AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

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

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

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

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

Ind. Jn. of Agri. Econ.
Vol. 50, No. 4, Oct.-Dec. 1995

Book Reviews

Agricultural Prices - Analysis and Policy, S.S. Acharya and N.L. Agarwal, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1994. Pp. vii+370. Rs. 120.00.

Agricultural price has been a critical but formidable variable in the management of the Indian economy, because a spurt in the prices of agricultural commodities will raise the ratio of population under poverty significantly as the purchasing power of the poor declines. Hence an understanding of demand, supply and price behaviour of agricultural commodities is important not only for the economists, agricultural economists and students but to the policy makers and administrators as well. As agricultural price movements are politically sensitive, price policy has occupied a prime place in economic policy debate and implementation for the past several decades.

Though several books appeared in the Indian scene on agricultural policy with agricultural price policy as a major component of treatment, no book was published exclusively on 'Agricultural Price Analysis' that could be used as a main reference book for a course on this subject for students of agricultural economics. This has been so at the global level also. The book under review partially fulfills this requirement. As a teacher and researcher in the field of Agricultural Economics, this reviewer gratefully appreciates the efforts of the authors in having made an attempt to design and develop a comprehensive book on 'Agricultural Price Analysis'.

It is not our intention to repeat here what the book contains chapterwise which the authors have already presented in a detailed manner in their preface to the book. The authors claim that the book is an exclusive text book for a course on agricultural price policy analysis. The usefulness of the book for researchers and marketing specialists is also emphasised. The book will be useful certainly for the teachers who offer course on agricultural marketing to undergraduate students in agriculture and allied fields. It can be an introductory book to students of agricultural economics. This reviewer fully subscribes to this view of the authors. But its adequacy for post-graduate students in agricultural economics, and marketing, researchers and marketing specialists falls short significantly. This is so because the book does not contain concepts and analytical techniques required for intermediate level and advanced courses in agricultural price analysis and policy and for advanced research in the field.

First, the authors have not taken pains to provide a rigorous treatment of demand and supply analysis. What is provided is more of an elementary nature except a few techniques such as Linear Expenditure System in demand and Nerlovian and Raj Krishna models in supply analysis. In elasticity relationships, only homogeneity condition is explained while several other conditions such as Slutsky symmetry, Engel aggregation, Cournot and exhaustiveness conditions are missing. Derivation of factor demand and product supply functions from production function and/or profit function, recent developments in supply models and demand system, and Hedonic price models are not found. Chapter 13 seems to be out of place as the students can refer to any book on micro economics. In Chapters 6 to 9, except a few sections, all others can be found in texts on Applied Statistics. But what is needed are applications of techniques such as harmonic analysis, spectral analysis, ARMA and ARIMA models, etc. Other important topics which are to find a place in the book are farm retail price relationships, margin equations and model of price determination between

levels of a marketing channel (e.g., Gardner model).

Part III contains a mere narration of agricultural price policy which has been followed in the country. No analysis of policy and their impacts is attempted. Large amount of literature has appeared on agricultural policy research and analysis using formal framework. Impact of price policies such as fixing product prices, input subsidies, price stabilisation programmes can be analysed elegantly using econometrics. Further, modern agricultural price analysis encompasses incorporation of risk in supply and demand models, econometric price forecasting commodity models, price stabilisation models, to mention a few. A book on agricultural price analysis and policy is expected to deal with these subject areas.

Notwithstanding the gaps indicated above, the authors have made an earnest attempt to bring out a book with a distinct goal of educating all those who are concerned with agricultural prices and policy. In the profession of agricultural economics, this is a first but a pioneering step made by the authors. The members of this profession must follow it up to bring out advanced books in Agricultural Price Analysis and Policy, which the profession today is badly in need of.

Department of Agricultural Economics,
Agricultural College and Research Institute,
Madurai-625 104 (Tamil Nadu).

C. Ramasamy

Mobilization of Rural Savings in Asia and the Pacific, Asian Productivity Organization, Tokyo, Japan, 1992. Pp. 334.

With a belief that the rural poor (landless, small and marginal farmers) are too poor to save, the establishment and development of modern financial institutions in the third world countries started with channelling of external funds through these institutions into the rural economy. Although these financial institutions have had considerable growth in terms of bank branches and advances, the growth was uneven across the regions and income groups. The access of the poor to credit in general and from formal banks in particular has remained a problem. Even if some of the poor had obtained credit from formal banks, they found it to be neither timely nor adequate. Because of this and several other reasons, there has been an alarming growth of overdues in formal banks.

This failure of 'credit first theory' compelled many to propagate an alternative view, i.e., 'deposit first theory', wherein savings mobilisation is emphasised. The resurgence of interest in 'savings first theory' is largely due to the fact that if credit is linked to savings, the participation and stakes of the borrower-farmers would improve. Borrower-farmers, obtaining externally funded loans, may not feel any obligation towards financial institutions.

Against this background, a symposium on mobilisation of rural savings was organised by the Asian Productivity Organization (APO) in the latter part of 1990 at Tokyo, Japan. The symposium discussed the situation of rural financial markets in APO member countries with a view to appraising the major problems and current policies on mobilisation of rural savings as well as indicating the general directions which might be taken by member countries in enhancing the rural financial services. The book under review is a collection of papers presented at the symposium. To be specific, it consists of a summary of the findings, two survey papers on country reports, five papers by resource persons and 12 papers on the

same number of participant countries, in that order.

The country papers uniformly present evidence on national economies, the prominence of agriculture in these economies, the development of rural financial markets, the ratio of rural deposits to total deposits, and the policies followed by the respective governments in savings mobilisation. These papers, though descriptive, are useful to readers specifically interested in a particular APO member country. An overview of these papers is, however, usefully available in Fumis Egaitsu's paper on 'Credit First? or Deposit First? Answers to Two Major Questions Based on the Country Report' and in Fumis Egaitsu and Takao Yurugi's paper on 'Savings Mobilisation in Rural Asia'.

One major issue discussed in the symposium was whether the rural poor can save or not. Indeed, the fundamental difference between the 'credit first' and 'deposit first' theories lies in different answers to this question. Based on the country reports, the symposium concluded that the answer to this question is a conditional affirmative. The rural poor can save on the condition that (1) the level of income grows; (2) financial institutions lift the burden of informal loans off the backs of the rural poor; (3) small farmers are given access to banks; and (4) education changes the attitude of small farmers towards savings.

In addition to these conditions, Robert C. Vogel, in his paper, argues that the following four sets of incentives for rural savers are crucial in order to mobilise deposits: "rates of interest that are competitive and positive in real terms; security; adequate liquidity which is essentially the same as low transaction cost for depositors; and reciprocity, that is, enhanced access to credit that grows out of the relationship between a financial institution and a depositor." These incentives are important to rural savers in providing the incentives and the discipline that make rural financial institutions viable.

If one concludes that the rural poor can save under the above conditions, then the question is: "are rural savings worth mobilising?" This question becomes all the more important because of high transaction costs to the bankers and the easy access to external funds. Based on the country reports and also papers from resource persons, the symposium concludes that the answer to this question is definitely affirmative. It was also concluded that the costs of small savings mobilisation should be considered as part of human resource development in the rural areas. Although savings mobilisation may not be cost effective in the short run, it would be beneficial to the development of the banking system and also to rural development in the long run.

The conclusion that the poor can save does not mean that 'credit first theory' should be rejected in favour of 'deposit first theory'. On the contrary, the fact that the rural poor can save under the conditions stated above validates the 'credit first theory'. The three case studies on the experiences on savings mobilisation in Bangladesh, Japan and Korea suggest that rural credit, if well administered, can initiate a sound development of the rural financial markets through a relationship between growth of income and saving. Financial institutions, again if well administered, can help the rural poor in freeing themselves from the clutches of the informal lenders. Thus the contribution of 'deposit first theory' lies in its emphasis on savings mobilisation which has long been neglected by the 'credit first theory'.

The findings and conclusions of the symposium are very relevant to our own country, where, though there was a rapid deposit mobilisation after nationalisation of banks in 1969, there is still savings potential which is yet to be tapped. There is an imperative need for co-operatives to attempt at small savings mobilisation because loanable funds in these

institutions come entirely from apex bodies; this is one of the important contributing factors for excessive bureaucratisation that had set in this sector. To improve the stakes of members in the co-operatives, there is a need to step up efforts in the mobilisation of small savings from members and link credit to savings. In this regard, the lessons emerging from the symposium would be particularly useful to the policy makers and others.

ADRT Unit,
Institute for Social and Economic Change,
Bangalore-560 072.

D. Rajasekhar

Economic Liberalization and Indian Agriculture, Edited by G.S. Bhalla, Institute for Studies in Industrial Development, New Delhi, 1994. Pp. ix+398. Rs. 300.00.

The economic liberalisation programme launched by the Government of India in 1991 has so far been concerned primarily with attaining macro-economic stability, removing restrictions on foreign trade and investment, and dismantling controls and regulations on private industry. Some of the policy changes (e.g., the reduction in fertiliser subsidies and allowing prices of certain categories of fertilisers to be determined by the market) no doubt impact on agriculture. While there has been no major reorientation of strategy or policies towards this sector, the implications of the philosophy underlying liberalisation for agricultural policy has attracted widespread attention. Interest in the subject has been heightened by provisions dealing with agricultural subsidies and intellectual property rights in the treaty culminating in the Uruguay Round. Numerous seminars and conferences have been held to discuss the subject. Of these the conference jointly organised by Institute for Studies in Industrial Development and the Food and Agriculture Organization of the United Nations is of special interest, because of its comprehensive scope, the quality of papers and the stature of its participants.

Practically all the relevant aspects of agricultural development policy - namely, the overall agricultural strategy (Chapter II); foreign trade and pricing policies (Chapters III and IV); technology, input and credit (Chapters VI and VIII); Agro-industries (Chapter VII); food security (Chapter V) - are covered. The papers provide useful reviews of past experience, critical assessment of the lessons of this experience and the pros and cons of changes advocated in the context of liberalisation.

On the whole, the papers suggest a consensus that past policies have discriminated against agriculture and that changes are needed to redress this imbalance. There is general support for removal of restrictions on movements of agricultural produce; relaxing restrictions on agricultural exports; giving greater weight to world market prices in the determination of domestic support prices; improving efficiency of price support and public distribution activities of the government and reform of the credit system. The papers reflect a widely shared scepticism about the impact of changes in relative prices on aggregate farm output and a concern for enabling small and marginal farmers to make effective use of productivity augmenting technologies. While recognising the necessity for diversification of agriculture from foodgrains, and the need for encouraging processing industries using modern technology, S.K. Goyal argues that the entry of large business and multinational companies is unnecessary and undesirable. There is a generally shared preference for co-operatives of

small producers in agro-processing as indeed in all activities.

