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BOOK REVIEWS

National and Regional Self-Sufficiency Goals — Implications for International Agriculture. By FRED J. RUPPEL, EARL D. KELLOGG and LYNNE RIENNER (eds). (Boulder and London, 1991). Pp. ix + 251. ISBN 1-5587-1526.

This book of 14 chapters by various authors grew from an organised symposium held at the annual meeting of the American Agricultural Economics Association at Michigan State University in August 1987. Of necessity, there is some repetition as the various authors interpret the various dimensions of the concept of agricultural self-sufficiency.

A fundamental distinction made by many of the authors is between food self-sufficiency and food security. The latter refers to the capacity of countries to provide people with an adequate food supply, where adequacy is defined on nutritional standards. The difficulties in applying such standards are well known, involving work effort, dietary composition in terms of proteins, carbohydrates, minerals and vitamins as well as consumer preference for a varied diet. While a least cost diet is long on beans it does have to go a long way to meet consumer preferences for something less bland.

The extension of the concept of food security to the more general problem of poverty is easy. As a result, food security problems become quickly enmeshed with the general problems of economic development. By contrast, food self-sufficiency refers to the proportion of domestic supply that is provided from domestic sources. As de Janvry and Sodoulet point out in their review of India's achievements, there is a trade-off in achieving the two goals — increased food self-sufficiency may mean worsening food availability for the chronically poor.

A discussion of the issues on food self-sufficiency is made more difficult in that the goal is often a political and a moral one. Coming closer to home, imports of food from Australia — largely rice — into Papua New Guinea often produced emotional statements. Sir Julius Chan (1984:8) said that the current proportion of food imports to total imports should be a source of shame to us all.¹ While self-reliance is an admirable trait it can have economic costs when translated into policy actions which result in the establishment — behind protective trade barriers — of domestic food industries which result in severe resource distortions within the country and are barriers to trade for exporting countries.

¹ Chan, Sir Julius, 1984, 'Keynote address' in G'upta, D. and Polome S. (eds), *Economic Policy Issues and Options in Papua New Guinea*, Working paper No. 41, National Centre for Development Studies, Australian National University, Canberra.

In her review of rice self-sufficiency in South-East Asia, Fitzpatrick contrasts policy actions in Malaysia and Thailand. In the former country, development strategy has focussed on non-food export crops while heavily subsidising food crops. Thailand adopted more flexible strategies involving the private sector more and has allowed resources to flow out of rice production. Where high domestic prices are used as policy instruments to increase domestic supply in a particular country they can have regional effects — through smuggling — as is pointed out by Staatz and Wohl in their review of food self-sufficiency policies in West Africa. They refer to the 'porous' nature of the borders between many countries in West Africa — a porosity which makes unilateral action by one country difficult to implement effectively.

The discussion of issues surrounding food self-sufficiency is made even more difficult when self-sufficiency ceases to be an objective but becomes an instrument to achieve other goals.

A number of authors in the book emphasise the impact of the hikes in oil prices in the '70s on the balance of payments position of many non-oil exporting developing countries. Restricting food imports through exchange rate policies, trade and non-trade barriers were seen as a means — along with overseas development assistance, including food aid — of restoring balance of payments equilibrium.

Food imports, along with other categories of imports, may also be restricted on a crude import-substitution strategy for economic development. Whether restrictions on food imports, or more generally on other commodities, are effective instruments may be doubted. In their review of self-sufficiency in Latin America, Graham and Traore point out that cereal self-sufficiency in the Latin American countries actually declined in the period when most self-sufficiency drives were launched. In part, this was due to rising incomes associated with a high elasticity of demand for livestock products and increasing imports of feed-grains. The more general import substitution strategy of development has little favour in the development economics literature, having been replaced by an outward-looking export orientation, structural adjustments aimed at getting prices right and a less-regulated foreign exchange regime.

Although the book is sub-titled 'Implications for International Agriculture', the trade aspects of food self-sufficiency policies receive a much shorter treatment than the country and regional surveys. For any one country, a food self-sufficiency ratio of less than 1 implies some imports of food. Using partial equilibrium analysis, Staatz shows that the self-sufficiency ratio can be raised by one, or all, of three actions: raising domestic prices to eliminate excess demand at current world prices; shifting the domestic demand schedule to the left; shifting the domestic supply schedule to the right. The first two measures will have both efficiency and equity effects for domestic producers and consumers. The third will lead to reduced imports with implications for exporters.

Australian wool producers protested against the use of Australian overseas development assistance to increase wool production in China on the grounds that Chinese production would be substituted for Australian exports. The static partial equilibrium analysis has been countered by a more aggregated dynamic analysis based essentially on the argument that incomes in the developing country would rise as a result of increased agricultural productivity and this would have second-round effects on increased imports. By and large, Australian wool growers were not convinced and pointed out that the increased imports need not necessarily be sourced in Australia, need not necessarily be wool and, moreover, there were more effective and direct ways of increasing Australian wool exports to China — in particular, by increasing productivity in the Chinese wool processing sector.

There is a certain ambivalence in the treatment of the international trade aspects of food self-sufficiency. A number of the country surveys point out that food self-sufficiency policies have not worked; that is the proportion of domestic consumption coming from domestic sources has fallen. However, Schmidt argues that the policy measures provided to protect domestic food producers encouraged domestic production, reduced domestic consumption and further reduced import requirements. He also highlights the trade-off between self-sufficiency and food security — a trade-off which has implications for overseas development assistance programs. The developing countries are faced with conflicting policy goals: the need to achieve food security for the poor by keeping food prices stable at levels below world market prices and the necessity of improving food self-sufficiency (and export trade balances) through higher producer prices.

