific consensus that the continuing build-up of heat absorbing gases such as carbon dioxide (CO₂) and methane will cause a global climatic change, often called as the greenhouse effect. The food security implications of these climatic changes are complicated by economic and political considerations. The net effect of these climatic uncertainties seems to be unfavourable for LDCs. The two books under review deal with these problems specifically dealing with climatic changes and food security in the future.

The first book incorporates a collection of papers presented at the International Symposium on Climate Variability and Food Security in Developing Countries organised by American Association for the Advancement of Science, Indian National Science Academy and International Rice Research Institute. The second book by Martin Parry deals with the global climatic changes and Parry was the lead author of the assessment by the Intergovernmental Panel on Climatic Change (IPCC) of the potential impacts on agriculture. This book along with the three books on the potential effects of climatic changes are sufficient to ring a warning bell for any agricultural economist working on food availability in future.

The volume on *Climate and Food Security* is divided into eight broad sections. Like any of the international symposiums, this collection also includes some articles which do not bear any relation with the theme. P.A. Oram opens up the issue on food security and agricultural research and also provides an update on sensitivity of agricultural production to climatic changes. Basing the analysis on the growth performance across countries, it is suggested that a large number of LDCs are quite susceptible to be pushed even to the lower bracket in growth performance. He sounds a warning that "the task of meeting future needs for food and other agricultural products could be immeasurably more difficult" if the climate

induced variability increases. The most vulnerable regions include semi-arid tropics (SAT) of India apart from the major portion of South-East Asia. Long-term forecasts of world food situation foresee increasingly tight food supplies and steeply rising food prices, resulting in massive hunger and misery. Oram's classification of the countries into (i) disaster prone areas, (ii) climatically marginal areas, (iii) strategically important areas and (iv) socially vulnerable areas, gives enough clues to imagine the international economic and political situation for the most unfavourably placed LDCs. India happens to be one of them.

A clear picture about the probable climatic changes, assumed in the international symposium on Climate and Food Security, is brought out by Parry in the second book under review. Hence, it would be better if we understand Parry's contribution before proceeding further. Through his continued writings on global warming, changes in the climate and sensitivity of the world food system, he analyses the future scenario. This book has its roots in the Intergovernmental Panel on Climatic Change (IPCC) of the potential impacts on agriculture.

Atmospheric concentration of CO₂ has increased from about 280 parts per million by volume (ppmv) to about 353 ppmv due to clearance of forests and burning of fossil fuels. Nitrous oxide has increased by about 5 per cent due to increased use of nitrogen fertilisers. Chloro-fluorocarbon (CFC) concentration, which has a powerful greenhouse effect, was growing at 4 per cent annually. Montreal Protocol of 1989 has brought some control on this rate. Agriculture itself also contributes to the greenhouse effect. All these pose a challenge to ascertain the future scenario.

The Working Group II of IPCC concluded that the most severe negative impacts probably would occur in the regions of high present day vulnerability that are least able to adjust technologically to such effects. In a warmer world monsoon rains would be likely to penetrate further poleward; as a result, it would enhance ocean-continent pressure gradient. The current levels of pre-monsoon rains would diminish and the growing season would be shortened. More intense rainfall in the vulnerable regions could exacerbate flooding and erosion. The most vulnerable regions occupy as much as 22 per cent of the global area and 11 per cent of the population. India is a part of this classified under the grouping 'critical with low inputs'.

Parry's book first estimates the impact on bio-physical nature on plants, pests, diseases and soils. This is followed by an assessment of consequent changes in agricultural potential and possible consequences for food production along with global food security. Finally, the possible adaptations by agriculture to mitigate the changes are given. The book carries the important message that the vulnerable countries must look into long-term changes and the food security. It is written in a style that can be understood by any of the social scientists and presents only the least possible scientific jargons.

Now we can revert to the question of food security, given these changes as discussed in the symposium. Except Oram's initial article in the section on climatic variability and yield in the first book under review, the other authors address mostly to region specific issues and restrict to the ex post analysis. Clues, however, can be obtained for the analysis of climatic data which this reviewer feels is still at a rudimentary stage. The section on climatic variability of major food crops deals with sensitivity of rice, wheat, maize, soyabean, millets and pulses. Optimistic views are expressed that "there will be time for adaptation in crop production systems and in international trade." In a 2 × CO₂ situation among the crops wheat

production would decline, rice may remain unaffected, maize would increase and millets and pulses seem to be more tolerant comparatively. The two sections on climatic variability and factors of agricultural production as well as climate modeling are more technical. These also have sporadic instances of articles dealing with outdated issues (*e.g.*, identification of rainfall zones). F.W.T. Penning de Vries *et al.*'s and W. Bach's contributions are outstanding in these sections to understand the complexity of the oncoming changes.

What interests the social scientists comes under the last two sections on socio-economic implications and strategies for coping with climatic fluctuations. N.J. Rosenberg, W.E. Easterling and S.T. Sonka, M.L. Parry and T.R. Carter, and W.E. Riebsame have dealt with the greenhouse induced climatic changes, economic adjustments and social implications. What evades the analysts here is the inter-country across world food balances and the impact of the future changes on these. A notable inclusion here is N.S. Jodha's analysis, in his straight and penetrating style, of the agronomic adjustments to climatic variations. These pages cover a wider canvas than those dealing specifically with strategies. S.K. Sinha, N.H. Rao and M.S. Swaminathan most succinctly summarise the issues along with strategies in their "Afterword".

