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Book Reviews

Agricultural Growth and Economic Reforms, R. Arunachalam, Deep and Deep Publications Pvt. Ltd., New Delhi, 2002. Pp. x + 291. Rs. 650.00.

This book is divided into three parts: whereas Part One provides an overview of dynamics of Indian agriculture, in Part Two the relationship between economic growth and structural change in India is evaluated; and in Part Three certain conceptual issues relating to economic reforms are discussed.

There are seven chapters in the first part covering various issues of Indian agriculture. In the first two chapters, the methodological issues in measuring the poverty level are discussed. The author argues that unlike the other studies, which used certain physical or monetary parameters to measure the poverty level, he looks at rural poverty more as a processual concept and the mobility of the peasant households into different income levels are discussed. The third chapter emphasises the urgent need for effective implementation of land reforms and an alternative administrative framework is suggested. Following this, the key role to be played by rural non-farm employment is discussed. The issues relating to irrigation management in Tamil Nadu are discussed in the next two chapters. The author clearly brings out the declining trend of public investment in irrigation and also highlights the reduced budgetary allocation to irrigation in Tamil Nadu. The inclusion of a chapter on co-operative urban banks while discussing the issues related to agriculture seems to be odd.

There are five chapters in the second part of the book, the two chapters relate to relationship between output, price level and economic growth including the monetary dimensions of inflation. The table showing the time series data on Gross Domestic Product, Wholesale Price Index and the Consumer Price Index is very informative and could serve as a good teaching material for those who handle macro economics. The author concludes that both structural and monetary factors are the real causes for inflation. The chapter on budgetary imbalances in Tamil Nadu is very revealing since such detailed analytical information at the state level is very rarely available. The chapters on family welfare measures though based on a detailed research study does not seem to have a link with the central theme discussed in this part, and the chapter on empowerment of women also is not properly linked to economic reforms.

The third part of the book contains certain conceptual issues relating to privatisation and other reforms. There are two chapters on trade which correctly focus on the need for promoting global competitiveness, technological upgradation and quality of the Indian products. This book contains the collection of results of various research works carried out by the author and also some conceptual issues. The title of the book gives the impression that as if the whole book focuses on the impact of

economic reforms and agricultural growth. There is no specific chapter focusing on the pattern of agricultural growth and impact during pre- and post-reform periods. Apart from this, the focus of the information gets shifted between India and Tamil Nadu very frequently, which at times confuses the reader.

Except for the above limitation, this book is a good collection of various research studies conducted by the author. As already mentioned the book would be very useful for the post-graduate students in economics and related disciplines.

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Poverty, Agrarian Structure and Political Economy in India: Selected Essays, Pranab Bardhan, Oxford University Press, New Delhi, 2003. Pp. xv + 350. Rs.645.00.

Professor Pranab Bardhan, in his distinguished career as Economist spanning over three decades, has critically examined the political and economic constraints of Indian economic development. His understanding of the development process is rooted in class struggle at one level and the nature of relationship between the state and various interest groups on the other. His analysis reveals that interaction between the polity and the economy creates patronage and distortions in the functioning of the pro-poor programmes. His well-argued concerns range from technicalities of measuring poverty, to structural rigidities of agrarian relations, and to political economy of development. This book also deals with these issues. It is a collection of essays written by Bardhan between 1971 and 2002 and addresses issues such as measurement of inequality; efficiency-equity trade-off; multi-dimensional poverty; production relations in rural economy and interlocked markets; political economy of reforms, etc. The essays on these varied topics are presented thematically rather than chronologically. In a sense, the book is a prelude to transitional exercises in the name of economic reforms and politics around it. Indian economic development has led to marginalisation of a large segment of population. This resulted in economic and political frustrations all around. The insight, however, is not only relating to inter-relationships between policy, agrarian economy, and society but also about how one can frame ideas in the direction of solving problems. There is a subtle urge to have micro look on complex agrarian relation for a better assessment before planning, especially after emerging economic openness and new ways of managing the economy.

The book is divided into three sections. The essays in the first section question the traditional views of efficiency-equity trade-off and argue for efficiency-enhancing

redistributive projects; highlight the significance of social sector investment for poverty reduction even a decade before such exercises became fashionable in the development discussions, and pre-empt some of the current controversy in methods of measuring income poverty in India. The essays in the second section deal with aspects of agrarian structure - labour relations, unemployment and under-employment, interlocked land, labour and credit markets, farm size and productivity debate, and relation between price and marketing behaviour of farmers. A debate on contrasting approaches in understanding these relations by economists and anthropologists forms an important part of the section. The third section of the book points to the disjuncture between political and economic process, highlights the criticism the elite-driven state-directed policy of economic development faces, debates the merits and demerits of devolution of power to local bodies and community, and presents the policies and attitude of the Left in the country.