In summary, this is a stimulating collection of papers. As a book it suffers from a certain lack of continuity and uneven treatment of the issues addressed in its title. The country and regional summaries are excellent. However, the lag between presentation of the papers and their appearance as a book has meant that some of the policy issues and instruments to solve the issues are a little dated.

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Food Trends and the Changing Consumer. By BEN SENAUER, ELAINE ASP, and JEAN KINSEY. (Eagan Press, St. Paul, Minnesota, USA, 1991.)

The food industry of today is in a constant state of change. It is becoming more globalised and more consumer oriented. Moreover, eating patterns and lifestyles in industrialized and many developing nations are changing dramatically but moving seemingly in parallel directions.

Food consumption patterns are affected by various factors including fluctuations in relative prices, changes in real income, emergence of technological forces, effects of advertising and promotion, shifts in the demographic structure of households and changes in lifestyles. Further, concerns regarding nutrition and health, food safety, animal welfare and environmental integrity are proliferating around the world. With a primary focus on trends in the increasingly consumer-oriented food system in the U.S., this book covers all these dynamic issues which have stimulated consumption patterns and preferences.

Consumers are becoming increasingly conscious of the health and nutrition aspects of the food they eat. Major nutritional concerns have been focussed on the linkage between diet and major chronic diseases such as stroke, heart disease and cancer. Understandably, consumers would like to avoid sacrificing taste, texture, and colour as they improve their diets. Also, they would like greater convenience (e.g. in terms of shorter preparation time or longer storage without losing freshness) in their meals. This book describes some of the major trends in American eating patterns, dietary changes and recommendations, and attitudes. This book also gives information on major government food assistance program in the U.S., as well as information about nutrition-related problems of the poor.

Demographic trends are among the principal factors influencing food consumption patterns. Some of these demographic changes in the U.S. include: a more diverse ethnic mix, increasing labour force participation rate of women, ageing population, increasing number of single person households, and rising incomes. Further, more money and less time is making convenience a key to success in food markets. This book provides a detailed description of the major population and demographic trends in the United States. Labour force participation, income growth, and changes in income distribution are also examined for their ability to foretell future consumption patterns. The authors also examine the influences of socio-demographic factors of the types and amounts of food consumed.

Attitudes on food safety are having an increasing influence on food production, processing, marketing and purchasing. Many Americans are worrying more about the safety of their food and its impact on their health due to recent highly-publicised incidents such as the Chilean grape tampering, salmonella contamination in poultry products, alar

tainted apples, and bacteria in hamburgers. A chapter of this book is devoted solely to the topic of food safety. This chapter not only provides an overview of major food safety concerns but also examines the issue of safety from a conceptual perspective. In addition, this book covers current food safety issues like pesticide residues, microbiological food contamination, seafood inspection, food additives, and safety concerns related to food irradiation and biotechnology.

In general, this book is suited to those with interest in consumer trends, food consumption, nutrition, or the food industry. Although methodological issues are not explored, the book provides a comprehensive reference on consumer and food trends, sources of data, nutrition and health, and major food safety issues. Moreover, the food industry issues discussed in the book are not only applicable to the United States but also to most industrialised (e.g. Australia) and developing countries. Hence, policy makers, regulators, educators and researchers from countries outside of the United States, who are interested in the food industry, will find this book very informative and relevant.

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The Common Agricultural Policy and the World Economy: Essays in Honour of John Ashton. By CHRISTOPHER RITSON and DAVID HARVEY. (CAB International, Wallingford, 1991.) Pp. 344 + vi, ISBN 0 85198 688 9.

This book was written as a tribute to Professor John Ashton who was Head of the Department of Agricultural Economics at the University of Newcastle-upon-Tyne for many years. He was influential in establishing a major research programme on the analysis of structural change in British agriculture during the 1960s and of extending that work to assess the effects of the Common Agricultural Policy (CAP) on British agriculture. He had the prior advantage of working in the Ministry of Agriculture, Fisheries and Food and thus was well acquainted with the agricultural policy process as well as with the economic analysis of agricultural policies.

The Common Agricultural Policy has been seen from the Australian perspective as the *bête noire* of its agricultural sector. Despite the policy having inflicted economic damage on this sector, in its early years by restricting imports and in later years by adding export subsidies further to reduce Australian exports, there remains in my view a lack of appreciation and understanding of the historical and political dimensions of the CAP. So what fresh insights does this book provide for an Australian audience in order to deepen that understanding?

There are two introductory chapters. The first is by Ritson in which he provides a brief introduction to the CAP. The second is John Ashton's Presidential address to the IVth European Congress of Agricultural Economists in 1984. The content of this chapter reveals Ashton's concerns not just about the effects of agricultural policy in Europe but also its effects on other countries. The remaining chapters are divided into four Parts.

The first Part, containing four chapters, is entitled 'Understanding the CAP'. There are two chapters here by Fearne (Chapters 3 and 6) which make excellent reading by covering the history and development of the CAP from 1945 to 1985, and by describing the decision-making process for the CAP, respectively. For the Australian reader these two chapters are rewarding in that the political difficulties are explained which have been encountered throughout the lifetime of the policy. For example, the reader learns that even at the outset (at the Stressa Conference in 1958), Mansholt, who was to become the first Commissioner for Agriculture, had reservations about the choice of policy instruments which have come to dominate the dialogue between the EC and its trading partners: 'He expressed his scepticism over the usefulness of price policies and his concern over the potential creation of surpluses and the effect this might have on the European Community's trading partners' (pp 27-28). It is regrettable that his famous Plan (i.e. the Mansholt Plan) subsequently proved to be politically infeasible. These two chapters throw considerable light on why the CAP has stumbled on from crisis to crisis without really being fundamentally reformed. The remaining two chapters in this Part, by Capstick on changes in British agriculture under the CAP and by Thomson on modelling the CAP, are well written but are of more specialised interest.

