



The Common Property Resource Digest

No. 10

Devoted to community-based resource management

April 1989

Common Property News & Notes

WORKSHOP ON SOCIAL SCIENCES IN ASIAN FORESTRY CURRICULA

Winrock International, through the USAID-funded Forestry/Fuelwood Research and Development (F/FRED) Project, sponsored a workshop on "Social Sciences in Asian Forestry Curricula", held in Khon Kaen, Thailand from November 27 - December 2, 1988. The Workshop was co-presented by Yale University's Tropical Resources Institute and FAO's Regional Office for Asia and the Pacific (RAPA).

Workshop participants came from Bangladesh, India, Indonesia, Malaysia, Nepal, the Philippines, Sri Lanka and Thailand. They represented a range of disciplines (including forestry, social forestry, agroforestry, anthropology, agricultural economics, watershed management, rural sociology, ecology, and social psychology) and professional positions (including university professors, university administrators, research scientists, research administrators, and field practitioners).

The goals of the Workshop were to support the integration of the social sciences in university forestry programs, and to strengthen the role of the forestry and social science professions in improving existing and future farm, community, and other forestry programs throughout Asia.

Advisors from India, Indonesia, Nepal, the Philippines, and Thailand joined the workshop coordinators to plan and implement workshop activities. These activities included discussions, plenary sessions, working group meetings, slide presentations, and a field trip to see and discuss some of the innovative work the Royal Thai Forestry Department is conducting with the assistance of Khon Kaen University and the Forestry Faculty of Kasetsart University, with support from the Ford Foundation. The participants also shared working papers and examples of curricula from their respective institutions,

and insights from their own experiences in integrating social science concepts and methods in forestry practice and in curriculum development.

During the five day workshop, participant discussion centered around the following eight themes:

1. Substantive/conceptual aspects of integrating the social sciences in forestry curricula.
2. Ways and means to introduce forestry concerns, and relevant concepts and methods from that profession, into social science education.
3. Institutional opportunities and constraints to the integration of the social sciences in farm, community, and other forestry education and research programs.
4. Ways to improve understanding of the curriculum design process and ways to improve teaching methods that integrate the social sciences in forestry.

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5. Means to evaluate and implement curricular change.
6. Ways to integrate academic theories and practices with applied theories and practices and to better link research with professional application in the field.
7. Promising ways to identify a relevant core of integrated concepts and skills with the flexibility to be adapted to a range of different and changing institutional contexts.
8. Mechanisms for exchange of knowledge between disciplines, institutions, and countries within the Asia Region.

Participants also discussed and presented recommendations for concrete action and follow-up in the three categories of interdisciplinary research and strategies, curriculum design and development of educational materials, and organizational issues.

During the discussion of interdisciplinary research and strategies, the participants provided some illustrative examples of recommended research topics, such as indigenous tree and forest management techniques and the impact of forest policy on rural resources and their management. Examples of methodological issues of concern to the group included refinement of human and natural resource inventory techniques. And with regard to the application of research, participants suggested a range of possible opportunities, including making better use of existing and emerging technologies and exposing foresters and social scientists to complementary research tools and skills.

Regarding curriculum design and development of educational materials, the participants called for, among other things, an inventory of "candidate model curricula" covering a variety of institutional arrangements, and the identification, analysis and dissemination of selected, existing courses within the region.

The participants recommended specific actions to address a number of organizational issues, including (1) a survey of sources for catalytic funding for integrated research that also can be used as a tool for university training; (2) exploration of opportunities for formal and informal interactions with existing and emerging networks; (3) wider dissemination of materials by donor agencies, universities, and others; and (4) improvement of the methods universities use to evaluate curriculum quality.

The outputs of the Workshop will include:

1. Published workshop proceedings.
2. Volumes of excerpts from selected literature in anthropology, political science, sociology, and other social sciences that relate to farm, community, and other forestry in South and Southeast Asia.

The Common Property Research Network

The *Common Property Resource Digest* is the primary communication medium of the Common Property Resource Network. Funded with grants from the Ford Foundation and the Rockefeller Brothers Fund, the CPR Network seeks to disseminate information dealing with common property resources, their management, and policies related to their use. It also seeks to foster communication between professionals who work with common property resources; whether as policymakers, administrators, researchers, or educators. The ultimate goal of the network is to improve the conservation and wise use of these resources, and to improve the wellbeing of those people who depend on common property for their livelihood. Membership in the network is open to any individual or institution having an active professional interest in common property resources. At present, there is no charge for membership.