The emphasis on the expansion and improvement of agricultural infrastructure including research and other non-price factors to achieve a faster growth are also widely shared. Several authors (Y.K. Alagh, G.S. Bhalla, C.H. Hanumantha Rao, S.S. Johl) draw attention to the deficiencies in the programme for irrigation, soil conservation, research and extension, and the need to correct them. There is however considerable hesitation and caution about trade liberalisation, abolition of subsidies and privatisation of research.

While Rao argues forcefully for removal of input subsidies (both on fiscal grounds and as being inimical to efficient use of scarce inputs), others (e.g., Bhalla) oppose removal of the subsidies because it will adversely affect the quantum of input use and therefore production. Several authors (e.g., Bhalla, Deepak Nayyar and Abhijit Sen) are not in favour of eliminating food subsidies on the ground that it will jeopardise food security for the poor. But the need for improvements in the efficiency of procurement distribution and targeting in public distribution system is generally recognised. However, it is not enough to say that public distribution of foodgrains has a crucial role in ensuring food security to the poor, or that more efficient targeting is essential to ensure that the benefits reach the poor and leakages are minimised. We need to assess the alternative ways of improving targeting in terms of their costs and effectiveness so that the interests of fiscal balance maximise the impact for a given budget.

Similarly, trade liberalisation for specialised high value export crops is welcomed but not wholesale freeing of export and import restrictions (e.g., Alagh, Bhalla, Goyal, Nayyar and Sen). The latter, it is feared, will shift resources away from foodgrains, increase the dependence on imported food, raise domestic prices of grains, and jeopardise food security. Nayyar and Sen also show that international prices have been in general more unstable than domestic price and that the differential between domestic and world prices do not show a consistent pattern over time. Useful as this is, one would need to know more about the present nature and structure of international markets, and the likely changes after the change envisaged in the General Agreement on Tariffs and Trade are effective, their impact on prices, and the extent to which freeing of trade restrictions on the part of India would affect prices. Multilateral trade liberalisation would open up significant export opportunities in some products. But whether the possibilities can be exploited depend on growth of domestic products. The balance of opinion is clearly in favour of a cautious policy on trade liberalisation.

On technology, Johl and Alagh reiterate the well known but none the less important lacunae in India's research effort: the excessive preoccupation with foodgrains; preoccupation of the researcher with maximising gross returns rather than net profit; and neglect of adaptive local research in different agro-climatic regions. Both rightly highlight the need for research programmes to recognise and address the diverse resource endowments and problems of different agro-climatic regions. Johl sees technology development under the new regime of intellectual property rights as a challenge while Nayyar and Sen have strong reservations about the regime on the ground that Trade Related Intellectual Property Rights (TRIPs) would lead to privatising of research, which in turn would impede adaptive research and raise costs of access to new technology. One would have liked to see more pointed discussion of the problems likely to be generated by TRIPs, and the ways in which they could be faced; as well as the institutional problems of redirecting research and making it

more accountable for performance; the relation between improvements generated by public agencies and improvements made by the private sector using the former; and how these problems have been tackled in other countries.

The concern about decline in public investment in agricultural infrastructure and the need to reverse this trend for realising faster growth on a sustained basis is well taken. But the efficacy of investment is as important as its volume. That there is much waste and inefficiency in this respect as indeed in the way various policy interventions are implemented is obvious enough. These deficiencies are in large part due to the institutions responsible for planning and implementation. Better design of programmes, institutional reforms of public systems and devising effective and accountable organisations for development and use of irrigation facilities, watershed management, research and procurement and distribution of food are therefore important. These problems are not directly related to liberalisation *per se*, but many of the prescriptions for change are predicated on the functioning of public institutions. This range of issues is not seriously addressed in much of the current debate on agricultural development. One wishes that the volume under review had broken from this pattern.

Madras Institute of Development Studies,
Adyar, Madras-600 020.

A. Vaidyanathan

Credit, Markets and the Agrarian Economy of Colonial India, Edited by Sugata Bose, Oxford University Press, New Delhi, 1994. Pp. x+333. Rs. 290.00.

This book brings together a selection of essays about debtor-creditor relations and the continuity and change in these relations during the colonial period. The collection provides a useful perspective from the discipline of history to agricultural economists who often view credit markets in narrow neoclassical terms, independent of history and institutions. In his introductory essay, Sugata Bose argues that 20th century historians, represented in this book, provide a better analytical account of the labour processes and agrarian relations in colonial India than their 19th century counterparts whose perceptions and analyses were limited by colonialism.

The book includes an excerpt from Christopher Baker's *An Indian Rural Economy: the Tamilnad Countryside, 1880-1955* that describes the development of financial markets in Tamil Nadu during the late 19th and early 20th centuries. According to Baker, the expansion of trade and financial capital in the late 19th century was accompanied by a large flow of finance from formal financial institutions to the informal credit market, and from urban finance to rural cultivation, through a set of intermediaries. For example, the Imperial Bank and new joint-stock banks usually lent only to indigenous bankers who, in turn, lent to other borrowers. One Chettiar firm made "a colossal fortune by simply borrowing from the Imperial Bank, adding half a per cent to the interest, and then distributing the loan amongst other bankers in Chettinad". Not surprisingly, there was a growing concentration of finance in relatively few hands. The depression of the 1930s had an adverse effect on the credit market as the value of securities plummetted. Baker also argues that 'the uncertainty created by the depression and legislative interference' altered the functioning of the rural credit markets and 'pushed matters backwards' by making loan transactions personalised. In other

words, he argues that in the late 19th century when agricultural trade was expanding, "this characteristic (that is, the importance of personal knowledge of the debtor).... (was) being gradually eroded". A large body of work on personalised transactions in rural credit markets in contemporary India, however, shows that without major changes in the agrarian structure and rural power relations, personalised transactions are likely to continue to be a key feature of rural credit markets.

One of the most interesting pieces in this collection is Neeladri Bhattacharya's paper on "Lenders and Debtors: Punjab Countryside, 1880-1940" in which he documents, in detail, the terms and conditions of different types of loan transactions in the rural credit market. Different types of lenders had different objectives and differed in their mode of operation. The 'Pathan moneylender', for example, gave small loans at very high rates of interest, ranging from 24 to 200 per cent, and without any collateral. He recovered money by force: "the *danda* (stick) came to signify the Pathan way of recovery". Petty usury was common among women who lent out small sums of money at high interest rates with jewellery as security. In areas of growing commercialisation, merchant-moneylenders flourished. Their objectives were to "control prices of purchase and sale, and ensure regular channels for the supply and disposal of commodities". Merchant-moneylenders, however, could not always purchase commodities at prices that were below market rates. From the late 19th century, mortgage debt began to increase and 'agriculturists' emerged as important lenders and used credit to acquire land for production. Bhattacharya also gives examples of labour-credit interlinkages: advances, for instance, were given to workers to ensure a regular supply of labour. The expansion of mortgage debt was associated with a process of proletarianisation but as Bhattacharya argues, this process was not always accompanied by dispossession. It gave rise to a class of "peasant proletarians" who had "a nominal hold over land" but were "dependent on wage labour for sustaining family consumption". The implications of debt were, of course, different for different classes of borrowers, and some of the richer peasant-borrowers were able to redeem their mortgages in a period when land prices increased.

Shahid Amin's contribution to the book is an important description and analysis of agrarian relations in sugarcane production in Gorakhpur, and it illustrates the different mechanisms ("market price, rate of interest, weights and measures, and hire of implements of production") used by merchant-moneylenders to extract surplus from small peasants. Amin focuses on the actual conditions of production and identifies processes including "the long duration of turnover and the combination of a long working period with an even longer production period" as the "structural basis for the operation of usurious capital". Sugata Bose's paper examines the nature of peasant indebtedness in the early part of the 20th century, a period when, according to him, surplus "appropriations through the credit market in east Bengal completely over-shadowed those through rental and land markets", and the subsequent rupture of credit relations during the Great Depression. His account highlights the distinct effects of the depression on the peasantry in East and West Bengal and on areas with distinct agrarian structures.

The book also includes an excerpt from Malcolm Darling's classic *The Punjab Peasant in Prosperity and Debt* and an essay by Eric Stokes that assesses the impact of the pre-British

tax system as well as the introduction of proprietary titles by the British on peasant indebtedness in central India. There is also an essay, somewhat out-of-place, by Ranajit Guha on differences in elite and subaltern religious idioms.

Indira Gandhi Institute of Development Research, Goregaon (E), Bombay-400 065. Madhura Swaminathan

Challenging the Professions: Frontiers for Rural Development, Robert Chambers, Intermediate Technology Publications, London, U.K., 1993. Pp. xvi+143. Paperback: £ 3.25. Hardcover: £ 19.95.

The book under review provides a deep insight into the processes of rural development in developing countries. It analyses how and why old albeit ineffective methods of rural development should give way to new ones for enabling the poverty stricken masses to participate in development and democracy. The author rightly questions the role of normal professionalism for its 'elite bias', albeit partisan way of looking at the problems and perspectives of rural development, which did not help in solving the problems of rural development, particularly in terms of eradication of poverty, unemployment, illiteracy, malnutrition and other poverty-led diseases. He, therefore, calls for the new professionalism which reverses the "power relations - 'putting the last first' - in choice of clients, professional values, research methods, and roles" (p. 9). Clients are the poorer and the more deprived, especially those in rural areas. Professional values are turned around with shifts towards low technology and software. Research approaches and methods are more holistic and experimental and located in field conditions. Roles are reversed with poor people as teachers and experimenters. Research priorities are determined not by scientists, but by the poor themselves. Although such reversals may appear extreme, some new professionals have already done much in the fields of community medicine, nutrition, agricultural economics and agricultural research. But most of the needs remain unmet and the potentials untapped. Also these reversals get reinforced by an emerging new paradigm of development which emphasises that development should be poor people centred and that the goal of development is not growth as defined by normal professionals, but well being as defined by the poor for themselves.

According to Chambers, "A practical approach to development embodies reversals, not just of normal professionalism, but of normal centripetal tendencies. The central thrusts of the paradigm here are decentralisation and empowerment" (p. 11). It also believes that poor rural people are knowledgeable and indigenous technical knowledge is part of the power of the poor. The rural people are also capable of self-reliant organisation. Further, the book provides a comprehensive account of various procedures, principles and choices in managing rural development and tips for project selection for poverty focused rural development. It also analyses how health and agricultural services in rural areas should be organised and planned for mitigating the problems of rural poor. Chambers is well known for his 'farmer first' approach to rural development and 'Rapid Rural Appraisal and Participatory Rural Appraisal' techniques for pro-poor development action. He has further examined the role of non-governmental organisations and the state in rural development in the context of emerging new paradigm of development and set an agenda for the 1990s.