The second Part, entitled 'The CAP and the Community', contains a further five chapters. The effects of the CAP on consumers are discussed by Ritson (Chapter 7) while Whitby has written a very scholarly coverage of the effects of the CAP on the countryside in which he illustrates the perception that these effects are a matter of growing public concern and a new constraint on the directions of reform of the policy (Chapter 8). There is a chapter on changes in intra-EC trade under the CAP (Saunders in Chapter 9) and one on the effects on the Community's food industries (Swinbank and Harris in Chapter 11). In Chapter 10 Harvey highlights the paradox of spending national taxpayers' money on research and development which, together with the price support apparatus, has generated substantial improvements in yields, while at the same time spending further EC taxpayers' money to fund intervention buying and export subsidies, and helping to offset damage to the rural environment. He concludes that R&D policy has not played a central role at the EC level despite productivity growth being an objective of the CAP.

In the third Part the material presented lives up to the title of the book. Under the heading 'The CAP and the World' there are a further four chapters which deal with world trade (Buckwell in Chapter 12), developing countries (Lingard and Hubbard in Chapter 13), the United States (Josling in Chapter 14) and the special arrangements with the Mediterranean countries (Swinbank and Ritson in Chapter 15). Of these chapters, the one by Josling is perhaps of greatest interest to Australian readers because of what it reveals about the attitudes in the United States to agricultural trade in general and the CAP in particular, viz. that '... confrontation is the only way to get Europe's attention and halt protectionism. The result of this approach has been some modest success in preventing new trade barriers, and a considerable legacy of anti-US feeling among EC policy-makers' (p. 265).

In Part IV there are two chapters: the first deals with reform of the CAP (Hubbard and Ritson); and the second by Harvey on the Production Entitlement Guarantee (PEG) Option. In the first of these it is shown that disquiet in academic circles about the direction of the CAP has been obvious from the early 1970s and that their concerns were complemented by those of the Commission (e.g. as expressed in the Mansholt Plan). However, the authors argue, correctly in my view, that the formal approach to agricultural policy employed by academics (i.e. using applied welfare economics) has been largely irrelevant to the actual reform of the CAP, a view elaborated upon by Harvey. While economists have been busy measuring deadweight losses, politicians have been focussing on the budgetary costs of the policy which, over the past decade or so, have become an objective of, as well as a constraint on, policy. The authors conclude with the prediction that there will be '... no dramatic radical reform; nor will the Policy "collapse"' (p. 309). With the benefit of more recent history, i.e. the reforms of the CAP agreed in 1992, the first part of their conclusion has turned out to be false.

The picture of the CAP presented in this book is wide-ranging. Yet the careful editing provided by Ritson and Harvey has produced a book which is coherent with useful cross-references throughout the various chapters. My only quibble with this book is the generally poor quality of the Figures (and Figures 13.1 and 13.2 have been swapped).

In the Postscript the editors state they believe that the book represents '... a fitting memorial to the interest and enthusiasm which John generated amongst both colleagues and students' (p. 338). This reviewer strongly supports their judgement: the book provides a very accessible account of many aspects of the Common Agricultural Policy, albeit from the standpoint of the United Kingdom.

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Agricultural Economics and Policy: International Challenges for the Nineties. Edited by K. Burger, M. De Groot, J. Post and V. Zacharias. (Elsevier, Amsterdam, 1991.) Pp. 213 + ix, ISBN 0 444 88974 4.

This book was written to mark the retirement of Jan de Veer, a most influential and highly respected Dutch agricultural economist: influential for the quality of his contributions to Dutch agricultural policy and to analyses of the Common Agricultural Policy; and respected for the depth of his insights based on a thorough appreciation of both agriculture and economics. This reviewer had the privilege of working with him a decade or so ago on projects for the Commission of the European Communities and the European Parliament and can substantiate from first hand experience that de Veer is an outstanding agricultural economist. His professional contributions are recorded in the introductory chapter by de Zeeuw and Meester.

The chapters in the book are only loosely integrated, reflecting the authors' personal selection of 'those developments that are bound to dominate the discussion in agricultural economics and policy in the years to come' (p. vii). The focus is largely on European agriculture, both West and East and a few of the chapters may have limited appeal to readers whose interests in the forces for change in agriculture are not those to be found in Europe. Nevertheless, each chapter does contain ideas which are more generally applicable and for that reason the book is worth reading.

The effects of the price support elements of the CAP are discussed and illustrated by Koester. His approach is to view the CAP from the perspective of public interest. While no fresh insights are provided, this chapter is a concise review of the sectoral effects and the economy-wide effects of the policy. By contrast, Petit provides a useful, albeit brief summary of the political economy approach to the analysis of agricultural policies in which he stresses 'the art of' rather than 'the science of' policy making.

In between these two chapters is a rather theoretical account by Sarris in which he attempts to answer the question of whether agricultural trade liberalisation will cause international prices to be more or to be less volatile. The conventional wisdom is that liberalisation will produce the latter but Sarris contends that the former is a real possibility. This outcome may arise for European agriculture because production will become more variable in response to world prices which are more volatile than EC prices under the CAP. Similar arguments apply to the other major producing regions. The theme of variability is taken up by Boussard in the chapter which follows. He is concerned about the appropriate design of agricultural policies in the context of the risk averse behaviour of producers. He calls into question the textbook view that the individual firm's supply function is positively sloped and discusses the implications of lagged supply

response under risk for welfare analysis, the efficiency of free markets and the role of governments. In keeping with French views on economics, the discussion here is not conventional. Boussard has written on this theme more fully elsewhere and at greater length (e.g. see his own reference to his 1985 paper).

