

history analysis of first social insurance legislation among sixty countries. Charles C. Ragin provides an introduction to qualitative comparative analysis and applies it to pension systems. Olli Kangas describes regressions, qualitative comparisons, and cluster analysis as applied to the politics of social security. Janoski is at Duke University. Hicks is at Emory University. Author and subject indexes.

SWIFT, ADAM. *Global political ecology: The crisis in economy and government*. London: Pluto; distributed in the U.S. by Westview Press, Boulder, 1993. Pp. xv, 345. \$49.95, cloth; \$19.95, paper. ISBN 0-7453-0563-6, pbk. JEL 94-1756

Presents evidence to show that a range of issues that mark out a deteriorating world situation—from arms sales to population growth, and from environment/resource decay to failing global and national systems—are the close-linked signs of a progressive breakdown in outmoded political-economy theory and practice. Argues that the world has reached the stage where economic markets for goods, services, and finance, and the political market for votes, are both in urgent need of regulation in the common interest. Compares the socioeconomic systems for a group of national economies that present extremes either in their working principles or in the circumstances that confront them: the United Kingdom, the United States, China, Hungary, Yugoslavia, India, Sweden, and Switzerland. Discusses the complex of government, economy, and society and their interlinked activities. Addresses the global dimension of political economy. Presents a synthesis of many possible reforms—human, economic, environmental, and governmental—which the analysis suggests could help put long-term development back on course. Swift is the pseudonym of a former civil servant and senior official who now represents an international nongovernmental organization at the United Nations. Index.

See also: Book number JEL 94-1756

Q *Agricultural and Natural Resource Economics*

Q0 GENERAL

JAMES, DAVID, ed. *The application of economic techniques in environmental impact assessment*. Environment and Management series, vol. 4. Dordrecht and Boston: Kluwer Academic, 1994. Pp. xvi, 298. \$110.00. ISBN 0-7923-2721-7. JEL 94-1757

Ten papers explain the application of economics in environmental impact assessment from technical and procedural viewpoints and provide case studies of integrated assessments in six countries. David James discusses general economic concepts; environmental impact assessment procedure; economic valuation techniques; and economic impact analysis. Alison Gilbert and David James address the case of water pollution in Jakarta Bay. Tor Hundloe examines conservation farming in Northern Thailand. Neil Byron and David Griffin discuss the economic appraisal of resource management in the context of social forestry in Nepal. Geoff Goldrick and David James describe the use of benefit-cost analysis in broad-scale regional development planning for Palawan Island in the Philippines. David James studies flood control in the Kahawainui Watershed on the Island of Oahu in Hawaii. Geoff Goldrick and David James examine an environmental impact statement assessing the cumulative impacts of aluminum smelting in the Hunter Valley in New South Wales, Australia. James is a consultant and Director of Ecoservices Pty. Ltd. in Sydney. No index.

See also: Book number JEL 94-1676

Q1 AGRICULTURE

ANDREW, CHRIS O. AND HILDEBRAND, PETER E. *Applied agricultural research: Foundations and methodology*. Boulder and Oxford: Westview Press, 1993. Pp. xiv, 223. \$35.00, paper. ISBN 0-8133-8781-7. JEL 94-1758

Provides agricultural researchers with a guide to conducting research that takes into consideration the suboptimal research conditions that may be faced in real life. Based on *Planning and Conducting Applied Agricultural Research* by the same authors. Addresses how the researcher thinks or manages thought and how he or she can use lateral modes of thought as a complement to vertical modes to achieve creative solutions. Explains the interactive relationship between theory and applied research. Treats the planning of applied research, covering the effects of resource availability on applied research; sources of information for initial problem specification; and the orientation and focus of projects, including the selection of researchable problems, hypotheses, and objectives. Explains how to conduct applied research, discussing the orientation to observation; agricultural research based in experimentation; behavioral research based in interviews; data use and interpretation; and the presenta-

tion of the results. Andrew and Hildebrand are Professors in the Food and Resource Economics Department at the University of Florida. Index.