The *Common Property Resource Digest* is published and the CPR Network is administered by the Center for International Food and Agricultural Policy of the University of Minnesota. Facilities are provided by the Department of Agricultural and Applied Economics. Dr. C. Ford Runge is the project director and Edward D. Lotterman is the network administrator and *Digest* editor.

Functioning of the network depends on active participation by its members. Members are asked to report on their professional activities, as well as publications, conferences, and other items of interest. News items, announcements, publications for review, suggestions, and questions should be sent to the *Digest* editor at the following address:

Common Property Resource Digest
332e C.O.B.
1994 Buford Avenue
St. Paul MN 55108 U.S.A.
Tel: (612) 625-7019
FAX: (612) 625-0286

3. A volume of papers contributed by the workshop participants that deal with the integration of the social sciences and forestry curricula, farming systems, and social forestry research, planning and monitoring.
4. A curriculum evaluation and design questionnaire.
5. A bibliography of important references.
6. A directory of experts and key contacts.

FAO/RAPA has agreed to provide some support for dissemination of these materials and follow-up on some of the issues raised in the Workshop as part of its Asian Forestry Education Network.

For more information about the Social Sciences in Asian Forestry Curricula Workshop, please contact one of the following:

Winrock International - F/FRED
1611 N. Kent Street, Suite 600
Arlington, VA 22209 USA
Telephone: (703) 525-9430
Telex: 248589 WI DC

U.S. Agency for International Development
Office of Science & Technology
/Rural Development
Room 608, SA-18
Washington, DC 20523-1814 USA

Winrock International - F/FRED
P.O. Box 1038
Kasetsart Post Office
Bangkok 10903, THAILAND

Tropical Resources Institute
Yale School of Forestry & Environmental Studies
205 Prospect Street
New Haven, Connecticut 06511 USA

(Staff members from each of the institutions that organized the workshop are members of the Network. David Taylor, a F/FRED staffer from Winrock's Arlington office prepared and submitted this report.)

Centre for Forestry in Rural Development

The Centre for Forestry in Rural Development (CFRD) at Australian National University was established in 1986 to:

- conduct multi-disciplinary research on all aspects of forestry and tree-husbandry in rural development
- provide consultancy services to national and international agencies, especially in the preparation, appraisal and evaluation of projects
- conduct short-term courses on appropriate topics.

The Centre brings together the breadth of experience and expertise in many departments and disciplines in a collaborative, problem-oriented approach to forestry in rural development. It is attached to the Department of Forestry, in conjunction with the Department of Human Geography and the National Centre for Development Studies."

A list of CFRD working papers indicates the range of interests of the group:

- Bo Ohlsson & Neil Byron, *Forestry in the Context of Rural Development*, 1986.
- Seamus Mulholland, *Log Export restrictions and forest products trade from Southeast Asia*, 1987.
- Sebastiao Kengen, *Forestry in Development: a review of the literature*, 1987.
- Sebastiao Kengen & Neil Byron, *Socio-economic impacts of industrial plantations in Brazil*, 1987.
- Sebastiao Kengen & Neil Byron, *Forestry Development: Socio economic impacts of industrial forest plantations*, 1987.
- M.K. Roy, *Forestry Sector Planning in Bangladesh*, 1987.
- Neil Byron & Annie Boutland, *Rethinking Private Forestry in Australia*, 1987.
- Bo Ohlsson & Neil Byron, *Marketing timber from small private forests: Are there lessons for Australia from Swedish experience?*, 1988.
- Bo Ohlsson & Neil Byron, *Learning from the farmers about their trees*, 1988.
- Bo Ohlsson & Neil Byron, *Forestry in the context of rural development in Vietnam*, 1988.
- Paul Adams, *Smallholder Rubber Development in Malaysia*, 1989.
- Kathy Lyons, *Aboriginal significance of river red gum forests in the central Murray, Victoria*, 1989.
- Helen Desmond, *A revegetation strategy for the Bridgewater Landcare Group (Victoria)*, 1989.
- Martine Kalma, *Agroforestry in the semi-arid regions of East Africa*, 1989.
- Mayumi Quintos, *Socioeconomic impacts of log export restrictions in the Philippines*, 1989.