The sixth chapter contains a review by Tangermann of agriculture in the GATT. Again, he has written more fully on this topic elsewhere but this is a concise and very readable account not only of the history of agriculture in GATT Rounds but also of the difficulties surrounding the modalities of negotiating for agriculture. He concludes that these difficulties have less to do with the GATT than they have to do with the unwillingness of governments to subordinate national policy objectives to trade liberalisation. However, the Uruguay Round represents a step forward in that national policies are up for negotiation. In the chapter which follows, Colman outlines the pressures internal to the CAP which have brought about reform of the instruments, e.g. the introduction of co-responsibility levies and milk quotas. He stresses that budgetary cost has been the main determinant of change but is pessimistic (in late 1990) that the substantial reforms needed to make European agriculture efficient will be put in place despite external pressures from the US and the Cairns Group. With the benefit of hindsight, namely the reforms of 1992, he may have been unduly pessimistic.

The eight chapter, by Mahé and Roe, is one in which the themes developed independently by Petit and Tangermann are integrated. They present the results of empirical work in which they estimate the weights of producers, consumers and taxpayers in political preference functions for the US and the EC. Using a two-person, non-cooperative game approach, they conclude that both the US and the EC would choose the *status quo* over policy reform unless compensatory payments are permitted for producers. If such payments are introduced, then freer trade but not free trade is the optimal outcome. This conclusion is consistent with a public choice approach to policy analysis.

European agriculture in the context of the Single Market is analysed by Thompson. He notes that the CAP was supposed to provide a single, EC market for agriculture and, therefore, pre-dates the Single Market. However, through discussing examples where national interest have prevented a truly EC market from functioning, e.g. the agrimonetary system, he illustrates the failure of a common agricultural market. The greatest effect of '1992' as far as agriculture is concerned is likely to be in the agribusiness sector in which Europe-wide firms will operate and so change the structure of the agri-food chain.

The price policy component of the CAP has had substantial regional consequences because the products of the north have been more heavily supported than those of the Mediterranean regions. Marsh provides a fascinating account of developments in the structure of agriculture and structural policy in Europe. He contends that in practice there is

no distinction between structural and market policies; market policies by influencing current investments, shape the future structure of the industry. However, because the price signals provided to farmers are the result of politics rather than economics, the structure of EC agriculture leaves the industry uncompetitive. He interprets structural policy as a political response to perceived market failure.

Whilst Marsh approached the analysis of structural policy from the viewpoint of the sector, Scheper explores at the farm level the integration of the farm household with input and product markets and with non-farm sources of household income. These vertical linkages are supplemented by horizontal linkages, i.e. linkages between farm households. He discusses the role of state institutions as well as cooperatives in influencing the development of these linkages and the direction of integration. Ultimately, this chapter provides an analysis of the growth of the farm business and the consequences for the sociology and economic structure of the farm sector.

There then follows a speculative and futuristic view by Renborg about the nature of the farm sector. He develops his view through a hypothetical example of a country in which production exceeds consumption, product prices are falling, farmers are substituting forest products for agricultural products, the need for more ecologically sustainable development is accepted, and an increasing number of the population are choosing to live on the urban/rural fringe for reasons of lifestyle and the changes which computer networks allow. In his view these developments are important not only for the viability of rural communities, a viability which agriculture and forestry alone cannot provide, but also for the focus of agricultural economics.

In the next three chapters the emphasis changes from Western to Eastern Europe. Nazerenko outlines the economic reforms in the former USSR with reference to the 'agro-industrial complex'. He identifies the major challenge as the means by which food production can be increased and at the same time switching from centrally-planned agriculture to a market-based agriculture. The issue of land ownership and tenancy arrangements are crucial. Csáki describes the reforms which are taking place in Eastern Europe and points out that the six countries studied are each different with respect to reforms because of their legacy of socialist policies which were introduced in the 1950s. As in the former USSR, land reform, farm structures and entrepreneurship are essential to the development of market-oriented agriculture. Henrichsmeyer develops this theme in more detail through a study of structural adjustment in the agricultural sector of former East Germany which will follow from the sudden imposition of the CAP. These include, *inter alia*, a reduction in the farm labour force and modernisation of the technologies employed.

The next three chapters cover environmental aspects of agriculture; the first by Weinschenk on environmental economics and harmony with nature; the second by de Haen and Scheele on whether environ-

mental regulation is a threat to agriculture; and the third by Oskam on the effects of introducing externalities into the measurement of productivity indices. Weinschenk adopts a philosophical and, in places, a whimsical approach to economic activity and harmony. He is critical of the approach used in environmental economics whereby the environment is added as a new factor in the production function. He is also pessimistic about the operational validity of methodologies in which attempts are made to value non-market output. Fundamentally, he is critical of the stance taken in the environmental economics literature: 'Traditional environmental economics has to be blamed for pretending that there is a trade-off between material welfare and environmental objectives and that societies can decide on the optimal degree of satisfaction of the latter' (p. 169). Clearly, his thesis is a challenge to current orthodoxy.

In the second of these chapters, the authors analyse the implications of environmental policy for farm activities and efficiency of resource use. The analysis is conducted in terms of the allocation of property rights, the supply of environmental goods, the abatement of environmental damages, the need to compensate farmers for lost income, and induced technical change. They conclude that whilst in the short run, environmental policy will impose costs on farmers and is a threat, in the long run the environment should be regarded as a stimulus and a creative challenge. In the third of these chapters, Oskam attempts to measure factor productivity indices for Dutch agriculture with and without some of the externalities created by modern production methods. He found that during the period 1949-1988, the index of net factor productivity was reduced only marginally by including externalities.

