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BOOK REVIEWS

Rural Development in China. By DWIGHT PERKINS and SHAHID YUSUF. A World Bank Publication. (Johns Hopkins University Press, Baltimore and London, 1984.) Pp. 235, ISBN 0 8018 3261 6.

Agriculture in China's Modern Economic Development. By NICHOLAS R. LARDY. (Cambridge University Press, Cambridge, 1983.) Pp. 285, ISBN 0 521 25246 6.

Food Grain Procurement and Consumption in China. By KENNETH R. WALKER. Contemporary China Institute Publications. (Cambridge University Press, Cambridge, 1984.) Pp. 329, ISBN 0 521 25649 6.

There would be few pairs of countries whose agricultural systems are more disparate than those of Australia and China with respect to resource endowments, economic policies and history. Nevertheless, there has been increasing interest in recent years by agricultural economists of both countries in the affairs of the other. For the Chinese, a major stimulus has been to gain access to the varied agricultural expertise of a rich country, whilst Australians have been motivated by a combination of healthy curiosity and the self-interested desire to understand better the longer term developments in the agricultural economy of a major trading partner.

These three excellent books will be of great benefit to people seeking more information on the complex issues involved. Although there is a lot of common ground covered in these works and, broadly speaking, no major conflicts in their general approach or conclusions, the books are based on investigations and research at different levels of analysis and generality. This suggests the sequence in which they might be read (and reviewed). Perkins and Yusuf adopt the most wide-ranging treatment emphasising historical, political and institutional factors in agriculture together with a concise account of Chinese health and educational policies. Lardy has analysed the major economic debates that underlie Chinese agricultural policy in a far more detailed way. For students of China, there are serious problems concerning economic data. The painstaking investigation by Walker goes some way to reducing these difficulties in his almost forensic study of grain production and consumption in China. In various ways, therefore, these three books help us to appreciate the vicissitudes of Chinese agricultural policy with its swings between Maoist 'radicalism' and Deng's 'pragmatism' where, in essence, what has been under ideological dispute, and has been revealed in practice, are differences of opinion about the efficacy of direct and indirect approaches to economic planning.

There have been five broad stages in recent Chinese agricultural history which have had varying success in meeting objectives of increasing agricultural productivity to feed the burgeoning population and mobilising agricultural labour for investment in agriculture, industry and social infrastructure. An initial land reform in the 1950s

redistributed land from rich to poor peasants. This was accompanied by minimal interference by Party officials in the day-to-day business of agricultural production. Then followed a period of 'collectivisation', shifting in turn from co-operatives to highly structured communes. This culminated in the 'Great Leap Forward' of the late 1950s which had disastrous effects on agricultural output and brought about enormous economic waste in a poorly conceived drive toward rapid industrialisation. A brief period of relaxation followed, with greater reliance on 'price' rather than 'quantity' planning, which ended abruptly with the onset of the Cultural Revolution (1966-76).

Economic policies of the Cultural Revolution were strong on slogans (for example, 'take grain as the key link' and 'store grain everywhere') and blanket recommendations about agricultural practices (for example, the promotion of multiple cropping) but weak on coherent analysis. Self-sufficiency was encouraged at the most local level, thus eliminating potential gains from regional specialisation in food and industrial crops. Furthermore, the almost complete rejection of material incentives had serious negative effects on production and capital accumulation because commune managements, for the sake of peace and quiet, allocated work points more or less equally, without regard to the actual effort or performance of peasants. Current policies have changed these policies radically — individual households are now allowed far greater initiative in planning their output and choosing their patterns of work. Not surprisingly, from the viewpoint of Western observers, abandonment of autarky and the frustrating interference of officials in farm planning and operations have brought forth a substantial increase in output.