Neil Byron, the Centre director, indicates "We would be very pleased to hear from anyone who is interested in this type of work, particularly for possible collaboration and exchange of results or reports."

Dr. Neil Byron
Centre for Forestry in Rural Development
Australian National University
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Canberra, A.C.T., AUSTRALIA, 2601
Telephone (062) 49 2579
Telex: THEFACAA61670
FAX: (062) 49 0746

CPR Bibliography

The bibliographic compilation effort of the Workshop in Political Theory and Policy Analysis at Indiana University was noted in an previous issue of the *Digest*. That work has resulted in a 310-page published bibliography citing and cross-referencing nearly 5000 books, articles, or papers that deal with common pool or common property resources.

Entitled *Common Pool Resources and Collective Action: A Bibliography*, the spiral bound volume was compiled and edited by Fenton Martin, the librarian for the Department of Political Science at Indiana.

A forward by Elinor Ostrom, co-director of the Workshop, is followed by separate sections on theory, fishery resources, water resources and irrigation, agricultural commons, forest resources, grazing areas, wildlife resources, land as a resource, village and community organization, experimental research, and general literature. Most of these sections are further subdivided by geographic area of focus. Citations are arranged alphabetically by author within each of these subgroups and numbered consecutively throughout the document. There is also an author index which references each individual's citations by number.

This bibliography represents a massive compilation effort and will be extremely valuable to anyone doing research in the area of common property. The volume is being sold for US\$25.00 to the general public. A special rate is available only to individuals who are members of the Common Property Network. They can buy it for \$10.00, plus postage of \$2.50 for the U.S. or \$4.50 for surface mail outside of the U.S. Individuals who wish to purchase a copy should remit the appropriate amount, payable in U.S. funds together with the desired mailing address to:

Patricia Zielinski
Workshop in Political Theory
and Policy Analysis
Indiana University
513 North Park
Bloomington, Indiana, 47408-3186, USA

Be sure to state that you are a member of the Common Property Network when ordering. Individuals who are not members, as well as libraries or other institutions, should remit \$25.00 plus postage. It is strongly preferred that orders be pre-paid. Other inquiries can be addressed to Ms. Zielinski at the address above or she can be telephoned at (812) 855-0441.

Resource and Environmental Economics Group at La Trobe

"A grouping of economists from the Schools of Agriculture, Economics and Social Sciences (at La Trobe University), who share common research and teaching interests in management and policy issues relating to resources and the environment, was placed on a formal University basis in April, 1988. Group members between them have extensive research and consulting experience in areas such as: energy policy; policy in international trade in food and resources; soil conservation; water management; sustainable agriculture; fisheries management; forestry management; and resource modelling. Work has been undertaken within Australia, as well as the USA, Asia, Africa and New Zealand.

"A major function of the group is to supply training and expertise in approaches to tackling some of the major resource and environmental problems facing society. This is being achieved by: carrying out research and consulting for private industry and state and commonwealth government departments; organizing seminars; and cooperative undergraduate teaching and postgraduate supervision."

Anyone desiring more information about the group should contact the convenor:

Dr. John O.S. Kennedy
School of Economics
La Trobe University
Bundora, Victoria, 3083
AUSTRALIA
Telephone: (03)479 2313
Telex: (AA) 33143
FAX: (03)478 5814

(Since Dr. Kennedy will be on leave until June, inquiries can also be addressed to A.H. Chisholm or R.G. Dumsday at the same address.)

Artisanal Fisheries and Aquaculture Network News

The regional fisheries offices of the Food and Agriculture Organization of the United Nations publishes a useful newsletter for the Caribbean Technical Cooperation Network in Artisanal Fisheries and Aquaculture. Published in September, January, and May, *Network News* contains 12-18 pages of news, announcements, and bibliographic citations. The January, 1989 issue included, for example, a four page bibliography on tilapia culture.