The book is rounded off by a chapter by de Hoogh on agricultural technology. He is critical of standard economic analysis for its treatment of technological development as a exogenous variable. In this he is in sympathy with the new growth theories although he does not cite Romer's work. However, the work by Hayami and Ruttan on induced technical change is cited, in places approvingly but in other places, critically. He is critical of their neoclassical approach and in particular of the notion that there will be an equilibrium between societal desirability and technological potentialities where the demand for and the supply of technical innovations intersect. He argues that such an equilibrium ignores the negative effects of technological change and he provides some examples ranging from the Green Revolution, to biotechnology and the social effects in rural areas of modern, capital-intensive agriculture. He concludes that market-oriented policies will not deliver the social optimum with regard to technology and he is critical of the World Bank's stance which is based on market outcomes.

These contributions are quite variable with respect to the freshness of the insights provided for an understanding of the challenges facing agriculture and agricultural policy in the next decade. In addition, the

book has been rather carelessly edited with a number of typographical errors and discrepancies in formatting. These spoil the impression but not the substance of the work. For those potential readers who want analysis of the challenges thought to be facing agriculture in Europe in the Nineties, the book is recommended.

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Where Credit is Due: Income-Generating Programmes for the Poor in Developing Countries. By JOE REMENYI (Intermediate Technology Publications, London, 1991.) Pp. 156 + xix, ISBN 1 85339 079 8.

The literature on economic development typically views the development process in macro-economic terms. The concern is with the design of government policies and programs to increase aggregate investment, employment and income, hence ultimately, to reduce the proportion of the population living in poverty. This book is also concerned with raising investment, employment and income in order to reduce the incidence of poverty. The difference is that it focuses directly on the efforts of the poor to improve their own lot, rather than viewing them as passive beneficiaries of 'development' from above. In particular, it examines the role of credit-based, income-generating programs (CIGP) in assisting the poor to help themselves.

The book reports the results of a study commissioned by the Oxford Conference on Christian Faith and Economics in 1987. The objectives of the study were to document and analyse the experience of Christian and other development organisations with CIGP in a range of developing countries. Field research was conducted in Indonesia, Philippines, Bangladesh, India, Sri Lanka, Kenya and Zimbabwe; altogether, 26 CIGPs were visited. The study concentrated on projects with a reputation for success, to provide examples which could be replicated and emulated elsewhere (though in fact not all projects turned out to be successful). Success was measured in financial and material terms but was seen to be closely related to less quantifiable factors such as self-management and community building.

The author sets the scene with a succinct analysis of Third World poverty. At the base of the 'poverty pyramid' are the ultra poor, an extremely vulnerable group largely dependent on the earnings of others. At the next highest level of poverty are the labouring poor, unskilled workers dependent on the sale of their labour on a daily basis. Above them are the self-employed poor, engaged in 'micro-enterprises' on their own account and often employing up to five others. Then come the entrepreneurial poor, also self-employed, but running enterprises which employ more than five people. Finally, there are the near-poor who typically have a toehold in the modern sector through some form of regular employment. It is the self-employed,

entrepreneurial and near-poor who are the direct beneficiaries of CIGP, though people in the other categories have also benefited through the provision of goods and services and the creation of employment.

The author's central hypothesis is that lack of access to investment finance on the part of the poor is a major obstacle to poverty alleviation. Contrary to popular misconceptions, he finds that the poor frequently do have profitable investment opportunities, that they are willing to save and invest and that, given an appropriate credit-delivery system, they represent a very good risk. However, they are excluded from the formal financial sector because of lack of collateral and the high transaction costs involved in applying conventional banking procedures to the assessment, disbursement and recovery of a multitude of very small loans.

The evidence presented suggests that CIGPs can be an effective means of breaking this deadlock. The non-government organisations which implement such projects, because they involve a high degree of commitment and local-level participation, are able to harness the knowledge, motivation and solidarity of the beneficiaries, thus obviating the need for collateral and significantly reducing transaction costs. Some projects are 'pure credit' types, with minimal procedures based on personal knowledge of loan applicants and no formal requirement for training applicants or assessment of their investment proposals. Others are 'savings linked' in that the mobilisation of savings by the participants is a key component of project funding. The Grameen Bank in Bangladesh is the best-known example of this type. Yet other projects use credit as part of a wider, welfare-focused program of community development. Agricultural cooperatives which purchase inputs in bulk and distribute credit in kind fall into this category.

The CIGPs visited by the author included many variants of these three broad categories. The enterprises supported also varied considerably, including both farm and non-farm activities. However, micro-enterprises producing non-farm wage-goods predominated; there were few examples of successful CIGPs for farmers. Small-holder crop production enterprises in particular face a high degree of risk and hence are not as well-suited to small, member-based, revolving-fund schemes. This is not to say, however, that farm people cannot benefit from CIGPs, given the growing importance of non-farm employment in densely populated rural areas. The author found no single best model for a CIGP. However, certain factors emerged as 'secrets of success', including committed leadership, well-targeted objectives, the use of simple, flexible but well-monitored procedures, the participation of the clients in the administration of the program and the adoption of a business-like approach which does not rely on subsidising interest rates or other program costs.

The book concludes that successful CIGPs are socially profitable but that, notwithstanding their proliferation in recent years, they are currently reaching only a fraction of the poor in developing countries.

Hence 'an explosion of CIGPs is both necessary and justified'. This conclusion may be running ahead of the evidence to some extent, but the book serves to focus attention on a potentially highly effective development strategy. That full implementation of this strategy would require the redistribution of available resources in favour of the poor, as well as threatening existing economic power structures at the local level (as Dominique Lapierre's *The City of Joy* graphically illustrates), tends to undermine the author's somewhat overdrawn dichotomy between 'wealth-creating' and 'redistributionist' approaches to development. However, acceptance of this dichotomy is by no means essential to appreciate the author's carefully researched and well-argued recommendations.

Apart from the occasional gratuitous use of words such as 'discombobulating', the text is clearly and crisply written. There are several typographical errors and some references in the text do not appear in the bibliography. However, in general the book is well-produced and the black and white pictures interspersed throughout the text add to its impact. It is highly recommended for development specialists in government and non-government organisations and for teachers and academics involved in development studies.