Perkins and Yusuf identify some constant themes in Chinese agricultural policy; foremost amongst these 'has been the Government's capacity to implement village-level programs on a national basis through bureaucratic and Party channels'. Perkins and Yusuf also argue that the urban bias, so common in the Third World, has been generally true of China even if it has been moderated in the recent past. Agriculture traditionally has received only a small share of government expenditure but has contributed disproportionately through agricultural taxes, and, more importantly, through prices charged for consumer goods and agricultural inputs produced in the cities. Perkins and Yusuf explore the consequences of the overriding dilemma of Chinese agriculture that the absolute size of the population precludes the standard development option of transferring labour from the countryside to existing urban areas. Consequently, industrial development has to take place in rural areas.

Perkins and Yusuf point out that collectivisation and the commune system, for all their conceptual and management problems, scored some notable successes. There is nothing new about the idea of mobilising surplus rural labour for public works, it is just that the scale of the effort was unprecedented in China. The Chinese approach, with its emphasis on mass campaigns, proved effective in spreading new agricultural techniques, for example, dwarf high-yielding varieties of rice, well in advance of their development at the International Rice Research Institute in the Philippines. Similar gains were achieved in delivering improved health care and nutrition to the countryside. Perkins and

Yusuf note that the system of 'barefoot doctors' is to some extent undermined by the household contracting system. In a somewhat analogous fashion to the debates over agriculture, political attitudes toward family planning have fluctuated between literal-minded Marxism and neo-Malthusianism — with drastic consequences associated with either extreme.

Perkins and Yusuf have provided an extremely interesting account of education in China, where mass campaigns during the Cultural Revolution were so disruptive. It has proved extremely difficult to adapt the demands of a modern state for skilled manpower to an age-old culture with its entrenched tradition of very formalised instruction. Perkins and Yusuf make the fascinating observation, to this reviewer, that the Chinese language is so difficult to read and write that it is possible to lapse back into illiteracy without frequent practice. A lot of instruction is required, therefore, to reach and maintain an educational standard that is high enough for the transmission of technical knowledge about agriculture. Less extraordinary to Australian readers is the discovery that 'those who choose to study agriculture have scores that are below average'. These days an extremely competitive and meritocratic approach is applied to Chinese education. This is strikingly at variance with previous Maoist ideals, which, however, were probably honoured more in the breach than the observance. Perkins and Yusuf, nevertheless, do not give an encouraging account of current Chinese education in the countryside. Since the chances of a place in a university and eventual employment in a city are very slim, rural students show very little interest in their studies. They frequently attend rural schools that are in poor shape, and are instructed by teachers whose own education was almost certainly severely hampered by the Cultural Revolution, and who, these days, may have more interest in their private plots than their teaching responsibilities.

Lardy's book is prefaced on the desire to understand 'several paradoxes' in Chinese agricultural development: the puzzling inter-temporal path of output and productivity growth, the persistence of chronic malnutrition and low income for a significant share of the rural population between the mid-1950s and mid to late 1970s despite a doubling of per capita national income and the paradox of Mao Zedong, who inflicted 'the stultifying hand of the bureaucracy' on the peasantry whilst proclaiming the exact opposite. The core of Lardy's analysis is contained in Chapter 2 'Planning and Allocative Efficiency' which comprises four longish sections: the theory of price and quantity control, the evolution of planning in Chinese agriculture, grain self-sufficiency and comparative advantage, and the re-emergence of price planning since 1977. Every now and again one is jolted back to the realisation that economics is an extraordinarily useful discipline and that the penalties can be extremely high for those who suffer when political leaders choose to ignore its most simple truths. Reading the section on grain self-sufficiency and comparative advantage is one such occasion.

