



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

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

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

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

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

Vol XLVI
No. 1

ISSN 0019-5014

JANUARY-
MARCH
1991

INDIAN JOURNAL OF AGRICULTURAL ECONOMICS



INDIAN SOCIETY OF
AGRICULTURAL ECONOMICS,
BOMBAY

Book Reviews

Small, Short and Unsecured: Informal Rural Finance in India, F.J.A. Bouman, Oxford University Press, New Delhi, 1989. Pp. xi+145. Rs. 120.00.

It is of practical significance to know what happens to the informal sources of rural finance such as village moneylenders in a region where the agricultural sector is developing fast and where the institutional credit structure is also strong and efficient. Bouman's research study on the performance of a number of financial agents in semi-arid Sangli district of Maharashtra conducted during 1984-86 has brought out findings which provide some useful information to the makers of rural credit policy.

For the purpose of field investigation, apart from the coverage of three informal sources of rural credit (eight *bishi mandals* which are informal savings and loan clubs, licensed and unlicensed moneylenders-and-pawnbrokers and milk collectors), 13 primary Urban Credit Societies and 22 Primary Agricultural Credit Societies, (PACS) were also included.

The starting point for the study is that though the majority of rural households are dependent on informal sources for their daily financial needs, these sources are not given due attention as the policy objective is to totally reduce the dependence of rural households on private, individual sources of credit. In the opinion of the author : "it is not realistic to ignore informal intermediaries nor to stake future rural development entirely on a rapid introduction of formal financial institutions in the country-side. The extent and nature of the dependency of rural households on the informal sector should be explored, the potential of informal financial intermediaries in promoting rural development investigated, the possibility of coexistence and complementarity of formal and informal finance agents recognised" (p. 2).

While it is recognised that the informal sources of loans are flexible, prompt, accommodative, and easily accessible even at odd hours, the question is at what cost the rural households have to borrow from these sources and what is the extent and nature of disadvantages in these borrowings. The countries like India cannot forget how private moneylending has led to bonded labour, landlessness and pauperism of illiterate rural families. It is however interesting to see in what manner the informal sources of finance operate in the present changed context when moneylending has been regulated through law, land productivity is improving through irrigation and new technology, agriculture is getting commercialised and an average farmer is now more aware of opportunities available for development. It is of particular interest to find out how the new informal agencies like *bishis* and milk collectors have come up. However, in the introduction to the study itself, the author deflates our expectation by stating that ".... the portrayal of the formal and informal financial agents are impressionistic and far from complete" (p. 4).

The book is divided into eleven chapters. The first six chapters provide, broadly speaking, background material on the debate about formal and informal finance, rural finance in India, sugar boom in Maharashtra, outline of rural financial market, co-operative credit and urban credit societies in Sangli district. The next four chapters deal with informal sources of rural credit while the last chapter evaluates and summarises the performance of these formal and informal sources of rural finance.

After stating that "it is difficult to give a clearcut definition of the informal sector because of its heterogeneity", the author does not seem to hesitate to jump to generalisations about

informal agencies. While self-help organisations like *bishis* are desirable and deserve to be promoted, the same cannot be said about private moneylending. In fact, the former, though informal, in a way are institutional in nature whereas the latter are individual in nature, thus bringing up the problems of relationship between two individuals, viz., between landowner and his tenant and farm worker, and between merchant and the cultivator who has to sell his produce to him. It is true that the development of the rural sector makes a big change in the context, yet one has to keep a close eye on how informal sources of credit affect small farmers, farm workers and small non-farm producers in the rural areas. India has not tried to eliminate private sources but only to regulate them. It is therefore not fair on the part of the author to say that "a second feature of rural finance policy are India's continued efforts to eliminate informal financial markets and harass its intermediaries through unfriendly legislation at the national as well as state levels" (p. 12). Whether one has bias in favour of or against private moneylending, it has been clearly brought out through rural credit surveys conducted by the Reserve Bank of India that, with the increasing role and share of formal credit agencies in the rural sector, the terms and conditions of credit from private individual sources have softened to the benefit of needy rural borrowers. It is also seen that investment and production-oriented finance comes mainly from institutional sources while private sources cater to non-productive and consumption credit needs of the rural households. In this background, let us see whether private sources in Sangli district present a different and healthier picture.

With increasing commercialisation of agriculture and sugar boom, the tempo of urbanisation has increased. The number of urban credit societies (UCS) in Sangli district increased from 10 in 1971 to 133 in 1984. Many of these have been organised in semi-urban centres. Of the 13 surveyed UCS, farmers formed the majority and even dominated the board in nearly half of the societies. Many of them have been organised by local political leaders. This is a phenomenon worth watching.

Reflecting the prosperity brought by the sugar boom and thereafter sustained by the growth of the dairy industry, informal self-help organisations (*bishi mandals*) came up in an increasing number. These have been organised by traders, well-to-do farmers and milk collectors and are mostly non-farming in character.

The author's obsession about informal vs. formal rural finance agencies tends to take the reader into a wrong alley in the Indian context. According to him, "licensed pawnbrokers should not be counted as informal lenders". The right approach to this discussion in our situation is institutional vs. individual rural credit agencies. The self-help financial organisations, though informal because they are not registered and not under Government control, are institutional and deserve to be promoted. Licensed moneylenders, though registered, are individual moneylenders whose terms and conditions of loans cannot be fully regulated through government control particularly in the rural area where they deal with small farmers, artisans and other poor households. In essence, the book's claim that "the informal sector acted as a catalyst and assisted small scale borrowers to participate in the development in a formerly stagnant economic environment" is not at all borne out by the facts presented. Nothing has been said about the developmental role of these credit agents. At best, the informal lenders provide some needy credit to the rural households. Of course, since money represents liquidity, one can argue that money advanced by these agents is for development, indirectly if not directly. However, one exception needs to be noted. We cannot ignore the

role of new type of informal sources of credit, viz., the milk collectors spawned by private dairies. The milk collector gets the loans from a bank on the basis of a letter of guarantee given by the owner of private milk processing unit. The milk collector contracts out the buffalo to the small farmer who will come to own the animal after full repayment of loan. As Bouman puts it, "the collectors have become a point of integration between informal and institutional financing".

While we cannot fully dispense with private, individual sources of credit because they too serve a purpose, viz., advance loans when urgently needed without bothering about the purpose of the loan, we have to accept the fact that their role in development is negligible. Our thrust therefore is towards the promotion of rural development through the building up of institutional infrastructure for rural credit.

The main plus point of the book lies in the fact that it has opened up the discussion on the informal sector in rural credit in the changed context of commercialisation of agriculture. Hence, it deserves to be on the shelf of all research libraries.

Belgaum (Karnataka).

H.B. Shivamaggi

Farm Income Disparity in Rural Areas, T.S. Chahal, ABS Publications, Jalandhar, Punjab, 1990. Pp. xviii+172. Rs. 150.00.

The book under review is based on the author's doctoral thesis. It focuses attention mainly on farm income disparity in the context of technological and institutional factors. The book is organised in the traditional thesis style. It begins with explaining the concept and genesis of farm income disparity. Based on an exhaustive review of literature, the author identifies the information gap for measuring farm income disparity in a homogeneous agro-climatic region. The methodology used in the study is described in Chapter 3. The results of the study are based on a fairly large sample taken from central plain region of Punjab. The main agro-economic features of the study area are presented in Chapter 4.

The chapter on farm income (Chapter 5) is clear and precise. The author observes that the per hectare farm income (returns to fixed farm resources) is inversely related to the farm size (operational holding), whereas per capita farm income bears a positive relationship with the farm size.

The chapter on disparity in farm income is the theme of the book. It deals with the magnitude of farm income disparity within and between different farm size-groups. Tabular analysis, Lorenz curve and Gini concentration ratio have been used to illustrate the farm income disparity. The author concludes that farm income disparity, in general, is lower on large farms.

Chapter 7, examining the factors affecting farm income disparity, is rather short but controversial. The author could have easily avoided the repetition of methodology in this chapter as the same has already been discussed in Chapter 3. The author first uses the production function approach to examine the determinants of gross farm income. And then, he uses a multiplicative identity expressing gross farm income as the product of various factors of production and the residual. He finally derives, from this multiplicative identity, the Gini concentration ratio of gross farm income which is equal to the sum of the Gini concentration ratios of various factors of production and the residual (pp. 54 and 133). The

multiplicative identity is valid only under the assumption that the elasticity of production for each of the factors of production and constant term are equal to one. In no case, such assumption is tenable. Moreover, the estimated production elasticities and the constant term are not equal to one (Table 7.3, p. 125).

Lastly, the author has summarised the results in Chapter 8. Hardly any attempt has been made to discuss the emerging policy issues. The book ends abruptly without conveying any message.