Most of the conclusions of the book are based on the author's personal field observations and experiences, although relevant works of others also have been widely referred. While professionals having practical knowledge of the field realities would agree with the author's view that there is need for challenging the old professionalism which have urban and elite bias in their approaches, one would still find it difficult to accept that the new paradigm of rural development with pro-poor orientation, has really emerged very strongly in most developing countries, as the author believes. Also there is every reason to believe that old professionalism and old paradigm of development which are 'elite centred' may re-emerge in the wake of economic liberalisation having focus on market led growth. Of course, the author remains mostly silent on this issue, although he clearly mentions that neither neo-Fabian extension of state organisations of the seventies, nor neo-liberal prescriptions of the eighties would be relevant. The state besides being ".... protector and provider, should also be liberator and enabler for the poor, permitting and promoting for them both diversity and choice" (p. 106).

On the whole, the book makes a very useful and interesting reading. The author deserves commendation for his forthright views and practical suggestions. The book can be confidently prescribed for reading by all students and teachers of development economics as well as planners and policy makers who are concerned with rural development.

National Centre for Agricultural Economics and Policy Research (ICAR), New Delhi-110 012. T. Haque

Modern Rice Technology and Income Distribution in Asia, Edited by Cristina C. David and Keijiro Otsuka, Lynne Rienner Publishers, Inc., Boulder and London, 1994. Pp. xxiii+475. $ 12.00.

Irrespective of the level of economic development, the farm sector plays a key role in providing food, fibre, fodder and raw materials to the fast growing economies to meet the domestic demand, on the one hand and the demand of international market, on the other, particularly after globalisation. The strategies for planned socio-economic development, therefore, necessitates development of the farm sector. Agricultural production in Asia, which has increased manifold during the last four decades, has brought in its wake uneven development in the level of production across countries with varying agro-climatic conditions and socio-economic development. Though adoption of new rice technology lowers the unit cost of production and offers countries an opportunity to reconcile the inherently conflicting food policy objectives of providing low and stable prices to the consumers, it results in increased farm income and achieving self-sufficiency in rice production. But the new rice technology being highly location specific, large scale adoption has been constrained by environmental condition. In this backdrop, the compilation of research conducted in seven countries pertaining to technological change and technology adoption in rice farming and consequent change in income distribution is of special relevance to the researchers, planners and the policy makers.

The editors have done a good job of editing the studies of researches conducted in the Philippines, Indonesia, Thailand, Bangladesh, Nepal, India and China. In the first part of

the book, the editors have made a modest beginning in highlighting the scope and methodology embodied in the introduction on differential impact of modern rice varieties in Asia and providing an integrated analytical framework. The second part, on the other hand, concentrates in highlighting the findings of the studies conducted in leading rice growing countries of Asia. And finally, the third part concludes with the emerging views and policy implications pertaining to technology transfer and income distribution in Asian rice farming.

At the outset, while highlighting the differential impact of modern rice varieties in Asia, the authors have analysed the cases of six countries except China, where the technological change in rice farming came through hybrid rice rather than through semi-dwarf modern rice varieties. Since rice is grown under diverse production environments, following the classification of G.S. Khush (1984), the authors have examined the differential impact of adoption of rice technology in irrigated, rainfed lowland, tidal wetland, deep water and upland environments of different Asian countries. The modern rice varieties developed so far are best suited to irrigated and favourable rainfed low land environments and hence differences in modern variety adoption rates and associated fertiliser use across countries are positively related to the percentage of area irrigated.

The findings of the studies clearly brought out the facts that in Thailand, Bangladesh and Nepal where modern variety adoption was the lowest, the growth performance of either rice production or yields or both registered a declining trend. But this declining trend have had no impact on rural income in view of the rapid growth of non-rice agriculture and industrial sectors. In Bangladesh and Nepal, on the other hand, limited or lack of productivity growth in the rice sector, which serves as the major source of livelihood for most of their population, documented stagnation in their economies in the form of poor development of infrastructure research and extension, which in turn, affected the performance of the rice sector. Indonesia, on the other hand, witnessed a rapid output and yield growth rates which could mainly be brought about through higher cropping intensity. In the case of eastern India, a larger proportion of area being drought or flood-prone does not offer significant economic advantage over traditional varieties.

To quantify the impact of differential modern variety adoption in rice production, the authors appropriately estimated a system of equations based on pooled cross-country and time-series data from 1966 to 1987 by taking a common set of explanatory variables specified in all equations including variables representing production environment (ratio of irrigated area), technology (ratio of modern variety area), price effects (price ratio of paddy to fertiliser lagged one year), factor endowment (proxied by the ratio of the sum of arable land and land for permanent crops to agricultural labour force), human capital (adult literacy rate) and general economic conditions (per capita GNP in real terms converted by purchasing power parity index).

In the analytical framework contained in third chapter of the book, the authors have rightly used the basic utility maximisation model of a farm household to derive the input demand functions, farm household rice output function, income equation of the farm household from rice production and supply of owned inputs equation. In order to have a clear understanding of the distributional consequences of modern rice technology, the authors have identified the factors affecting modern variety adoption and assessed their direct impact on factor demands and productivity. In this context, labour demand and supply functions of family and hired labour, yield and fertiliser use functions used as the analytical

tool deserve special mention. In this section, the authors have also examined the factor-market adjustments in favourable and unfavourable production environments that arose on account of differences in technology adoption. In the supply-demand model, the authors have used the model of J.E. Floyd (1965) developed for the analysis of effect of Government intervention on factor prices and subsequently extended by R.E. Evenson (1975) and J.B. Quizon and Hans P. Binswanger (1983) for the analysis of technological change.

In the income distribution analysis, the authors have concentrated on the personal or household income differentials between favourable and unfavourable production environments. They have further concentrated not only on the factor incomes from rice production alone including return to land but also on the total income of rural households. In the factor-share analysis, use of income determination function approach and Gini decomposition formula in the decomposition analysis of income inequality is noteworthy.

All the eight papers contained in Chapters 4 through 11, are presented nicely, highlighting the productivity impact of modern rice varieties on income distribution. Across countries, it was the expansion of area under irrigation which contributed significantly to yield growth rates through adoption of modern rice varieties and fertiliser use and as such, the major source of growth shifted from area effects to yield effects. The findings of the studies supported strongly the impact of production environments and adoption of modern variety on productivity and labour demand. In the Philippines, modern rice technology, however, had little impact on labour saving technology and in the labour market, regional wage differentials got narrowed through labour migration from unfavourable production environment to favourable ones. The most important income source which contributed to the income inequality came from non-farm income.

On the whole, the book is an excellent exercise to understand the adoption of modern varieties and its impact on rural economy in seven Asian countries. It would be very useful to the students, researchers, planners and policy makers not only in Asia but in all rice growing countries in the world.

Central Rice Research Institute,
Cuttack-753 006.

Salik Ram

Institutional Finance for Agricultural Development: An Analytical Survey of Critical Issues, Bhupat M. Desai and John W. Mellor, Food Policy Review 1, International Food Policy Research Institute, Washington, D.C., U.S.A., 1993. Pp. x+162.

Rural Financial Institutions: Promotion and Performance, Bhupat M. Desai and N.V. Namboodiri, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1993. Pp. xiii+78. Rs. 135.00.

The first book is devoted to an analysis of the development of institutional credit agencies and the impact of the real interest on rural loan demand as well as supply of rural deposits. It makes an in-depth study of the critical issues involved in this process, drawing from the experiences of a large number of countries including India. The second book has a narrow

canvas, confining to a study of the performance of two rural financial institutions in the co-operative sector in Kerala. Desai has co-authored both the books along with two others.

An elaborate analysis of the organisation, functional structure and viability of the rural financial institutions is made in the first book, marshalling the data relating to a large number of countries. Among others, one major theme which is critically reviewed and which has policy implications for the restructuring of the rural financial institutions is: "Transaction costs of extending rural credit by rural financial institutions (RFI) are high and rising. These costs eventually lead to losses, making them inefficient and unviable. They also lack voluntary mobilization of rural deposits and delinquency rates are high" (p. 10). The international comparison of average transaction costs makes a very surprising revelation which is contrary to the commonly held notion about the high transaction costs. Incidently "unit transactions costs are defined as non interest transaction and administrative costs as a percentage of all assets plus all liabilities (resources)". The revelation is: "The average transaction cost for the majority of government sponsored banks (8 out of 13) and co-operatives (5 out of 6) are lower than those for government projects (2 out of 4) and private rural banks" (p. 44). While it ranges from 0.8 to 2.0 per cent for government sponsored banks, its range is quite higher at 2.5 to 5.5 per cent for government projects and private banks.

Some of the case studies cited also make very interesting revelations. Grameena Bank of Bangladesh for example is reported to have lent 96 per cent of the total advances to households having less than 0.2 hectare of land at 16 per cent interest (p. 45). Details of the rate of interest on deposits are not furnished while the average transaction cost is mentioned at 3 per cent. The Grameena Bank experiment of Bangladesh is very often quoted as a success story. By lending at 16 per cent many of our regional rural banks in India could also turn the corner. The home grown Grameena banks are yet to attract the attention of international agencies. The story of Malaprabha Grameena Bank can be very useful source material for research work on rural credit delivery system.

After making an excellent review of empirical details culled from many authentic studies, the authors have rightly concluded that ".... promotion of a vertically and horizontally integrated RFI system has a much higher impact on its net contribution to public resources, compared with the effects of increases in interest rates on rural loans and rural deposits" (p. 128). This has relevance in the Indian context also.

The performance of two of the Kerala-based co-operative credit agencies is examined in detail in the second book - Anad Farmers' Co-operative Bank and Aruvikara Farmers' Co-operative Bank from Trivandrum district. Both have undergone structural changes in accordance with the changes taking place in the co-operative sector. This case study appears to be limited to an inter-bank comparative analysis. The low delinquency rate is one of the plus points of these two banks.

Syndicate Bank,
Manipal-576 119 (Karnataka).

N.K. Thingalaya

Introduction to Forest Resource Economics, William A. Duerr, McGraw-Hill Book Company, Singapore, 1993. Pp. xviii+485. $ 12.50.