Overall, both the volumes are quite important in view of the likely changes due to climate and climate induced world food equations. Greater emphasis would be needed to bring out the future scenario for those vulnerable group of countries of which India is a member. If it is difficult to predict future climate the socio-political implications of this are all the more complex and their impact is disastrous.

Gokhale Institute of Politics and Economics,
Pune.

R.S. Deshpande

An Introduction to Agricultural Finance, U.K. Pandey, Kalyani Publishers, New Delhi, 1990. Pp. viii+201. Rs. 40.00.

This is an introductory work on agricultural finance, which has been developed from the lecture notes that the author himself says in the preface. As such, this cannot be claimed as a textbook. However, the book does present a good introductory reading for fresh students and others who seek preliminary knowledge of agricultural finance.

The book is organised into six chapters. Chapter 1 deals with the scope and significance of agricultural finance and its relationship with other sciences. The usual classification of credit on the basis of time, purpose, security, source, borrower, etc., has been explained in some detail. Further, the emphasis is put on farm-firm growth and financial leverage used to supplement the equity capital with the borrowed funds. Credit rationing, both external and internal, has been illustrated with an example.

The second chapter works out various efficiency ratios which could strengthen the case of loan advancement. However, working out the relative efficiency measures around the average for the area/farmers, especially in homogeneous areas, which may be either good or poor, would lend very poor meaning to the efficiency ratios worked out for a particular farmer for extending the loan. There are some errors in the calculations also.

Ability to repay a loan is influenced by the income generating capacity of the farm business, off-farm earnings, liquidity of the farm as reflected by the balance sheet and cash

flow on the farm. This exercise explains the requirement of second 'R' of credit. The repaying capacity for self-liquidating and non-liquidating loans is worked out in different ways. The causes of poor repaying capacity are the usual ones; no effort has been made to make it more interesting.

Risk bearing ability as the third 'R' has been discussed in Chapter 4. The types of risk and uncertainty are identified. The author has tried to establish relationship of uncertainty with farm size which may not be always true. Again, the factors affecting the risk bearing ability of the borrower and the risk management strategies, which have been given quite a coverage, are the routine run usually found in any textbook. Though the diagrams and mathematical explanations are adequately explained in theoretical framework, practical exercises in this area are almost missing from the book.

In Chapter 5, the author has dealt with project planning and evaluation. The costs and benefits stream with hypothetical examples of four dairy projects have been discussed and working out the net present worth, internal rate of return, benefit cost ratios, etc., has been illustrated. The examples are too simple and far away from any practical sense. The remaining part of the chapter is too elementary for any expert reader; for a beginner, however, it does have some meat.

In the last chapter, the author has identified the financial intermediaries in agriculture as non-institutional credit agencies which include traders and commission agents and institutional credit agencies in which co-operatives have a dominant role to play. The author has thoroughly explained the function and role of various credit agencies and above all the role of the State Government. Again, the discussion on Indian financial market and the credit policies is elementary which certainly does not give 'exemplary knowledge of the subject'.

On the whole, the book is clear, precise and introductory only. It contains very good notes for a fresh student on agricultural finance. Questions and further selected readings at the end of each chapter enhance its value for the beginners. Examples are good for elementary explanation though they are only little close to the reality. One can hardly derive any lesson for the future from this book to improve the dynamics of financial system in the agricultural sector.

*Department of Economics and Sociology,
Punjab Agricultural University,
Ludhiana.*

Karam Singh

Farmers' Response to Economic Incentives in India, J. Prakash, Radha Publications, New Delhi-2, 1990. Pp. xi+127. Rs. 150.00.

The advancement in crop technology coupled with rational price policy holds the key to balanced growth in crop production, says the author of the book. This conclusion is derived from the analysis of wheat acreage response to price and non-price factors in the State of Uttar Pradesh. The analysis clearly reveals that wheat acreage responds significantly to relative price of wheat and productivity gains. The responsiveness further increased after the adoption of high-yielding varieties. Also, the degree of response and the rate of adjustment were substantially high in the more developed western region of the state.

The book is well organised and well written. However, there seems to be a duplication of efforts. For example, in spite of reiterating the superiority of the 'Nerlove's model' over the 'Traditional model', the author has estimated the linear as well as log-linear forms of both the models. The comparison of different functions with varying number of explanatory variables with the help of R^2 instead of adjusted R^2 and non-testing of serial correlation (although the author claims that 'd' statistics was computed, page 64, para 2) may disappoint the readers. A more meaningful discussion of the results and emerging policy issues would have added much to the utility of the book.

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

Suresh Pal

Indian Agriculture: An Analysis of Backward and Forward Linkages, Rajagopal, Inter-India Publications, New Delhi-15, 1990. Pp. 189. Rs. 165.00.

Agricultural development helps the overall economic growth of an economy in three ways, viz., through (i) factor contribution, (ii) product contribution and (iii) market contribution (Kuznet, 1965). In recent years, a number of books has been written on Indian agriculture but none of them explained how agricultural development had helped the other sectors to grow in the country. Obviously, much still needs to be done to examine the establishment of efficient and backward linkages with regard to agricultural inputs and outputs management which determine the production and distribution arrangements over a given period of time and space in a developing country like India.

The book under review, as it seems from its blurb and preface, is a timely attempt to look into all these aspects and the related issues of agricultural development in India since Independence. It is mainly based on secondary data analysing the thrust issues on inter- and intra-sectoral linkages and overall mechanism of development in the Indian agricultural system. The author has dwelt on the subject in a systematic and lucid manner and put together the entire material in seven chapters.