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REFERENCE

Lapierre, Dominique (1986) *The City of Joy*, Century Hutchinson, London.

Issues in the Pricing and Management of Natural Resources 1991. (Economic Planning and Advisory Council, Background Paper No. 16, AGPS, Canberra.) Pp. 169, ISBN 0-644-14780-6.

Not released until March 1992, this is a collection of papers presented at an EPAC seminar in Canberra. It is not to be confused with the smaller volume on *Managing Australia's Natural Resources*, EPAC Council Paper No. 49, or with the ABARE's *Natural Resource Management: An Economic Perspective*, both published in 1992.

Backgrounds of the contributors to *Issues* include environmental economics, scientific research, government research agencies, State government administration, and industry. The volume commences with three short overview papers, followed by two in-depth reviews of natural resource policy. The first is a thought-provoking paper by Young, based on his forthcoming book on *Sustainable Investment and Resource Use*, on the role of government in resource management. Marginal opportunity costing principles are examined and the user-pays and beneficiary-compensates principles are discussed. Young notes that low resource prices favour development of resource-consuming rather than labour-intensive technologies and suggests that state and federal governments be required to finance more of their activities from resource rent taxes. Grey and Marlow, as consultants,

then attempt to marry economics and conservation. They discuss the political economy of natural resources and suggest partitioning of revenue from asset sales and from other revenue. They are critical of the concept of an 'optimal depletion rate' and argue that natural capital has no substitutes. This leads to a strong ecological definition of sustainability.

Four excellent papers deal with specific resources, viz. water, native forests, fisheries and mining. The most entertaining is that of John Paterson who argues that few public utilities or transport systems in Australia operate at anywhere near technical efficiency. A decade ago, before microeconomic reform became fashionable, he was placed in charge of the Hunter District Water Board which was grossly over-staffed and had followed a policy of 'deferred maintenance'. By introducing marginal cost pricing, he incurred the wrath of the water union, the public and the media, but survived to achieve a more equitable pricing system, 35 per cent reduction in water use and postponement of new investment and debt.

Rose and Bhati note inefficiencies in pricing of timber from Australian native forests and the flow-on effects of low prices to private log suppliers. They observe that royalty levels have recently been increased in most states and that various inquiries are contributing to formulation of a National Forest Strategy. Gentle examines issues of resource and industry management in off-shore fisheries based on the recent Industry Commission report on *Cost Recovery for Managing Fisheries*. Particular problems are noted for managing a mobile resource where stocks are difficult to monitor and information costs are high. The industry suffers from over capacity, dissipation of rents and dominance of short-term goals. Individual transferable quotas (ITQs) allow the industry to freely choose the most efficient means of harvesting the total allowable catch (TAC). Gentle concludes that major restructuring is still to be done, greater collective action of fishers is needed and the task of rationalisation is likely to fall to government for some time.

O'Hara discusses mineral royalties from a state and territory viewpoint, based on the *Royalty Discussion Paper* produced by the Australian and New Zealand Minerals and Energy Council. An excellent overview of the pros and cons of alternative royalty systems and problems of introducing 'efficient' profit-based royalties is provided. A hybrid system of ad valorem and rent-based charges — currently operating in Tasmania — is suggested.

Two further discussion papers are included. Moran of the Tasman Institute advocates free trade and secure property rights for natural resources. Muir from CRA presents a number of controversial views: resource rents may be too high; mining companies pay more tax and have lower risk-adjusted rates of return than firms in other industries; natural resources have little value until discovered so rents should be attributed to management and risk taking rather than access to resour-

ces. The volume concludes with results of a short survey of participant attitudes to resource pricing and environmental management.

This is a highly readable and informative book. Individually, the papers are relatively short and algebra is avoided. Pricing of agricultural land, air, oil and gas and recreation areas is not covered. The depth of economic theory is limited. However, a significant contribution is made to understanding of the complexities of pricing for resource rent and cost recovery. The relationship between natural resource prices and economic efficiency, equity and sustainability is well illustrated. As well, a wealth of practical information and insights is provided making this an excellent reference source for both practitioners and students of natural resource management.

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Farming and the Countryside: An Economic Analysis of External Costs and Benefits. Nick Hanley (ed.). (C.A.B. International, Wallingford, Oxon, 1991.) Pp. 328, ISBN 0-85198-713-3.

Farming and the Countryside is an impressive collection of studies focusing on the interaction of agriculture with the environment. There are empirical studies of the costs of nitrate and pesticide pollution under alternative policies and of the benefits of preserving prime land. Other chapters describe the evolution of protective legislation in Europe and the United States and are used to comment on the effectiveness of the measures and advocating alternatives. Nick Hanley as editor explains the concepts of externalities and public goods in the introductory chapter and highlights the findings of the ensuing 14 chapters. He also contributes a chapter on the economics of nitrate pollution control in the UK.

Besides the introductory chapter, Part I has a chapter by Martin Whitby on changing land-use patterns in the UK and the potential of remote sensing by satellite for reducing the monitoring costs of protective environmental policies. After James Shortle and James Dunn present an analytical framework for non-point pollution, Part II is devoted to six studies of the environmental costs of agricultural production. Ralph Heimlich reviews the soil erosion problem in the United States, and the various conservation programs introduced to combat it. He casts doubt on the conventional wisdom that land farmed by the owner rather than by a tenant is less subject to soil erosion, and that highly erodible land is much less productive than non-erodible land. He finds that soil erosion in 1987 was much less than in 1977 as a result of changes in cropping patterns, tillage practices and land idling programs.