BAGCHEE, ARUNA. *Agricultural extension in Africa*. World Bank Discussion Papers, no. 231. Africa Technical Department Series. Washington, D.C.: World Bank, 1994. Pp. x, 91. \$7.95, paper. ISBN 0-8213-2756-9. JEL 94-1759

Summarizes the discussions of key current and future agricultural extension issues that took place among senior-level agricultural extension and research managers of African countries at the Africa Agricultural Extension Workshops held in January 1993 in Accra, Ghana, for participants from Anglophone countries and in Abidjan, the Ivory Coast, for participants from Francophone countries. Reviews the role that extension could play in the agricultural and economic development of Africa based on talks given at both workshops. Explores the major concerns voiced in Accra and in Abidjan based on country reports and the discussions that followed. Outlines the key policy implications based on the workshop recommendations. Compares points of convergence and divergence between the discussions held at Accra and those held at Abidjan. Annexes provides the specific conclusions and recommendations made at the Accra and Abidjan workshops; information on the status of current extension projects in Africa; a list of workshop participants and resource persons; and information on pilot and implementation phases of training and visit extension projects in Africa. Bagchee works in India as a public administrator. No index.

BARGHOUTI, S.; CROMWELL, E. AND PRITCHARD, A. J., eds. *Agricultural technologies for market-led development opportunities in the 1990s*. World Bank Technical Paper, no. 204. Washington, D.C.: World Bank, 1993. Pp. viii, 167. \$10.95, paper. ISBN 0-8213-2462-4. JEL 94-1760

Nineteen papers, originating at a World Bank conference held at Wye, Kent, in April 1992, examine dynamic processes of technological change in agriculture and the effects on production systems. Papers discuss the links between technology and producers, technology and consumers, and technology and small business. Contributors include economists. Barghouti and Pritchard are with the World Bank. Cromwell is with the Overseas Development Institute. No index.

VAN BLARCOM, BONNI; KNUDSEN, ODIN AND NASH, JOHN. *The reform of public expenditures for agri-*

culture. World Bank Discussion Papers, no. 216. Washington, D.C.: World Bank, 1993. Pp. xvi, 96. \$7.95, paper. ISBN 0-8213-2667-8. JEL 94-1761

Presents a comparative cross-country study of public spending in the agricultural sector. Based on in-depth case studies of the experience of India, Ghana, Mexico, Somalia, and Venezuela, and a broader review of the experiences of many other countries with their agricultural expenditure policy reforms. Considers public spending levels in agriculture and the composition of that spending. Explores the effects of structural adjustment and stabilization programs of the 1980s. Addresses key elements in the reform of public spending for agriculture and suggests directions for further research. Van Blarcom is a consultant in the Rural Development Department, Knudsen is with the Middle East and North Africa Regional Office, and Nash is in the Policy Research Department of the World Bank. Bibliography; no index.

BROOKS, KAREN AND LERMAN, ZVI. *Land reform and farm restructuring in Russia*. World Bank Discussion Papers, no. 233. Washington, D.C.: World Bank, 1994. Pp. xiii, 89. \$8.95, paper. ISBN 0-8213-2761-5. JEL 94-1762

Provides an analysis of land reform and farm restructuring in Russia during 1992 based on a survey of private farmers, farm-enterprise managers, and farm employees in five provinces. Discusses the legal framework for land reform and farm restructuring. Examines aggregate Russian data on the status of land reform and outlines characteristics of the survey sample regions. Presents data on the survey regions, covering changes in land ownership and use; farm reorganization; rural social services and restructuring of the collective sector; and special characteristics and problems of private farmers, focusing on issues of production, marketing and supply, labor, cooperation, and credit and finances. Brooks is a senior economist in the Agricultural Policies Division of the Agricultural and Natural Resources Department of the World Bank. Lerman is with the Department of Agricultural Economics at Hebrew University. No index.

DAVID, CRISTINA C. AND OTSUKA, KEIJIRO, eds. *Modern rice technology and income distribution in Asia*. Boulder and London: Rienner; Manila: International Rice Research Institute, 1994. Pp. xxiii, 475. Paper. ISBN 1-55587-431-2. JEL 94-1763

Eleven papers study seven Asian countries with widely diverse production environments and agrarian and policy structures, assessing

the extent to which the adoption of modern rice varieties in the irrigated and the favorable rainfed-lowland areas has exacerbated inequality in the distribution of income. Papers focus on the differential impact of modern rice varieties in Asia; an integrated analytical framework; country studies of the Philippines, Indonesia, Thailand, Bangladesh, Nepal, India, and China; and emerging views and policy implications of modern rice technology. Contributors include economists. David is at the Philippine Institute for Development Studies. Otsuka is at Tokyo Metropolitan University. Index.