Membership in the network and receipt of the newsletter is apparently open to those who work professionally in artisanal fisheries. For more information about the network or newsletter, write:

Bisessar Chakalall
Regional Fisheries Officer
FAO Office
17 Keate Street
P.O. Box 822
Port-of-Spain
TRINIDAD AND TOBAGO

Fraser River Estuary Management

Management of natural resources with quasi-common property characteristics in urban areas is a difficult task. John Millen, manager for Referral and Impact Analysis for the Pacific and Yukon Region of Environment Canada forwarded the following information on one cooperative effort in British Columbia. He notes that the program "has a very small staff. Most of the work is being done by federal, provincial, municipal, and Harbour Commission employees. There is an active public participation program." His full description follows:

'The Fraser River estuary in British Columbia is important for both its natural productivity and for providing marine access to the burgeoning port city of Vancouver. In the mid 1970's environmentalists foresaw that the encroachment of shoreline development could eventually eliminate all wetland habitat, continued discharge of effluents could degrade water quality and occupation of the foreshore would interdict access for recreation. The major common property resource under threat is the Fraser River salmon fishery worth one hundred million dollars per year. As well, the estuary supports the largest population of wintering waterfowl in Canada.

"After several years of studies, the Fraser River Estuary Management Program (FREMP) was established. It is now in its fourth year of operation. The overall goal of the management program is "To provide the means for accommodating a growing population and economy, while maintaining the quality and productivity of the Fraser estuary's natural environment." FREMP has established estuary-wide goals in the areas of port-industrial development and transportation; water quality; habitat management; and recreation.

"Over seventy decision-making agencies have jurisdictions which affect the estuary. FREMP has not established a superagency which would have powers to override these jurisdictions. Instead a cooperative approach has been adopted with agreement among all parties to strive for attainment of the common goals. With this structure, progress has been made when the port authorities are proud of their habitat conservation programs, and municipalities take responsibility for the quality of sewage and stormwater discharged to the river.

'The program office publishes an occasional newsletter and other information which is available from:"

FREMP Secretariat
708 Clarkson Street
New Westminster, British Columbia
CANADA V3M1E2

Low External Input and Sustainable Agriculture

'The general aim of ILEIA (Information Centre for Low External Input and Sustainable Agriculture) is to provide development intermedia with relevant information on low external-input agriculture, on practical methods and scientific backgrounds as well as on strategies to introduce low external-input methods in agricultural development.

"Low external-input agriculture means to us: agricultural systems which make optimal use of locally available natural and human resources (such as: climate, landscape, soil, water, vegetation, local crops and animals, labour, local skills and knowledge) and which are economically feasible, ecologically sound, culturally adapted and socially just. The use of

external inputs such as mineral fertilizers, pesticides, tractors, hybrid seeds; is not excluded but has to meet the above-mentioned criteria of sustainability."

ILEIA seeks to realize its aims by providing documentation and information services and by publishing a quarterly newsletter. More information can be obtained from:

ILEIA
P.O. Box 64
3830 AB Leusden, THE NETHERLANDS
Telephone 033-943086
Telex: 79380 ETC NL
Fax: 033-940791

Position Announcement - ODI

The Overseas Development Institute wishes to appoint a Research Fellow in the Agricultural Administration Unit to undertake research and to co-ordinate its Pastoral Development Network. The Fellow will carry out applied research and advisory work on the management of government and voluntary agency services in meeting the needs of livestock owners in developing countries. Co-ordination of the network (600 members) will include editing and writing network papers produced twice annually. Candidates should have experience of multi-disciplinary research and a socio-economic or management background. The appointment will be on university scales probably in Range II-III (£16,150 - £24,650, under review).