The impetus for a policy of local self-sufficiency appears to derive directly from the illogical extension by Mao Zedong of not altogether unfounded fears about surrender of national independence by China through international trade to inter-provincial and even intra-

provincial economic transactions. Indeed, the shifts in agricultural policy referred to above can be interpreted partly in terms of the waxing and waning of his influence on economic matters. Lardy works through several examples that illustrate the costs of ignoring differences in production possibilities and describes the consequent decline of other agricultural outputs in the pursuit of grain self-sufficiency (animal husbandry in Inner Mongolia, cotton in Shandong province, sugar in Fujian province and how China became one of the world's largest importers of refined vegetable oils and soybeans). Even areas with a comparative advantage in grain did not escape the losses associated with production planning. Sichuan province was transformed to a large net importer of grain through misplaced emphasis on multiple cropping, when yields of grain became the major criterion for judging the success of local cadres. Not surprisingly, the political battles that marked the retreat from such irrational cropping patterns were initially fought out in Sichuan. Simply put, multiple cropping ignored the cost of achieving extra output and the critical importance of timeliness in agricultural practice. Furthermore, morale is critical, because if labour 'works to rule' in farming, the effect on output can be disastrous. High and increasing output requires continuous initiative, improvisation, and from time to time exceptional exertion, and it seems that this can be secured only if effort is linked fairly directly with income.

The upshot of the policies pursued during the Cultural Revolution was declining agricultural productivity. The re-emergence of price planning after 1977 was, according to Lardy, an inevitable response to the rising share of food products in the import bill and to the crises of food consumption and productivity. Current policies involve increased use of price incentives, greater freedom for production units to choose cropping patterns, resurgence of private marketing of agricultural and subsidiary products, restoration of private plots and the introduction of the 'responsibility system' whereby households contract with the production team to meet specified production goals. The rediscovery of the advantages of specialisation has brought about a decline in multiple cropping and an increase in production of both grain and industrial crops.

Lardy has also studied in great detail the available data on income distribution in China. His conclusions cast doubt on some widely held propositions concerning Communist rule by establishing that absolute deprivation was widespread, that no long-term income growth occurred, that peasants were impoverished by the denial of comparative advantage and that tax and procurement policies exacerbated rural poverty. Rural poverty has been reduced substantially since 1977 with the introduction of the responsibility system. The quality of Lardy's economic analysis is high but his appreciation of political factors in Chinese development does not seem to suffer in consequence. His book concludes with an assessment of 'Prospects for Reform'. These observations suggest continuing problems in making the required adjustments to relative prices which are crucial to sustaining and building on the reforms instituted since 1977. Many problems persist, including the deeply rooted attraction for quantity planning that still afflicts many public officials. These attitudes are unlikely to be reflected in major changes in policy but are bound to re-emerge to some extent

when expanded output is reflected in lower prices and incomes for peasants that will be the longer term consequence of today's agricultural successes.

Walker's book is the product of more than ten years' research. The Chinese diet is almost exclusively of grain, defined by the Chinese to include pulses, potatoes and soybeans as well as cereals, so that policies for its production and distribution touch the very fabric of the political life of the country. Walker has analysed intra-provincial and inter-provincial transfers of grain between 1953 and 1962 and in the later 1970s. He does not cover the fourteen years from 1962 to 1976 due to lack of statistics, something that is a rather chilling outcome for a 'planned economy'. He documents questions of urban bias in terms of quality and quantity of diets in rural and urban areas. We also come to understand more of the regional conflicts that beset a nation as large and diverse as China as the central government attempts to procure grain for urban areas and grain deficient provinces.

Many of the conclusions drawn by the other writers depend on the work undertaken by Walker and similar analyses of limited Chinese data. Walker's book is not easy reading with its voluminous tabulations of grain statistics. Perhaps the most interesting chapter concerns the impact of the Great Leap Forward where the argument is cogently developed that the grain crisis was caused by bad policies, even without natural disasters and technical mismanagement. The Great Leap Forward was also associated with the disintegration of statistical services so that the government could not have made rational decisions, even if it were of a mind to do so.