DEININGER, KLAUS W. *Cooperatives and the breakup of large mechanized farms: Theoretical perspectives and empirical evidence*. World Bank Discussion Papers, no. 218. Washington, D.C.: World Bank, 1993. Pp. xi, 60. \$6.95, paper. ISBN 0-8213-2704-6. JEL 94-1764

Assesses the potential for cooperatives to contribute to the restructuring of large farm agriculture by comparing costs and benefits of cooperative forms of organization from a theoretical and an empirical perspective. Considers the potential of agricultural production cooperatives, where production is undertaken jointly, and the potential of service cooperatives, which provide services in the areas of input supply, marketing, credit, or technology. Deininger works in the World Bank's Agriculture and Natural Resources Department, Office of the Director. No index.

EISA, HAMDY M., ET AL. *Cotton production prospects for the decade to 2005: A global overview*. World Bank Technical Paper, no. 231. Washington, D.C.: World Bank, 1994. Pp. xv, 112. \$8.95, paper. ISBN 0-8213-2715-1. JEL 94-1765

Reviews the problems that influence current cotton production technology around the world, the technical and economic constraints to adoption of new technology, changes that can be expected in supply and demand during the next decade, their impact on prices, and how cotton productivity and quality could be improved to ensure customer satisfaction and acceptable returns in the grower-to-market chain. Focuses on China, the United States, the former Soviet Union, India, Pakistan, Brazil, Turkey, and Egypt, which together contributed 85 percent of the 1991-92 world cotton production. Discusses the economic importance of cotton to developing countries; the structure of the cotton industry, cotton policy in the major cotton-producing countries, and issues in cotton production. Presents world production and

consumption forecasts to the year 2005. Appendices present regional production and consumption projections, country cotton production and consumption projections, and information on U.S. cotton programs and farm policy. Coauthors are Shawki Barghouti, Fred Gillham, and M. Tawhid Al-Saffy. Eisa is with the Agriculture and Natural Resources Department of the World Bank. Glossary; no index.

IN, FRANCIS AND MOUNT, TIMOTHY. *Dynamic macroeconomic linkages to the agricultural sector: An application of error correction models to cointegrated relationships*. Aldershot, U.K.; Brookfield, Vt. and Sydney: Ashgate, Avebury, 1994. Pp. xii, 160. \$54.95. ISBN 1-85628-554-5.

JEL 94-1766

Investigates the interrelationships between the macroeconomy and the agricultural sector in a general theoretical framework incorporating cointegration and error correction mechanisms. Introduces new tests for unit roots and cointegrating relationships among time-series variables that perform better than the standard tests. Presents a dynamic analysis of the effect of monetary policy on agriculture using long-run relationships. Uses the framework incorporating cointegration and error correction to examine whether equilibrium relationships in the commodity, financial asset, agricultural, nonagricultural, and supply sectors are consistent with time-series data for the United States. In is at the University of New England. Mount is at Cornell University. Bibliography; no index.

JOHNSON, S. R. AND MARTIN, S. A., eds. *Industrial policy for agriculture in the global economy*. CARD Publications. Ames: Iowa State University Press for the Center for Agricultural and Rural Development, 1993. Pp. xviii, 342. \$44.95. ISBN 0-8138-2279-3. JEL 94-1767

Sixteen papers, originating at a conference held at Iowa State University in September 1992, discuss the development of modern agriculture and the policies that influence it. Papers focus on redefining industrial policy; agricultural policy and economic growth; public roles in industrial and rural development; new approaches to growth and development; institutional innovations; and industrial policy for agriculture. Contributors include economists. Johnson is at Iowa State University. Martin is at the Research Triangle Institute. No index.