The dynamics of forest resource management all over the world has moved away from merely timber economics to conservation and environmental economics. In this context, the book under review make a valuable addition to the already existing literature on this subject.

Apart from the conventional aspects of forest resource economics, this book distinctly pushes into three related directions, namely, the non-timber and multiple use management, environmental values and areas of social science. It is divided into six parts and each part has a preamble and a summary of high points at the end. This pattern of writing greatly helps the reader since he can set his mind before reading each part and also to think over at the end. The major topics covered are: Consumers' behaviour, their values in the use of forest products, the economic principles involved in optimising the genetic production in response to consumer needs, manufacturing and marketing and valuation. In the last part, the influence of fiscal, monetary and legal policies on forest management is discussed.

The first part of the book deals with the relationship between forestry and economic development, timber economy of the world and the related issues. The importance gained by the financial system of a country in promoting the share of forestry in economic development is well brought out. This assumes critical importance since large external financial assistance is flowing to the third world countries from the developed countries and unless the financial system of the receiver country is sound, the aid cannot be effectively used. The firewood still forms a larger share in wood product in the tropical region and even in the United States there was a 'returning back' to it after 1973 'OPEC surge'. The preference of consumers and the impact of environment movements in relation to forestry are well discussed in the second part of the book. The estimation of income and price demand for forest related products like paper and pulp gives a good insight into their pattern in a developed country. Given the wide variation of income and culture in a country like India, such national estimation would throw more light on this.

The third part of the book actually focuses on the core of forest resource economics. The genetic production process is described in the form of a production function and the criteria used to solve the genetic production problems are economic efficiency, equity, capital and the rate of return. A good analysis is made by distinguishing between divisible and non-divisible timber capital. The interest rate paid by the firm is suggested to be taken as the guiding rate of return. This raises the issue of what rate could be used in a country like India where almost all the forest is owned by the state. The author concludes that timber growing by itself is not a big money earner, cautioning us especially when large timber growing is recommended in the agricultural land and a large number of commercial timber growing corporations are floated.

A new method of calculating the financial maturity of a tree is suggested by adjusting to the cost of delaying the use of land. This may not be significant in deciding the rotation since this adjustment in terms of age seems to be very small. The multiple use of forests is discussed by applying the principles of joint products, production possibility curve and iso-costline. Here the author very appropriately sounds a note of caution to be exercised on the use of production function analysis in forestry mainly due to uncertainty in specification

and valuation of outputs and inputs.

In the fourth part, the methods of forecasting are discussed. The novel test suggested to know the validity of forecasting deserves to be appreciated. The marketing of forest products is discussed in the fifth part with reference to structure, conduct and performance. Evaluating the efficiency of marketing of forest products by using the above principles may not be difficult in Indian conditions where the market is characterised by the state monopoly.

The last part is exclusively devoted to the study of the influence of social and economic policies on forest economy. Though some historical similarities could be seen between the conditions of forest labour in India and the United States, the other issues discussed related to an entirely different policy environment.

One final observation about the book is that it heavily draws on the real world examples from American forestry keeping primarily the American reader in view to explain the economic principles. The readers outside the developed countries will have some difficulty in appreciating them. Otherwise this is a valuable text book that may be used at the master's level.

Forest College and Research Institute,
Tamil Nadu Agricultural University,
Mettupalayam-641 301.

L.P. Swaminathan

Induced Innovation Theory and International Agricultural Development: A Reassessment, Edited by Bruce M. Koppel, The Johns Hopkins University Press, Baltimore and London, 1995. Pp. viii+190. $ 39.00.

Agricultural development *per se* remained by and large out of the focus of most of the development economics literature, until the sixties. The most refreshing and welcome deviation from this trend came with the work of Yujiro Hayami and Vernon W. Ruttan (1971) on the induced innovation theory. It was an attempt to understand and rationalise the historical patterns of agricultural development, particularly the technological choices in the U.S. and Japan, in the comparative context. The debate on the induced innovation theory that followed resulted in its extension and refinements in two ways. One, the collaborative research efforts of the proponents of the theory were directed towards rigorous testing of its hypotheses particularly of induced technical change. Simultaneously, the studies were designed by Hayami and others to advance the theory of induced institutional innovation and test it against the Southeast Asian experience. They led to recasting of induced technical and institutional change within a much broader framework of general equilibrium relationships among the resource endowments, the cultural endowments, the technical change and the institutional change (Hayami and Ruttan, 1985). This synthesis and evolution of induced innovation theory get reflected in the present book devoted to reassessment of induced innovation theory and international agricultural development. It is a collection of fresh writings on the subject both by the proponents and the critics of the theory. As the editor of the book Bruce Koppel puts it, the aim is to take the past debate still further by focusing more on the areas where new work was needed.

As stated in the preface, the book was expected to serve three purposes: one, to illustrate the process of evolution of the theory, second, to help focus attention on the complexity of

the contemporary processes of agrarian change and agricultural development and finally, to encourage a much wider debate and further comparative research on the induced innovation theory. The book is accordingly divided into four parts. Part I presents the editor's rationale for reassessment of the theory and the personal account by Ruttan and Hayami on the genesis and evolution of the theory since 1971. Part II provides a critical perspective of induced innovation theory based on applications and case studies by the economists, the sociologist and the political scientist. It includes the editor's paper too, presenting a reappraisal of the theory in the context of Asia's green revolution. Part III covers three papers on 'New Directions' written by the proponents of the theory. They highlight the mechanisms and processes by which changes in resource endowments lead to technical and institutional changes with the help of three separate illustrations. The discussion mainly draws upon the theories of private choice resting on risk and transaction costs and of public choice involving collective action. A final chapter appears in Part IV wherein Ruttan and Hayami not only respond to criticism and proposed new directions in the evolution of the theory but put forth the new agenda for future research.

The debate in the book throws up several interesting issues which would provoke discussion and controversy. For example, Koppel in his criticism of the theory in the context of Asia's green revolution raises two points. One, according to him, the theory's interpretation of induced technical change as an optimal change provided an ideology to the system of international agricultural research institutes to be used for absolving of any responsibility of the problematic consequences - i.e., distributional consequences - of the green revolution in rural Asia. Second, by the theory's continued insistence that the technological and institutional change in rural Asia was not a political issue but merely a matter related to economic efficiency, it ignored the 'context' for technological change in Asian agriculture.

Likewise, Larry Burmeister and Richard Grabowski in their critical perspective of induced innovation theory emphasise - and rightly so - the constraints on the working of induced innovation mechanism imposed by the inequities in the distribution of economic and political resources and limited private entrepreneurship. According to them, these constraints led to inappropriate bias in the path of technical and institutional change. Ruttan and Hayami too have conceded this point. It demonstrates limited relevance of the induced innovation theory especially to the developing economies, as has been the case with many other mainstream economic theories.

Another limitation of the induced innovation model highlighted by the critics of the theory has been the 'black box nature of its internal working mechanism' particularly with reference to induced institutional change in response to changes in resource endowments. Ruttan and Hayami in this context emphasise the importance of exploring further both analytically and empirically the implications of 'impure induced innovation'.

Finally, a reference must be made to one of the interesting areas of future theoretical research proposed by Ruttan and Hayami. The suggestion comes in the context of the currently growing conflict between the adverse environmental impact of agricultural and industrial intensification and rapid growth in demand for environmental amenities and services, which is characterised by high income elasticity. Technical change in future therefore needs to be compatible not only with the changing resource endowments as postulated in the theory but also with the rising value of environmental resources for which markets are missing. The problem of theoretical conceptualisation of induced institutional

change is further far more complex in this case.

The book thus updates the debate on induced innovation theory within a neatly organised compact theme offering the perspectives of the economists and other social scientists as well. It will be of immense interest to both the agricultural and development economists.

Department of Economics,
University of Bombay,
Vidyanagari, Kalina,
Bombay-400 098.

S.D. Sawant

REFERENCE

Hayami, Yujiro and Vernon W. Ruttan (1971, 1985 Revised edition), *Agricultural Development: An International Perspective*, The Johns Hopkins University Press, Baltimore and London.

Aid to African Agriculture: Lessons from Two Decades of Donors' Experience, Edited by Uma Lele, The Johns Hopkins University Press, Baltimore, U.S.A., 1992. Pp. xix+627.

Learning from experience is an important part of development process which was subjectively incorporated into development efforts. However, with the shrinking of resources and expanding alternate uses, lessons from past experience are more objectively incorporated through ex-post evaluation of development programmes, primarily at the initiative of donors. The World Bank, in co-operation with other donors working in Sub-Saharan Africa, initiated research on managing agricultural development in Africa (MADIA). The book under review is a compilation of series of documents emanating from these research efforts, assessing the effectiveness of aid and constraint to growth in Sub-Saharan Africa.

Evaluation of aid effectiveness is an extremely difficult task as the effects of aid are inseparable from the effects of domestic policies, infrastructure, managing capacity, external economic environment, etc. The task is even more difficult because of inadequate, unreliable data and the problem of quantifying benefits of welfare services. With these limitations, the MADIA studies evaluate aid effectiveness in terms of recipients' achievement of broader long-term goals of agricultural and economic development.

The book begins with an overview of trends in aid received from various bilateral and multilateral donors, and the performance of the MADIA countries in terms of the attainment of their long-term goals. This is followed by the experiences of the World Bank and seven other bilateral donors. Food aid is discussed in a separate chapter. Finally, the book is concluded with a synthesis of aid effectiveness and emerging lessons.

The aid formed a significant part of total government expenditure in the MADIA countries and therefore aid was expected to accelerate the pace of economic growth. The analysis, however, shows that a complex web of macro-economic and sectoral policies, and micro-level constraints have impeded economic growth in the MADIA countries. The smallholder-led growth in agriculture could not succeed because of unfavourable macro-economic and sectoral policies. Consequently, the emphasis shifted from large project aid in the 1970s, given irrespective of the absorption capacity of the recipient country, to adjustment aid for macro-economic and sectoral policies in the 1980s.

Considering the diverse agro-climatic and economic conditions among the MADIA

countries, and the differences in the approach of donors, country-oriented analysis appears to be appropriate. This runs through seven chapters for bilateral donors and one chapter for the World Bank. With little concentration one may find that the donors as well as recipient countries were unsuccessful in articulating development needs and therefore, impairing the effectiveness of aid. Much of the problem was because of shortage of expertise with the donors as well as with the recipient countries. Bilateral donors were dependent upon multilateral donors, particularly the World Bank for policy support. As a result, a 'think tank' could not be developed within the country which could identify the problems, and appropriate approach and policies to address them. Similarly, food aid was not utilised as a regular foodgrain stabilising measure and it was not used for employment generating activities like creation of rural infrastructure.