One of the important lessons from these books is the recognition that debates over agricultural policy have occurred continuously in post-revolutionary China amongst Chinese scholars and public figures. Western economists are usually excluded from even observer status at such debates because of the problems of language, including the complex codes involved in Chinese economic discussions. These books go a long way to reducing these formidable difficulties.

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The Common Agricultural Policy and the Less Developed Countries. By ALAN MATTHEWS. (Gill and Macmillan, Dublin, 1985.) Pp. 268, ISBN 7171 1411 2.

The central theme of this book is the impact of the Common Agricultural Policy of the European Community on the food and agriculture of the Third World. While the objectives and the instruments of the Common Agricultural Policy are internal to Europe, the interdependence of world agricultural trade means inevitably that there are spillovers. I was reminded of Trudeau's response to a question about Canadian-US relations. He likened them to sleeping with an elephant — however friendly the beast, every time it so much as wriggled there was a real danger that either the whole bed would collapse or that one would be inadvertently crushed.

And so it is with the Common Agricultural Policy. Given the Community's importance in trade, relatively small changes in the

nature or setting of its domestic policies can have major ramifications for the level and stability of world prices, along with exports, imports, production and consumption in the developing countries (and, incidentally, in those such as New Zealand that are not developing). In short, the real welfare of peasants in Bolivia, Burkina Faso or Bangladesh is affected by the prices paid to the peasants in France.

But this book is not another in the 'centre dumps on periphery saga'. While it may well be that colonial plundering and exploitation have shaped the structure of today's patterns of production and trade, this book provides a balanced view of the interplay of trade and domestic policies in both Europe and the Third World. The story that emerges is that this complex interplay has many winners and losers. To argue that the Third World is discriminated against by the Common Agricultural Policy is entirely too simplistic. The story is not new and the book breaks no fresh methodological grounds. Its greatest strength is the manner in which it unravels the effects and the readable way in which they are presented.

The Third World is not a homogeneous block of net agricultural exporters shipping tropical raw materials to the industrial world. There are many countries, many regions, many commodities, importers and exporters of both tropical and temperate zone goods; and above all there are consumers and producers at all levels of real income. The corollary of the complex pattern of the incidence of the Common Agricultural Policy is the difficulty facing those seeking its reform. Would that the author had added a chapter on the political economy of reform.

There are no displays of analytical pyrotechnics — a couple of diagrams and nary an equation. The results of the impact of the Common Agricultural Policy are derived from an expanded version of the trade model developed by Valdés and Zeitz (1980) at the International Food Policy Research Institute in the late 1970s. Those wanting details of the data and the methodology are left to request them from the author. I personally would have preferred to have had them as an appendix. But those seeking a clear and reasonably comprehensive statement of the issues, supported by up-to-date statistics and citations of the literature up to 1985, have found a gem. Turn to this volume for an accessible update on the Common Agricultural Policy, on world agricultural production and trade, on food policy issues or for senior undergraduate reading on trade and development.

A postscript — the study was commissioned by Trocaire, the Catholic Agency for World Development, based in Dublin. International agencies sometimes feel circumscribed in their ability to tackle the consequences of the Common Agricultural Policy for fear of upsetting their European donors. It is refreshing to see a statement emerging from within Europe.

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- Valdés, A. and Zeitz, J. (1980), *Agricultural Protection in OECD Countries: Its Cost to Less-Developed Countries*. Research Report 21, International Food Policy Research Institute, Washington, D.C.

New Directions in Econometric Modelling and Forecasting in U.S. Agriculture. By GORDON C. RAUSSER (ed.). (Elsevier, New York, 1982.) Pp. 830, ISBN 0 444 00736 9.

This edited volume of 23 papers is an outgrowth of five annual conferences held in the United States over the period 1976 to 1980. In the first paper, Rausser discusses the historical background of the conferences, their aims and the content of the rest of the collection.