The first chapter of the book focuses its attention on economic development through agriculture and it is rightly pointed out by the author that planned agricultural development in the post-Independence plan period in India has resulted in changes in cropping pattern, transfer of improved technology, green revolution, establishment of agro-industrial units, absorption of surplus labour in rural sector and increased income level of farmers to a considerable extent which can be regarded as epoch making accomplishments in Indian agriculture.

Chapter 2 presents a review of agricultural policies in the country since the First Five Year Plan and it is revealed that price policies, state interventions, development of markets and agricultural export policy have contributed substantially towards the agricultural development in India. The major issues in the development of input and financing institutions and input as well as credit requirements have been elaborated in Chapters 3 and 4 which are on input management and agricultural financing respectively. This is followed by Chapter 5 on returns on investment which analyses productivity, price-production relationship, output-cost ratio, marketing margins, etc. Agricultural marketing in the Indian

context, development of regulated markets, Food Corporation of India (FCI), price formation, Directorate of Marketing and Inspection, training courses in agricultural marketing, etc., are described in Chapter 6 (entitled market contribution). However, this chapter does not throw light on the impact of all these market developments, weaknesses of the present marketing system and suggestive measures to make agricultural marketing in India more efficient from both the farmers' as well as consumers' point of view. The last chapter (development of allied sectors) deals with foodgrain processing, procurement system, production determinants, consumer behaviour, pricing approach etc. In this chapter, the author has tried to give a theoretical touch to the backward and forward linkages, however, it lacks empirical plausibility and interpretation. The detailed references cited at the end of each chapter are worth commending.

The book has a large number of tables (about 51) but many of them do not mention the units of data - to mention a few, for example, Tables 1.2 (p. 21), 1.8 (p. 29), 2.3 (p. 48), etc. Also, the book lacks in the graphical presentation of data which otherwise could have made the reading more interesting and intelligible. To justify the title of the book, the author could have employed some models (like Rasmussen's, Leontief's, etc.) for linkage analysis. In the absence of all this, the book only describes Indian agriculture and due to the lack of primary information, it does not highlight the practical problems and constraints experienced by the farmers. Also, it does not reflect much on concrete strategies and policy implications for further development of the agricultural sector in the country. It is also not free from serious errors, omissions and spelling mistakes. It is sincerely hoped that the second edition of this book would be free from these shortcomings. Overall, the book provides a lot of useful reading material and information for students, researchers and planners in the field of agricultural development.

*Department of Agricultural Economics,
H.P. Agricultural University,
Palampur (H.P.).*

Amrik Singh Saini

Poverty Alleviation in India (Programme and Action), Edited by V.M. Rao and Abdul Aziz, Ashish Publishing House, New Delhi, 1989. Pp. vii+245. Rs. 200.00.

This book includes ten studies on poverty alleviation programmes brought out as a personal tribute to Professor V.K.R.V. Rao, the Founder Director of the Institute for Social and Economic Change, Bangalore. There are 11 contributors including the editors, who are eminent authors in the concerned fields of studies. Analytically, the papers classify into three distinct dimensions: (1) Relief and support measures, (2) Programmes for creation of new economic opportunities for the poor and (3) Programmes for reforming social structure and relationship. In recent years, a number of books has been written on the theme of poverty alleviation programme. The book under reference is an exceptional one in terms of its in-depth analysis and analytical approach. Most of the publications on poverty alleviation remain preoccupied with implementation problems, target and achievement, misidentification of beneficiaries, estimation of income and employment generation, programme leakage, lack of co-ordination, etc. Deviating from this approach, the authors have drawn much attention to the programme side effects on the perceptions, attitudes and behaviour

of the poor even though the programmes are primarily designed as a delivery system to the poor.

The first paper gives an overview of the above perspective drawing evidences from the rest of the papers. The second paper on Rural Landless Employment Guarantee Programme pleads for the continuance of the employment programme till the economic position of households reach a stage to provide additional income or full employment. The third paper on Rural Water Supply Programme, while giving suggestions for improving the programme, is quite optimistic that the new water resources have considerably increased the health hygiene and reduced the human drudgery. The fourth study concludes that the natural resource base of rural areas including particularly the common property resources is most essential for the success of poverty alleviation programmes. The Kolar Rural Industries Development Project which is discussed in the fifth paper points to the fact that the project has degenerated into wage employment providing public sector activity instead of promoting self-employment activity.

The paper on the impact of Integrated Rural Development Programme (IRDP) on the economic conditions of the beneficiaries observes that though the programme has not prompted the assisted families to cross the poverty line on a substantial scale, it has promoted income mobility among the beneficiaries. The study on the Strategy for Rural Diversification is a critique on the soft approach among planners and policy makers to visualise IRDP as an anti-poverty measure but not as an instrument to produce structural changes in the dependence of the rural economy on the primary activities.

The paper on Development Planning and Disparities among Scheduled Groups highlights the disparities between scheduled and non-scheduled population and non-accessibility of the programme benefits to the poorest of the poor among them. The study on Bonded Labourers: Release and Rehabilitation finds answers to the question whether the released workers are protected against the situation of distress and relapse into bondage. The last paper advocates the association of rural poor among peasants and artisans including landless agricultural labourers to promote and safeguard their interests. When the poor is organised, the author visualises the replacement of dominant landlords by the poor with rioting behaviour, decision making rights and power and authority in managing local affairs. Consequently, social tension may become inevitable calling for law and order mechanism to meet the challenges.