Considering the diversity of the problems and donors' strategies, Uma Lele and Rahul Jain have done a commendable job to put country-oriented analysis into cross-country perspective in the last chapter. Some of the emerging issues deserve special attention. For instance, the donors should concentrate on those areas where they have comparative advantage rather than adopting 'top down' approach of funding. Multilateral donors should concentrate more on economic and policy analysis for developing long-term strategies, while bilateral donors should promote human, institutional and technological capital. A balanced long-term agricultural strategy set in a favourable macro-economic and sectoral policies environment would certainly make aid more effective as experienced, to some extent, in Kenya.

Without any econometric attempt, perhaps due to lack of data, the editor and other contributors have done a good job of assessing the aid effectiveness. However, the readers may find the discussion on some topics over-stretched. For example, the issue of balance between public and private sectors, though important, has been addressed without sufficient supporting evidence. Nevertheless, the book is a welcome addition to the literature and the issues raised would go a long way in reorienting development strategy not only in the MADIA countries but also in other developing countries. The book will be useful for researchers, planners, donors and those who are concerned with economic development.

Division of Agricultural Economics,
Indian Agricultural Research Institute,
New Delhi-110 012.

Suresh Pal

Managing Irrigation Together: Practice and Policy in India, Clarence Maloney and K.V. Raju, Sage Publications India Pvt. Ltd., New Delhi, 1994. Pp. 334. Rs. 325.00.

Most, if not all, problems afflicting our water economy can be traced to one fact that current institutions governing our water economy fail to provide either individual or collective incentive for water use efficiency and conservation. While groundwater being an 'open access' resource suffers from depletion and equity problems, canal water being perceived as 'public good' to be provided at subsidised rates suffers both from use inefficiency as well as from excessive administrative centralisation and huge financial loss. Unless a radical reform is urgently undertaken to change our present water institution (i.e., water policy, water law and water administration), it will be almost impossible to salvage and

sustain our water economy.

Policy changes, though fragmented and slow in coming, are fortunately moving in the right direction. Both the National Water Policy of 1987 and the Report of the Vaidyanathan Committee of 1992 have underlined the need not only to raise irrigation charges but also to increasingly involve farmers in water distribution, fee collection and system maintenance. The Centre and State Governments are seriously considering the issue of reforming water and irrigation laws. The issue of establishing water rights systems as a mechanism for setting limits for individual and collective water withdrawals gets increasing research and policy attention in recent years. Recently, the Ministry of Water Resources has set up a Committee to study the economic, legal, and technical implications of privatising canal irrigation.

Whatever be the changes in the spheres of water policy and water law, for them to be effective, they require corresponding changes in the sphere of water administration where the policies and regulations get operationalised and implemented. Although farmers' involvement is often suggested as a way to strengthen current water administration, the issue continues to lack clear understanding in all its dimensions and complexities. What are the conditions that foment or hinder farmer's organisations (FOs)? What are the principles, types, and structures of FOs for water management? Why and how do we need them today more than before? What are the techniques of organising them? What are the legal, financial, training, and technical supports that they need? How can they distribute water and maintain the system? How could they self-evaluate themselves and improve their viability? The book under review attempts to answer these and related questions with historical and contemporary experience of FOs both in India and elsewhere.

This well documented book is written with clarity and presented in a style conducive for easier reading and quicker grasp of the main ideas. Such positive attributes of the book come as much from the authors' experience and understanding of the subject as from the fact that it is planned and prepared over a seven-year period under the USAID funded Water Resources Management and Training Project of the Central Water Commission and the irrigation departments of 11 large Indian states. Rather than the usual chapter-by-chapter review, let us focus on the major issues and messages of the book.

First, the book emphasises a people-centred approach to water management - not on any romantic or idealistic grounds but on practical counts. Bringing farmers back into water management is necessary to reverse one of the serious historical errors of the British administration in India which, instead of developing the rich tradition of decentralised systems of local water management, went for a centralised water administration that lingers on still today as a colonial legacy. The major gap in such a bureaucratic set-up is the absence of an effective mechanism for involving farmers in water management. Since paternalistic attempts at farmers' participation as tried under the command area development (CAD) programmes will not help much, we need to move from 'participation' to 'organisation' and eventually to 'turn-over' a part of the system itself to farmers' management. This paternalistic psychology of viewing farmers as 'beneficiaries' should give space for a more healthier view of them being 'clients' of irrigation service for which they have to pay. Such a perceptional change, though not easy, is a pre-condition for ensuring a two-way accountability between farmers and irrigation agency.

Second, the book underlines the crucial role of social engineering aspects in irrigation management. Since irrigation is not merely a physical or hydro-geological system but equally

also an economic and social system, a mere engineering perspective could miss other important aspects like agronomy, economics, sociology, etc., so essential for improving the performance of the system as a whole. The authors caution that an undue domination of civil engineering in water administration could impair our perception of most water-related problems. Since such a disciplinary imbalance will be a major obstacle in promoting FOs [Water Management Associations (WMAs) as the authors call them] and 'turn-over', it is urgent to cultivate interface between different disciplines relevant for water management.

Thirdly, as the title speaks better, not only the farmers, irrigation officials, training and technical institutions, and private development agencies need to come *together* in managing irrigation but also different segments of the system ranging from catchments to drainage systems need to be managed *together*. Under such a holistic perspective, WMAs are viewed by the authors not as a substitute but as a complement to present water administration. Being a part of an administrative chain, they provide support to and receive support from other parts in the hierarchy. It is only in such an environment of co-operation can the pernicious 'psychological gap' between farmers and irrigation agencies be bridged.

Fourthly, the authors highlight a serious legal deficiency, i.e., the unsuitability of the prevailing Acts for legally registering WMAs. While the involvement of profit precludes their registration under the Societies and Trust Acts, cumbersome procedures, bureaucratic hurdles, and income tax problems discourage their registration under the Co-operatives and Trust Acts. Despite this, most WMAs in Tamil Nadu, Kerala, Bihar and Madhya Pradesh are being registered under the Societies Act whereas those in Maharashtra and Karnataka get registered under the Co-operatives Act. Considering the alternative option of registering WMAs under the Irrigation Acts (with suitable amendments) the authors suggest a two-stage procedure where the irrigation agency first recognises a *viable* WMA and then, it accords formal registration under the Irrigation Acts.

Fifthly, the authors also deal with one of the most crucial technical snags in ensuring equitable allocation of water and cost by WMAs, i.e., the issue of measuring water cost-effectively at the farm-gate level. Although efficiency demands volumetric measure, the existing water measuring devices, though useful at the outlet level, become either unsuitable or costly at the farm-gate level. While the use of measuring flume involves loss of water head and hence, a reduction in irrigated area, the use of a device with a graph paper on a drum (costing about Rs. 10,000) is too expensive. Although water meters (being used in urban areas) can be installed, they require water distribution by pipes, which is still more costly. At current water measuring technology, only a flow-based measure is practicable that, with unsteady flow, and variable channel width and distance, makes equity difficult to achieve.

Sixthly, while the need for WMAs is clear and the policy environment becomes increasingly favourable for their formation, WMAs are not always spontaneous except in cases where they face an immediate common threat like severe water shortage or share a common social bond. They cannot be created and sustained just by official fiat as the fate of most WMAs organised under the CAD programme in many states shows. As a result, they have to be catalysed by either the government, research and training institutes, or private development agencies.

One can add in this respect that, for sustaining WMAs, it is necessary to create a stake for each member because it is only with such an individual stake that a condition is created

for collective action. The issue is not only to make them perceive and act on the common gains from co-operation but also to assure them that such gains will be shared equitably. In this respect, the concept of 'water share' discussed in the book, if conceived not only as a physical and organisational concept but also as a legal notion, has an important role to play. Under a water right system managed by a WMA, water share becomes a private property (also with concurrent obligations) which a member can use or sell either in part or in full. The creation of such a legalised system with minimum arbitrariness and maximum incentive for use efficiency, of course, requires radical changes in water laws.

Finally, a point flowing from above is the need to conceive WMAs in a much more broader and dynamic context so as to bring our water economy within a market framework. The authors do recognise the fact that with water shares (or, water rights), conditions are created for the emergence of water market wherein individual members can buy/sell water shares with advance intimation to WMA. (Similarly, WMAs can also trade water among themselves with prior intimation to canal authorities.) In this case, WMAs have to act as clearing houses for water exchanges, resolve conflicts, and mediate transactions. Although such roles will become apparent only with technically and organisationally mature WMAs, it is useful to foresee such roles as we design frameworks for WMAs.

With these policy highlights, let us leave the book to readers who, we are sure, will discover it to be a good source material for further research and a valuable guide for all those involved in organising farmers for managing irrigation together. Since the policy significance of the subject matter is going to increase with time, so is the value of this book.

Institute of Economic Growth,
Delhi-110 007.

R. Maria Saleth

Structural Adjustment Programme and Food Security: Hunger and Poverty in India, Amitava Mukherjee, Avebury, Ashgate Publishing Ltd., Aldershot, Hants, U.K., 1994. Pp. xiv+366. £ 42.50.

This book examines the impact of the structural adjustment programme (SAP) upon food security and through the food security question, the impact of SAP on environment in India. There are nine chapters in the book. After literature review in Chapter 2, the author provides conceptual specifications on food security and the environment. The core chapters (4, 5 and 6) deal with the impact of economic reforms on food security of the poor and on environmental degradation in the early 1990s. The author then presents in Chapter 7 the findings of a field survey undertaken by a group of 12 officers of the Indian Civil Services. These officers visited 12 villages in the four districts of Hamirpur, Banda, Sonbhadra and Lalitpur of Uttar Pradesh in India, as part of their assignment of writing a report on "Structural Adjustment and Economic Liberalisation in India". The objective was to examine how the SAP has affected the lives of the common man, as perceived by the common man himself.

In the final chapter (Chapter 9), the author provides a summary, policy implications, the future shape of things and some suggestions on how to deal with the imbalances due to SAP. The author sums up the findings as follows: ".... the SAP induced policies have created a condition where food security is endangered, the poor are impoverished and environment is the net loser."

We have differences of opinion on some of the arguments given by the author of the study. Only a few of these are given below to save space.

Before going to the arguments, one limitation of the study may be mentioned here. The author does not talk about the counterfactual questions like what would have been the situation in the 1990s without reforms. Also, there is hardly any discussion on the impact of reforms on the medium and long-term. It is common knowledge that in the short run, there are some costs of adjustment. In the medium and long run, the reforms are expected to increase efficiency of the economy and reduce food insecurity and poverty. For example, in the budgets of 1994-95 and 1995-96, the expenditure on social sector has been restored after cuts in the first few years.