The conferences were sponsored by the US Department of Agriculture and the Farm Foundation. The sponsorship of these agencies reflected their concern for the fact that the econometric models which were developed in the 1950s and 1960s failed completely to predict the massive increases in the prices of agricultural commodities observed in 1972 and 1973. Consequently, the focus of the conferences was on new economic and econometric developments which might prove useful in constructing and utilising models of US agriculture.

Rausser suggests that some of the deficiencies of the early econometric models could be attributed to the fact that, before the early 1970s, US sector policies tended to isolate the agricultural sector from the world economy as well as from the rest of the domestic economy. However, because of flexible exchange rates, the rapid growth of international markets, and decreasing barriers between the agricultural and other domestic economic sectors, models using open systems would seem more appropriate for the 1970s than the conventional models using closed sectors. Furthermore, domestic US agricultural policies included land diversion, special farm credit arrangements and price supports, all of which raise non-standard problems of econometric specification and estimation. For example, the empirical analysis of the demand for commodities subject to price supports requires an econometric methodology based in part on the theory of estimation of the parameters of truncated distributions. It is fair to say that the econometric methods required for tackling these types of problems were not generally available until the mid-1970s.

The volume contains five survey papers and most of the remaining articles have a substantial review component. The first survey paper (by Ladd) is on the economics of product characteristics. Following this, Hanemann reviews the demand function approach to modelling product quality and its influence on consumer choices. The paper by Chambers and Just covers the area of qualitative econometric analysis with an emphasis on past and potential applications to problems in agricultural economics. This important area of econometrics is the subject of two recent review articles (Amemiya 1981, 1984) and a monograph (Maddala 1983). The survey by Zellner (also published in Zellner 1979) discusses many methodological problems met in building econometric models. Zellner concludes his paper with the challenging comment: 'while considerable progress has been made with SEMs [structural econometric models] an econometric model as satisfactory as the Ford Model T has not yet appeared' (p. 650). In the final survey paper, Thompson and Abbott provide an extensive survey of modelling agricultural trade.

Many of the remaining papers provide numerous examples of the application of recent developments in economic and econometric

theory to problems in agriculture. Theoretical topics covered include rational expectations, risk analysis, inventory theory, duality theory, quality considerations in demand analysis, open economy modelling, endogenous government behaviour, qualitative econometrics, forecasting methodology and problems of econometric forecasting and structural change.

The usefulness of the volume stems from the great diversity of topics addressed. The major deficiencies arise from the fact that many of the papers originated as contributions to conferences or as discussion papers and have not been subjected to the rigorous refereeing process required for publication in scholarly journals. Some of the reported empirical results were obtained using inappropriate econometric methods and I found an example where non-standard methodology was employed without theoretical justification. I also encountered occasional misprints in critical mathematical formulae and some unsubstantiated theoretical claims. Finally, I should mention that while many of the papers contain extensive and useful bibliographies, few of the citations are of post-1979 vintage.

There is much in this collection of interest to agricultural economists and applied economists in general, and I think that it would be a worthwhile purchase for the departmental library.

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 Zellner, A. (1979), 'Statistical analysis of econometric models', *Journal of the American Statistical Association* 74(367), 628-43.

Phosphorus in Australia. By A. B. COSTIN and C. H. WILLIAMS (eds). CRES Monograph 8. (Centre for Resource and Environmental Studies, Australian National University, Canberra, 1983.) Pp. 284, ISBN 0 86740 0307.

This book contains papers originally presented to a workshop organised by the Centre for Resource and Environmental Studies at the Australian National University and the Institute of Biological Resources, CSIRO. The authors come from a wide range of disciplines and backgrounds and their chapters are arranged in five sections: availability of phosphorus, use of phosphorus, after use factors, panel (papers and discussion) and phosphate policies.