The other five studies in Part II deal with the contamination of waterways from fertiliser and pesticide runoff. Models are presented of the intricate chain of effects from runoff to unsafe drinking water,

acid rain and depressed commercial and recreational fishing. Elasticities of demand for fertiliser and pesticide are estimated and the efficacy and political feasibility of taxes and quotas canvassed. This work reveals areas of lack of technical knowledge and conceptual problems in measuring the value of reduced farm and fish output, and of contaminated drinking water.

Four of the five chapters in Part III look at policies for directing more general land use decisions in agriculture towards more socially desirable outcomes. The policies range from government contracts with farmers to farm less intensively or not at all, to government aid for private interest groups to buy farm land for conservation purposes.

After an introductory chapter by Ian Hodge, Julie Whitaker *et al.* present a simple and very useful diagrammatic framework for identifying private and social levels of agricultural production. A horizontal marginal private benefit schedule is drawn against agricultural output. It should be understood that the horizontal axis reflects agricultural output from a fixed land base and therefore measures production intensity. A lower horizontal marginal social benefit schedule is drawn to allow for agricultural protection policies. Intersecting an upward sloping marginal private cost schedule is a more steeply sloping marginal social cost schedule. For output beyond the intersection point marginal social cost exceeds marginal private cost, the difference representing marginal external cost. The negative difference for output below the intersection point reflects the marginal social benefit of a scenic agricultural landscape. Conservationists might argue for output at the intersection point for at this level external benefits are maximised, though in general it would not be the socially optimal level. It is shown it could be made optimal by a sufficient reduction in price support. The authors use the framework for evaluating government contracts with farmers on the moors in south west England to reduce the market incentives to intensify production. Economic costs are calculated at both the UK and EC levels.

David Colman argues for land purchase as a means of providing external benefits from agriculture. If governments decide that farmers cannot be coerced into changing their practices through the imposition of taxes and regulations, but that they are to be enticed into agreements through subsidies, it may be cheaper to facilitate the purchase of land by conservation bodies. He produces evidence to show this is the case for the Norfolk Broads in eastern England.

Clive Potter reviews the US experience with land diversification programs as a means of pursuing conservation goals. To be effective they need to be long-term, targeted at areas with greatest conservation potential, and to bring about land-use changes which would not otherwise occur. He sees a role for such programs in the EC, tailoring them to take account of the commitment to maintaining family farming as a way of life in the countryside.

In the last chapter of Part III, Buddy Dillman and John Bergstrom apply the contingent valuation method to valuing prime land amenities in Greenville County, South Carolina. Residents have been concerned about the loss of prime land to development. The results suggest that the environmental amenity value of the agricultural land would not be sufficient to outweigh the disamenity costs.

The book as a whole is of interest for raising various issues. One is the reliance on the contingent valuation method for valuing external cost and benefits. Besides being used to value the amenity value of land, it was used in the UK and Swedish studies of nitrate pollution to discover household willingness to pay for reductions in drinking water contamination. The method certainly has its place, but these studies remind one of the sensitivity of the values obtained to the information presented to respondents. What for example do UK respondents make of the information on the concentration of nitrate in their drinking water relative to the World Health Organisation's (WHO) limit? Ulf Silvander and Lars Drake found that Swedish respondents increased markedly their willingness to pay for a reduction in their nitrate concentration to below the WHO limit when told that not only were infants at risk from methaemoglobinaemia but that both infants and adults were at risk from cancer.

Other issues which feature strongly in the book are the EC farmers' role to 'produce countryside', the need to generate Conservation, Amenity and Rural Environment (CARE) goods and the high cost of agricultural protection not just in financial outlays but also in environmental degradation. The book is therefore of interest to Australian readers not only for detailing the ways in which environmental concerns are shaping agricultural policy in the US and the EC but also for suggesting how policies might be formulated to deal with soil erosion, salination and algal bloom in Australia.

In a masterful final chapter David Harvey draws together economic, social and political considerations for the EC, places them in historical perspective and ponders their import for future policy. He argues the need for the EC to adopt an integrated environmental and agricultural policy. He concludes by urging the adoption of a new agricultural commodity pricing scheme termed producers' entitlement guarantee. Under this farmers would only receive above world prices for their output up to a certain level of their production. Beyond this prices would be at world level. Such a policy would send out correct price signals which would benefit the EC environment as well as the EC's trading partners.

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World Agriculture in Disarray (Second Edition).

By D.G. JOHNSON (Macmillan Press, 1991) Pp. 365 ISBN 0 333 54626 1.

The Second Edition of Professor Johnson's seminal book on the state of world agriculture, first published in 1973, could not be more timely. More so than in the early 1970s, disputes between countries trading in agricultural products rage and even the fragmentary system of GATT rules which still governs this trade is flouted by major players such as the EC. The Uruguay Round of international trade negotiations, established in 1986 in part to make the rules governing agricultural trade more consistent with the spirit of the GATT, remains bogged down. In the two decades since the First Edition was published, the practice of subsidising agricultural production has spread beyond Europe and East Asia to North America and a number of developing countries. In both the EC and the United States, home food production is heavily insulated and their exports are subsidised to an extent not seen in the early 1970s and in ways which do particular harm to small countries trading in these products. The characterisation of agricultural trade as in 'disarray' is clearly no less apt in the 1990s.

The First Edition broke new ground in offering a comprehensive analysis of the emergent conflict between the general trend toward increased global economic interdependence on the one hand and the insularity of agriculture in most countries on the other. Few scholars are in a better position than the author to observe and comment on this conflict. He is among the most distinguished of economists of agriculture. Based at the University of Chicago since the War, his career has combined scholarship and academic leadership at that university and in the broader research community with advice to government, including at the level of the President's Special Trade Representative.

Both Editions take pains to assure the reader that what is in disarray is not the world's farms but the set of policy regimes which distort agricultural incentives.