The author seems to be of the opinion that the food situation would continue to be in the same situation as in 1991-92 and 1992-93. Things have changed significantly after the year 1992. We have different problems now. The buffer stock is around 37 million tonnes and we have now the problems of plenty rather than shortages.

The study has attributed everything that happened to food insecurity and environmental degradation after July 1991 to SAP. It is true that a part of the decline in production could be attributed to reduction in fertiliser use which in turn was due to increase in fertiliser prices. It may be noted, however, that the weather factor was partly responsible for the decline in food production in 1991-92 and 1992-93. Only 68 per cent and 65 per cent of the districts had normal/excess rainfall in 1991-92 and 1992-93 respectively. Similarly, lower procurement of foodgrains might not be due to SAP. Thus the low per capita food availability in 1991-92 and 1992-93 could be mainly due to weather factor. Some of the indicators relating to environmental degradation mentioned in Chapter 6 were not due to economic reforms.

On page 97, the author says: "A fall in food production, such as the one discussed above, on account of SAP induced policies, induces a fall in employment opportunities in the rural sector, in the .... absence of any compensating variation in agricultural activity, through alternative land use...." The NSS data on employment and unemployment for the years 1989-90 and 1992, however, show that the employment in agriculture increased between 1989-90 and 1992 in spite of the decline in agricultural production in the latter year. In fact, there was a decline in employment in rural non-agricultural activities during the same period. This could be due to fiscal squeeze during the first few years of the reform period.

On food subsidy, the author says: "Indeed the burden on the exchequer due to the food subsidy pales into insignificance when we take into account the subsidies on exports, power, irrigation and interest rates, all of which are primarily targeted to the relatively better-off sections of society" (p. 124). Here the author probably forgot about the importance of power and irrigation for agricultural production which has a poverty reducing effect on the poor. Power and irrigation have many second round positive effects on the poor. Also, irrigation in north and south India has been responsible for having enough stocks of foodgrains for the public distribution system.

On page 275, the author suggests that "subsidies to inputs ought to be cut, not by shifting the burden of high cost on the poorer and vulnerable sections of society but by reducing average cost of production of such inputs, including fertilisers." It may be noted that although it is a good suggestion, reduction in cost of production will take time to materialise and in the short run price instrument may have to be used to reduce subsidies.

Finally, we have a comment on the list of references. The author cites many references in the text but the details are not given in the list of references at the end. To mention a few, the reference list does not contain Holmberg, 1992 (p. 58); Narayan, 1993 (p. 85); Sidhu and Sidhu, 1993, (p. 90); Parikh, 1989 (p. 95); Tewari, 1990 (p. 107); Stephen and Jha, 1992 (p. 122).

In spite of some of the limitations and differences of opinion mentioned above, the concern of the author on food security of the poor is well taken and this book would be quite useful for those who want to know about the negative impacts of structural adjustment programme on the food security of the poor in India.

Indira Gandhi Institute of Development Research,
Goregaon (East), Bombay-400 065.

S. Mahendra Dev

Agriculture, Environment and Health: Sustainable Development in the 21st Century, Edited by Vernon W. Ruttan, University of Minnesota Press, Minneapolis, U.S.A. and London, 1994. Pp. viii+401. Paperbound: $ 19.95. Clothbound: $ 44.95.

This book edited by eminent agricultural economist, Professor Vernon Ruttan, is an important addition to the literature on sustainable development. The main theme of the book is that accelerated demand on resources, with the growth in population, intensification of agriculture and expansion of industrial activities, is generating pressures on social and physical systems. Our existing institutions are not capable of coping with these pressures. Two other weaknesses in the present approach to development aggravate the situation. First is the lack of appreciation of the inter-connected nature of the approaches towards environment sustainability, agricultural development and health. The second lacuna is the lack of appreciation of the global dimensions of several social and environmental problems - not only of climatic changes - for which the national and regional institutions are proving inadequate.

The book is divided into six parts. In Part I the editor traces the evolution of the concept of sustainable development: beginning with an examination of the 'carrying capacity' of resources in technical and economic terms, developing into a concern for ecological sustainability, culminating now in a concept which incorporates the broad set of societal values. Further, the concept of sustainability has acquired a global dimension with the appreciation of environmental changes occurring on the transnational scale, e.g., global warming, ozone depletion, acid rains, etc.

The first essay in the second part of the book, by Kirit Parikh, is a sobering assessment of demand and supply of agriculture and foodstuff in the 21st century. After examining different models of growth of agricultural demand and supply, Parikh concludes that technical feasibility of achieving a hunger-free world by 2020 should not pose insuperable problems. The question that he raises is, could this be achieved with present institutional arrangements and organisational behaviour. He maintains that although future gains in agricultural production will be achieved with much greater difficulty, the real constraints to agricultural development are not biological or technical. The real problem will be the institutional capability to cope with the emerging issues. Similar conclusion, i.e., technical feasibility and institutional inadequacy, recurs in a number of subsequent contributions in

the volume.

In a seminal essay on "Institutions", Douglass C. North outlines a conceptual framework to analyse the constraints on institutional innovations. He distinguishes between the institutions ("the structures, including rules and norms, that condition human interaction") and organisations (the structures "consisting of groups of individuals engaged in purposeful group activity"). He points out the hiatus between individual and societal objectives and failure of the present set of institutions to resolve the dichotomy with the type of incentive structures that have come into existence. A nagging doubt left after his elegant exposition is regarding the implicit 'model of man' in this formulation. The inherent characteristics of the 'man' underpinning North's conceptualisation is the competitive, 'maximising' behaviour of the individuals. That there could be other motivations which 'move' the man and which may imply a different incentive structure than the one which is more relevant for a competitive model is not recognised, at least not very explicitly. Be that as it may, on the preferred institutional arrangements, North's conclusion is worth quoting: "Broadly speaking, democratic polities and decentralized market economies with well-specified and enforced property rights are the closest approximation we know to an adaptively efficient institutional framework" (pp. 56-57).

A major lacuna which impinges on institutional innovations referred by several authors is the paucity of information. This is brought out vividly in another section of the book, on "Monitoring Global Changes", while discussing climatic, physical and environmental changes. An added difficulty in changing the existing institutional paths arises due to the processing of information and transaction costs that it involves. These constraints lead to political disempowerment of certain groups and explain the difficulties in challenging the status quo.

Two subsequent sets of essays, on "Agricultural Research Resource Management and Technological Disseminations", and on "Health Research and Health Systems", provide important insights into the functioning of the agriculture and the health systems. All the contributions to these sections, as those included in other sections, emphasise the role of research. A number of aspects on organisation of research and dissemination of research findings are dealt with by the authors. In an interesting paper on fragile lands, for example, B.L. Turner and P.A. Benjamin maintain that the so-called fragile lands are not necessarily marginal lands. With appropriate land use coupled with investment in infrastructure and appropriate technology these lands too can support and sustain intensive agriculture. In an iconoclastic essay J. Tendler demolishes the myths of 'technocratic' as well as 'populist' approaches to the dissemination of the agricultural knowledge. The international dimensions of agricultural research and the efforts made, and those now underway, by the Consultative Group on International Agricultural Research (CGIAR) are critically examined by Carl Eicher. Unfortunately, there are no comprehensive country case studies on the organisation of agricultural research and extension as one finds in the section on Health Research.

In fact, one of the more important contributions of this book is to add health dimension to sustainable development. An equally important contribution is the emphasis that environmentalists, agricultural scientists and health professionals cannot maintain their 'island empires' if they wish to contribute to the understanding of sustainable development and the institutions and policies needed to support this approach. One of the most impressive essays in this section is a comprehensive and balanced treatment of the health policy in Sri Lanka

by G. Gunatilleke. Apart from bringing out the strengths and weaknesses of various initiatives in the health sector, the author has underlined the importance of macro policies in determining sectoral outcomes, an aspect which has not been touched by many other authors.

In the two concluding chapters of the book, the editor and his colleagues outline the future tasks before the researchers. Their advice is based on two fundamental premises: one, the households and the community are the basic units who will bear the brunt of the impending changes in agricultural development, natural resources management and the health delivery. They should always be kept at the centre in any research effort or policy initiative. Second, many of the existing problems, and more so the problems that are likely to arise in future, in all the three sectors will be transnational in scope and would necessitate international collaborative action to resolve them. With these premises the strategy suggested by the authors of the volume comes closer to the adage, "think globally, act locally".

The essays in this book have enriched the understanding on sustainable development on several important counts. By highlighting the relatively neglected field of health delivery they have made the concept of sustainable development more humane and to that extent more meaningful. With the emphasis on enhancing institutional capability they have provided an approach to instituting sustainable change. They have imparted relevance to the research on environment and natural resources by underlining the 'nature-man relationship' as the basis of any such exploration. By placing the household as the central decision-making unit, they have brought realism to the discussion on sustainable development. Finally, by demolishing the 'island-empire approach' of the experts in different disciplines they have made an effective plea for an integrated, interdisciplinary, research agenda.

Institute of Development Studies,
Jaipur-302 004.

V.S. Vyas

The Rural Non-Farm Economy: Processes and Policies, Ashwani Saith, International Labour Office, Geneva, 1992. Pp. ix+121. Swiss Francs 20.

This monograph on Rural Non-Farm Economy (RNFE) which is intended to be a precursor to a full-length study of the rural non-farm economy comes at a time when the interest in this field of enquiry and analysis has caught up rather rapidly in this country. The present study limits itself to a general overview of major issues with detailed analysis of three major areas of importance, namely, the impact of expansion of the RNFE on the behaviour of rural inequalities and agrarian differentiation processes, the likelihood of the operation of a macro economic and sectoral demand constraint on this sub-sector and finally, the potential of and limits to programmatic interventions in the form of special poverty alleviation schemes. The emphasis thus is on the demand side analysis of the subject.