PHIMISTER, EUAN. *Savings and investment in farm households: Analysis using life cycle*. Aldershot, U.K.; Brookfield, Vt. and Sydney: Ashgate, Ave-

bury, 1993. Pp. xii, 187. \$54.95. ISBN 1-85628-596-0. JEL 94-1768

Explores the investment and savings decisions of farmers and how these are affected by the distinct nature of the family farm. Develops the life-cycle model for the special circumstances of the farm household, introducing the perfect foresight version of the model without bequests and expanding it to allow for production. Uses the model to illustrate the condition under which farm household behavior will deviate from that implied by simply treating the farm household as the combination of a profit maximizing firm and a utility maximizing consumer. Addresses some limitations of the basic life cycle model; introduces uncertainty and analyzes its impact; and considers the incorporation of bequest behavior in life cycle models. Applies the models empirically using data derived from the Dutch Agricultural Economics Institute's farm business survey. Explores whether the consumption behavior of the farm households can be considered to be consistent with the basic life-cycle model, a life cycle model with borrowing constraints, or simply some myopic consumption rule; illustrates the difficulties involved in estimating and testing the basic life-cycle model using standard econometric approaches; calibrates a version of the basic nonstochastic life-cycle model with production to the farm-level data in order to derive a reasonable set of estimates for the model parameters; and uses the calibrated model as the basis of microsimulations that explore the potential effects of borrowing constraints upon the farm households. Phimister is with the Department of Econometrics and Social Statistics at the University of Manchester. Bibliography; no index.

SRIVASTAVA, JITENDRA P., ET AL. *Conserving soil moisture and fertility in the warm seasonally dry tropics*. World Bank Technical Paper, no. 221. Washington, D.C.: World Bank, 1993. Pp. x, 81. \$7.95, paper. ISBN 0-8213-2617-1. JEL 94-1769

Provides an overview of the state-of-the-art technological options for increased production and sustainable soil and water resource management in the warm, seasonally dry tropics. Discusses the general characteristics and the chief constraints on expanded production in this type of climate. Presents guidelines for land-use management and soil-moisture conservation; agricultural and engineering techniques for controlling water and wind erosion; methods for maintaining and improving soil fertility; and alternative production systems for the sus-

tainable management of soil and water resources. Coauthors are Prabhakar Mahedeo Tamboli, John C. English, Rattan Lal, and Bobby Alton Stewart. Srivastava is a senior agriculturalist in the Agriculture and Natural Resources Department of the World Bank. No index.

TAYLOR, C. ROBERT, ed. *Applications of dynamic programming to agricultural decision problems*. Boulder and Oxford: Westview Press, 1993. Pp. xiv, 197. \$55.00. ISBN 0-8133-8641-1. JEL 94-1770

Eleven papers provide examples that demonstrate the application of dynamic programming to a wide variety of decision problems in agriculture. Papers focus on dynamic programming and the curses of dimensionality; representation of preferences in dynamic optimization models under uncertainty; counterintuitive decision rules in complex dynamic models; optimal stochastic replacement of farm machinery; optimal crop rotations to control cephalosporium stripe in winter wheat; optimal participation in the conservation reserve program; a profit comparison of range culling decisions in the Southwest; optimal farm program participation and base acreage adjustment under alternative program provisions; stochastic dynamic programming models; modeling dynamics and risk using discrete stochastic programming; and a dynamic programming analysis of a variable amortization loan plan. Contributors are mainly economists. Taylor is ALFA Eminent Scholar and Professor of Agricultural and Public Policy at Auburn University. No index.

TAYLOR, C. ROBERT; REICHELDERFER, KATHERINE H. AND JOHNSON, STANLEY R., eds. *Agricultural sector models for the United States: Descriptions and selected policy applications*. Ames: Iowa State University Press, 1993. Pp. vi, 346. \$55.95. ISBN 0-8138-0862-6. JEL 94-1771

Seventeen papers, originating at an American Agricultural Economics Association workshop held in August 1988, examine large-scale agricultural models. Papers focus on model description and documentation; policy evaluation exercises and results; and comparative assessments. Contributors are mainly economists. Taylor is at Auburn University. Reichelderfer is with the USDA. Johnson is at Iowa State University. No index.