Application should be made by sending a full curriculum vita and naming two referees. The closing date is 2 May, 1989. Further details can be obtained from:

The Administrative Secretary (AAU)
Overseas Development Institute
Regent's College, Inner Circle
Regent's Park
London, NW1 4NS, UNITED KINGDOM
Telephone: 01-487 7413
FAX: 01-487 7590

Conferences- Calls for Papers

Cuban Forestry Congress- International Symposium on Agroforestry

Oswaldo Acosta Rodriguez, president of the organizing committee for the first Cuban Forestry Conference has issued an invitation to the congress and to an International Symposium on Agroforestry. The event will be held from November 22 through 24, 1989 in Havana. The invitation includes a call for papers and abstracts on the following topics:

- forest ecology
- forest soils and hydrology
- genetics and forest seed production
- forestation and reforestation
- use of pesticides and fertilizers in forestry

- mechanization in forestry
- plant health
- forest protection and fire control
- wildlife and game management
- protected areas
- forest inventory and management
- agroforestry techniques
- forest utilization and exploitation
- use of forest by-products
- mechanical harvesting of wood
- wood conservation
- wood chemistry
- use of forest biomass
- forestry and forestry industry economy, organization and planning
- local community participation in forest development and protection
- biotechnology and genetic engineering applied to forest plants
- computer techniques applied to forestry
- physical and mechanical properties of wood

The call for papers requests that both abstracts and copies of papers be submitted. Papers must be received by August 30, 1989 and should have a maximum of 20 pages, typed double-spaced. The title page should contain the author's names, institutions and country in capital letters. An original and two copies should be submitted. No language requirements are specified for papers. Abstracts must be submitted by May 15, 1989, may not exceed 250 words, and should include a title page identical to that specified for papers. Abstracts must be in English or Spanish. The registration fee is US\$100.

Requests for information as well as submitted papers or abstracts should be addressed to:

Comité Organizador
I Congreso Forestal de Cuba
Instituto de Investigaciones Forestales
calle 174, No. 1723 entre 17-By 17-C
Siboney, Zona Postal 16
La Habana, CUBA
Telephone: 21-9551

International Water Resources

The American Water Resources Association and the Canadian Water Resources Association have issued a call for papers for a jointly sponsored conference on "International & Transboundary Water Resource Issues" to be held in Toronto, Canada, April 1-5, 1990. Submissions on the following topics are invited:

The Great Lakes:

- levels and flows
- water quality
- policies and programs for management
- shoreline management (erosion control)

Contaminants:

- controlled, toxic and nontoxic
- uncontrolled (spills and lakes)

Climate Change Implications:

- the "greenhouse" effect
- sea level rise

Transboundary Flows:

- surface
- subsurface

The Commerce of Water

- market valuation
- nonmarket values
- cost of water

Basin Management

- international
- interjurisdictional

Groundwater

- use
- recycling and disposal

North American Experience in Global Water Management

- technology transfer
- appropriate technology
- training and professional development

"Papers, subject to acceptance, peer review, and editorial standards, will be published in a Proceedings to be distributed at the time of the Symposium. Each author of an accepted paper will be expected to submit a camera-ready manuscript to the Proceedings Editor no later than November 1, 1989. Papers will be limited to 10 pages. Detailed 'Instructions to Authors' will be sent to submitting author at the time of acceptance.

The deadline for submission of abstracts is June 1, 1989. Abstracts of approximately 250 words should be sent to either of the addresses below. Submit three (3) copies. The abstract must include the title of the paper, all author's names, and their affiliations. The submitting author must include, on a separate page, the full mailing addresses (including position, firm or institution, department, city, state, zip code and country), and telephone number for each author. Acceptance notification will be made by July 1, 1989. All attendees, including authors, will be expected to pay the registration fee for the meeting."

Submit abstracts to either of the following addresses:

General Editor
Joint AWRA/CWRA Symposium
c/o Ken Reid, CAE
Executive Director, AWRA
5410 Grosvenor Lane, Suite 220
Bethesda, Maryland, 20814-2192, USA
Telephone: (301) 493-8600

General Editor
c/o Craig Mather
The Metropolitan Toronto and Region
Conservation Authority
5 Shoreham Drive
Downsview, Ontario, CANADA, M3N 1S4
Telephone: (416) 661-6600

CPR Publications

Edited Volumes

Seven edited volumes relevant to common property have been brought to our attention. Reviewing such books is difficult and space-consuming, given their usual heterogeneous nature. We therefore have chosen to bring them to the network's attention by listing their contents. Only brief comments are made on the volume as a whole. Network members are advised to seek more extensive reviews in other publications for more lengthy evaluations of these books.

Rethinking Institutional Analysis and Development

This edited volume examines the role of institutions in processes of economic, social and political development. Its essential thesis is that institutions need much more careful and comprehensive study when development policies are drafted.