Australia's old, well-weathered soils are generally deficient in phosphorus so that the agricultural and pastoral industries have been and will continue to be dependent on phosphatic fertilisers. Indeed, the story of the development of manufacture and agricultural use of super-phosphate represents a significant example of what these days is known as 'high tech' but used to be called applied science. Various chapters in the book reveal the high quality of the work that has been done in such diverse fields as soil science, plant nutrition, mineralogy, chemical

engineering and the social sciences to facilitate the creation of a more productive agricultural system based on superphosphate application.

Agricultural economists are familiar with the controversies over government assistance to encourage the production and use of superphosphate. Most studies suggest that the price elasticity of demand for superphosphate is rather low so that any allocative effects of bounties and/or subsidies are small. Nevertheless, in some areas, notably Western Australia, the existence or non-existence of assistance will have a considerable effect on farmers' incomes. In addition, where fertilisers have been applied in large amounts over long periods, the timing of maintenance applications is somewhat discretionary and thus can be used to stabilise incomes. These income effects explain, in part, the considerable passions involved in the assistance question.

These issues are discussed succinctly in the chapters by Gargett and Lewis. Lewis also describes the arrangements for the procurement of phosphate rock that guaranteed Australian farmers access to cheaper fertilisers, independent of assistance measures. Now that the Christmas Island and Nauru deposits have not many years to run, the future of the Australian fertiliser industry has to be re-examined. Fortunately, Australia has abundant indigenous sources of phosphate rock but less fortunately these supplies are not conveniently located and their use would also require substantial investment in processing and transport infra-structure. These deposits seem likely to be developed later rather than sooner. Transport costs would favour international sources of fertiliser, where mining and manufacture can be integrated. Changes to the form of assistance, and the requirement to ship island rock in Australian ships, also tend to disadvantage local manufacturers. Competition from imported high analysis fertilisers is having significant effects on farm practice as well as on the structure of the Australian manufacturing industry.

This book, with its broad sweep of economic and technical issues involved in the phosphorus story, will be extremely useful to economists involved in providing policy advice or in farm management.

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Economics and Agricultural Management: An Introduction. By K. L. CASAVANT and C. L. INFANGER. (Reston Publishing Co. Inc., Reston, Virginia, 1984.) Pp. 290, ISBN 0 8359 1578 6.

This book is an addition to the already large, and growing, number of texts on introductory microeconomic theory related to agriculture. The authors have aimed their material at a quite distinct reading audience, viz., beginning students of agricultural economics and management. Within the limits set by their target readership, the authors have produced a useful 'starter'. The book should achieve its stated objective of making students aware of the need for, and usefulness of, economic decision making and management tools in many different areas of agriculture.

The authors establish the framework for economic ways of thinking about production decisions, and do so in a way which ought to be easily

understood by tyros. First the theory of the firm is introduced, then come the realities of time, risk and uncertainty, and competition and market power. Wider issues such as environmental protection, social costs, externalities, and market and legal solutions to such problems, are also canvassed in a clear and interesting way. In keeping with the aims of the book, breadth is more a feature than depth.

The major distinguishing feature about the treatment of the standard production economics material is the authors' stated aim to emphasise techniques for solving some of the problems with which managers constantly grapple. This attempt succeeds to the extent that relating theory to practice enhances reader interest and comprehension, but the examples used are too unrealistic and simple. The aim of making problem solving a feature of the treatment of production economics theory would have been helped by greater use of the common techniques used in 'management'. For example, budgeting receives a mere two pages at the end of the book. To have done this would have made the use of the word management, in the title and the text, more justifiable. There are virtues though. The authors do not waffle on about management and are at pains very early in the piece to assert their position as being firmly in the production economics school of management decision analysis.

Most aspects of importance in the theory are touched on, and dealt with in a way which should help establish the critical conceptual framework for weighing-up production decisions. Perhaps the major thing about production economics which this book lacks is doubt. The rubbery nature of the implied veracity of the economic model they postulate ought to be exposed to students in the beginning.