WEIJENBERG, JAN, ET AL. *Revitalizing agricultural research in the Sahel: A proposed framework for action*. World Bank Discussion Papers, no. 211. Africa Technical Department Series. Washington,

D.C.: World Bank, 1993. Pp. xvii, 89. \$7.95, paper. ISBN 0-8213-2598-1. JEL 94-1772

Details a framework for action to revitalize agricultural research in the nine countries collaborating in the Interstate Committee for Drought Control in the Sahel—Burkina Faso, Cape Verde, Chad, the Gambia, Guinea-Bissau, Mali, Mauritania, Niger, and Senegal. Discusses the problems and challenges facing agricultural research in the Sahel. Details the physical and socioeconomic setting of the agricultural sector and agricultural research potential. Presents detailed proposals for strengthening the national agricultural research systems in the region. Discusses modalities for implementation of the proposed framework. Describes the expected benefits of implementation and key indicators for progress. Provides an update regarding implementation of the framework for action in the nine countries at the end of 1992. Coauthors are Josué Dioné, Michael Fuchs-Carsch, Adolphe Kéré, and Jacques Lefort. Weijenberg is Principal Agriculturalist in the Environmentally Sustainable Development Division of the World Bank's Africa Technical Department. No index.

WIEBERS, UWE-CARSTEN. *Integrated pest management and pesticide regulation in developing Asia*. Technical Paper, no. 211. Asia Technical Department Series. Washington, D.C.: World Bank, 1993. Pp. viii, 73. \$7.95, paper. ISBN 0-8213-2504-3. JEL 94-1773

Describes the technical aspects of integrated pest management in the regulatory, economic, and institutional context of developing Asian countries. Discusses plant protection policies and deficiencies in Asia; regulatory efforts concerning pesticides in Asia; technical systems of pest management in Asia; some economic and environmental aspects of pest management in Asia; and the development and implementation of pest management technology. Appendices provide information on pesticide regulation in California; pesticide markets and pesticide regulation in twelve Asian countries; the techniques and effects of integrated pest management in Asia; and whether the adoption of integrated pest management always increases welfare. Glossary; bibliography; no index.

See also: Book numbers JEL 94-1664, 94-1666, 94-1667, 94-1671, 94-1760, 94-1771

Q2 RENEWABLE RESOURCES AND CONSERVATION; ENVIRONMENTAL MANAGEMENT

BARNETT, HAROLD C. *Toxic debts and the Superfund dilemma*. Chapel Hill and London: University of

North Carolina, 1994. Pp. ix, 334. \$49.95, cloth; \$19.95, paper. ISBN 0-8078-4435-7, pbk. JEL 94-1774

Examines Superfund's evolution; considers the history of its failure and the economic and political factors that have contributed to it; and suggests policy changes that are necessary to create a viable cleanup program. Describes the relationship between production and the use of chemicals and the dangers of environmentally unsound hazardous waste disposal. Explains why government intervention in environmental affairs is necessary and outlines the major issues that must be addressed by a cleanup program. Discusses congressional debate and conflict over Superfund, the compromise legislation eventually signed into law, and the program's initial implementation during the Reagan administration. Examines state/federal government interdependence in hazardous waste regulation and the implementation of Superfund at the regional level. Analyzes the roots of Superfund failure through 1985; examines the issues that dominated the Superfund reauthorization debate and the resolution of these issues as embodied in the Superfund Amendments and Reauthorization Act of 1986; and reviews EPA implementation of Superfund under the new mandate from 1986 to the end of the Reagan EPA and through the Bush administration. Contends that inability to resolve conflict over cleanup goals and the distribution of the toxic debt has built significant contradictory elements into Superfund and considers the feasibility of a negotiated solution to the Superfund dilemma. Barnett is Professor of Economics at the University of Rhode Island. Bibliography; index.

BEATLEY, TIMOTHY. *Habitat conservation planning: Endangered species and urban growth*. Austin: University of Texas Press, 1994. Pp. ix, 234. \$17.95, paper. ISBN 0-292-70806-8. JEL 94-1775