The four chapters of the section *Poverty and Income Distribution* deal with measurement and policy issues relating to income distribution and poverty in India. Using Farm Management Survey data of 1950s and 1960s, Bardhan finds that inequality of farm income is higher than that of inequality of wealth. Probably, non-land factor plays a crucial role in creating income inequality. He concludes that reduction in concentration in asset holding in the rural areas did significantly reduce income inequalities. Bardhan, however, argues that the state policies of control in the name of helping the poor have been counterproductive from the point of view of both efficiency and equity. Market-driven economic growth need not be inconsistent with equity considerations. The radical redistributive policies like land reform may enhance production efficiency and reduce poverty only if it is accompanied with credit, input, market and extension support. Bardhan argues that with structural adjustment programmes necessitating large budgetary cuts, targeting transfer to vulnerable groups become vital to reduce leakages. But the administrative cost of targeting is considerable. In this situation, reaching the poor can be efficient if the community controls development decisions. While emphasising political decentralisation, Bardhan though advocates a role for civil society, he cautions against romanticising the value of community as social and economic organisation. The critical comments of the author on methods of estimation of consumption distribution and discrepancy between National Sample Survey and Central Statistical Organisation consumption data have pre-empted some of the debate that was to follow two decades after. Commenting on the different estimates available at that point of time, the study concludes that despite data problems, it seems remarkable that there is a quite a bit of similarity in inequality depicted through Lorenzo curves by different estimates. Pre-empting some of the debate to follow, Bardhan argues that the reliability of poverty estimates will depend on that of the consumption expenditure data, price indices used as deflator and the definition of poverty line. Making mortality and morbidity, rather consumption, central to marginalisation, Bardhan argues that public investment on education and health services need not be

congruent with the nutritional well-being. That access of these services to poor may be a better indicator of deprivation rather than the way poverty is being defined. He argues that the North–South divide - South and the eastern regions of the country have lower relative disadvantage for female survival than the North and Western regions - probably originates owing to production conditions in which female labour has varying economic value; this may also be a major cause of cultural syndrome of male dominance and virility that stem from in production conditions in which female labour is regarded.

Eight chapters of the second section, *Agrarian Structure*, explore the various aspects of agrarian arrangements. As terms and conditions of tenancy, wage labour, credit and output markets are linked in rural economy, these interlinkages reinforce imperfections originating in one to other markets as well. Often production-relation literature has been equated with feudalism and debt-bondage; the feudal mode is associated with appropriation of surplus through coercion, social and legal compulsion. Bardhan finds evidences that are contrary to this traditional belief. Notwithstanding some imperfections, the usury of tenant or wage labour by landowner was rare and an overwhelming majority of tenancy and attached labour contracts did not display feudalistic features. What, however, is disturbing is that rural women are more irregular suppliers of labour and their entry and withdrawal from labour market are quite frequent. His concern for contractual relations between labour and capital forced him to analyse the arrangements within the rural West Bengal in the late 1970s. He finds that attached labour is relatively more prevalent in developed villages. Mainly big farmers hire fully attached labours, more so if the region is developed. But most of the labours in the villages are casual labour and a few of the employers account for most of the casual employment, indicating a monopsony or oligopsony power of the hirers of casual labour. Bardhan finds a remarkable uniformity in the wage rate for a given operation within a village. The variations of daily wage rate from market rate arise when a labourer is repaying a loan in terms of labour to his employer-creditor. Wage variations are more marked across villages than within the village. Wage rates for female labourer are usually lower than male. Labour agitation has been the single most important way of bringing about wage changes. The relative importance of agitation has been more in advanced villages. Bardhan has put together estimates of a large number of demographic, environmental, agricultural, technological, economic and institutional variables for explaining regional variations in agrarian economy across NSS regions. He does not find larger proletarianisation in agriculturally progressive areas. Rural poverty, concludes Bardhan, is associated negatively with the growth of agricultural output and associated positively with concentration of marginalised population, rise in prices and rural unemployment. Bardhan also finds that infants die in greater numbers in areas where there are more poor people. Putting an end to the size and productivity debate in the context of production uncertainty and imperfections, Bardhan concludes that the observed negative relation is likely to be due to an inverse correlation

between size and production enhancing input use than due to scale diseconomies. At the end of this section, Bardhan sketches a familiar conversation about agrarian relations between economists and anthropologists. In studying agrarian structures, the two are not looking for the same things. The economists often interested in issues of topical policy relevance, are looking for empirical regularity, and are less interested in the localised particularities that often fascinate the social anthropologists. Bardhan argues for combining their comparative advantages; as is often the case, both of them have interests beyond the issues of immediate policy relevance in understanding what has happened and how people make sense of it.