The book has several limitations. It is replete with printing errors. The appendices have been incorrectly referred in the text. The mechanical presentation of the results and the lack of conceptual clarity will disappoint the readers. The book is another addition to the existing literature on farm income disparity.

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

Suresh Pal

Rural Profile: Halting Change in Mode of Production - A Study of the Comprehensive Area Development Strategy, Asok Kumar Maiti, Inter-India Publications, New Delhi-15, 1987. Pp. 249. Rs. 190.00.

The book under review approaches certain agrarian questions from the view-point of production relations in the process of agricultural development. The author has followed the technique of intensive village studies and covered extensively both economic and social elements governing productive forces and production relations of a village reality.

It is quite understandable that the statewide cross-section data provided by the large-scale surveys such as Farm Management Surveys, National Sample Surveys, etc., do not necessarily facilitate an answer to the questions of mode of production in Indian agriculture due to the very nature of the data. This provides the rationale for micro-level studies on such problems of research like the one by Maiti. His study covered as many as 105 households which are mainly dependent on cultivation from traditional Hindu village (Joyrambati) in the district of Midnapore in West Bengal. The main interest of the author was to examine some social and economic consequences of Comprehensive Area Development Strategy (CADS) of West Bengal which was initiated in this area from September 1975.

The major objective of CADS is to tackle the problems of poverty, unemployment and inequality in the rural areas on a class-neutral manner. The author has used a benchmark survey data collected by the Comprehensive Area Development Corporation (CADC) in 1975 from this village before the Corporation started working in this area. The author resurveyed this village in 1980-81 to examine the changes therein as well as to evaluate the efficacy of this strategy. The main conclusion that emerges from his study is that there was no qualitative change in production relations, nor in the village socio-economic structure during the five-year period between 1975 and 1980-81.

In assessing the likely effects of CADS on agrarian structure, a gap of five years seems to be insufficient. The CADS gained its momentum only around 1980-81 and therefore an evaluation of its effects on relations of production on the basis of data collected at a short interval of five years seems to be unwarranted. This may be one of the reasons why the

author failed to find any significant change in the agrarian structure of his study village.

The author has organised his study into seven chapters. The first three chapters deal with the nature and degree of development of productive forces within the reference period along with a description of the socio-economic characteristics of the village under study. The author has observed some development in the productive forces mainly in the form of land augmentation, but no qualitative change in the socio-economic structure of the village. In order to understand the characteristics of the use of productive forces, the author has examined the pattern of distribution of ownership of and control over the means of production by different strata of the village society and found that the distribution of the means of production in agriculture was highly skewed. Again, the pattern of distribution of the benefits of social means of production (*i.e.*, those means of production which are not privately owned and controlled) which were supposed to be evenly distributed among various classes of the people, was found to be favouring the better-off households only.

With this background of socio-economic system, the author has studied the relations of production prevailing in the rural society in Section II of Chapter 4. A perceptive study of production relations considers the existence of both market and non-market forces in an agrarian economy. While the market principles induce the land, labour and credit markets to function as per the dynamics of supply and demand, the presence of several non-market forces in the agrarian society tends to alter the working of these principles of market operations. It is argued that the role of credit in linking labour and tenancy to land and capital leads to a situation of interlocking of the three markets. That is, the landowner leasing out the land to the tenant further reinforces this linkage by providing credit to him. Similarly, he would like to reinforce his relationship with labour. This institutionalises a configuration of relationships by which the landowner is able to maintain an assured labour supply and hence the level of output and earn profits through usury. Combined with other cultural elements of the structure, we thus derive a notion of some kind of a feudal structure of dominance and related system of production.

While judging the empirical relevance of such a framework in Joyrambati village, one can argue that the author has failed to collect extensive data necessary to examine properly the role of credit in labour and tenurial contracts in this village. In this connection, the author has noted: "We could not find any of the village respondents who admitted to have been engaged in usury" (p. 109). To refrain from disclosing facts obviously does not indicate the non-existence of the practice. Given the circumstances, the interlinkage approach of studying the production relations falls short of a satisfactory characterisation of agrarian structure in this village. Hence the conclusion drawn by the author regarding the capitalistic relations in agriculture does not seem to be unambiguously acceptable.

In the succeeding chapter the author has discussed the much debated question of the relationship between the size of holding and productivity as well as the differences of land productivity of different size categories of farmers belonging to different tenurial status with a view to explore the possibilities and comprehend the scope of future agricultural development of the village. The results of this micro-study were more or less the same as the earlier findings based on the large-scale survey data. What could not be achieved by the large-scale survey data was a verification of quality-based explanations of size-productivity relationships put forward by different scholars. But it could have thrown light on the quality-based explanations as well.

Although the major weakness of this book lies in Chapters 4 and 5, Chapter 6 dealing with the growth and distribution of assets, income and consumption expenditure, etc., provides some very interesting results, highlighting the differences across size-categories of farm households on these aspects. The author has incorporated a wide range of issues relating to the problem of income distribution in the rural community and studied in-depth the changes therein during the span of five years.

Although no perceptible change occurred during this time period, the economic disparity between the rich and the poor had not at least widened even with the introduction of new agricultural technology (water-seed-fertiliser technology) in this village. This, of course, contradicts the common findings on distribution of agricultural income in areas of green revolution studied by other scholars. Taking into account the distribution of non-agricultural income and hence total household income, the author has, however, observed a wide disparity between the two classes of people. The author has argued that the rural disparity has increased during the intervening period mainly due to the absence of any intervention from within and outside the village system. The author has not, however, employed any formal statistical technique to identify the factors responsible for the increasing rural disparity. Notwithstanding this analytical procedure, the kinds of disaggregation the author has attempted in studying the rural income distribution deserves the attention of scholars working in this field. The need for similar study in other parts of India cannot be over-emphasised.

In the last chapter the author has presented a summary of the findings and a retrospective view of the strength and weaknesses of the development measures adopted by the Development Agency in the study area. There are also some standard recommendations for further development of the community, like that the development project should be entrusted to a co-operative consisting of the members of the weaker section of the community, the CADC and the Gram Panchayat should have appropriate checks on the activities of the project, etc. It is understandable that a structurally profound recommendation does not always work for the complexities in our agrarian social system. That does in no way reduce the importance of this kind of study.

*Economic Research Unit,
Indian Statistical Institute,
Calcutta.*

Manabendu Chattopadhyay

The Oils and Oilseeds Economy of India: An Econometric Analysis, S.R. Narappanavar, Himalaya Publishing House, Bombay-4, 1989. Pp. xx+220. Rs. 115.00.

Oilseeds sector is a vital constituent of the Indian economy next only to foodgrains. The nine oilseed crops, viz., groundnut, rapeseed and mustard, seasmum, linseed, castor, safflower, niger, soyabean and sunflower are cultivated in India over an area of 17 million hectares. During the period 1949-50 to 1979-80, production of oilseeds in the country increased by 60.8 per cent, a large part of this increase coming from an increase in area under oilseed crops. The yield rate has been more or less stagnant and even showed a declining trend. Oilseeds production exhibited wide fluctuations from year to year due to variation in seasonal conditions since only 8 per cent of the total area under oilseed crops is irrigated.

The inadequacy of the growth of oilseeds production to meet the demand for fats and

oils, the consequent price instability and the highly sensitive and speculative nature of oils and oilseeds market are the major concerns, which affect both the producers and the consumers in the country. The limitations of earlier studies to investigate the factors that affect the behaviour of demand, supply, price, price variations and their interrelationships prompted the author to develop, in the present study, an integrated view of supply responses and market behaviour in order to analyse the economic aspects of fluctuations in production, consumption and prices of important oils and oilseeds grown in the country.

The study consists of ten chapters, including an introductory chapter and a chapter on conclusions and policy implications. The theoretical analysis reveals that price stabilisation will lead to an overall benefit for the producers and the consumers particularly in the case of oils and oilseeds sector, where the supply shifts in oilseeds production are dominant. This leads the author to conclude in Chapter 2 that building up of a buffer stock in oils and oilseeds to ensure regular supply is preferable to maintain prices at reasonable level, which helps both the farmers and the consumers. The author, however, could have made an attempt here to examine the alternatives before the government to maintain price stability to strengthen the conclusion.