On the whole, the studies present arguments with evidences. Though the studies are confined to Karnataka experiences, certain implications of strategic nature are applicable to the poor elsewhere in India.

The methodological issues and their relevance detailed in the studies serve as reference materials to the prospective researchers on poverty alleviation programmes. The book is undoubtedly a significant contribution towards understanding the poverty alleviation programmes in action. It will be of immense use to the researchers, policy makers and graduate students in rural development.

Land Transfers: A Case Study, Kripa Shankar, Gian Publishing House, New Delhi-2, 1990.
Pp. xvi+332. Rs. 280.00.

There have not been many attempts to understand the patterns of transactions in the market for agricultural land (as they come through purchase and sale of land) and the concomitant processes of land transfers between various classes in rural India. Viewed from that angle, the study under review makes an important contribution towards understanding the patterns of land transfers with reference to Uttar Pradesh agriculture. The study is based on primary data collected for a period of thirty years (from 1952-53 to 1982-83) covering randomly selected 200 villages spread over five regions of the state.

The study has fourteen chapters. Having devoted Chapter 1 for Introduction, Chapter 2 sets out the objectives as also the methodology and coverage of the study. Chapter 3 provides a brief account of various land reforms measures adopted and the agrarian structure prevailing in Uttar Pradesh. The rest of the chapters, excluding the concluding one, are devoted to examine issues such as the magnitude and direction of land transfers, the reasons behind land transfers, impact of land transfers on various classes/castes and so on.

According to the author, Uttar Pradesh agriculture has been undergoing a process of polarisation so that lower categories of households (which include 'landless' and 'marginal' farmers) appeared as net losers of land while the higher categories of households (comprising 'medium' and 'large' farmers) were the main gainers. The fact that lower categories of households suffered through land transfers also is supported while the author extends his analysis to both incomewise and assetwise land transfers. Further, polarisation process has been much sharper in the agriculturally advanced western region compared with the backward eastern or central regions of the state. The study also shows that while the poorer households (particularly, the 'landless') sell land largely because of migrating out of the villages, the better-off households sell land mostly to meet marriage expenses and to repay old debts.

Although there may not be much disagreement over the author's identification of polarisation process as such, questions may be raised about the actual *strength* of such a process as only about 4.06 per cent of land was transferred in the state over a period of thirty years (p. 28). All through his study, the author analyses land transfers only in terms of area transferred by various categories of households. Consequently, the issue that is left unanswered is how many or what percentage of households are affected through land transfers. This is important if one is to assess the *strength* of the so-called process of polarisation.

In Chapter 11, the author reports the reasons behind land sales. However, no idea is provided about the reasons behind purchases of land by various categories of households. As per the author's data (Table 5.11, p. 51), even the households owning less than 2.50 acres of land purchased 329.34 acres and sold 385.54 acres during the period under study. An obvious question here is under what circumstances even some of these marginal land holders are able to purchase land? More generally, the issue is what are the factors which lead some households to purchase/sell land and thereby experience growth/decay in terms of area owned? Is it that the growth/decay of farm households could also be related to some variables

representing their socio-economic positions?'' Primarily because of its descriptive nature, the study is unable to throw any light on these aspects.

The author also appears to be swayed by emotions while suggesting policies for halting land transfers. His suggestion for putting a ban on purchase of land by those owning more than 10 acres of land (p. 328) is debatable and is unlikely to be conceded under the prevailing socio-political set-up. The other policy of providing interest-free loans to the poorer sections for consumption and/or to repay old debts (p. 329) sounds illusory. Similarly, mere enactment of laws for compulsory marriage registration, as suggested by the author (p. 331), is unlikely to reduce marriage expenditures and dowry deaths unless there are efforts to raise the degree of social consciousness of the people. The author makes no mention of the roles the panchayats in rural areas, the media and the voluntary organisations could play in this context.

A final observation about the author's mode of presentation. Out of a total of 332 pages in the book, 227 pages (68 per cent) are absorbed with 120 tables incorporated in the study while most of the remaining pages appear as mere transformation of the tables into words with meagre analysis. Even most of the chapters do not end with summing up sections so that it is left to the reader to draw conclusions regarding various aspects of land transfers in the state.

Notwithstanding these limitations, the study would be of immense interest, particularly to those committed towards understanding the rural society and building an egalitarian rural set-up. It is also quite likely that it would provoke similar studies in other states of India.

*Department of Economics with Rural Development,
Vidyasagar University,
Midnapore (West Bengal).*

Sankar Kumar Bhaumik

The Great Ascent: The Rural Poor in South Asia, Inderjit Singh, The Johns Hopkins University Press, Baltimore and London, 1990. Pp. xxvii+444. \$ 39.95.

The book under review is a comprehensive and ordered guide to the literature on rural poverty spread over eight chapters. In Chapter 1, the author has outlined the importance of poverty alleviation programmes undertaken in India. Structural reform is a pre-condition to derive benefits from the various programmes. Development as well as growth of agriculture has benefited not only farmers but also the poorest ones. Complementary programmes in the non-farm sector such as dairy, small stock, fisheries, poultry, agro-processing, development of rural manufacturing and service industries are needed to generate income and employment for the rural poor. India has already initiated at the national level many anti-poverty programmes but in Pakistan and Bangladesh such programmes are yet to be taken up.