Although section three of this book, 'The Decisionmaking Environment', is not totally relevant to Australian circumstances, sections one and two, 'Tools for Decisionmaking' and 'Managerial Tools', are useful enough to be able to recommend the book for use in say, an introductory course in farm management, or, if the luxury were possible, an introduction to a course in production economics which was to be based on the more in-depth treatments such as those by Doll and Orazem (1984) or Gould and Ferguson (1984). The commendable clarity of exposition of this book makes it worth consideration. Good use could be made of it in introductory courses at college level.

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Management of Water Projects: Decision Making and Investment Appraisal (Organization for Economic Co-operation and Development, Paris, 1985.) Pp. 254, ISBN 92 64 12695 3.

This book presents the decision making processes and technical evaluations which ought to be applied when appraising new large-scale

water projects. It encompasses activities from the preliminary screening of project ideas to the construction decision. The book has chapters covering project design, institutional framework, economic, financial, social, health, and environmental aspects of a project.

The authors state: 'The book is for the use of policy makers and members of the pluridisciplinary teams responsible for appraising projects, and its purpose is to make them aware of the complexity of the subject, the viewpoints and criteria of the various scientific disciplines involved in the appraisal process, and the paths to follow when taking the decisions that have to be made as the studies and projects progress' (p. 12).

The work has developed from an earlier publication by Bergmann and Boussard (1976), which gave a detailed guide to the economic evaluation of irrigation projects. The current book is not restricted to irrigation projects and gives only a skeletal treatment of the technical issues involved in their evaluation.

Consequently, the strengths of the book are in detailing the studies and reports recommended for each of the five identified stages of a project (that is, preliminary evaluation, examination of alternatives, selection of alternatives, final *ex ante* report and *ex post* evaluation). A sketch report with expected inputs is given for each stage, together with the expected period and type of review between each stage. The book also emphasises the contribution that a number of disciplines can make and notes the importance of considering a large number of alternatives at early stages of project preparation. It is clear the authors feel that inappropriate projects mostly proceed due to inadequate scrutiny in these early stages.

The three following parts in the book deal with economic, financial, social and environmental considerations of a project. The technical aspects of each of these considerations are dealt with briefly, sometimes in the manner of an expanded checklist. In some respects, these chapters are somewhat unsatisfying and could be strengthened by greater reference to case studies as it is clear the authors have access to such information.

Included in the economic considerations are evaluation measures, shadow pricing, project timing, allocation of costs, estimation of benefits (such as irrigation water, energy, flood control), distribution of costs and benefits, and financing. A good practical review of shadow pricing, project timing and size and estimation of benefits is given, but the discussion of alternative project evaluation measures could have been expanded to overcome common confusion.

Similarly, the sections discussing the distribution of costs and benefits, pricing of project output and financing could have been tied more closely together to emphasise their interrelationship and demonstrate the dangers of approaching each separately.

The book is valuable for those of all disciplines involved in the water sector. A salutary warning is given: 'No-one will find in this book an ideal solution in which all the criteria are finally brought together in a single figure enabling the decision making authority to make a final choice among the various alternatives' (p. 12). However, the book successfully gives an outline of how all disciplines can contribute in an evaluation team to the analysis of water projects and presents a sensible

set of reporting stages which, if implemented, would expose the deficiencies of an ill-advised water project early in the evaluation process.

The only pity is that large discrete projects have not benefited from such analysis and many projects currently being evaluated in Australia are relatively small and incremental to existing systems. In these circumstances analysis of pricing policies, tariff structure and water allocation policies assume highest priority in the evaluation of the existing system and of new projects.

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Bergmann, H. and Boussard, J. M. (1976), *Guide to the Economic Evaluation of Irrigation Projects*, OECD, Paris.

Resource Development and the Future of Australian Society. By STUART HARRIS and GEOFF TAYLOR (eds). CRES Monograph 7. (Centre for Resource and Environmental Studies, Australian National University, Canberra, 1982.) Pp. 305, ISBN 0 86740 019 6.