The analysis of statewise trends in respect of area, production and yield of important oilseeds, viz., groundnut, rapeseed and mustard, sesamum, linseed, castorseed and cottonseed (Chapter 5) indicates that oilseeds production has not established a convincing breakthrough in India. The author develops a recursive model to estimate the parameters of the various relations such as acreage response relation based on Nerlovian partial adjustment model, production relation, demand relation and relations for price mechanism and price variations. The relations of the model are estimated in linear forms. The existence of positive supply response to changes in relative farm harvest prices is reasonably established by the acreage response relation, while the production relation indicates the significant role played by non-acreage factors in the production behaviour of oilseeds. The demand functions clearly bring out the price elastic and income elastic nature of demand for edible oils. This indicates the market structure for oils to be operating under demand pull forces, having speculative potential. The present structure of oils and oilseeds market is found to be controlled by the oil millers/traders and is not found to be conducive to the interests of the farmers and the consumers (p. 194).

The analysis of the study emphasises on the need for augmenting supply through vertical integration, ensuring nutritional requirements of oils for all sections of society and minimising the role of intermediaries to reduce the disproportionate changes in prices.

The development of the dynamic econometric model by the author for capturing the remarkable features of the oilseeds and oils market in India is, however, based on time-series data from 1950-51 to 1978-79 only. The projections made for the period 1979-80 to 1989-90, based on the assumption of continuity of past trends in exogenous variables, could have been more meaningful, with revised and up-to-date data.

The book under review provides a valuable insight into the operational problems of the oilseeds sector in India and contributes significantly to the improvement of the working of the oilseeds market through its policy suggestions, which, if implemented, would go a long way in reducing the edible oil shortage in the economy.

*Department of Applied Economics,
Andhra University,
Waltair (A.P.).*

P. Leela

Communication and Indian Agriculture, Edited by Ronald E. Ostman, Sage Publications India Pvt. Ltd., New Delhi-48, 1989. Pp. 319. Rs. 225.00.

The objective of this book is to examine the role of communication in fostering the growth of agriculture in a developing country like India. The book is a compilation of 15 research papers presented at the National Seminar on Agricultural Communication Research, organised by CASAC (Centre of Advanced Studies in Agricultural Communication), held at G.B. Pant University of Agriculture and Technology, Pantnagar (U.P.) from January 27 to 29, 1986. In addition, the book also carries three valuable chapters that have been contributed to round off the book. A study of the papers will reveal that the authors do not seem to agree with one another. While some still believe in the conventional theories and models on communication research in agriculture, others consider that modern theories and strategies need to be developed commensurate with changing times and the available means of communication.

Divided into four sections, the first section of the book deals with the communication research in education and training for development and also presents a critique of existing theories and models, particularly, about leadership in rural development along with the suggested new approach.

The essays in the second section mostly deal with diffusion of dairy farming techniques and agricultural journalism. The summaries of research projects related to communication and development undertaken by CASAC are also given in this section. The third section covers qualitative and quantitative research methods and important dissemination techniques, besides analytical procedures. The last section provides an insight into the future research directions and the lacunae in the existing agricultural communication system.

The paper on agricultural communication research surveys what has not been done in agricultural communication research and advocates increased attention in these areas. It has been advocated that the scope and area of research will be determined by national priorities, development in agriculture and allied fields, availability of media and government's policies towards media utilisation. Nevertheless, careful selection of topics for research and development of appropriate research techniques have been emphasised.

The chapter on research on agricultural communication related to farm women recommends special training programmes for improving knowledge, skills and attitudes of farm women in crop production activities and other related areas like poultry care, home management, kitchen gardening, child care, food preservation and nutrition, etc., by creating mobile training units to deliver such programmes in villages.

The essay on institutional collaboration for promoting communication research provides a blue-print for co-operation. Certainly, there is strength in number and something to the notion that collective brain power often can be superior to one individual or group working in isolation. The institutional collaboration mechanism should be such that it will not affect the autonomy needed for free and frank research by all the concerned institutions.

The final chapter highlights the work which must be done before the mankind enters the twenty-first century. The author pleads that the changing conditions and new technology will demand a steady flow of new studies by the end of the twentieth century. The computer, electronic 'compact disk' technology and telecommunications networks will not only help in the organisation, storage and retrieval of results, but will also allow more systematic

shaping of studies among researchers, nationally and internationally.

The book lacks generalisations based on heterogeneous researches conducted by different scholars at different places. The author could have gathered information on a broader spectrum keeping in view all the researches conducted in agricultural communication elsewhere in India.

On the whole, the book is a coherent and comprehensive analysis and a fresh perspective on issues and problems relating to communication and the development process. Therefore, it will be of immense value and interest to all those concerned with the transfer of technology, mass communication, agricultural growth and development in general.

*Department of Extension Education,
College of Agriculture,
Haryana Agricultural University,
Hisar.*

R.K. Sharma

Toward a Well-Fed World, Don Paarlberg, The Henry A. Wallace Series on Agricultural History and Rural Studies, Iowa State University Press, Ames, Iowa, U.S.A., 1988. Pp. xviii+270. \$ 24.95.

The theme of this monograph is the battle against hunger and how mankind has reached a position, since Reverend Thomas Robert Malthus made his pessimistic predictions, such that the consequence of hunger is a conceivable goal. The focus is on around forty 'heroes', some of them living, who led this battle. Some are celebrated and some others are less well known. But all have been deeply involved. The monograph is an excellent contribution to the Henry A. Wallace Series, the emphasis of which is on "historically significant members of people involved in and with agriculture and rural life".

The stories of 'heroes' are told in a captivating style, and with admirable insights, in a few pages for each, under three broad groups, viz., (1) Science; (2) Food Aid; and (3) Family Planning.

Applications of science to agriculture, leading to advance in foodgrains production, include diverse branches of human learning; mechanical; biological and chemical; extension; economics; nutrition, etc. The 'heroes' covered under diverse branches include: Jethro Tull, and Cyrus McCormick, who contributed to early advances in mechanisation of agriculture; Justus von Liebig, Louis Pasteur, Gregor Mendel, Henry Wallace, Yuan Long Ping, James Watson, Francis Crick, Paul Herman Mueller, E.J. Kraus, Hugh Bennett, Norman Borlaug, M.S. Swaminathan, and Nicolas Appert who contributed to chemical and biological, including genetics, advances in agriculture leading to spurts in productivity and better preservation of food; Dr. James Lind, and Mary Swartz Rose, who contributed to advances in nutrition; Justin Smith Morrill, Samuel Johnson, and Seaman Knapp, who had a role in establishing the institution of Land Grant Colleges, and in the promotion of extension services to the farmers, and the economist Theodore Schultz who influenced public policy towards 'transformation of traditional agriculture'. This section covers also T.D. Lysenko and N.I. Vavilov confrontation in the U.S.S.R. on the role of environmental influences in basic changes in the character of plants and animals and on the limits to cultural conditioning.

The section, 'Food Aid' concerns itself with questions of distribution of food. It includes

food transfers from the developed to developing and food security systems within the developing countries. While the section under 'Science' dealt with heroes who contributed to growth in foodgrains production, this section deals with those who concerned themselves with the distribution aspects. The emergence of food aid institutions is attributed to the abundance of food in developed nations and to the lengthening radius of human concern. Self-interest in food transfers gets ignored! The 'heroes' who contributed to the emergence, growth and strengthening of food aid institutions covered under this section are: Joseph Smith, a church leader, Herbert Hoover, Hubert Humphrey, Key figures in designing food aid programmes in the U.S.; Anthony Dias, Pastor Ludwig Stumpf and Madame Wang Shun Ying, who administered food aid programmes in India, Hongkong and China respectively. The last group under 'Family Planning' covers Margaret Sanger of United States, Sanjay Gandhi of India, Ma Yen Chu of China and T.H. Sun of Taiwan - all who attempted to increase the awareness of the need for family planning with different degrees of success.

The summary chapter entitled "The Ancient Enemy in Retreat" presents a hopeful vision. Further advances in agricultural sciences both in the developed and developing countries are expected to sustain the growth rates of foodgrain production at high levels, while the growth of food security systems is expected to provide better relief to the deprived. Growth of institutions of family planning in countries in which hunger poses the gravest threat is seen to offer a hope of decline in the growth rate of population. The book ends with an optimistic note: "Ours is the first generation to dare to think in terms of food enough for all."

This monograph is a fascinating account of the remarkable personalities that led the battle against hunger, and is of absorbing interest.

It is a different matter that some may consider the neglect of the deeper causes, underlying the persistence of hunger in several parts of the world, including dominance-dependence relationships between the developed and the poor countries, and failure of 'entitlements' as unfortunate and misleading in this eminently readable book. This reviewer suggests the inclusion of the study of Sen in the next edition of the book for providing powerful philosophical basis for food security systems through his wide ranging study on poverty and famines.*

*Department of Applied Economics,
Andhra University,
Visakhapatnam (A.P.)*

G. Parthasarathy

Impact of Irrigation - A Regional Perspective, Chandrakant T. Pawar, Himalaya Publishing House, Bombay-4, 1989. Pp. xvi+132. Rs. 225.00.