The core of the book is a set of papers originally presented at a 1985 USAID-sponsored conference on "Getting the Prices Right", organized by the Workshop in Political Theory and Policy Analysis at Indiana University. These papers were revised and other papers added to make up this book. The contents follow:

- Norman Nicholson, "The State of the Art"
- Vincent Ostrom, "Cryptoimperialism, Predatory States, and Self-Governance"
- Sombat Chantornvong "Toqueville's *Democracy in America* and the Third World"
- Elinor Ostrom, "Institutional Arrangements and the Commons Dilemma"
- Ronald J. Oakerson, "Reciprocity: A Bottom-Up View of Political Development"
- David Feeny, "The Demand for and Supply of Institutional Arrangements"
- Susan Wynne "Institutional Resources for Development among the Kgalagadi of Botswana"
- Amos Sawyer, "The Putu Development Association: A Missed Opportunity"
- Amos Sawyer "The Development of Autocracy in Liberia"
- James Roumasset & Sumner J. La Croix, "The Coevolution of Property Rights and Political Order: An Illustration from Nineteenth-Century Hawaii"
- Louis De Alessi, "How Markets Alleviate Scarcity"
- John F.A. Taylor, "The Ethical Foundations of the Market"
- Vincent Ostrom "Opportunity, Diversity, and Complexity"
- Hartmut Picht, "Currency Competition: A Constitutional Perspective"

- Vincent Ostrom, David Feeny, & Hartmut Picht, "Institutional Analysis and Development: Rethinking the Terms of Choice"

Ostrom, Vincent, David Feeny & Hartmut Picht. *Rethinking Institutional Analysis and Development: Issues, Alternatives and Choices*. San Francisco, ICS Press, 1988. 486 pp.

Hardcover US\$34.95, ISBN 1-55815-024-2
Paperback, US\$14.95, ISBN 1-55815-023-4

Orders can be addressed to:

ICS Press
243 Kearny Street
San Francisco, California, 94108, USA
Telephone (415) 981-5353

Public Policies and the Misuse of Forest Resources

This volume is best described as a quasi-edited one in that the two editors are also the authors of six of the nine chapters. Their thesis is that government policies often accelerate deforestation and waste of forest resources both in developed and developing countries. The chapters incorporate studies of the experience of ten countries, Brazil, China, Gabon, Ghana, Indonesia, the Ivory Coast, Liberia, Malaysia, the Philippines, and the United States. The chapter titles follow:

- Robert Repetto, "Overview"
- Malcolm Gillis, "Indonesia: public policies, resource management, and the tropical forest"
- Malcolm Gillis, "Malaysia: public policies and the tropical forest"
- Eufresina Boado, "Incentive policies and forest use in the Philippines"
- Li Jinchang, Kong Fanwen, He Naihui, and Lester Ross, "Price and policy: the keys to revamping China's forestry"
- John O. Browder "Public policy and deforestation in the Brazilian Amazon"
- Malcolm Gillis, "West Africa: resource management policies and the tropical forest"
- Robert Repetto, "Subsidized timber sales from national forest lands in the United States"
- Malcolm Gillis and Robert Repetto, "Conclusions: findings and policy implications"

Repetto, Robert and Malcolm Gilles eds. *Public Policies and the Misuse of Forest Resources*, (A World Resources Institute Book), Cambridge UK, Cambridge University Press, 1988. 432 pp.
Hardcover US\$69.50, ISBN 0-521-34022-5
Paperback, US\$27.95, ISBN 0-521-33574-4

Perspectives on Land Administration and Development in Northern Nigeria

This collection of 23 papers constitutes the Proceedings of the Workshop on Land Resources held at Kano, Nigeria, September 25-28, 1986. The workshop, sponsored by the Ford Foundation, was the inaugural event in a multi-year effort to strengthen the Programme in Land Resources at Bayero University. The objective of the event was to identify the principal questions of land policy in northern Nigeria which merited research. This volume contains slightly over half of the 40 papers presented at the workshop.