Emphasising the definitional clarity as one of the important requirements of analysis of non-farm activities, the author says that activities such as fishing and aquaculture, dairying and animal husbandry, poultry rearing and bee-keeping, which do not have limitations or constraints placed on them by agricultural land (and productivity) can legitimately be included in the RNF sector. Simultaneously the author emphasises that the sector consists of diverse elements that hardly behave in an identical fashion in the overall process of structural change. The author further adds another dimension of location vs. linkage into

the definitional issue. Inasmuch as these approaches could provide quite different profile of 'rural industry' even if care is taken to capture the internal variations through appropriate methodology such as indexing, etc., the author suggests that the approach to the issue can be determined by the relative importance attached to the objective to be studied. The study of rural non-farm employment *per se* would be based on different premise from that of rural non-farm economy. For the latter, linkage approach would be more advantageous from analytical point of view as it would draw into its ambit all forms of economic activities including remittances to the rural sector - that retain a significant linkage with income generation for rurally resident population. Combining locational and linkage aspects, the author lays down following categorisation of activities: (a) rural located, rural linked, (b) rural located, urban linked, (c) urban located, urban linked and (d) urban located, rural linked, (a) and (c) being location specific and (b) and (c) linkage specific - and the three categories (a), (b) and (c) covering a remarkably wide variety of activities and enterprises that can constitute RNFE. One may or may not agree completely with the author's interpretation of the activities but it can be conceded that the coverage is pretty comprehensive theoretically and the wider definition as adopted by the author would focus the issues in proper perspective widening the scope of inquiry and making it more meaningful. Empirically, however, it may pose problems of identification and quantification especially in the case of (c) which would be qualitatively different from (a) and (b). To the extent (b) and (c) may fall in rural informal and urban informal sector respectively, this also underscores the need for spatial parameters as against pure sectoral ones for the study of developmental processes of RNFE.

The author rightly emphasises that theorising within both the classical and neo-classical traditions has generally ignored the existence of the rural non-farm sector sandwiched as it was between the two major sectors and therefore condemned to playing only a transitory role of housing the ruined artisanal groups that could maintain the same lifestyles and mobility path as surplus labour in agriculture. The author is also critical of the present thinking that sees rural non-farm sector as an urban decongestion, industrial dispersal, anti-migration policy instrument which in effect is a 'bandwagon' approach and is perceived by policy makers as "less politically damaging or less costly alternatives to the heavy agricultural subsidies carried in national budget". The fact is that this rural non-farm sector has proved to be sufficiently buoyant as is evident from the very valuable across the countries dataset provided in the monograph. Though intercountry comparisons are plagued with definitional problems, the annual growth rate of rural non-agricultural labour force over 1950-80 has been 4.02 per cent in Central America and Carribbean, 3.91 per cent in West Africa, 4.62 per cent in East Africa, 4.24 per cent in South Asia, 4.55 per cent in South-East Asia and 6.55 per cent in China, as observed from the data compiled by the author. In the case of India, a study (Visaria, 1995, p. 403) based on Indian data places the expansion of non-agricultural employment among rural males and females at an average annual rate of 4.7 and 4.6 per cent respectively between 1972-73 and 1987-88 against the corresponding rates of growth of employment in agriculture of 1 and 1.5 per cent respectively.

The RNFE has a potential to exercise 'push-start' impulses for successful industrialisation process in the overall economy, if artificial impediments are not placed on its growth out of anxiety for assigning it a role simultaneously for poverty alleviation in rural areas. It would be perhaps more fruitful to orient the policy thrust by looking into both the supply and the demand sides of the determinants of the growth of this sector. The poverty alleviation

programmes will produce better pay off if they are sector specific, in this case addressing to the issues of skill adjustments, institutional restructuring as necessitated by technological change, etc., and as consequence of the growth process. Ultimately, as the author tacitly puts in the Tailpiece in the monograph, "to set the RNFE really moving, the two main, and mainly ailing, sections of the economy have to be in good health". The developmental thrust to the analyses of RNFE is therefore very essential for devising right kinds of policies, and ensuring that this sector is not reduced to be the 'bandwagon', but emerges as a viable sector based on comparative cost and efficiency advantage. If this is conceded to the thrust of demand side analysis also will necessitate particular attention to the specific institutional requirements of this sector. The present institutional structure set up in rural areas has by and large built-in bias in favour of the agricultural sector. While as stated earlier, the health of rural non-agricultural sector would depend on the health of the agricultural sector, there is a likelihood of competitiveness or conflict between the sectoral interests for developing comparative cost advantage, improving efficiency levels, adaptation to technological change, etc. This sector would also have similar relation with the urban sector. And both these phenomena together may generate internal conflict within the rural non-farm sector itself, say between household and non-household segments. Any public intervention that adversely affects the growth impulses of the sector would prove counter-productive.

The author has basically dealt with the demand side aspects of RNFE in this monograph. The limitations of a monograph has constrained the author to deal with several other aspects. But for the first time a well integrated analytical framework of some of the aspects of RNFE are available in this monograph and a full-length study is promised. The framework as devised here should excite the scholars on the subjects to make research endeavours on issues not covered or covered but not fully settled, so that economics of RNFE can be put on par with the other two sectors of the economy, thereby developing appropriate macro-development model.

Indian Society of Agricultural Economics,
Bombay.

Tara Shukla

REFERENCE

Visaria, Pravin (1995), "Rural Non-Farm Employment in India: Trends and Issues for Research", *Indian Journal of Agricultural Economics*, Vol.50, No.3, July-September.

Asia's Rural Co-operatives, Edited by K.K. Taimni, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1994. Pp. viii+336. Rs. 350.00.

Although 'Cooperative' is founded on 'Cooperation' - a value distinct from 'Competition' -, in reality cooperatives in most of the countries have become bureaucratic institutions with neither the spirit of cooperation nor the instinct of competition. Even then, to many, cooperative system is the solution for all the ills of both market and command system. It is therefore extremely important to analyse the shortcomings of cooperative systems, and find the measures to correct them.

That is why an International Symposium on 'Management of Rural Cooperatives' was organised by the Institute of Rural Management, Anand during December 1992. One of the 15 workshops in the above symposium was organised on the broader theme of 'Experiences

from Asia's Rural Cooperatives'. Sixteen papers by twelve scholars discussed at the workshop have been presented in this volume. Whereas nine of the papers are analytical studies of cooperatives, the other seven are accounts of cooperative operation in Bangladesh, Malaysia, Nepal, India, Indonesia, Korea and Sri Lanka.

Major questions addressed in this volume are: (i) What are the specific conditions for the success of the cooperatives or conversely what are the obstacles in the development of the same? (ii) What kind of climate is conducive for their development and growth?

The basic objectives of cooperatives, according to the authors, range from improvement of members' economic position by building up their claim making power and fostering economies of scale to bringing about social transformation. Depending upon the stage of development, complexities of cooperatives too change from simple entity of relief/service cooperatives to mature integrated structure. Also the objectives of cooperative movement have wide range from simply increasing agricultural production, promoting rural development and generating self-employment to developing a distinct sector of economy to balance the public and private sectors, bringing about economic democracy and social justice, and finally evolving a decentralised economic system to ensure equitable distribution of national income and self-reliance among people. However, a majority of the studies quoted by the scholars have concluded that performance has been disappointing, particularly in regard to marketing in spite of remarkable success here and there.

One of the reasons for the disappointing performance according to one scholar is the absence of fundamental elements of cooperation, viz., democracy, self-reliance and freedom of decision-making. Although cooperative principles are widely lauded, they are in practice violated in most of the countries. Cooperatives like any other institution do not function in vacuum. They do tend to take their character and features from the general environment in which they exist. Therefore, according to this reviewer, larger environment of selfishness, greed, corruption, callousness and short-sighted vision may be held responsible for the lacklustre performance of cooperatives.

Nevertheless, there are a few major internal weaknesses in the cooperative system not only in Asia but elsewhere too. One is of capital especially for larger, more effective, value adding, advanced technology-based integrated agricultural cooperative structures as the return on paid up capital is limited and cooperatives tend to distribute surplus among their user members. European cooperatives have therefore started transforming themselves as partial companies by listing part of their units in stock exchange. This, however, defeats the very purpose of cooperatives where the members, unlike the shareholders of companies, are not alienated from the management process. Cooperatives, on the other hand, can take long-term loan as in the case of Japan or India, enhance contribution from members and try to plough back as much of surplus as possible instead of distributing it liberally. This, however, requires cultivation of trust among members.

This element of mistrust according to scholars in most of the places is because of imposition of cooperative policies, and management by political and bureaucratic control instead of evolution of the same by cooperative movement and democratically managed by members. It is conceded that in an environment marked with illiteracy and exploitation, it is difficult for the evolution of cooperatives, and there may be a need for top down approach. But government in these circumstances rather than creating co-operatives should create an environment wherein the cooperatives can flourish; government should then encourage and

sustain cooperation within the cooperatives rather than controlling them.

A second important problem with a majority of the cooperatives is its small size and non-viable operation. It is therefore worthwhile to list the enhancing factors for the cooperatives as found in the case of Japan which include (i) supply of inputs and marketing of products, (ii) accepting thrift, providing credit and making insurance, (iii) acting as a centre for consumer supplies, (iv) providing medical service and health care, (v) providing extension and field services and (vi) making community centre for cultural activities. Cooperatives thus took care of total business operation which increased both individuals' and cooperatives' income and developed a fine sensitivity towards collective needs and aspiration of members. All these have been observed in the story of Warna cooperative in Maharashtra also.

The climax of the book, however, is in the analysis of dynamics of agricultural cooperatives in Korea in the last three decades since 1961. In each phase they tried to examine the weaknesses of the system and change the rules of the game. Agricultural Cooperatives and Agricultural Banks were merged to reduce the weaknesses of each sytem when operated independently, and improve the functional relationship between the two. Several cooperatives were amalgamated for realisation of economies of scale, increasing the self-financing resources, enhancing public confidence and securing competent managers; the marketing system was strengthened by establishing collection centres at production locations and expansion of supermarkets; subsidiary companies were established to take care of export and import; democratic system has been strengthened by direct election of president by members and that of chairman of National Agricultural Cooperative Federation (NACF) by primary presidents. All these continuous improvements resulted in the growth of total business by 368 times in three decades. This allowed the cooperative system to take care of welfare demands of the community. What is most important is that all this success was a result of top down approach only. In any under-developed system, according to this reviewer, this is the only way cooperatives can be evolved. Government has to first establish necessary conditions for the birth of cooperative, not necessarily the cooperative itself; other things would automatically follow. Government should then become active supporter from outside. These days bottom up approach is much talked about, and non-governmental organisations (NGOs) are supposed to do this miracle. But it must be remembered that existing genuine NGOs can not cover the entire space of any society. And if they are 'engineered' the difference between NGO and government machinery would disappear soon.

This is an important book for any one who is groping for an alternative system in developing countries. However, it would have been more interesting if there had been a paper on Japanese Cooperative System, and an analysis on human personnel policy: which, according to this reviewer, is very important for understanding the variation in cooperative performance in different environments.