Four chapters of the third section, *Political Economy of India*, capture an exclusive discussion on the political and economic scenario prevailing in India. Economic development 'Project' had many successes but the sluggish growth created a gulf between the political and economic development. The aspirations created by political mobilisation could not be fulfilled by the economy. This intensified frustration and social fragmentation. Partly in response to this raising frustration, the economic reforms came about to unleash the shackles of control in the hope that growth would trickle down. In order to understand the problems that reforms are facing, one need to analyse the various disjunctures that appeared between policy of reforms and political and administrative processes. Unfortunately, argues Bardhan, economists have no time and inclination for such a venture. Cutting across boundary of disciplines, the reforms are besieged with problems like (a) lack of long-term policy framework to which the state can commit itself credibly, (b) leakages associated with the system of *Dos and Don'ts* have not declined after dismantling the controls, (c) political power is shifting to regional levels making national coordination of macro policy difficult, and (d) reforms have neglected education, health, nutrition, drinking water, welfare and needs of the informal sector. These problems do not enthuse the imagination of the policy elites (read economist). As public services are left to decentralisation process with a hope that as these institutions are sensitive to local needs, state responsibility would shrink. The argument is that in governance structure, rights need to be assigned to people who have the requisite information, incentives and also are responsible for their decisions. This calls for devolution of power to local authorities and communities. Pressing is the need for a debate on the theory of state that is capable to disengage itself from traditional state versus market debate. More importantly, one needs to question the legitimised myths of state-directed development that does not involve the people but treat them simply as objects of development. The process ends up in largesse to elite groups on the one hand and what reaches the marginalised groups is of wrong kind, technologically inappropriate, environmentally unsustainable, and always disregarding local potential, ingenuity and information on the other.

A cynic may find the book a dated collection. Dated it may be for, the chronological evidence is hard to disguise. But that is all for volume's dated nature. The relevance of these essays emerges from the fact that they still constitute essential

reading on Indian development experiences. The papers in this volume indicate that agrarian relations should not be seen as stereotype arrangements of exploitation and that the livelihood opportunities and access to resources is key to income poverty, food security and well being in rural India. The context may have changed over the years but the problem of resourcelessness still persists. Some of the essays are topical enough to have attracted Bardhan's attention by converting them into full-length books. Nevertheless, what fascinates most, all through reading the book, is a restrained warning to the economist fraternity of their irrelevance as development professionals if society is not central to their analysis. Is this my imagined caricature of a prejudiced Economist?

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Child Labour in India, Edited by T. M. Dak, Serials Publications, New Delhi, 2002.
Pp. vii + 189. Rs. 525.00.

It is a common understanding that the phenomenon of child labour is an evil to the modern society. In fact it is not a recent one specific to modern society. The origin of the child labour/work can be traced back to human history. In the early societies, in the process of learning by doing the child work was considered as part and parcel of socialisation process. In transition, the attitudes towards children and the nature of work they were doing changed where it is perceived that the child labour or work has its consequences on the child as well as the society. In the pragmatic perspective, the nature of work that children were doing, the working conditions and environment and employment relations were changed over a period.

All these were found to be unsuitable to children's growth and development. In the normative perspective, the notion of childhood differentiated children from adult and it is established that the childhood should be work-free and for education. During the Industrial Revolution in developed countries, the problem and its consequences were well recognised. Consequently, measures were undertaken to eliminate the problem. Though the problem is eliminated in those countries long back it still continued to persist in developing countries. There has been a growing awareness and campaign at the global level to combat the problem.

In line with the changes at the global level with respect to the problem of child labour several countries took measures to combat the problem. India too undertook several constitutional and legislative measures, formulated policies and introduced programmatic interventions to eliminate child labour. The book under review presents such information with respect to India. As it is mentioned in the preface it is an attempt to 'provide a comprehensive treatment of the subject (child labour)

encompassing conceptualisation, its nature, extent and spread, its consequences for the young, constitutional safeguards and legislative provisions to protect the interest of the child workers, programmatic interventions and role of international agencies'. Accordingly five chapters arranged with five thematic papers are produced for the Central Board of Workers Education (India) under ILO/IPEC (as it is mentioned in the preface) in 1996. Though it is an edited volume there is no editor's introduction and conclusion except the editor's words about the book in the Preface. After reading the book one can say that it is informative rather than academic. For those who are constantly following the literature on child labour may not get excited while reading this book.