Examines the success to date of habitat conservation plans, and the political and practical issues and constraints that emerge from these experiences. Discusses conflicts between development and species protection and the rationale for protecting endangered species. Sets out the key provisions of the federal Endangered Species Act and their implications for land development. Surveys the major habitat conservation plans completed or currently underway. Identifies the key actors involved in the politics of habitat conservation planning and their typical perspectives. Examines some habitat conservation plans for protecting endan-

gered butterfly species; the Coachella Valley Habitat Conservation Plan prepared for the threatened fringe-toed lizard; the North Key Largo Habitat Conservation Plan; a habitat conservation plan for protecting the Least Bell's Vireo, a migratory songbird; a clash between efforts to conserve habitat for the endangered Stephen's kangaroo rat and the need to develop affordable housing in Riverside County, California; the Clark County Habitat Conservation Plan for preserving the desert tortoise; habitat conservation plans for preserving the kit fox and other flora and fauna of the San Joaquin Valley; and the Balcones Canyonlands Conservation Plan and its ambitious multispecies approach. Evaluates the success of habitat conservation efforts, summarizes the lessons learned, and presents recommendations for the future. Beatley is Associate Professor and Chair of Urban and Environmental Planning at the University of Virginia. Index.

BRANDON, CARTER AND RAMANKUTTY, RAMESH. *Toward an environmental strategy for Asia*. World Bank Discussion Papers, no. 224. Washington, D.C.: World Bank, 1993. Pp. xi, 210. \$11.95, paper. ISBN 0-8213-2735-6. JEL 94-1776

Assesses trends and impacts of environmental problems in Asia; synthesizes the World Bank's experience in assisting Asian countries with environmental management; and presents World Bank principles and priorities for environment-related assistance in the near future. Outlines a framework for improving environmental management. Considers problems and proposes general technical and policy approaches to environmental problems in the urban, industrial, energy, natural resources, and water resources sectors. Discusses the World Bank's potential role in assisting Asian countries to address environmental issues. Brandon is an environmental economist and Ramankutty is an economist in the Environment and Natural Resources Development Division in the Asia Technical Department of the World Bank. Bibliography; no index.

DUNLAP, RILEY E.; KRAFT, MICHAEL E. AND ROSA, EUGENE A., eds. *Public reactions to nuclear waste: Citizens' views of repository siting*. Durham and London: Duke University Press, 1993. Pp. xvi, 332. \$49.95, cloth; \$24.95, paper. ISBN 0-8223-1373-1, pbk. JEL 94-1777

Ten papers, most originating at the annual meeting of the American Association for the Advancement of Science held in San Francisco in 1989, provide an in-depth examination of the

social and political factors associated with the disposal of high-level nuclear waste. Papers focus on the context of public concerns with nuclear waste; public reactions to preliminary sites; and public reactions to the Yucca Mountain, Nevada, site. Contributors include economists. Dunlap and Rosa are at Washington State University. Kraft is at the University of Wisconsin, Green Bay. Index.

FREDERIKSEN, HARALD D.; BERKOFF, JEREMY AND BARBER, WILLIAM. *Water resources management in Asia*. Volume 1. *Main report*. World Bank Technical Paper, no. 212. Asia Technical Department Series. Washington, D.C.: World Bank, 1993. Pp. xxxii, 149. \$10.95, paper. ISBN 0-8213-2527-2. JEL 94-1778

Recommends strategies to guide the World Bank's water resource activities in the Asian region. Reviews emerging water and land constraints in Asia. Assesses the Asian experience in water resource activities, considering institutions, water resource planning and long-term management, water operations and real-time management, and economic and financial policies. Discusses environmental and social aspects of water resources development. Evaluates the Bank's past role in Asian water issues and presents suggestions for future priorities and strategies together with suggestions as to how these might be implemented in the context of the Bank's work. Frederiksen and Berkoff are with the World Bank. Barber is a consultant to the World Bank. No index.

FUGLESTVEDT, JAN, ET AL. *A review of country case studies on climate change*. Global Environment Facility Working Paper, no. 7. New York: United Nations Development Programme; Nairobi: United Nations Environment Programme; Washington, D.C.: World Bank, 1994. Pp. vi, 61. \$6.95, paper. ISBN 1-884122-06-X. JEL 94-1779

Provides an overview of the current status of country studies on climate change, which are required of parties to the United Nations Framework Convention on Climate Change, and considers ways of improving current approaches to such studies. Explores several methodological and reporting issues, stressing the importance of comparability. Reviews and assesses the terms of reference used in planned, ongoing, and completed country studies of climate change with regard to inventories of the sources and sinks of greenhouse gases, assessment of climate impact and national vulnerability to climate change, and discussion of cost-effective interventions. Reviews the costs

and staffing patterns of country studies on climate change, including the expertise required to undertake specific studies. Assesses the usefulness of country studies on climate change for government policymakers. Coauthors are Ted Hanisch, Ivar Isaksen, Rolf Selrod, Jon Strand, and Asbjørn Torvanger. Fuglestvedt is a research fellow at the Center for International Climate and Energy Research, Oslo. No index.