The incidence and trends in rural poverty are discussed in Chapter 2. The pattern of rural poverty reflects that its severity has increased where the agricultural growth stagnated and vice versa. Due to poor data base and slippery concept of the poverty line, the pattern

* See, in this context, Shergill, H.S. (1990), "Land Market Transactions and Expansion/Contraction of Owned Area of Cultivating Peasant Families in the Punjab", *Indian Journal of Agricultural Economics*, Vol. 45, No. 1, January-March.

of rural poverty has not shown any clearcut trend in South Asia (pp. 9-10 and Appendix A, pp. 320-323). Population growth has declined in Bangladesh and India but increased in Pakistan. Gini coefficient of income distribution over time indicates decline in concentration of income in India and Pakistan whereas no clearcut trend is visible in Bangladesh. Agricultural wages have declined in Bangladesh whereas the same have increased in Pakistan and India. Thus the agricultural growth has benefited even the poorest in the sub-continent and some benefits have trickled down to them directly or indirectly, through rise in real wage rates. From the available data of South Asia, the author has stated that the rural poor consist of predominantly agricultural labour households and small holders with cultivated holdings of less than 5 acres of land. The author has also explained the socio-economic characteristics of the rural poor. However, in spite of elaborate discussion, the clearcut distinguishing features of the rural poor are not visible.

Chapter 3 deals with the agrarian structure. The disparities in land holdings in South Asia produce disparities in income and control of land usually coincides with control of local institutions. The author has explained two theories of agrarian change, *i.e.*, Malthusian or population pressure theory and the Marxian or class polarisation theory (pp. 48-51). He has also discussed the structure of ownership and operational holdings in India, Pakistan and Bangladesh with the help of available data for these countries. In South Asia, the rate of unemployment is low but a large proportion of the population works in marginal activities with low productivity and low wage income. The demand for agricultural labour is also not increasing. Three alternatives have been suggested by the author to raise the wage income of the agricultural labour, *viz.*, on-farm employment in crop production, non-crop agricultural activities (such as dairying, poultry, fisheries and forestry) and non-agricultural rural activities. Thus to raise the income of the rural poor, a rapid expansion of non-crop agricultural and non-agricultural rural activities is crucial.

Chapter 4 examines the characteristics of the small farm sector and summarises the available evidence on farm size as a factor in farm productivity and efficiency and reviews the prospects of raising output on small farms. Inverse relationship between farm size and productivity per hectare existing in traditional agriculture vanished with the introduction of high-yielding varieties (HYVs). Economies of scale may persist not due to lower efficiency on small farms but on account of better access to the yield increasing inputs and indivisibility of capital to large farmers. Multiple cropping, irrigation, credit and access to markets are discussed as a means to raise the income of the small farms. The statement that 'multiple cropping requires a longer life span for plants' seems to be somewhat confusing (p. 123).

The impact of green revolution/HYV technology on the rural poor has been examined in Chapter 5. Without HYVs and their widespread adoption both the rural and urban poor in South Asia would have been far worse off than they are today. There are a few negative consequences but most of them are not the off-shoots of only green revolution but other factors too.

The prospects of non-crop employment for the rural poor are examined in Chapter 6. Non-crop activities are those which complement agriculture. In South Asia livestock rearing and dairying are the most important economic activities as livestock farming accounts for 15, 25 and 7 per cent of the gross value of agricultural production in India, Pakistan and Bangladesh respectively. However, there is a need to improve the quality of livestock, feed and marketing units in rural South Asia.

Chapter 7 deals with rural industrialisation and employment. It has been observed by the author that employment in rural areas is strongly correlated with the rate of agricultural growth. The examples of Taiwan and China have been selected to illustrate the impact of rural industrialisation on employment. It would have been better if the ways and means to replicate the Taiwanese model in other South Asian countries were elaborated.

In Chapter 8, the author has summarised the institution of tenancy, examined the land reforms in general, including the measures to reform tenancy and to alleviate the concentration and fragmentation of operated holdings, and assessed the feasibility and desirability of land reforms as a means of reducing rural poverty in the sub-continent. The author has observed that a more equitable distribution of holdings would also create more equitable demand pattern, which in turn would enhance the non-farm growth and remove some of the institutional biases in credit, marketing, and research that arise from unequal distribution of assets and associated power. Why this best solution has been neglected? The author has explained that any fundamental change in the structure of agrarian relation is by its very nature revolutionary and can be undertaken only under a revolutionary and coercive policy, not under the democratic set-up. Tenancy legislation has benefited less the rural poor as many of them have been evicted from the land by the owner. These tenants are engaged as farm labourers. Consolidation of land holdings is found more effective and beneficial to the rural poor. Tenancy has been driven underground and the duration has been reduced to a single crop season. Land ceiling has the beneficial effect of limiting the size of operational units. However, the problem of rural poverty cannot be resolved simply by re-distributing land unless other farm inputs are provided. Instead of crop production, the allottee should be encouraged to adopt livestock, poultry and piggery enterprises.

The study makes available in the notes to each chapter and 45 appendix tables very valuable data on related aspects of poverty in South Asia. This will be of immense use to the researchers and policy makers. The book is a welcome addition to the literature on the rural poor in South Asia.

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

A.C. Gangwar

Rural Credit: Issues for the Nineties, Edited by Surjeet Singh, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1991. pp. xi+202.

This publication has brought out the six background papers along with the summary of discussions of the national seminar on "Rural Credit: Issues for the Nineties" organised by the Institute of Development Studies, Jaipur, on 27-29 August, 1990. As many as 41 rural credit experts including R.N. Malhotra, P.R. Nayak and B.K. Ghosh participated in the seminar. The seminar aimed at identifying the emerging issues and challenges during the nineties in the sphere of rural credit. The issues that came up for discussion are: (1) financial viability of rural credit institutions, (2) cost effectiveness of banking services in the rural areas, (3) credit for marginalised sections and by-passed regions and (4) problem of overdues. Though these issues are as old as the institutional rural credit system itself, the seminar has, by focusing on these issues, reminded the policy makers how urgent it is to rectify the

situation before the system totally breaks down.