In the first chapter the concepts of child labour, extent, nature and spread are presented. Given the limits of conventional definition of child labour, a broader concept of child labour is considered where all those children doing work which interferes with education, growth and development of those children are said to be child labour. The concept works out well as a working definition. To present the magnitude it would have been better if it could have provided up-to-date data on child labour. The book is published in the year 2003 but the data in the chapter refer to 1980s and projection is based on the year 1981. The second chapter documents the detailed consequences of child labour, measures to combat the problem and the roles of different agencies (for example Trade Unions, ILO and NGOs) and their strategies. The third and fourth chapters document the constitutional safeguards. Besides, the respective (third and fourth) chapters provide information on legal provisions against child labour and different policies and programmes related to child labour respectively. Fifth chapter documents the information on international agencies' active roles: ILO's conventions addressing child labour, IPEC (1990) programme and UN Convention (1959 and 1989) on the Right of the Child. There is no proper assessment or evaluation of the legal measures or programmes undertaken. After reading the book the reader will get an idea on what are the constitutional safeguards and legal measures undertaken against child labour and different policies and programmes formulated for eliminating child labour in India. However, the question remains the same that how far they have succeeded in eliminating child labour.

While documenting the literature on child labour for reference at different points, the year of publication is missing in many places. And there are printing mistakes. In spite of these caveats, the book is worth reading for information related to constitutional and legislative measures and policies and programmatic interventions to eliminate child labour in India.

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Crop Variety Improvement and its Effect on Productivity: The Impact of International Agricultural Research, Edited by R. E. Evenson and D. Gollin. CABI Publishing, Wallingford, Oxon, U.K., 2003. Pp. xxv + 522. £ 75.00.

Future investment in agricultural research is being questioned ever since the food security goals of many developing nations have been achieved. Funding to commodity-based agricultural research centres started declining that forced many international research institutions to reorganise their mandate and research strategy. At the global level, the Consultative Group on International Agricultural Research (CGIAR) is responsible to mobilise resources for agricultural science to reduce poverty, foster human well-being, promote agricultural growth and protect the environment. It supports 16 International Agricultural Research Centers (IARCs) that work with National Agricultural Research System (NARS), the private sector and civil society. During 2002, it has a budget of US\$ 370 million. Of this, 18 per cent of the resources were allocated to germplasm enhancement.

In the recent past, the contribution of IARCs on germplasm improvement, especially after the 'Green Revolution', was questioned. This resulted in crumbling of some commodity-specific IARCs. The donors sought evidence on the impact of past investment on agricultural research to support future funding. Though there was no dearth of anecdotal evidence on the impact of germplasm improvement across countries and regions, there were very few systematic and analytical studies. To overcome such a challenge, in 1998, CGIAR constituted an 'Impact Assessment and Evaluation Group' (IAEG) to systematically document and analyse the research impact of germplasm improvement activities in various centres since the beginning of Green Revolution. Later the Group was elevated to a Standing Panel on Impact Assessment (SPIA). Eight commodity-based centres of CGIAR participated in this initiative. These included International Centre for Tropical Agriculture (CIAR), International Maize and Wheat Improvement Centre (CIMMYT), International Potato Centre (CIP), International Centre for Agricultural Research in the Dry Areas (ICARDA), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), International Institute of Tropical Agriculture (IITA), International Rice Research Institute (IRRI), and West Africa Rice Development Association (WARDA). The book under review is the output of impact assessment studies undertaken by these centres. It is a comprehensive crop-wise regional analysis of the joint impact of IARCs and NARS on germplasm improvement efforts.

The studies intended to decipher the doubts often raised on the contribution of investment on agricultural research, especially of germplasm improvement activities, based on analytical evidence. The IAEG raised very pertinent questions to track the impact of agricultural research and identify the missed opportunities to repackage the future strategies. These include, "... does varietal improvement still matter? Is public sector research required? Have national systems grown to the point where an international research centre is unnecessary? How past investments in crop research

led to improvement in productivity? Are continuing investments likely to remain worthwhile? How the international research centres produced anything of value since, say 1980, i.e., after the Green Revolution” (p. 3). The first section devotes on a common methodological framework that was developed for all the case studies to track the adoption of improved genetic material, quantify their research contribution, identify constraints in larger impact, and evaluate the IARCs programme effects on NARS and private sector investment in germplasm improvement programme.