KOSOBUD, RICHARD F.; TESTA, WILLIAM A. AND HANSON, DONALD A., eds. *Cost effective control of urban smog*. Chicago: Federal Reserve Bank of Chicago, 1993. Pp. xv, 214. ISBN 0-9614358-4-4.

JEL 94-1780

Nine papers, plus discussions and responses, presented at a conference held in Chicago in June 1993, examine cost effective approaches to ozone abatement. George Tolley, Jeffrey Wentz, Steven Hilton, and Brian Edwards provide an overview of the problem. Stephen L. Gerritson discusses the status of the modeling of ozone formation and geographic movement in the Midwest. Winston Harrington and Virginia D. McConnell review the cost effectiveness of remote sensing of vehicle emissions. Daniel J. Dudek explores incentives and the car. John D. Spengler assesses health impacts of ozone. Bruce S. Carhart describes emissions offset trading programs in the Northeast and Mid-Atlantic states. James D. Boyd examines mobile source emissions reduction credits as a cost effective measure for controlling urban air pollution. Kelly Robinson explores the regional economic impacts of marketable permit programs in Los Angeles. John Calcagni discusses Title I of the Clean Air Act Amendments of 1990 and implications for market-based strategies. Kosobud is at the University of Illinois, Chicago. Testa is at the Federal Reserve Bank of Chicago. Hanson is at Argonne National Laboratory. No index.

SWANSON, TIMOTHY M. *The international regulation of extinction*. New York: New York University Press, 1994. Pp. xiv, 289. \$50.00. ISBN 0-8147-7992-1.

JEL 94-1781

Considers the institutional reforms required to manage the human drive to deplete biological diversity. Constructs an investment-based framework for addressing the general problem of species extinctions, integrating the problems of endangered species and biodiversity losses. Describes the global conversion process—the replacement of diverse, naturally-existing species with a small number of specialized species that are domesticated and cultivated. Provides a

theoretical analysis of state decision-making regarding the management of its natural resources. Discusses optimal policy for biodiversity conservation and studies the trade-off between benefits from further conversions and the global costs of further diversity decline. Analyzes the general nature of the international agreement required for biodiversity conservation; addresses the international regulation of the wildlife trade; and considers the applicability of an intellectual property rights regime to biodiversity conservation. Summarizes the existing policies relating to diversity conservation and presents a set of proposals for reforms in these areas. Swanson is a lecturer in the Faculty of Economics at Cambridge University. Bibliography; index.

VON WEIZSÄCKER, ERNST ULRICH. *Earth politics*. Translation. London: Zed Books; distributed in the U.S. by Humanities Press International, Atlantic Highlands, N.J., [1989] 1994. Pp. xii, 234. \$59.95, cloth; \$25.00, paper. ISBN 1-85649-174-9, pbk.

JEL 94-1782

Analyzes the environmental crisis and offers strategies for the reorientation of industrial economies. Translation of the second German edition of *Erdpolitik: Ökologische Realpolitik an der Schwelle zum Jahrhundert der Umwelt* published in 1992. Examines classical environmental policy, which has focused on pollution control, and explains why pollution control is not enough. Discusses European environmental policy. Considers emerging global visions from President John F. Kennedy, to the Club of Rome, to the Earth Summit and the Global Forum. Examines and formulates responses for five fields of crisis: energy and material resources, transport, agriculture, biodiversity and generic engineering, and the third world. Proposes a coherent strategy of action based on the polluter-pays principle of environmental policy, discussing ecological tax reform, the need for a cooperative relationship with business, and solutions to the urban-rural crisis. Assesses the results of the 1992 Earth Summit and develops a global vision for the future. Weizsäcker is President of the Wuppertal Institute for Climate, Environment, and Energy. Bibliography; index.