National Institute of Bank Management,
Kondhwe Khurd, Pune-411 048.

R. Dasgupta

Challenges Facing Agriculture and Rural Development, Edited by T.K. Velayudham, Oxford & IBH Publishing Co. Pvt. Ltd., New Delhi, 1994. Pp. 262. Rs. 295.00.

This is a collection of essays in honour of R.N. Poduval, a distinguished economics teacher, researcher and administrator. The book consists of four parts. In the first part the editor gives an elaborate overview of the challenges facing agriculture and rural development, mainly as they emanate from the various essays which follow. Part II deals with the theme of challenges facing agriculture and consists of four essays which constitute Chapters 1 to 4. The first essay (Chapter 1) is authored by G. Parthasarathy who examines the past performance of Indian agriculture with special emphasis on foodgrains production and in the light of this not only highlights the challenges facing Indian agriculture in the 1990s but also offers suggestions to meet them. The challenges for the 1990s are how to increase rural employment, how to bring about more balanced agricultural growth, how to eradicate poverty and how to mitigate the possible adverse effects of the New Economic Policy on agriculture and particularly, on the poor. Several suggestions have been made for bringing about higher and more diffused rate of growth.

The remaining three essays in Part II are on the inter-related problems of combating hunger and providing food security. John Mammen's paper (Chapter 2) on 'Combating Hunger' laments that though the World Food Conference held in 1974 pledged to eradicate hunger within a decade, no progress has since been made in achieving this goal. It is estimated that at least one-sixth of the population of developing countries may be running the risk of severe malnutrition or under-nourishment and another one-sixth the risk of mild or moderate malnutrition. Ram Saran (Chapter 3) deals with issues in food security - global, national and household. Food security, according to Food and Agriculture Organization of the United Nations, has three specific aspects of ensuring production of adequate food supplies, increasing stability in the flow of supplies and securing access to available supplies for those who need them. Developing countries can seek food security not necessarily through supplies available globally but only through a phased programme of either producing more food locally or paying for food imports by producing and exporting more of exportable products. The former approach, it is pointed out, has adverse effects on a country's economy. Yet, many countries follow it because of a number of compelling reasons. The author also examines various measures for strengthening world food security.

In Chapter 4, Ti Teow Choo considers the food security issues in South and South-East Asian sub-regions. The paper deals with different components of food security. The region became self-sufficient in the mid-1970s. It has been pointed out that with the present policy of extending subsidised infrastructure, technology and services in the cereal sector, continuing rapid cereals production growth may be difficult to achieve in the 1990s and calls for a whole new way of doing things in the cereal sector on resource planning and management.

Part III contains five essays under the broad theme of planning for agricultural development. The Indian experience of planning for agricultural development by J.S. Sarma (Chapter 5) first deals with planning procedures adopted in the country followed by a discussion on agricultural policies as they have evolved. Next, the production targets and achievements in respect of foodgrains and the performance of agriculture have been reviewed and challenges ahead for agricultural planning have been highlighted. A major challenge for Indian agriculture is to secure a rightful share in world trade and C. Sarat Chandran's essay (Chapter 6) which follows, dwells on this aspect. In spite of the great potential that lies in agricultural exports, its importance is hardly recognised. The author calls for a

comprehensive agricultural export policy and has identified issues which are central to such a policy. The role of agricultural price policy in agricultural and economic growth is dealt with by B.M. Bhatia (Chapter 7) who examines the evolution of agricultural price policy, its deficiencies and consequences and suggests improvements to make it more effective. He has argued for freeing agricultural prices from government controls and almost in the same breath pleads for a positive price policy in which the government should come out with a commitment to farmers to protect their incomes and sustain their improved living standards!

Decentralised planning for agricultural and rural development is the theme of the next essay. Decentralisation of planning involves multi-level planning which requires the creation of institutions for planning, co-ordination and public participation. It is not, however, clear how the plans formulated at each level would be in keeping with the objectives of higher levels in a situation where there would exist planning authorities for each level.

'Comments on Formulating Agricultural Development Projects' is the title of the next paper by Siepko H. Lok (Chapter 9). The paper deals with what are regarded as basic requirements of formulation such as objectives, management, farming systems, women's participation, environment and transfer of knowledge.

The fourth and final part of the book consists of five essays (Chapters 10 to 14) on different aspects of rural development. P.K.B. Nayar's paper 'Rural Sociology and Rural Development: The Case of India' deals with the changes in the Indian rural society under the impact of development. Most explanations advanced for backwardness and economic development, says the author, fall into two broad theoretical orientations - the revolutionary Marxian approach and the neo-evolutionary modernisation approach. An overwhelming array of development theorists followed the latter and the author, after focusing attention to this orientation, briefly dwells on the Indian rural social structure and examines the approach adopted by the national government to reform the rural front. It has been pointed out that the efforts have not contributed substantially to poverty eradication or to achieving distributive justice as it has not substantially changed the rural social structure.

P.C. Bansil's paper 'Rural Labour and Provision of Employment Opportunities' (Chapter 11) deals with the problem of unemployment. Analysing the employment situation, it has been pointed out that the growth rate of employment has decelerated during 1983-87 as compared to 1972-73 to 1977-78. The structure of unemployment is shifting from the predominance of under-employment towards a rise in open unemployment. He calls for a single poverty alleviation, employment generation and overall rural development programme adopting an area approach to development. Landless labourers constitute a particular section of rural labour and they are perhaps the most vulnerable section of rural society, consisting mainly of scheduled castes and tribes. Tarlok Singh (Chapter 12) examines their problems and offers solutions. Several recent developments have affected them adversely. A strategy of total development with an accent on skill formation and training programmes to bring about a basic change in demand for rural labour and in the long run a community approach to the development of human and natural resources and concern for the well being of all sections of the population have been suggested.

According to T.K. Velayudham who deals with 'Rural Banking and Rural Development' (Chapter 13), most of the financial resources required for the provision of basic social services and the infrastructure in rural areas will have to come from public funds. In financing all other rural development activities, credit and credit institutions have an important role to play. After a brief review of the rural development experience in India, the author examines the structure and role of rural banking in India as also their comparative performance. This is followed by an analysis of problems in rural banking and the paper is concluded with an

outlook for the future. In financing rural development and poverty alleviation programmes, lack of involvement of banks in the choice of participants is a major problem. Moreover, the compulsion to fulfil targets has lowered the standards of lending.

The volume ends with an essay on constraints and accelerating factors in rural development by S. Narayan. He has identified the critical common features in the conceptualisation of rural development strategies. The role of each one is then examined in either constraining or accelerating rural development.

Some of the essays cover a good deal of familiar ground; yet, these essays in general help the students of Agricultural Economics and Rural Development to get sufficient insight into the issues involved in agricultural and rural development. They also offer a number of suggestions useful for policy.

Vellanikkara-680 654,
Thrissur (Kerala).

V. Radhakrishnan

Non-Agricultural Employment in India: Trends and Prospects, Edited by Pravin Visaria and Rakesh Basant, Sage Publications India Pvt. Ltd., New Delhi, 1994. Pp. 370. Rs. 360.00.

India has entered the fifth decade of planning. Rapid growth in the nation's wealth was the primary goal. Allied goals were equitable distribution of benefits of growth, opportunity for gainful employment for all those who seek or need employment. Agriculture, the primary sector of production, carried the major burden of supporting nearly three-fourths of the population. Unequal burden of population on agriculture compared to its share in gross domestic product (GDP) was the source of most of the problems the planning had set out to address. The strategy was two-fold: one, to create conditions within agriculture for increasing production level and to undertake reforms that would improve distribution of the increased income; and two, to move population out of agriculture by creating opportunities for employment in other sectors. Theories were formulated around these two approaches and emphasis on one or the other depended on one's persuasion.

A third approach subsumed under moving people out of agriculture is the one investigated in the book under review, viz., the possibility of increased employment outside agriculture but not necessarily outside rural areas; its major advantage would be avoiding moving of people physically over large areas.

The ten papers contributed in the book address the various implications of the third approach. Together they reflect the current status of research on the subject. They examine the problems at various levels, broad or overall (A. Vaidyanathan, S. Mahendra Dev), at regional level and still below (Rakesh Basant and Harish Joshi, Ajit Kumar Singh). Simple, one equation regression analysis and model building (Vibhooti Shukla) have been adopted.

Most of the authors have commented on the drawbacks of the data base, mainly for inadequacy and lack of comparability over time. Years for which data are available did not also have normal weather conditions. Since data are available for selected years this limitation becomes a serious constraint. The scholars have made valiant efforts to minimise the limitations. But they have admitted that due to these limitations, they were unable to draw sharp and reliable inferences.

Decennial population censuses and quinquennial rounds of National Sample Survey are

the major data sources; the former has problem of changes in definitions of workers, the latter would involve larger estimation error as one goes to lower levels below the state. Despite this deficiency, an observation that seems to emerge is that despite the increase in population, the unemployment rate is not observed to have risen over the past three decades, the period covered by these studies. Opportunities for employment thus have matched with expanding workforce.

The distribution of the new opportunities varies over regions. Would agricultural prosperity create a labour supply crunch for rural non-agricultural sectors and thus discourage occupational diversification? Or, would the rising income levels in agriculture provide the basis for diversification through the expansion of the demand for the products of the non-agricultural sectors locally? The results of the analysis are not unequivocal. The experience of specific regions cannot be generalised for the nation.

The point to ponder is: one per cent change in labour in a large sector like agriculture especially at a local level within the rural areas could produce three to five percentage points change in the non-agricultural sector and both could be due either to measurement problem or seasonal influence or both. With population surge, differential growth of both the sectors could be observed. With no change in total unemployment rate (which too may not be free from data biases), such differential growth would imply a possible trend if it is consistently observed over a period of time. The evidence is sparse.

In a volatile situation of occupational distribution of labour, cross-sectional analysis too would have limited usefulness. Testing heteroscedasticity of the variables may help but not much. Statistical significance may not restore confidence greatly. For, one time observations could be a random phenomenon.

In this context a clearer conceptual base becomes important. It would provide a holistic view and sound logical basis. Even if the statistical analysis based on a model is not sufficiently convincing, it could be helpful for future research pursuit. Vibhooti Shukla's contribution has to be evaluated in this context.

On the whole, the studies have made a significant attempt to sort and sift data base and the problems inherent in it. In future when new data are added to the present weak base, robust results could follow.

The editors of the book deserve to be congratulated for their efforts to focus attention on a vital yet thorny issue that will continue to engage attention of the scholars and policy makers in coming decades.

Arlington, MA 02174,
U.S.A.

C.H. Shah