The second part of the book documents commodity-specific case studies to demonstrate the quantitative assessment of varietal improvement programme. Eleven commodities covering a wide range of principal cereals and legumes have been included for the analysis. The commodities are wheat, rice, maize, sorghum, pearl millet, barley, beans, lentil, groundnut, potato and cassava. Each commodity represented the mandate of one of the IARCs. Most of the commodity case studies have broadly covered five key issues. First, a good documentation has been provided on the evolution of research in genetic improvement programme from raising productivity to reducing length of growing period, developing resistance against abiotic and biotic factors, and so on. Second, a comprehensive profile has been given on investment incurred and human resources engaged in the genetic enhancement research by the IARCs and the national programme in selected commodities. It also provides information on how the genetic material developed by the IARCs has been used by NARS in developing improved varieties and hybrids. The purpose was to document how the intermediate products of IARCs were used by the NARS in their breeding programme to develop location-specific varieties or hybrids. It was noted that by and large public sector was engaged in breeding for varieties, while the private sector in most of the cases was developing hybrids. Third, an inventory of released varieties and hybrids in different countries has been given to impress that the CGIAR’s germplasm improvement research programme developed a wide range of material to alleviate the abiotic and biotic constraints for different agro-ecoregions. Fourth, adoption of improved cultivars in different environments has been tracked using different approaches. This also covers a list of constraints in the larger adoption of improved cultivars. Finally, the impact has been quantified in terms of productivity increment, unit cost reduction, research lag reduction, spill-over benefits, and the economic surplus generated as a result of research investment on genetic enhancement activities. Most of the case studies used the partial generalised equilibrium model by measuring the shift in supply function as a result of higher productivity and lower unit cost of production. These studies have measured the distribution of gains to producers and consumers as a consequence of adopting improved cultivars. Different commodities yielded different dividends.

The quantitative analysis documented in these case studies provides useful information on the evolution of agricultural research, technology dissemination of selected commodities and their impact on the economic well being of the society in different countries and heterogeneous production environment. The case studies are

very revealing and show modest to high rate of returns to investment on germplasm improvement research in developing countries. It was also noted that in some cases, the germplasm improvement programmes were not tuned to the environment and regional needs, eventually their impact was meager. Most of the studies concluded that the germplasm improvement research has not been adequately complemented by policy and institutional research that posed major constraints in the large-scale adoption of improved cultivars. The lesson is obvious that the policy and institutional research must receive due attention to tap the full potential of germplasm improvement programme.

The third part of the book is devoted to three country-specific case studies. The countries included are Brazil, China and India. These countries represent a major proportion of cropped area in their region. The purpose of country-specific aggregate analysis was to overcome the inconsistency experienced due to micro-evidence and macro-evidence. In these country studies, macro-data at province, district and state level are analysed. Different equations were estimated by using various endogenous dependent, endogenous independent and exogenous independent variables to estimate the contribution of agricultural research. In case of China study, crop-specific total factor productivity (TFP) indices were also computed. Further, econometric models were developed to account for variation in TFP as a result of changes in technology, institutional reforms, infrastructure development, improvement on human capital, and other factors. These chapters provide that IARCs have made substantial contributions in China and India. On the other hand, most of the improved varieties in Brazil were crossed in Brazil, with limited IARC content. Nevertheless, the country-specific studies revealed that germplasm improvement programme has been an important contributor to productivity gains in these countries.

Finally, the IMPACT model of the International Food Policy Research Institute was utilised to create the 'counterfactual' or 'what if' simulations. The purpose was to assess the likely economic consequences in the absence of investment on genetic enhancement programme of CGIAR. The model predicted that in the absence of investment on genetic improvement programme, the world food prices would have gone up, world food production would have lowered, area planted would have been more, food consumption would have declined and import of food by developing countries would have increased.

Overall, the studies have ably demonstrated ample evidence that research investment of IARCs had positive impacts for all the selected crops and countries. All the studies unequivocally justified that the past investments in germplasm improvement were worthwhile. The key challenge for CGIAR and NARS is to target research in such a way that its benefits reach to most deprived population, concentrated in the marginal and unfavourable areas, which were by-passed by the Green Revolution.

The book is a useful contribution in bringing together the empirical evidence on the impact of research investment on germplasm improvement of principal

commodities. Evenson and Gollin deserve special compliments for leading a difficult task and bringing that to a logical conclusion. The book is a blend of methodologies on impact assessment and their application for different commodities and countries. The book must convince donors that research investment on germplasm improvement has paid high dividends to the society, and will continue to benefit the poor if complemented by appropriate policies and institutions. The book will be useful for those interested in assessing the impact of agricultural research and looking for methodological details.

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Agricultural Production Economics: Analytical Methods and Applications, K. Palanisami, P. Paramasivam and C. R. Ranganathan, Associated Publishing Company, New Delhi, 2002. Pp. viii + 209. Rs. 490.00.

The book under review mainly deals with application of production theory to real situations in agriculture. This book consists of thirteen chapters. It contains a concise introductory chapter on the concepts of production functions and the theoretical analysis. Following the introductory chapter, the second chapter deals with mathematical analysis of production relationships. The rest of the chapters highlight the various concepts along with empirical applications including technology, risk and uncertainty, measurement of inequality, yield gaps and yield constraints, economic efficiency, simulation and programming technique and project evaluation in the production analysis framework. The last chapter throws light on various issues relating to specification, estimation and application of production functions. At the end there is an annexure listing some of the possible extensions and the applicability of the production economics in the form of equations.