Various intrinsic issues in irrigation economics are being briskly debated in the recent literature. Most of them deal with the irrigation policy and only a few have contributed towards analysing the meso-level impact of irrigation. The book under review presents a geographer's viewpoint of meso-level impact of irrigation system. The author aptly prefers

* Sen, A.K. (1981). *Poverty and Famines*, Clarendon Press, Oxford.

to use a 'resource region' approach to 'political boundary' approach to analyse the impact. The study deals with the impact of irrigation in Upper Krishna Basin covering 12 talukas spread over three districts of Western Maharashtra. The study area is a well-known sugar belt and developed region of the state and hence the book under review raises quite a few expectations. It is one of the few available works on an eco-unit as a study region. But it has limitations of an impact study carried out by a geographer and hence many times infringes on the economic paradigms of impact analysis. Within a very small spread the author has tried to cram various multi-dimensional issues. But leaving these limitations, the book demonstrates the effective use of cartographic methodology to analyse certain complex issues. Each of the 84 maps presented shows different facets of impact analysis.

The book is spread over eight chapters of which the first five chapters deal with the impact of irrigation, taking taluka as a sub-unit of the river basin. In the following two chapters the author has tried to present a village level analysis of the selected villages. The first chapter deals with physical features of the study region, its demographic aspects and agro-climatic parameters. Possibly the title of the chapter, calling these factors as determinants of irrigation, is a misnomer. The Upper Krishna Basin seems to have two broad agro-climatic zones, namely, the western hill slopes and the eastern semi-arid zone. This classification would have been quite useful for the purpose of analysis. There are a few glaring printing errors in the chapter which have to be carefully noted. The second chapter is again a part of the base line chapters describing the changes in the irrigation pattern over the years. The presentation uses maps as also tables. It is interesting to observe the role of percolation tanks in the irrigation network. It would have been interesting had this point been pursued a bit further.

Changes in the input structure and agricultural land use are discussed in the third chapter. The maps depict very clearly the changes brought due to irrigation. The study noted a decline in forest area especially in the eastern slopes of the Sahyadri ranges and also changes in the wastelands. But the author has sidelined these important issues. Some discussion on these issues could have proved useful. The figures on page 43 could have been easily avoided. The most interesting part of the analysis begins with Chapter 5 in which the author has tried some regionalisation on the basis of important parameters. The methodology is very simple and straight, and produces beautiful analytical maps. This and the following two chapters amply demonstrate the skill of a cartographer to increase the dimensions of a two-way table incorporating a third and subsequent variables through the use of spatial maps. A better statistical methodology like Principal Component Analysis would have certainly produced better results.

Degradation of land in the irrigated command area is a current research issue. The author has presented certain data about the degradation in Panchaganga Sub-basin of the study region. But the analysis does not raise any pertinent issue. A micro-level analysis based on plot to plot survey is attempted in Chapter 7 using cadastral maps of the villages. The case of Bhatanwadi seems to be quite interesting when we juxtapose the commercialisation against the wasteland pattern. The author could have added some discussion here. The maps depict changes only in the two villages. A comparison across the four selected villages would have certainly enhanced the utility of the study. The study concludes with a long list of policy implications which could have been replaced by a succinct discussion.

Overall, the book is a welcome addition to the literature on irrigation economics and it

raises more issues than it analyses them. The author has demonstrated the manouverability of cartographic methodology to deal with economic problems. A recent computer software (THEMAPS) would have greatly helped to ease the task.

*Gokhale Institute of Politics and Economics,
Pune-4.*

R.S. Deshpande

The Vanishing Forest: The Human Consequences of Deforestation, D. Poore, assisted by D. Burns and R. Van der Giessen, A Report for the Independent Commission on International Humanitarian Issues, Geneva, First Indian Edition, Popular Prakashan Pvt. Ltd., Bombay-34, 1989. Pp. 89. Rs. 75.00.

The 'Tropical Forestry Action Plan', by Food and Agriculture Organization, 1985; 'Tropical Forests: A Call for Action', a joint action plan launched in 1985 by World Resources Institute, the World Bank and the United Nations Development Programme and 'save the forest, save the planet', a plan for action moved by the editors of *Ecologist* in 1987 have warned the world community about the irreversible ecological and economic consequences of deforestation of tropical forests. According to these agencies, the world's tropical forests are being destroyed at the rate of 100 acres every minute. Their destruction spells cultural death for the millions of forest dwellers who depend on the forest for their livelihood. The welfare aspects of the population directly concerned with this destruction have not been adequately addressed.

In the report under review, the authors focus on the humanitarian aspects of increasing disappearance of tropical forests. The report is divided into four chapters. Chapter 1 traces some of the main ways in which tropical deforestation is connected with hardships and sufferings for people in tropical forest lands such as diseases, increased burden on mothers and children, imposed by fuelwood crisis, a sharp fall in the per capita food availability in the tropical countries, increasing population pressure adversely affecting ecological balance and increasing proneness of degraded tropical forest lands to fragility and fire. Chapter 2 examines the relevance of tropical forests for mankind as a genetic reservoir and as a climatic regulator and reviews the main types of forest conversion and their importance. The third chapter highlights some ways in which economic development can and must be supplemented by a sound and feasible forest management to improve the welfare of forest people and to protect the forest resources, which they need to build for their livelihood.

The report emphasises that looking at the present population and economic pressure, deforestation will continue. It is only political will that can ensure that forest dwellers stay with the land they have, by preserving particular socio-economic and ecological values. An overview of the report suggests that human health seems to have been given prime focus among all humanitarian concerns shown. The last chapter of the report examines the health problems of indigenous people and migrant population living in forest environment and recently deforested areas. A number of forest diseases such as leishmaniasis, Chagas' disease, malaria, scrub typhus, schistosomiasis and trypanosomiasis are discussed along with the difficulties of unexpected disease vectors resulting from deforestation.

The forest destruction spells a cultural death for the estimated 140 million people (a 60 to 65 per cent increase in population is projected by the year 2000) who live within or at

the edges of the 18 million km² of open tropical forests out of 29 million km² of forest lands of the tropical countries concerned. Among the forest inhabitants, tribals and hunter-gatherers (3 to 4 per cent) live in harmony with forest; indigenous farmers traditionally practising shifting cultivation have now shortened their fallow rotation due to population pressure; and new colonists, such as landless peasants, ranchers, contractors and large transnational corporations have no time to adapt themselves to the tropical management of forests.

The theme of this report is concerned with the assessment of the effects of tropical deforestation on forest dwellers in a strict sense. The report attempts to justify that these people rely on the forest for their entire livelihood. But forest is not the source of material benefits only. It is the foundation on which the very cultures of forest people are built. In effect, deforestation of tropical forest amounts to nothing less than irrevocably disrupted or acculturated lot of forest people.

Uptill now tropical deforestation has been seen as a matter of ecological and economic concern. Deviating from this trend, the report focuses on the suffering induced by people immediately dependent on dwindling forest land and how this process is affecting their health and livelihood. It has not touched upon the welfare of future generations. The report emphasises the urgent need for a sound forest management, settlement plan and creation of adequate infrastructure and health care policies, that will make forest conversion a vehicle of sustainable development and enable forest dwellers to lead secured life.

*Government College,
Ajmer (Rajasthan).*

Rakesh Sharma

Drought Strategy, M.A. Quraishi, B.R. Publishing Corporation, Delhi-7, 1989. Pp. xvi+157. Rs. 130.00.

This book presents a strategy for drought management for the decade 1990 to 2000 A.D. The author considers the whole gamut of agricultural and rural development programmes as constituent parts of the strategy. He points out the several gaps and weaknesses in these programmes and suggests ways and means to overcome them, so that the country will be in a stronger position to withstand the droughts. The author is a retired I.C.S. officer who was actively engaged in managing the major droughts of 1965-66 and 1966-67 in Uttar Pradesh State, and that of 1972-73, when he was with the Central Government.

The book is divided into five parts which are sub-divided into 17 chapters. The main chapters which are contained in Parts I and IV of the book, are devoted to a discussion of varied topics like agriculture and allied activities, forestry, poverty alleviation programmes (IRDP, NREP, etc.), special area programmes (DPAP, DDP and HADP), major, medium and minor irrigation works, non-conventional energy, plan implementation and monitoring.