'Farmers everywhere are capable of producing the right things in the right place in the right amounts and at low cost in terms of resources, if they receive the proper economic signals.' (Ch. 1)

That said, the Second Edition is very substantially rewritten. It updates the First on two decades of evolution of international agricultural trade behaviour and its analysis, and it re-examines both the needed reforms and the potential of the Uruguay Round to achieve them. After a general introduction, the substance of the book begins with Chapter 2, which surveys the farm and trade policies of the industrial countries. This is followed by a description of how these policies interact to yield market anomalies and hence the disarray. For many comparatively homogeneous agricultural commodities, this chapter reviews quantitative evidence on the enormous variation in prices across industrial country markets, variation which is well

beyond that which might be explained by transportation costs and marketing margins. Moreover, in countries with comparative disadvantage in agriculture, clear evidence is presented that these policy-induced distortions have caused the share of the world's agricultural production and trade to expand. Meanwhile, the corresponding shares of low comparative cost countries have tended to decline.

The next three chapters are concerned with change within the agricultural sectors of the industrial countries. This change is in response to shocks mostly external to agriculture. General economic growth, combined with slower overall population growth, has changed the opportunity costs of resources employed in agriculture, particularly labour. Important consequences have been that workers have left agriculture and that its techniques have become less labour intensive. Moreover, this change has been essential, not only to permit the incomes of those remaining in agriculture to keep pace with the incomes of non-farm workers but also to permit the sector to shrink as a contributor to national output and employment as Engel's Law ensures that the share of all income expended on agricultural products shrinks with growth.

Although in most industrial countries, public and private investments in research and extension have helped to facilitate this change in factor intensity, its occurrence has been extremely rapid. The point being that the farm sector is comparatively responsive to changes in economic incentives. In fact, evidence reviewed in Chapter 6 shows that this responsiveness to changes in incentives extends beyond relative factor rewards to relative product prices as well. Changes in these have also elicited very substantial responses in farm output and input use. The tendency of those arguing for intervention in agriculture to make a case predicated on a presumed comparative sluggishness of the rural sector has, in the view of the author, caused the resulting policies to yield undesired and costly behavioural changes.

The next two chapters address the many arguments which have been made for agricultural protection. These include that particular farm groups have some absolute cost disadvantage and hence deserve assistance, that world prices are distorted by the actions of foreign governments and hence are unfairly low, that global demand is likely to outpace supply in future and world markets inadequately reflect this, and that world prices are too unstable and hence consuming households need to be protected from expenditure risk while farm households need to be defended against income risk. Each of these arguments is presented and discussed and none is found to justify intervention in the form of distorted product prices. Quantitative studies of the effects of industrial country protection on world agricultural prices are reviewed, with the general conclusion that the most serious consequence is increased international price instability, particularly in the past two decades. But this does not indicate any increase in global 'food insecurity'. The failure is due to incentive

distortions and hence to inadequate global distribution and the remedy is trade reform, combined with grain reserves and insurance. The author's optimism about the cost effectiveness of the latter two, however, is greater than my own.

Chapters 9 to 11 examine the distributional impacts of actions taken by most industrial country governments, in spite of the above conclusion, to distort incentives in favour of home agricultural production. The analysis is clear and free of either jargon or mathematics. It is shown, for example, that in a growing economy, barring disproportionate technical change in farming, the retention of equality in per capita income between farm and non-farm households requires either continual off-farm migration or continual increases in relative farm product prices. It is rational for farm families, some of whose human capital is specific to agriculture, to advocate ever-increasing price supports. Nevertheless, evidence is discussed that the rise in protection in recent decades in Europe, North America and East Asia has not greatly stemmed the outflow of resources from agriculture, nor has it much improved the current incomes (as distinct from the wealth) of farm relative to non-farm households. Moreover, the benefits which have accrued to farm families have gone primarily to the relatively wealthy ones. Indeed, despite long public awareness of this, and many changes in program design, the evidence suggests that the distribution of benefits in the 1980s is less equal than it was in the 1960s. Farm protection has demonstrably failed to achieve even stated objectives such as food security, income equality, the retention of large and 'viable' rural sectors, the reduction of adjustment costs and income stabilisation.

The author's vision as to the most appropriate policies to address rural problems is spelled out in Chapter 12. Since much rural poverty is due to low levels of human capital in farm families, resources would be better directed to the education of rural youth. Furthermore, the mobility of labour between the farm and non-farm sectors could be enhanced through public investments in job information networks and mandating part-time and seasonal contracts for off-farm employment. With the diversion of public resources in these directions, persistent and gradual reductions in product price distortions can be made. He advocates compensation payments for some asset value losers and for older small farmers unable to take advantage of retraining and job mobility. Again, the policy emphasis relies on the only proven mechanism working in favour of high rural incomes, the migration of labour into non-farm employment.

Finally, Chapter 13 addresses the relationship of agricultural policy to international trade negotiations. It reviews the history of the GATT and its essential principles and discusses the reasons for the failures of the Kennedy and Tokyo Rounds to properly discipline trade in agricultural products. There is a well told history of the controversial United States 'Section 22' waiver of the provisions of GATT Article

XI on quantitative restrictions. And it is argued that it was the reluctance of the United States in the 1950s to allow GATT disciplines to govern its agricultural trade which led to the evolution of the Common Agricultural Policy of the EC in a direction which would rely more and more on export subsidies and non-tariff barriers. There is also a useful discussion of the role in the Uruguay Round of the various measures of incentive distortion, including rates of nominal and effective protection and the producer subsidy equivalent.

The book is extremely clearly written and its analysis uses a bare minimum of technical jargon. It is therefore readily accessible by the non-economist and the lay person with an interest in agricultural policy. Moreover, it is a particularly suitable reference for undergraduate courses in agricultural policy.

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