As a set of papers from a 1982 Australian National University conference, this book does better than most such collections. There is some overlap and repeated information, and some chapters are too long but the papers focus on the theme and range from not bad to very good.

The list of authors given is interesting. It includes Gregory, Stoeckel, Jackson, Porter, Hawke, plus another dozen or so, and their products do not disappoint or for that matter surprise. There are two main themes — one about conventional pricing and resource allocation and the other about a somewhat softer set of issues including the environment, aboriginal interests, ecology and even national attitudes to resource development.

The editors, Harris and Taylor, organised the conference and the introductory chapter is theirs. The key words are resource development (meaning energy and energy related prospects), policy implications, and effects on the economy, future and current. There is a nice historical chapter by Bob Gregory. He goes to some trouble to balance what he sees as too much emphasis in the literature on the crowding out of other sectors by mineral sector expansion rather than an emphasis on wealth creation and economy-wide growth. This reminder and the fact that it is from Gregory are appropriate enough given that his 1976 article in this *Journal* triggered so much popular interest in these questions.

Jackson, in a paper titled 'A Mining Industry Perspective', tells readers about government 'interference' in the industry. The prescription doesn't seem to be the need for less interference but rather a bigger say for the miners. Views on foreign ownership, protection, growth and adjustment are general, conventional and suggest the importance of making the most of the *status quo*. A paper reporting 'A View from the Labour Movement' by Bob Hawke, then spokesman for the Opposition on Industrial Affairs, also comes across as resigned to

the *status quo*. Foreign companies involved in resource development are suspect and foreign workers (migration) more so. Consensus between the union movement, employers and government (is that everybody?) ought to determine the distribution of national income. Michael Porter's paper on money market pressures gives the *status quo* a shake. That is, liberalisation in all sectors, financial and resources, is important. So is letting market valuations matter and recognising the costs of restricting movement of our scarce resources, and of foreigners' scarce capital and know-how.

The rural perspective comes from Andy Stoeckel. It is probably the paper that is bravest and clearest about what might happen in the future, and like all forecasts we can, a few years later, easily call it wrong. It is all predicted on what a mining sector boom would do for agriculture — not much it seems and so the paper canvasses some of the actions a government might take to even these pressures out a bit, reduction of high import protection being the main one. It's a rural perspective and the unevening effect this might have on manufacturing is not mentioned. It is not complete gloom for agriculture and some sectors and some regions may do well as the 'resources boom' and its supply and demand side-effects work their way through the domestic economy and the economies of various trading partners.

Ben Smith's 'Environmental Issues' chapter is well-balanced, conventionally sound material. He advocates environmental damage taxes on the grounds that a market does not exist to provide valuations. In doing this he makes light of the practical problems of setting and administering such taxes. Perhaps some examples where this type of taxation has worked are needed to shift those unpersuaded by the theory alone. Smith also espouses a consensus line and he suggests mining companies should have some committed conservationists, which sounds like good advice to them.

A chapter by Boyden is headed 'The View Point of Human Ecology'. In contrast to other views of the *status quo* — Jackson and Hawke who seem to accept it, Gregory and Stoeckel who want to measure it and understand it, and Porter who wants to change it — Boyden does not like it at all. Free market induced doom is imminent, he says, warning us about such things as the 'green house' effect from carbon dioxide build-up. The diagnosis is interesting and troubling but the reader is left wondering what ought to be done next.

Most of the issues running today are picked up one way or another in other papers — 'Overseas Investment', 'Labour Markets' (pre-Accord), 'Financial Markets' (a paper which is both pre-deregulation and pro-deregulation), 'Foreign Investment', 'Manufacturing Industry Policy', and 'State Government Policy'. Most stand the time test well. Given the dated nature of this review, it is not now a book for the expert, but for someone wanting an education in the policy debate in this area it remains good value.

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