There are several textbooks on agricultural production economics in India and abroad. One important drawback of these books is the heavy emphasis on theoretical development but limited empirical examples and applications. Most of the books on Agricultural Economics are western in origin and deals with situations prevailing in the developed countries. This book is quite different from this angle. It has been conceived and prepared to fulfil the needs of both graduate and post-graduate students in Indian universities in general and agricultural universities in particular.

However, there are a few errors in the book, which may be taken care of in the next edition of the book.

1. On page 97, "the interaction effect is effect by the" This sentence should be verified.
2. On page 98, figures reported in Table 7.2 may be checked.
3. On p. 99, in figure 7.2, the letter 'B' is missing.

4. On page 156, the ratio is equal to zero and not to o e.

I am sure that this would be very useful and helpful to the students, teachers and researchers involved in agricultural production economics. On the whole, the book is a welcome addition to the existing literature on agricultural production economics. The book is worth a buy and it is affordable.

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Rural Employment – The Non-Farm Sector, Edited by M. Koteswara Rao, Deep and Deep Publications Pvt. Ltd., New Delhi, 2000. Pp. xiii+498. Rs. 990.00.

The growth of the rural non-farm sector is one of the many interesting changes which have taken place in the last two decades. These changes have induced considerable research in this area. Several researchers have made attempts to understand and analyse the trend, pattern, determinants and impact of the non-farm employment. Mostly secondary data supplied by the National Sample Survey Organisation and the decennial Census of India have been utilised to examine the macro-level changes in the workforce structure and their correlates. But very few studies are available which analyse the process of economic diversification at the micro level.

The book under review is a collection of twenty-four papers contributed by different authors. The papers included in this thick volume are not systematically presented and edited. Neither the book is organised in sections or parts to clear the focus or thrust of the book. Each paper forms a separate chapter. There is also a considerable repetition especially with one author contributing more than one paper on the same problem using the same data set. For example, Paper No. 8 is mostly repetition of Paper No. 6; the conclusion of Paper Nos. 16 and 17 are the same word by word.

Furthermore, the content and quality of papers vary widely, and the choice and sequencing is rather haphazard. Therefore, it is not possible to make comments on each and every paper. Rather we would only comment on some of the good papers focusing on trends, patterns and determinants of rural non-farm employment. To begin with, G. Parthasarathy and Shameem in their paper have tried to explain that there is a continuous decline in the share of non-agricultural employment from 1971 onwards in Andhra Pradesh. They attribute this trend of de-industrialisation in rural areas to the industrial growth in the urban areas, albeit absorbing much of the displaced labour. According to them there is a bleak picture of the possibility of growth in non-agricultural sector at the present stage of development in the state of Andhra Pradesh.

Partha Pritam Sahu (Paper No.3), also presents a case of deindustrialisation process taking place both in the rural as well as urban areas of various states of India using NSS data of 1984-85, 1989-90 and 1994-95. He concludes that Own Account Enterprises (OAEs) which accounts for major a share in the unorganised manufacturing sector has shown decline in its potential for employment growth both in the rural and urban areas.

A note on the nature and growth of rural non-farm employment in India by M. Koteswara Rao (Paper No.2) is nothing but the repetition of what several researchers have already studied earlier.

The papers by Kishor C. Samal (Paper No.6) and by Sukhpal Singh (Paper No.15) are well-researched papers. However, both are reprints of well-read journals. Using district level data of 1981 and 1991 censuses Samal examines the regional variations in importance and clustering of non-farm activities in the rural areas of Orissa. He, further examines that more even distribution of land and rural assets as also literacy and education are the two most important factors determining the level and growth of rural non-farm employment. Sukhpal Singh discusses in detail the relationship between agricultural development and growth in non-farm employment in an agriculturally developed state of Punjab. The Punjab experience shows that a fast growing agriculture is capable of generating high and rising levels of non-farm employment and income. It also helps in providing new avenues of off-farm employment and income in agro-processing industries.

K. Srinivasa Rao has contributed three papers in this volume viz; (i) 'Determinants of RNFE in India: A Regression Analysis' (Paper No. 7); 'Rural Non-Farm Employment and Residual Sector Hypothesis: A Study' (Paper No. 9); and 'Growth of RNFE:A Case Study of Delta Village in Andhra Pradesh' (Paper No.13). Barring a few repetitions all the three papers are quite interesting and provides new insights on both macro and micro dynamics of rural non-farm employment (RNFE) growth. In his first paper, he substantiates, the earlier results of Vaidyanathan on residual sector hypothesis. Working with the 1987-88 NSSO data, he finds that Person Day Unemployment Rate is positively and significantly influencing the percentage of RNFE. He also tests residual sector hypothesis by further extending regression analysis to manufacturing and service sector components of RNFE.