The publication contains a wealth of information, provides an insight into development banking for rural India and critical view of the problems involved through the papers of eminent experts. Inevitably, there is some overlap in the points covered in the papers. C.V. Nair's masterly presentation of the present rural credit situation and emerging issues deserves to be read by all. Equally instructive is the paper by Anil Gupta. The following quotable lines from these papers published in the book show what a valuable insight into the rural credit problem of India these papers provide.

"Agro-processing and small-industries, increasing capital intensity of agriculture and greater integration of production, technology, trade and marketing will call for more comprehensive response from policy makers as well as the rural credit system." R.N. Malhotra.

"The financial liability falling on the central and state governments as a result of the loan write-offs could perhaps have placed a properly conceived crop insurance scheme on a stable footing even to start with." C.V. Nair.

"Ignoring the borrowers with good repayment ethics and not showing the same commitment to penalise the defaulters.... has made the future scenario of banking very depressing and worse is the case with the co-operatives." Anil K. Gupta.

One of the main concerns is emanating from the mandatory deployment of resources for the priority areas of the government which often tend to intermingle welfare functions without due attention paid to accountability, cost effectiveness and viability considerations." G.P. Bhawe.

"With an increase in the volume of the bank's business, many field officers are busy with periodical desk work and hence do not have sufficient time to visit the borrowers." D. Rajasekhar and V. Vyasulu.

On the whole, the seminar has raised a number of issues and made many suggestions. Regarding *financial viability*, it has been suggested to restrict mandatory lending and interest rate for a very small group while allowing flexibility in interest rates for the rest. The limit for non-operating fund should be reduced but this depends on the wider considerations of monetary policy. Though the co-operative credit set-up came up for discussion, there is no evidence to show that the issues in this regard were discussed threadbare. Experience has shown that the primary agricultural credit societies (PACS) have either to become full-fledged banks or go out of the picture. Neither of this has been happening because of indecision of the policy makers. The picture is promising in the case of credit for non-farm activities like dairying, fisheries, etc., in which case credit has been directly linked with the activity itself through functional societies.

In the case of Regional Rural Banks (RRBs), different views were expressed regarding their restructuring, but the point that unviability is inherent in the concept of RRB itself was not highlighted. Any marginal changes made will only add to further problems. The entire commercial banking system for the rural sector needs simplification. The best course would be to merge the RRBs in their sponsor banks with the latter to fulfil the objectives for which the RRBs were set-up. There is neither the justification to relieve the nationalised banks from the responsibility of serving the rural poor nor it is practical wisdom to create weaker banks to serve the weaker sections in the rural areas.

The discussion on *cost effectiveness* of rural banking brought out in sharp focus the dilemma of banks. Rural banking in the present context means the preparation or credit

schemes, technical support, more intensive banking extension work and closer supervision on the end-use of thousands of small loans spread over in many villages. On account of adoption of the Service Area Approach, even area planning work has become a part of the rural branch manager's work. Admittedly, all this, as the seminar has rightly emphasised, requires more time and cost per unit of business. While external agencies like National Bank for Agriculture and Rural Development (NABARD) and Government may give some support, the ultimate responsibility for sound lending and recovery of the loans is that of the banks. To the extent that these external agencies provide help through block level planning, preparation of credit schemes and recovery of loans, the rural banking work becomes more cost effective. But, here, the problem of co-ordination and accountability in rural development arises and we have not as yet found a satisfactory solution to this problem. Among other steps, differential rate system with higher interest rate for high value crop and highly paying activities, exchange of branches in different areas so as to avoid thin spread, integration of short and long-term lending and more autonomy for rural branch managers, have been suggested.

About the *marginalised sections and by-passed regions*, the emphasis of the seminar was on the adoption of family approach in assisting the poor households, policy bias in favour of resources and skills which the backward regions possess, eco-specific adaptation of banking structure and monitoring of backward area banking directly by the Chief Executives of Banks, NABARD and Reserve Bank of India.

Regarding the *problem of overdues*, the need for looking at the problem in a fresh perspective was underlined. A number of factors responsible for overdues came up for discussion, but the crucial aspects did not receive the due emphasis. Thus the external factors such as lack of required rural infrastructure and political interference in the context of mass-lending programmes were not highlighted as the villain of the piece. In fact, the important issues such as the lack of banking infrastructure (branch premises, bank godowns and need for staff facilities at the rural centres) and need for a separate rural banking cadre did not receive proper attention. Some of the rural branches do not even look like banks.

All in all, the seminar, by attempting to cover all the issues relating to the institutional rural credit system in India, lost the opportunity of focusing on those issues which are really crucial for successful rural lending and achieving a tangible impact on the policy makers and political masters at the central and state levels.

Belgaum (Karnataka).

H.B. Shivamaggi

Pesticides Industry in India: Issues and Constraints in Its Growth, U.K. Srivastava and N.T. Patel, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1990. Pp. xv+343. Rs. 295.00.

Pesticides are important constituents of the 'modern inputs package' that has revolutionised Indian agriculture. Partly due to its toxic nature, pesticides industry in India has hardly been viewed as an economic activity. Much of the discussion so far has been centred around the details of a regulatory framework. The book under review makes a departure from this general line of thought. It provides an understanding into the issues relating to the growth of the industry from a marketing perspective.