The author highlights the fact that the agricultural strategy initiated in the mid-sixties has helped the country in the attainment of self-sufficiency in foodgrains and building up of buffer stocks which have come to our rescue during droughts. At the same time, it is also true that large areas in the country and vast sections of the rural community including the landless, the marginal and small farmers who have not benefited much from the green revolution, are more exposed to drought conditions than the developed areas and affluent sections. So, concerted efforts are required to bring the fruits of the irrigation-based technology within the reach of these neglected areas and groups. Drought-proofing can be done

in this way over at least 50 per cent of the cultivated area. For the other 50 per cent of the area, largely dependent on rainfall, where cost-effective irrigation may not be possible, improved dry farming technology based on micro-watersheds can be the source of hope.

The author places more emphasis on the development of minor irrigation sources which ushered in the green revolution in states like Punjab and Haryana. He argues that no major or medium projects should be undertaken till all the pending projects are completed and full utilisation of the available irrigation potential is made through Command Area Development and other programmes.

The author mentions the chief weakness of the soil and moisture conservation works as lack of people's participation in their effective maintenance. For the protection and development of forestry also, which is crucial in combating droughts, active involvement of the village community, especially the tribals and the poor, by giving them a vested interest in such protection, is indispensable. In the author's view, no development programme can be planned or implemented properly, without democratic decentralisation from the village level onwards.

Thus the author adopts a very comprehensive approach to the strategy for mitigating the effects of drought. It can simultaneously help to achieve the other goals of development also. While this approach has got its merits, it also needs to be pointed out that, in a diffused treatment of this nature, the basic thrust and focus are lost. A more selective treatment of the issues concerning drought would, possibly, have served the purpose better. Analysis of the available research evidence with regard to the author's views and policy preferences would also have been useful.

*Agro-Economic Research Centre,
University of Delhi,
Delhi.*

P. Rangaswamy

Rural Marketing in India (Empirical Studies from Madhya Pradesh), Rajagopal, Renaissance Publishing House, Delhi-51, 1989. Pp. vii+151. Rs. 140.00.

The book provides an account of a study conducted by the author in Chhattisgarh region of Madhya Pradesh on various facets of marketing of agricultural and rural industries products. The study has been conducted in great details and deals with the role of various individual and institutional agencies in the ultimate marketing of these products. The objective of this study was to project the shortcomings as well as the strength of the present marketing infrastructure, as operating in the area. The study covers a period of seven years (1979-85) though the ground work has been done even earlier.

The role of co-operative societies in the marketing of rural industries and agricultural products has also been studied in great depth. Various types of markets, *i.e.*, primary, secondary, terminal and regulated markets have also been studied.

The crux of the whole trade economics in rural markets, from the point of view of producers, is the lack of proper decision-making at their end. An efficient marketing would guarantee a greater share to the producer in the prices paid by the consumer on the one hand and greater satisfaction to the consumer on the other.

From the study, the author concludes that the arrivals of paddy in the market would be affected by fluctuations in price and the farmer's share in the final price. These are altered by cost of marketing and middlemen's margin. The price spread of rice and rice bran in the terminal markets also altered the farmer's share, thereby affecting the market arrival of

paddy.

One observation of the study is that an increase in the production of linseed adversely affects the price, thereby discouraging the farmers from making concerted efforts to augment the production of this commodity. One revealing aspect of the study is that farmers in interior villages obtain their information pertaining to the prevailing market price of agricultural products through radio, newspaper, commission agents and other agencies. Commission agents play a dominant role in decision-making by the farmers.

The results of the study reveal that the producer's share in the consumer price for modern rice mills is 67.91 per cent, for sheller units 64.95 per cent, for huller units 64.54 per cent and for hand-pounding units 24.50 per cent. The average cost of processing per quintal of paddy is the highest in hand-pounding units at Rs. 24.50, followed by huller units at Rs. 3.00, sheller units at Rs. 2.80 and the lowest cost in modern rice mills at Rs. 2.36.

Emphasis is laid on proper communication and warehousing facilities. These are necessary to improve the holding capacity of the small farmers vis-a-vis the larger farmers, so that they do not suffer in the long run. The author has also quantified the damage caused to agricultural produce like wheat by various means of storage - on an average, the damage is estimated at 2.00 per cent when the produce is stored in metal drums, 2.3 per cent for bags, 7.6 per cent for bin of mud brick with straw and dung and 9.5 per cent for rectangular mudbin of 2.8 tonnes capacity for a period of seven months. Development of proper storage facilities is the prime need of the time. The author has also suggested a plan for market research and extension which are important for improving the quality of marketing in rural areas.

A select bibliography is given at the end of the book along with a comprehensive index.

On the whole, the book gives an insight into rural marketing in Chhattisgarh region in Madhya Pradesh with reference to paddy. The study does not cover pulses like arhar (*tur*) and gram and oilseeds like soyabean and groundnut. The major limitation of the book is that the study is based on outdated data - for the period from 1979 to 1984 for the sheller type and modern rice mills and from 1982 to 1984 for the hand-pounding and huller type rice milling units. The lapse of half a decade may have significantly altered the situation.

The title of the book is also misleading as it attempts to describe rural marketing in Chhattisgarh region only. Even the whole area of Chhattisgarh has not been covered. As such the work is limited in its impact and does not deal with rural marketing for the country as a whole.

The data presented in the book are very old. In the fast changing world some ingredients of the study may have become obsolete. Timely presentation of data would have been more pertinent. Proper editing has not been done; there are several grammatical and spelling mistakes which could have been avoided.

The book, on the whole, is a welcome addition to the literature on rural marketing in India. It will be useful to the students, teachers, research workers in agricultural economics, planners, policy makers, extension officials and administrators involved in the field of rural marketing of agricultural products and rural industries products.

*Department of Agricultural Economics & Farm Management,
Jawaharlal Nehru Krishi Vishwa Vidyalaya,
Campus: College of Veterinary Science & Animal Husbandry,
Mhow (M.P.).*

Anant Ram Verma

Agricultural Research Systems and Management in the 21st Century, Edited by K.V. Raman, M.M. Anwer and R.B. Gaddagimath, NAARM Alumni Association, National Academy of Agricultural Research Management, Rajendranagar, Hyderabad-30, 1988. Pp. vi+211. Rs. 150.00.

Agricultural research has to play a key role in stimulating agricultural development. Its effectiveness depends largely on the management of research systems. The book under review addresses these issues to meet the challenges of the 21st century.

The book includes the papers and proceedings of an international seminar on agricultural research systems and management, organised by the NAARM Alumni Association, Hyderabad, from December 8-10, 1987. The seminar focused attention on four broad themes.

The opening theme includes four papers, which project the future demand for food and fibre, broadly dealing with the supply of and demand for agricultural commodities and animal products in the 21st century. The authors are optimistic that except wool, the estimated demand for these commodities will be met with appropriate technological and infrastructural development, reorganisation of resources and transfer of technology. The papers advocate that the existing gaps in crop yields between research institutions and farmers' fields should be minimised. The backward areas like the north-eastern and rainfed regions should receive due priority in research and infrastructural development. The authors are optimistic about achieving the targets which however are doubtful considering the land degradation and fragmentation of land holdings, industrial development, etc. In fact, the authors have considered the developments in agriculture and animal husbandry to the exclusion of each other. Inclusion of different technical and institutional factors and development of complementary sectors in the model may affect the projections.

The second theme appraises the existing efforts on innovation to meet the challenges of the 21st century. Four valuable papers enlighten the present strategies to develop technologies to meet the future challenges. Several priority areas are narrated. Dryland agriculture, preventing land degradation, biotechnology and human resource management are proposed to be the areas demanding concerted efforts to meet the challenge of agricultural development in the 21st century. Genetic improvement, better animal feed, control and eradication of diseases and manpower development are a few areas that call for technological advances to meet the demand for milk and other animal products in the next century. The papers in this section unequivocally argue that the future of agriculture by and large depends upon the ability to optimise the renewable and non-renewable resources supplemented by the transfer of knowledge from research centres to the fields in a most effective way. The most important ingredient for the successful management of agricultural enterprises in the future is the development of the expertise of human resource.

The three papers under the third theme describe the current agricultural research and education system in the country. These papers provide an interesting reading about agricultural research institutes, agricultural universities and the All India Coordinated Research Projects. The authors provide a vivid profile of agricultural research and education system in India. From the papers it emerges that the country possesses one of the best agricultural research and education networks in the world. Despite this, the scope for improvement is

not denied. It has been reported that every third position with the Indian Council of Agricultural Research and every fourth position in the state research system continue to be vacant. Such a state of affairs needs serious attention by the authorities to utilise the potential of approved cadre strength to achieve excellence in research and education.

The fourth theme focuses on the development of appropriate national agricultural research system to meet the needs of the 21st century. Six papers explore the kind of agricultural research system for the future. Two papers exclusively highlight the future structural and organisational components of the national agricultural research system with a view to integrating the federal research centres, university teaching and research establishment. Sharing the American experiences, four papers explore the scope for strengthening Indian agricultural system. These deal with prioritisation of research, the role of private sector and training needs to increase agricultural production to meet the challenges of the 21st century.