In his second paper, Rao provides micro evidence in support to the residual sector hypothesis by collecting the main occupation details of heads of the households and the occupations of other workers in the households. The survey was done in two Delta villages, one from each of East and West Godavari districts of Andhra Pradesh. In order to capture distress diversification factor, the researcher has collected information on non-agricultural activities, taken up after 1981 by workers of both heads of the agricultural and non-agricultural households. The results are quite interesting. For instance, the probability of workers of a non-agricultural households taking up non-agricultural occupation is much higher than the probability of workers of agricultural households taking up non-agricultural occupations. He also finds that

taking up of non-traditional non-agricultural occupation out of distress are relatively low. Analysing the factors influencing the participation of workers in rural non-agricultural activities, the researcher finds that farm size has a negative and significant sign. The education and caste variables also have the expected positive signs. However, the worker dependent ratio turned out with a wrong sign.

Analysing the same household and worker level data, Rao in his third paper observes that the participation of females in the non-farm activities is lower than that of males. Female entry into non-farm sector is restricted by many factors such as land, caste, education, skills etc. Classifying further the non-farm activities into traditional and non-traditional activities, Rao finds that some basic education is important for females to enter into non-traditional-non-agricultural occupations. Ownership of land and forward caste are not the necessary factors to get entry into non-farm sector. Thus, Rao's second and third papers provide more detailed reflections on economic diversification process at the household and worker level.

Besides Rao's two papers, mentioned above, few more papers based on primary data are in fact, a source of latest information on the subject. It includes papers by Satyendra P. Gupta (Paper No.5), which talks of on-farm and off-farm employment potential of the marginal, small and medium size farm households. He suggests that increasing area under irrigation and infrastructure facilities in the rural areas through higher levels of incomes can lead to increased employment in the non-farm sector.

Based on the study of four villages (two wet and two dry) in Tiruchirapalli district of Tamil Nadu, S. Iyyampillai and N. Jayakumar observe that non-farm employment in terms of man-days and income earned by them forms roughly about 40 per cent, with some variations among villages of different characteristics. Variations in the levels of non-farm employment are found to exist even among wet villages and dry villages, as also among different caste groups and farm sizes. Availability of better transport facilities in villages also works as the strong determinant for raising villagers income by participating in non-farm activities out of the village.

Rakesh Kumar and others (Paper No.12) deals with 'Pattern of Farm-Non-Farm Employment in Bundelkhand Region, U.P.' and analyses data collected from 60 agricultural and 40 non-agricultural households. These labour households are further classified as permanent and casual. A simple analysis showed that total employment days for both the categories of labourers were almost equal, but income per worker was higher for non-agricultural workers. This was true for both permanent as well as casual non-farm workers. They also discussed seasonality in non-farm employment. It was more in the months of June, July, August and October. It was concluded from the study that rural labour households are not fully employed and income earned by them is insufficient to meet their family consumption. All are practically living below the poverty line. Effective implementation of minimum wage rate is a must.

The association of farm and non-farm employment of farm households is studied by S. Senthilnathan. The focus is on small farms selected from six districts of Tamil Nadu. The farm households were selected from three different production

environments, viz., wet lands, garden lands and dry lands. The findings suggested that non-farm employment played considerable role in all the environments to make small farms viable. It was very much pronounced in dry lands. However, the viability has not been estimated by taking weighted average. It is based on simple average.

The remaining papers are either too descriptive or lacks quality analysis. For instance, three papers on handloom industry by Neduri Suryanarayana (Paper Nos. 10, 16 and 17), and two papers on DWCRA by K. Sreelakshamma (Paper Nos. 18 and 23) provide only descriptive account of these activities. The papers on brick industry by N. Narayana (Paper No. 20) and on Korai Industry by N. Manimekalai (Paper No. 21) deals only with the socio-economic conditions of female workers in these industries. Moreover both studies are single village based studies, with limited scope to generalise anything.

The reviewer did not find any reason for the inclusion of the study of micro enterprises of urban Botswana (Paper No. 24) in this volume. Non-inclusion of some of the papers which are of repetitive nature, unfocussed and have little or no relevance would have made this volume more useful and price wise affordable to many more readers.