The focus being on the marketing related issues, the authors have used the case study

methodology for studying the 'process' of product flow from the manufacturers to the final consumers, *i.e.*, the farmers. As such, many interesting details on the role and activities of various players in the pesticides industry, namely, the technical grade pesticides manufacturers, the formulators, dealers, retailers and farmers, are given. Most of the analysis is based on samples drawn from the districts of Gandhinagar (in Gujarat) and Guntur (in Andhra Pradesh).

While the rationale for selecting the districts and the technical grade manufacturers is understandable, the criteria used for selecting the formulators, the dealers and the retailers does not seem to be scientific. Surprisingly, there is no mention of how the farmers have been selected for the analysis. Secondly, without an explicit analytical framework, much of the details given by the authors seem purely descriptive. The comprehensive data relating to the price, product range and financial aspects of the technical grade manufacturers and the formulators could have been used for analysing the issues covering product and price differentiation, marketing strategies and technology. This would have provided a basis for spelling out the kind of institutional framework that is required to promote pesticides industry in India.

The study is spread over nine chapters. Chapters 1, 2, 6 and 7 provide essentially the background information on the growth of the industry, methodology and data, regulatory environment and the problem of pesticide residue in foods. The main analysis is found in Chapters 3, 4 and 5. The manufacturing of pesticides is carried out at two levels. The Technical Grade Manufacturers produce the basic material which is used as raw material by the formulators to produce a prescribed pesticide. The former being product manufacturers and the latter being processing units, the issues would differ between them. These are discussed in Chapters 3 and 4. A detailed account of the Dealers and Retailers and their role as promotional agents for pesticides is given in Chapter 5. The summary of the analysis is presented in Chapters 8 and 9.

While discussing the Technical Grade Manufacturers, the authors have touched upon interesting issues. For instance, it has been mentioned that the production of technical grade products depends on the access to new production technologies. Since many of the Technical Grade Manufacturers are multinationals, a comparison of their access to the new research developments in the world pesticide industry vis-a-vis their Indian counterparts would have been interesting. The developments in genetic engineering (which makes the seeds non-resistant to only certain pesticides), the new Adjuvants with controlled release properties (*i.e.*, micro-encapsulation, retard granulation technique, etc.) are examples of recent research developments that would affect Indian pesticides industry. Similarly, the ongoing campaign for environment friendly pesticides in India would have implications for the future growth of this industry. Unfortunately, these issues have been sidelined and not even a general reference has been made. Another important aspect highlighted in the study is the structural shift in the industry from high volume-low value to high value-low volume products. An analysis of factors responsible for such a shift and its implication for the technical grade manufacturers and the formulators, would have added credibility to the analysis.

The problem of low capacity utilisation is common to both Technical Grade Manufacturers and the Formulators, but it is more severe for the latter. However, the study shows that the capacity utilisation of the formulation units belonging to the Technical Grade

Manufacturers is much higher than those with only formulation facilities. The life of formulated products being one year, access to markets would be an important determinant of capacity utilisation. As has been indicated in the study, the Technical Grade Manufacturers-cum-Formulators have access to national markets while the local formulators are mainly confined to regional markets. A comparative analysis of the same would have given better insights.

An interesting observation made in the study relates to how the small formulators have tried to gain cost advantage over the big companies. Most of the small formulators have under-priced their products and gave high commissions to the dealers. Such practices have affected the quality of the products supplied by these formulators especially in Andhra Pradesh. More attention should have been given to this issue.

A lot of information on price variation across brands and sizes, commission charges and credit facilities is given in the section dealing with the dealers/retailers. But, there seems to be no systematic analysis of the same. For example, issues such as the differences in the commission charged by the same dealers/retailers across companies, multiple distributors for a single company in the same region, purchasing of certain companies' products from other dealers, have not been probed.

Despite the above limitations, the study makes an important beginning in understanding the Indian pesticides industry. The comprehensive data available in the study would make it a good reference book.

*Management Development Institute,
Gurgaon (Haryana).*

Sunitha Raju

The Limited Raj: Agrarian Relations in Colonial India, Saran District, 1793-1920, Anand A. Yang, Oxford University Press, Delhi, 1989. Pp. xii+271. Rs. 185.00.

Economic historians are increasingly engaging themselves in micro level studies (district/village level) of societies in the recent past. This has been necessitated, on the one hand, by the limitations of macro level analysis, especially, unintentional neglect of certain subtle aspects at the sub-regional level and, on the other hand, by the availability of rich source material. The volume under scrutiny also falls under this category where the author has made an effort to unravel the agrarian history of Saran district in Bihar during 1793-1920 and one can say without any hesitation that the author has attempted an extremely important area with an in-depth analysis. Yang, unlike the 'Limited Raj' of the British in Saran district (was it really limited?), does not seem to have been constrained anywhere by source material.

The whole focus of Yang's work is very well articulated in the Introduction, wherein he argues: "In analysing the structures and processes of British control, I will highlight the actual workings of this collaborative system of rule in Saran in the late eighteenth to early twentieth centuries The arrangements that this system of rule effected with local controllers are reconstructed to present a model of a 'Limited Raj', which operated at the level of local society" (p. 4). This whole exercise has been carried in four parts, a brief summary of which will be in place here.