See also: Book numbers JEL 94-1532, 94-1614, 94-1675, 94-1686, 94-1769, 94-1781, 94-1782, 94-1785, 94-1789

Q3 NONRENEWABLE RESOURCES AND CONSERVATION

See also: Book number JEL 94-1781

Q4 ENERGY

GOPALAKRISHNAN, CHENNAT. *The economics of energy in agriculture*. Aldershot, U.K.; Brookfield, Vt. and Sydney: Ashgate, Avebury, 1994. Pp. xii, 118. \$55.95. ISBN 1-85628-666-5. JEL 94-1783

Examines the impacts of energy price increases and supply shortages on the structure of U.S. agriculture in terms of altered patterns of energy consumption and the resulting changes in energy intensity and explores the economic feasibility of agriculture as a renewable source of energy production. Intended as a supplementary or companion volume to a textbook in energy economics and policy at the advanced undergraduate or graduate level. Addresses some methodological issues in determining energy requirements for agriculture. Examines energy-nonenergy input substitution in U.S. agriculture and in western U.S. agriculture. Presents a case study, using vector autoregression, of the impact of oil price shocks on Hawaii's economy. Examines the impact of potential energy price increases on Hawaii's agricultural production of sugar, macadamia nuts, and coffee. Investigates the economic potential and operational feasibility of using bagasse and pineapple trash as important sources of energy for Hawaii. Explores the economic feasibility of a central power plant to generate electricity from Hawaii's major biomass sources. Discusses the economics of natural gas from seaweed. Gopalakrishnan is at the University of Hawaii, Manoa. Index.

LIEBENTHAL, ANDRES; MATHUR, SUBODH AND WADE, HERBERT. *Solar energy: Lessons from the Pacific island experience*. Technical Paper, no. 244. Energy Series. Washington, D.C.: World Bank, 1994. Pp. x, 60. \$7.95, paper. ISBN 0-8213-2802-6. JEL 94-1784

Describes the evolution of solar power programs in the Pacific islands; derives lessons for the successful development of solar photovoltaic power in these and other developing countries; and highlights the factors that determine the potential role of solar power. Considers the costs of solar photovoltaic versus diesel-based systems for rural electrification. Liebenenthal is with the World Bank. Mathur is an independent consultant based in Bethesda, Maryland. Wade is with the Asian Institute of Technology, Bangkok. No index.

READ, PETER. *Responding to global warming: The technology, economics and politics of sustainable energy*. London: Zed Books; distributed in the

U.S. by Humanities Press International, Atlantic Highlands, N.J., 1994. Pp. xiv, 304. \$59.95, cloth; \$25.00, paper. ISBN 1-85649-162-5, pbk.

JEL 94-1785

Advocates that the remaining years of the twentieth century be used to take preparatory steps that will make it possible, if need be, to get control of global warming at acceptable cost in the opening two decades of the twenty-first century and demonstrates the practicability of such a long-term strategy from the technical, economic, and political perspectives. Explains why a precautionary response is appropriate to the global warming issue; discusses political decisions in an uncertain world; and provides a framework for taking irreversible decisions sequentially. Considers the sustainable energy technologies available and what their roles might be in a global transition to a sustainable energy system. Discusses the economics of pollution policy and of controlling greenhouse gas levels. Demonstrates that the technological and economic aspects of response to global warming may be simpler and entail less expense than previously thought. Addresses the difficult task of achieving a global policy solution, which must involve collaboration between nations. Read specializes in energy economics at Massey University, New Zealand. Index.

See also: Book numbers JEL 94-1614, 94-1657

R Urban, Rural, and Regional Economics

R0 GENERAL

DUENSING, EDWARD E. *Information sources in urban and regional planning: A directory and guide to reference materials*. New Brunswick, N.J.: Center for Urban Policy Research, Rutgers University, 1994. Pp. vi, 178. \$24.95. ISBN 0-88285-146-2.

JEL 94-1786

Provides access to information sources that are specific, or related, to the field of urban and regional planning. Includes only titles with a publication date of 1980 or later. Part 1 describes dictionaries that define terms in general use throughout the field of planning. Part 2 provides annotated citations to eighty reference sources (indexes and collections of abstracts) that allow the user to access published information of interest to planners in various fields. Part 3 is a guide to published directories of private consultants, foreign agencies, state and local associations, university-based research centers, and other organizations of interest to planners. Part 4 provides the name, address,

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