Since the development of non-farm sector is not a phenomenon to be studied in isolation, its linkage with agricultural growth and rural-urban economies demand attention. The role of infrastructural development and location of non-farm activities are another unsettled question. The impact of growth in rural non-farm employment on the behaviour of rural inequalities and agrarian differentiation process; and why there is low participation of women in this sub-sector, are some of the areas that need to be further explored whereas, most of the issues raised and examined in many papers included in this volume have already been intensely debated at the theoretical level and tested empirically by several researchers elsewhere, using both secondary and primary data.

Another fundamental problem of this book is that much of the data analysed in these papers relate upto 1987-88 or even earlier period. This makes the publication rather outdated. Surprisingly, no paper writers have talked about the limitations of the data used by them. Besides repetition, the book also suffers from editing problems. Several tables appear with errors, and there are many typos. Reference list is also found to be incomplete in few papers. Let me simply end by saying that there is very little in this bulky book which is theoretically or analytically new. A book like this wherein the contents of the papers vary widely and repeated time and again, a separate section to recollect the main findings of different papers and identification of new areas of research is warranted.

Modern Forests: State Making and Environmental Change in Colonial Eastern India,
K. Sivaramakrishnan, Oxford University Press, New Delhi, 1999. Pp. xii + 341.
Rs. 525.00.

This book has not surprisingly been commended by others for both its theoretical contribution to the understanding of colonial forest history in South Asia and for its detailed and painstaking narrative in documenting such a history of colonial Bengal. The book is important because it elucidates upon the manner in which the colonial state's state-making manifests itself through processes of territorialisation and governmentality. The author also highlights on how state making aims at the production of knowledge. Sivaramakrishnan's contribution is, however, perhaps most significant in terms of method, namely the privileging of regional factors and micro-processes in shaping the complex process of state making. As he puts it, region allows him to 'range across different spatial and social scales of analysis', highlight 'distinctive social formations suggested by terms like locality' and draw boundaries around 'self-contained ecological relationships implied by the terms ecosystem or watershed'. In the process, he also pays special attention to the thin and fluid divide between state and society, the hybrid nature of and conflict within the state apparatus and the complexity of social relationships within not so homogeneous communities.

Sivaramakrishnan's approach is, therefore, different in a number of ways. First of all, his analysis of colonialism is much more nuanced and intricate than previous analyses. It is not, as others have highlighted, simply a case of the ecologically prudent community being displaced by the degrading colonial state. Not only are communities and state intricately linked to each other, but both the community and the state have discourses and practices which are prudent and degrading in different 'natural' contexts - themselves socially constructed. Second, the process of state making is shown to be rugged and non-linear, effected significantly in Sivaramakrishnan's narrative by what he calls 'zone of anomaly' difficult to colonise. Third, forests, although an example of state making, do not stand completely alone cut off from the agrarian economies in which they are situated. This allows for a more complete understanding of the impact of colonialism on rural communities.

The end product is a painstaking analysis of how the colonial state's presence in Bengal reshaped the agrarian landscape over a period of 180 years and the regional differences in this process. Sivaramkrishnan terms his approach as that of historical anthropology. His use of textual narratives through archival work coupled with field based enquiry is not only comprehensive in nature but also allows his work to be grounded in 'issues of relevance' to present day communities. In that sense, it links discourse with practice and past with present.

The book does leave some questions unanswered. While processes of statemaking are clearly regionally embedded, is there a wider narrative of colonial rule that underlines these different regional narratives? The book suggests that processes of statemaking and governmentality are located within the logic of capital accumulation,

but it is unclear as to whether such logic can be or was resisted outright or simply complicated. What is clear is that there were different regional regimes of statemaking influenced by local resistance of sorts. What is not so clear is whether there are regions that remained completely outside the purview of colonialism and which were not in one way or the other significantly effected by colonialism and modernity. Were there, in other words, discourses and practices in Bengal which challenged the hegemonic state policies around the forest economy and mapped out alternatives?

If there is another shortcoming to the book, it is that despite the attempt to link forests with the agrarian economy, the latter remains somewhat opaque in nature. While different regional regimes of forest conservation are detailed in terms of forest reservation, practices of timber extraction, management of forest fires etc., how these impacted upon different agrarian communities is less clear because the nature of these economies receives inadequate attention. This is not surprising perhaps because *Modern Forests* is a book about statemaking vis-à-vis forests. But it does highlight the fact that understanding forests in the context of agrarian economies requires a more detailed enquiry into how exactly forests are located in different regional economies and how state policies impact upon them. This, of course, is not an easy thing to unpackage historically but one that is worth the effort.

Notwithstanding these minor limitations, this is an excellent book when it comes to understanding processes of colonial intervention and regimes of governmentality. The focus on the regional is the only way forward in terms of understanding the complexity of social change within the agrarian economy. The book could be usefully supplemented by present day field based enquiries into how the colonial project of statemaking continues to effect rural communities in South Asia.

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