Part I contains two chapters focusing on the various elements of the famous Sonapur annual fair and the geo-economic aspects of Saran district. The detailed portrayal of Sonapur

mela explains how A.L. Clay, who was the district magistrate of Saran in 1886, was not welcome and of course, portrayed as 'not the man for Chupra'. Here, the author brings out how the British, in order to legitimise their rule, encroached upon the local cultural affair with their own pleasure games and that too at a very low cost. Their presence also provided an opportunity to the rural elites (operating agents of the Raj) to strengthen their ties with the colonial state. The second chapter covers various aspects pertaining to demography, crop cultivation, caste and other agrarian related factors (like rents, prices, wages, farming techniques, etc.). The chapter ends with the argument that the landlords of Saran benefited during this period of British Raj and the sufferers were the landless and labouring classes.

Part II, involving three chapters, elaborates the central theme of the book, 'The Limited Raj' and how the British systematically laid the foundation to control the affairs of the Saran district sitting far away from the actual scene. Attempts by the Raj to exercise a larger control over the local areas did not materialise as it was effectively blocked by the existing order which was patronised by the local elite. To substantiate this, the author has cited the failure of the efforts to 'revitalise *qanungo-patwari* connections' and control over the *chaukidars*.

A detailed account on the prominent emergence of the great estate of Hathwa and 'Hutwa's Cheer' in Saran forms the first portion of Part III. The efficient running of Hathwa was made possible by the *thikadars* (rent collectors) who were wealthy raiyats/moneylenders or European indigo planters and to a smaller extent by the *khas* (direct) system of management. However, unlike in some other areas of the country, the *thikadars* were replaced by the direct system of management indicating the control wielded by the Raja of Hathwa over his intermediaries. The subsequent two chapters clearly show the control structure and management of the Hathwa estate, viz., the Hathwa estate over the *thikadars* and the *thikadars* over the ordinary raiyats. The *thikadars* exercised their control over the peasants through rent/cess fixation and credit deals.

Given such a control structure and management, what were the options open to the peasants of Saran society when their subsistence itself was dictated? This forms the final two chapters of Part IV. Desertions (forced movement), migration (voluntary), violence and collective protest were all found to have been resorted to by the Saran peasants. Besides individual acts of violence, many of the agitations were led by men with resources or local level controllers in order to establish each one's supremacy over the ordinary peasants. The peasants were used as tools in this process. This kind of conflicts among rural elites were quite common in other parts of India as well (Thanjavur and Ramnad districts of the Madras Presidency). The organised agitations or the movements which rocked the Saran society in the early twentieth century must be viewed from both the political and agrarian angles. The rural elites/controllers were able to put down these protests with the able assistance of the Limited Raj.

The author has avoided taking any stand on the controversial issue whether the Saran peasants' protest action fall under the realm of 'moral economy' or 'rational actor', leaving it for the readers to decide. At the same time, he has subjected himself inadvertently to the possible criticism of being an apologist of the British Raj. He argues that the colonial rule has not brought about any sea-change in the existing order of the Saran society and that agrarian social structure in Saran remained more or less stable during the nineteenth and early part of the twentieth century. Such an argument is untenable if one takes into account

the oppressive role of the rural elites/landlords who acted as operating non-white functionaries of the British and received disproportionate benefits. It was obtained at the cost of the landless and labouring classes whose position worsened during the period. Given this, *can one argue that colonial rule during the period in Saran 'has not altered' the agrarian relations?* Are the expressions of discontent, increased violence, rioting, strained relationship between the peasants and landlords, desertions and migrations not relevant to be considered as changes in an agrarian society? Does mere continuity of control mechanisms or channels of control sufficient enough to argue relative stability of Saran society? These questions are quite intriguing.

The Limited Raj argument in Saran district is also not very convincing. Yang argues: "Whether viewed from the perspectives of government's relation with its allies or from the angle of its controlled institutions, British rule in Saran was a Limited Raj in the nineteenth and early twentieth centuries" (p. 111). If one were to extend the Saran district's experience to the rest of India (which the author himself does in the concluding part citing the example of Thanjavur district in South-east India) the situation or the local control mechanism was more or less the same with some local variations. Does it then mean that the British rule in rural India as a whole was a 'Limited Raj'?

The British in their attempts to establish supremacy over its subjects followed a highly discriminatory and at the same time conflicting policies. In this process, they kept the complex nature of the Indian rural society with its caste and class complications untouched (in fact they aggravated it by their divide and rule policy), so that it does not in any way threaten their supremacy and ultimate aim of 'maximising revenues and minimising costs of administration'.

Besides, having deeply entrenched themselves in the classical political economy ideas, the British, in the late eighteenth and nineteenth centuries, deliberately did not make any serious attempt to extend its direct control mechanisms below the district level in many areas of rural India. The case of Saran is no exception. Attempts to 'revitalise *qanungo-patwari* connections' or 'experiments with the *chaukidars*' must be looked as *additional* local control mechanisms along with the already existing rural elites control. To this reviewer's mind, their failures should not be in any way taken to mean that colonial state was a Limited Raj in Saran.

Further, for the colonial state, as long as the going is smooth (example: efficient running of Hathwa estate) they did not bother to alter the existing structure or order. However, whenever necessary, the colonial state never hesitated to use all the powers at its disposal to control and establish supremacy even in the remotest corner of India, leave alone taking action against erring local elites or controllers. The British rule in India is replete with many such instances.

The above arguments do not in any way reduce the value of the contents. The rich source material has been used very well in the analysis, and scholars, who intend to pursue micro level studies of rural societies in the historical context, can take cue from Yang in using the available source material. The work, no doubt, enriches the existing scanty micro level studies of Indian rural societies during the British Raj.