While the purpose of the book is fulfilled in an admirable way, the reader will miss the recommendations of the seminar. It would have been useful had the recommendations to initiate the research and management strategies to meet the future challenges been included in the book. However, the organisers deserve full appreciation for inviting a galaxy of top agricultural managers.

The compilation is a good attempt that provides valuable information at one source. The book will be useful to the research managers in formulating guidelines for future research.

*Division of Agricultural Economics,
Central Soil Salinity Research Institute,
Karnal (Haryana).*

P.K. Joshi

Agricultural Development Principles: Economic Theory and Empirical Evidence, Robert D. Stevens and Cathy L. Jabara, Johns Hopkins University Press, Baltimore and London, 1988. Pp. xxxi+478. \$ 20.00.

Tremendous effort is being made to promote the development of agriculture in the developing countries. Various theories of development are put forth by agricultural economists to explain the process of development. Yet all these development theories do not explain the complex nature of socio-economic, political, psychological and cultural factors that work for or hinder agricultural development. Much still needs to be done to examine why development efforts by various agricultural development agencies do not produce the results they are designed to produce.

The book under review is an attempt to look into these problems in detail. The authors have made an effort to put together the theories of agricultural development and substantiate them with empirical literature available. Divided into five sections, each section of the book focuses attention on one aspect of development process. The first section focuses attention on agricultural progress and structural transformation in less developed countries (LDCs). Within this section, population growth model and resource availability in LDCs are discussed. The next chapter considers the role of agriculture in economic development. Section II deals with the economics of traditional agriculture, the theories of socio-economic change, cultural variables and their role in agricultural growth. Agricultural development theories are also discussed along with the role of land and labour in agricultural development. Section

III discusses the sources for accelerated change in agriculture quite elaborately. Four chapters in this section discuss the economics of change in various technologies, viz., biological and chemical, mechanical, institutional changes, while examining the roles of various social interactions. The emphasis is put on rural financial markets - co-operative institutions, land reform, etc. The roles of research, education, extension and communication in agricultural development have also been discussed in detail. Section IV is devoted to a discussion of national policies and programmes for agricultural development, the emphasis being on evaluating various development programmes critically. A chapter is devoted to the study of comparative advantage in agricultural trade policies in the process of development. Pricing policies of agricultural commodities have a role to play in socialist economies and no less is their role in the LDCs. These policies have been critically evaluated in the context of planning for agricultural development. Finally, Section V discusses various strategies for agricultural development. This section is devoted to identify high return investment programmes and government policies that are consistent with socio-economic theories of development for accelerated agricultural development on the basis of the arguments and discussions in the sections preceding this section.

The book lists references, extending over 30 pages. This elaborate referencing shows the amount of information the book carries.

The book has a large number of tables supported by graphical presentations that make the reading interesting. Each chapter has some questions at the end for the students to attempt. The chapter on theories of socio-economic change, cultural variables and agricultural growth is well developed and provides a very good reading. The authors have quoted some very old studies which do not seem to have much relevance today. For instance, the data on page 170 could have been updated very easily. Again on page 188, presenting data for 1962 does not appeal to the reader as this could be updated. Likewise, the reference to the findings of a study on price responsiveness conducted long ago in 1964 (Raj Krishna) does not seem to be appropriate today. There are more recent studies but the authors do not seem to have laid their hands on journals published in India, Pakistan and other Asian countries as is evident from the list of references. The views of local development economists carry much weight because of their awareness of the socio-cultural conditions prevalent in the society they live in. As such, this can justify the situations better and also suggest remedies in the context of the development within the framework of socio-cultural conditions of these areas.

All the same, the authors need to be congratulated for their bold attempt to synthesise the available literature on agricultural development and put it in a systematic reading order. The book provides an exhaustive reading material for students and researchers in agricultural development economics.

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

J.L. Kaul

Theory and Practice in Plantation Agriculture: An Economic Review, Mary Tiffen and Michael Mortimore, Overseas Development Institute, London, 1990. Pp. 153. £ 8.95.

George L. Beckford's seminal work: "Persistent Poverty: Plantation Economies of the Third World" came out in 1972 and in nearly two decades after that studies have either confirmed Beckford's thesis of the adverse effects of the plantations in the Third World or the other way round. The present book is a well documented review of these studies classified into those dealing with (a) the theoretical issues about the role of estates versus the small holdings in economic and agricultural development, (b) the manner in which land, labour and capital are obtained and managed in plantations, (c) their regional and environmental impact and (d) the practical and policy aspects connected with them, followed by two concluding chapters, one on the 'Issues in the Outlook for Plantation Crops' and the other on 'The Future of Plantation Agriculture as an Agent of Development'.

The social impact of plantations and the question of the worker's conditions, we are told, are kept out of the purview of this study though the political issues have been taken into account because they have influenced the theory of plantations.

One of the major policy questions the study addresses itself to is: "whether plantation estates have a worthwhile developmental role in modern conditions?"

The authors conclude that "the plantation has proved to be an adaptable institution in the face of major changes in its global environment", the latest forms of organisation being a hybrid 'combining the plantation and the smallholder modes', and the trading and marketing of plantation crops getting increasingly integrated under the control of transnational corporations (TNCs). This adaptability, according to them, "is itself the strongest indication that the plantation mode of production is unlikely to disappear in the foreseeable future".

Such a conclusion is challengeable although the authors themselves are cautious because they are aware that it is not easy these days to speak for or against the plantations *per se* and therefore recommend that this issue should be decided on the merits of the case in the context of each country separately. In spite of all this, one can see through the bias of the book in favour of the apologists rather than those who have been critical of the role of plantations. The study in fact seems to prepare a case for the re-entry of the TNCs in the plantation sector of the Third World.

The authors attribute the divergent perception about the role of plantations in the Third World to the background and ideological persuasion of their advocates, *viz.*, Beckford who is found to have taken a negative view of the plantations because he is a 'West Indian academic, drawn from the victim plantation society' while Graham has spoken in favour of it being closely associated with Unilever's plantation interests in the Third World. One is, however, tempted to speak in the same vein about the view of the authors as stemming from the positions they hold in the Overseas Development Institute.

Policy suggestions are made very subtly. For example, while discussing the controversy between the conflicting policy objectives of food self-sufficiency and export crop promotion, they suggest that the latter course may be more practical than overcoming the structural and environmental factors that are limiting food production. Hence, they are found to lean towards pragmatism.

Similarly, when it comes to an appraisal of the dependency paradigm, on the one hand they are forced to accept its logic and yet on the other hand they reject it as having emerged from a colonial background because of which now it is "a poor guide to independent governments where plantations are under national control".

About the choice of the organisational structure of the plantations, the authors suggest a mix of contract farming, nucleus estates with outgrowers, tenancies (quoting the example of FELDA in Malaysia) and co-operatives. This suggestion again stems from their fear that the small holders should not be glorified. Now that it has become clear that merely on the score of efficiency the TNCs would not be tolerated, a via media is found in terms of granting a role to them as nucleus estates or as contractors.

While considering the regional and environmental impact of plantations, studies are quoted which contradict Beckford's thesis of low linkage of the plantations with the rest of the local economy. Linkages created by the Multinational Enterprises (MNEs) while obtaining raw materials through subcontracting arrangements with local producers or intermediaries are shown among the beneficial effects of the 'Core-Satellite-Farming'. This despite other studies which have shown poor linkages.

One of the areas not reviewed by the study is the supply response of the various plantation crops which have been undertaken in different countries following Bateman's models for estimating the supply response of perennial crops. Only a passing reference is made to it while mentioning that the general price trend of plantation crops has been downwards and that they have been volatile which makes it difficult for adjusting supply in response to price changes. Here also the TNCs are shown to be better placed than the small holder producers to ride out periods of low price although the latter has the advantage of being able to move resources into other crops.

Keeping in line with the general positivist tone of the book, suggestions are made for priority research also positivist in nature, viz., the need to conduct empirical analysis of total factor productivity of plantations and small holdings. Individual factor productivities are found a poor guide in this respect since plantations and small holdings use very different factor proportions.

All said and done, it goes to the credit of the authors that in such a small volume the major issues pertaining to plantation economics are reviewed making it an indispensable reference book.

*Department of Economics,
University of Kerala,
Trivandrum.*

S. Uma Devi

Technology, Farm Output and Employment in a Tribal Region, R.N. Tripathy, Mittal Publications, Delhi-35, 1988. Pp. 311. Rs. 130.00.

Economic Development of Tribes in India, H.V. Trivedi, Himanshu Publications, Delhi, 1985. Pp. 195. Rs. 125.00.

Social Economy of a Tribal Village, R. Swarup and Ranveer Singh, Mittal Publications, Delhi-35, 1988. Pp. 148. Rs. 120.00.

Problems of the rural poor now dominate discussion on development policy in the same way as problems of industrialisation, international trade and aid transfers, to cite but a few examples, that held the stage earlier. Hopefully, the current heightened interest in the ends and means of rural development will prove to be something more than a transient trend; marking a realistic, if somewhat belated, recognition of priorities. One of the most striking experiences of planned efforts in India has been that economically backward regions have

gained little. Benefits of development plans have passed more to the already developed regions. Even within such regions benefits accrued proportionately more to the already rich and socially privileged sections of the society, perpetuating economic inequalities. Continuation of such a process is undesirable from the viewpoint of balanced regional development and distributive justice. In this context it is important to identify and examine the problems of the weaker sections of the society (such as scheduled castes, scheduled tribes, etc.) so as to redesign the development policies. The socio-economic institutional structure being intact, benefits of planning did not percolate to the bottom. As a result, the poorest among the poor remained static. Therefore, from the point of view of social and economic justice the poorest need to be given top priority. The books under review make attempts to bring out these points vividly. Information obtained on the basis of first hand studies on the problems of tribes region by region not only fills major gaps in our information, but also helps in evolving policy guidelines on the general problem of integration of the relatively isolated areas and communities into the mainstream of national life and on specific problems of economic development, education, administration and cultural development.

The three books under review deal with different tribal regions thereby giving good cross-section information about the tribal situation in India; Tripathy's book deals with Bihar tribals; Trivedi's book deals with Rajasthan tribals; and the book by Swarup and Singh deals with Kinnaura tribals of Himachal Pradesh.

The main objective of Tripathy's study is to investigate the impact of new technology in agriculture especially the use of high-yielding varieties (HYVs) of seeds on the level of land productivity and the intensity and level of labour use in Ranchi district of Bihar. The book is divided into nine chapters dealing with the economic profile of the Ranchi district, the impact of agricultural technology on farm output and employment, methodology and objectives of the study, socio-economic features of the households, cropping pattern and intensity, crop productivity, labour use in different crops and the intensity of employment of labour force respectively. The last chapter presents the main findings and conclusions of the study.

The style of writing the book is good except that the information about most of the literature cited is incomplete: in the case of books cited, the name of publishers, place and year of publication are missing; and in the case of some research papers (*e.g.*, on page 32), the names of journals, years, etc., are not given, thereby making it difficult to trace the literature cited if the reader wants to pursue further reading of it.

Tripathy concludes that the adoption of new farm technology in the tribal region of Bihar is low and the availability of irrigation facility makes a fundamental difference in the crop pattern, cropping intensity and the adoption of new farm inputs (such as HYV seeds and fertilisers). He found that in this region there is inverse relationship between the farm size and productivity. He also observed that where the productivity per unit of land is high, the productivity per unit of labour is also high. Small farms use comparatively more labour per hectare in all crops because of surplus family labour, yet they have the largest volume of unemployment in the family. He suggests that irrigation facility is an important infrastructure for raising agricultural productivity and promoting rural development along with necessary inputs such as HYV seeds, fertilisers, credit, etc. But we would also like to add that the spread of extension services and other agencies of rural development to diffuse the knowledge of new farm technology and upgradation of human skills should also be emphasised as key factors in rural development, specially in the customs and taboo ridden rural societies.

Trivedi's book deals with the tribals of southern region of Rajasthan where two-thirds

of population consists of tribals (mainly of Bhil tribals). The study attempts to examine the situation of tribal economic development and endeavours to construct an alternative strategy for the development of the region. The specific objectives of the study are to isolate the forces that have contributed to the perpetuation of socio-economic backwardness; to determine the nature of such forces; to analyse the mechanism by which these forces operate; to evaluate the development strategies in historical perspective with reference to resource allocation; and to highlight the anomalies and inconsistencies between the development pattern in vogue and the people's development propensities so as to suggest a development alternative.

The study is based on secondary data. On the basis of expenditure in the Second, Third and Fourth Five Year Plans, the author tries to infer that the development plans have not been able to uplift the economic lot of the tribal society in Rajasthan. In this connection, it may be pointed out that expenditure is not a good indicator of growth and development. Physical output should have been taken as an indicator of development. All expenditure is not development related and there are leakages and thus only a fraction of the expenditure really goes for developmental activities. Moreover, the performance of the tribal region should have been compared with the non-tribal region(s), then only it could have been more clear to show that the development of the tribal region was lagging behind other regions. The author has given unduly more attention to inter-district and inter-group disparities within the tribal region, rather than comparing them with non-tribal regions. The author has not made an attempt to prepare an inventory of the existing resources in the region which is a pre-requisite to formulate a developmental plan. Moreover, he has not prepared an alternative strategy for the development of the region as intended by him in the objectives of the study. Instead, he has given some suggestions which are rather general and applicable to all regions: increase irrigation, increase crop diversification, better farm practices, integration of crops and animal husbandry, infrastructure development, developing manufacturing sector, planning from below, etc. These suggestions, though good, do not come out of the analysis of the study. The study has also failed to pinpoint the forces, their nature and mechanism, which perpetuate the socio-economic backwardness of the tribal region.

The book by Swarup and Singh is based on a village study conducted in Kinnaur district of Himachal Pradesh. The objectives of the study are to examine the socio-economic conditions of such people who are backward economically as well as in their outlook and are located in remote and inaccessible areas. Organised into nine chapters, the first four chapters of the book set out with the introduction of the study and the description of the district, the village and the people respectively. The fifth chapter presents the demographic features of the households and the subsequent three chapters deal with the patterns of agricultural and livestock production, and sources of employment and income respectively. And the last chapter discusses the household consumption pattern in detail.

This study provides an in-depth analysis of the social, demographic and agro-economic conditions prevailing in the tribal region of Himachal Pradesh. A complete, rather than partial, picture of the rural conditions is essential for planning purposes. Because, in the absence of sufficient information about the existing situation under which people of a particular area live and operate, any planning done for their development will largely remain ineffective and thus the desired results would not be forthcoming from it.

Agriculture continues to be the main occupation of the tribals. One cannot understand farming without understanding the rural communities who practise, depend on and constrain it. Hence village studies, such as the one by Swarup and Singh, are useful as they are designed to collect comprehensive area specific information to fill the data gaps. This study has

diagnosed and highlighted the problems of a tribal village located in a difficult hilly terrain and the authors have shown that there is vast scope for the development of agro-pastoral economy of the region having a large surplus labour force. But it would have been much better if all the suggestions and recommendations which are currently scattered throughout the book were put together in one last chapter.

The authors of all the three books under review have directly or indirectly pointed out that although the new farm technology is land-augmenting, labour using and size neutral in nature, it has not made any significant impact on farming in the tribal regions. The science and technology present to us the opportunity to fight every vestige of poverty. But to push for technological changes without simultaneously working for the concomitant social and institutional changes would be to repeat the past folly. But how are these social and institutional changes to be brought out? What will propel this process? These are some of the questions which need answers.

In a basic sense, thorough-going changes in the age-old patterns of agricultural system have little chance of materialising as long as there is no change in the people's perceptions. The ignorance and the dead-weight of customs and taboos that often go with poverty provide the initial obstacle towards changes. It is here, at the source, that the first move needs to be made. The message of rationality of science has to be carried to the tribals so that they may first appreciate what changes are feasible and why they are needed.

*Department of Economics,
Himachal Pradesh University,
Shimla.*

J.P. Bhati

Power and Need in Africa: Basic Human and Development Policies, Ben Wisner, Earthscan Publications Ltd., London, 1988. Pp. 351. £ 9.95.

The book makes a critical analysis of the African crisis based on the author's work of more than two decades in Eastern and Southern Africa. In fact, the import of food which is paid for by oil revenues to bridge the food shortages has become a short-term way since oil revenues have dropped considerably due to the decline in the world price of oil. The book contains eight chapters including the introduction on the 'disappointing decades', viz., a decade for solving environmental problems (Ecodevelopment, from Stockholm to Bhopal, 1972-82), a decade for world hunger (Food self-reliance, 1974-84), a decade for women (Feminism's decade, 1975-85) and international water supply and sanitation decade (1980-91).

Chapter 1 defines both the strong and weak versions of basic needs approach (BNA). Whereas the strong BNA encourages poor people to understand the social origins of their poverty and struggle to change them, the weak BNA involves the delivery of a bundle of goods and services such as school lunches, clean water, housing sites, health care, etc., that correspond to needs. Typical weak BNA approach provides skills and technology which allow a family to produce or earn a basic needs income. The remaining chapters of this book, however, review a number of strong and weak basic needs inspired projects in Africa.

Chapter 2 first of all defines the primary health care (PHC). Both the World Health Organisation's 'mass campaigns' which needed a comprehensive health care system and UNICEF's ways of comprehensive planning for the needs of children resulted in 'mother

and child health' (MCH) initiatives, an important stage in developing a BNA in health. Whereas PHC based on the weak BNA defines the "package of preventive and curative services that can be delivered by auxiliary personnel", the strong BNA encourages local groups to discuss and define their own health needs. The Kenya's health crisis, the pilot community-based health care and the recent Kenyan case study are, however, discussed at the end without attempting an in-depth appraisal of MCH. Chapter 3 highlights on the water decade and discusses the campaign approaches to water supply, sanitation and housing by covering normal domestic water use, pre-decade water scheme, livestock watering schemes, large-scale hydro-engineering works, resettlement schemes, etc. The author also mentions about non-integration of water resource use in Africa and water projects do not challenge the roots of poverty or ill health. In fact, the case studies on 'economic appraisal of water schemes' would have been rewarding to the African policy makers in designing appropriate water policies for the continent. Likewise, though Chapter 4 contains four simple, straight forward actions, viz., growth monitoring, oral rehydration therapy for diarrhoea, breast feeding (as opposed to early weaning and or bottle feeding) and immunisation to improve children's health, it lacks in quantitative appraisal.

Chapter 5 deals with the African food dilemma as viewed from the point of view of national self-reliance versus family food security. For African food crisis, population growth, urbanisation and environmental degradation in the form of erosion and deforestation represent internal factors. The African states have, however, neglected the women farmers, small producers and the landless on the one hand and lack basic infrastructure and services in the rural areas for accelerating agricultural production and improving the marketing efficiency and agricultural research infrastructures for developing relevant farm technologies. Productivity is the cornerstone for weak BNA approach wherein inputs are delivered in packaged form. Given the deeply rooted food crisis in Africa and many vicious circles, no single clear cut alternative model has been suggested. Accordingly, the projects of strong BNA are based on active participation of grass-root organisations and do not depend on externally-developed technical 'packages' but have evolved techniques and adapted technologies that are locally appropriate and problem solving.

While discussing rural development in Chapter 6, the author initially discusses rural squeeze and later on conceives it as a wide ranging approach to agriculture and rural poverty. Two cases of rural development in Kenya, viz., a hybrid maize credit scheme in western Kenya and a crop insurance scheme in eastern Kenya are also discussed. A critical appraisal of the existing rural development programmes together with suitable strategies, however, has not received the author's attention. Interestingly, Chapter 7 focuses on women and technology. Some quantitative support to Figures 7.1 and 7.2 relating to time-money trade-off in women's labour input and the drains on women's nutritional energy and time would have been in fact rewarding. Similarly, both income and employment generation effects could have been provided for alternative programmes/technologies as mentioned on page 253.

In the last chapter which presents the conclusions, the author mentions that peace is a pre-condition for the satisfaction of basic needs. Similarly, the vulnerability to drought and other environmental problems in Africa is closely tied up with the skewed colonial and post-colonial economic patterns and the processes that have particularly disadvantaged both women and children. The book throws light on the interconnected problems of Africa's poor

by looking at them in the perspective of strong BNA. Undoubtedly, the author is aware of the danger of over-generalising to the African continent simply based on observations on Kenya, yet he has done a similar job in the text.

On the whole, the author has done a commendable job to put the various facts on power and needs in Africa in a capsule form that would, of course, serve as a starting point for further research. An exhaustive list of references at the end of the book clearly signifies the author's effort. However, the price of the book seems to be high.

*Department of Livestock Production and Management,
Haryana Agricultural University,
Hisar.*

U.K. Pandey

Water for the Future: Water Resources Developments in Perspective, Edited by Walter O. Wunderlich and J. Egbert Prins, A.A. Balkema Publishers, Rotterdam, The Netherlands, 1987. Pp. XIV+703. \$ 81.50.

The book contains the proceedings of an international symposium on "Water for the Future" held at Rome during 6-11 April, 1987. The symposium grew out of a merger of two symposia which were to be convened separately by the International Association of Hydrological sciences and the International Association for Hydraulic Research. The themes were: (i) Hydrology in Perspective and (ii) Water Resources Developments in perspective. The present book contains the papers on the latter.

In all 61 papers are published in this book. They are divided into eight different parts as follows: (i) History of water resource development (8 papers), (ii) the second part is divided into two sub-parts: (a) Urban water developments (8 papers) and (b) Rural water developments (4 papers), (iii) Water law, policies and institutions (4 papers), (iv) Aspects of managing existing water resources systems (5 papers), (v) Future water resource management challenges (8 papers), (vi) Groundwater developments (5 papers), (vii) Future water resources developments (9 papers), and (viii) Alternative water developments (4 papers). Thus the coverage of the symposium has been found to be quite wide.

The outcome of the future is mostly the consequence of lessons learned from the past performance, and hence a major share of about 23 per cent of the papers devoted to the section on the history of water resource development is in the right perspective. Besides, even in respect of the papers on other specific aspects/topics some historical facts have appeared.

Historical facts have been well brought out, which indicate that although the developments in the past were experience-based, those of the present are based on modern science and technology. There are not significant differences between the two, except the major difference of the size of the hydraulic structures. The discussion on history has noted many distinctive facts, some of which are of immense importance for the present as also for the future. However, the facts, as we find, are neglected in the present time. For example, it is rightly stated in one paper that highly effective local water conservation works and practices of the past are neglected today (p. 11). The rationality for integrated development and conjunctive use of surface and groundwater and the increasing concern for environmental

quality and ecological balance have added new dimensions to the problems of water resource developments at present (pp. 26 and 76). A consequent need to accelerate research in this direction as also a need to improve our knowledge of the component of the hydrologic cycle (p. 76) and integrated approach to development have been rightly stressed (p. 88).

Despite overrun of time, some of the past achievements are yet relevant today. This is true in respect of water supply to cities. In Europe, even during the 19th century works of very high standard were created, which are of great relevance even for the present day cities. Hence they need to be replicated all over the world.

Problems of water in urban and those in rural areas with specific reference to agricultural sector have been discussed threadbare. Of course, all the different aspects of water use at farm level do not appear in the papers. Over time, it is rightly observed that water is increasingly viewed as a valuable commodity rather than as an inexhaustible and cheap resource (p. 220). Hence there is a need for comprehensive water quality planning and quantity management. There is also a need for rational and equitable sharing of water resources to meet the present and future requirements.

The position of water resource policies, laws, institutions dealing with water planning and development in developed (such as U.S.A., U.K.) as also developing countries (like Nigeria) have been well detailed. An element of rigidity is experienced in the present position and hence for obvious reasons a radical suggestion for introducing new institutions, new ideas and more broadly based participation has been put forth (p. 331). Although there is an element of truth in the suggestion, it is not practical to go for all changes in this direction at a point of time. Of course, flexibility needs to be introduced to adapt to changes.

The issue of managing the existing water resource systems has received its due attention. In this context, it is held that a continued evaluation of procedures and guidelines is required for the operation of a large multipurpose water resource system and development of flood warning system and advances in forecasting techniques.

In regard to future water resource management the relevance of the challenges are in respect of quality of water, environmental effects specifically of the new hydraulic structures and recognition of high social values of recreation in water resource development both for developed and developing countries which are emphasised. These problems need to be better understood by the planners, irrigation engineers and management personnel, and the relevant comprehensive policies integrating water quality planning and effective management of water resources for the present and future need to be framed.

On groundwater development, a number of aspects including those of conjunctive use of surface and groundwater, intensive use of groundwater leading to the problems of exhaustion and pollution and in some cases sea water intrusion have been analysed in details. It is held that even in a number of regions in U.S.A., the problem of over-discharge is felt leading to various economic, health, social and political implications in policy. The emerging policy issues, therefore, have to be in the direction of protection from exhaustion and pollution, and efficient allocation policy leading to the meeting of water demand through the conjunctive use of surface and groundwater.

The papers on future water resources developments and alternative water developments emphasise the problems of water resources developments in different countries and the

methods of water resource planning. A suggestion with respect to improving the acceptability of the Water Resource Development Plans (WRDP) by institutionalising the public participation also at the strategic plan level is worth noting.

On the whole, the book provides a very precious collection on the varied aspects of water use, and would prove highly useful to researchers in this area. However, a synthesis of the entire discussion along with a summary report on the papers on each group would have further added to the utility of the book.

*Department of Economics,
Sardar Patel University,
Vallabh Vidyanagar (Gujarat).*

Arun S. Patel