Introduction

- Salihi Iliasu, "Foreword"
- Emmanuel A. Olofin, "The relevance of land resource development, and the genesis and content of the First Workshop"

Issues in Land Resources in Northern Nigeria

- Michael Mortimore, "The lands of northern Nigeria: some urgent issues"
- "The Land Resources Programme at Bayero University"

Land Tenure, Legislation and Rights to Land and Water

- LA. Ega, "The need to redefine rights under customary land tenure in northern Nigeria"
- Abubakar Labaran, "Land appropriation for capitalized farming in the Sokoto region: some preliminary findings"
- Simon Gillett, "The right to *fadama* land"
- J.M. Baba, "Reconciling agricultural and pastoral land use systems in Nigeria"
- Jerome O. Gefu, "Land use in nomadic pastoralism and the issue of sedentarisation"
- Peter O. Okaiyeto, "Constricting rangelands in Nigeria and pastoral economic activities"
- Emmanuel A. Olofin, "The legislative needs in water resource development in Nigeria"

Land Administration, Acquisition and Compensation and the Issue of Resettlement

- O.A. Famoriyo, "Acquisition of land and compensation in Nigeria"
- Uzo M. Igbozurike, "The Nigerian land use act as a mechanism for urban land acquisition"
- Musa G. Yakubu, "The acquisition of urban land, allocation and compensation under the Land Use Act of 1978"
- Sulaiman Omar Hamid, "Compulsory land acquisition and the question of compensation and resettlement in Jimeta, Gongola State"
- Attahiru M. Jega, "The State, agrarian reformism, and land administration in the Bakolori Irrigation Project"
- Jacob P. Voh & T.K. Atala, "Problems of resettlement in dam construction projects: the Tiga Dam experience"

- H.A.C. Main & Reginald A. Cline-Cole, "Land-related processes in peripheral capitalist societies: Metropolitan Kano's western peri-urban fringe"
- D.G. Yahaya & P.W. Shekamang, "Problems associated with urban land acquisition, compensation and allocation"

Land Development and Conservation

- E.U. Essiet, "Monitoring soil and water quality in agricultural development projects in Nigeria"
- Modupe B. Daniel, "The significance of post-implementation monitoring in land development projects"
- Ahmadu Abdulkadir, "Some methodological arguments in, and interrelationships among, land evaluation, soil survey and land use planning"
- James Y. Gandu, "Aerial photo-interpretation for soil mapping and land classification in the savanna environment"
- Kabiru Ahmed, "Erosion hazard assessment in the savanna: the Hadejia-Jama'are River Basin"

Conclusion

- "Workshop Conclusion and Recommendations" Mortimore, Michael, Emmanuel A. Olofin, Reginald A. Cline-Cole, & Ahmadu Abdulkadir eds. *Perspectives on Land Administration and Development in Northern Nigeria*. Kano, Bayero University, 1987. viii + 256 pp. Price not stated.

Contact:

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PMB3011
Kano, Nigeria

Political Economy of Rent Seeking

The concept of rent-seeking has become an important one in economics, law, and political science over the past two decades and is often applied to situations in which resources are managed as common property or are subject to open-access.

Three of its best known practitioners have edited a large and expensive volume of collected papers on rent-seeking. The volume is comprehensive, and may become a standard reference on the topic. Network members should be aware of this book even if its \$85.00 price deters them from purchasing it. Several of the chapters have appeared previously in a variety of academic journals. The table of contents follows:

I. Perspectives

- Charles K. Rowley and Gordon Tullock, "Introduction"
- Charles K. Rowley, "Rent-Seeking Versus Directly Unproductive Profit-Seeking Activities"
- Michael A. Brecks and Ben J. Heidra, "In Search of Rent-Seeking"
- Gordon Tullock, "Rents and Rent-Seeking"

II. Theoretical Developments

- William P. Rogerson, "The Social Costs of Monopoly and Regulation: A Game-Theoretic Analysis"
- Arye L Hillman and Eliakim Katz, "Risk-Averse Rent Seekers and the Social Cost of Monopoly Power"
- Gordon Tullock, "Efficient Rent-Seeking Revisited"
- Gordon Tullock, "Long-run Equilibrium and Total Expenditures in Rent-Seeking: A Comment"
- William J. Corcoran and Gordon V. Kareis, "Rent-Seeking Behavior in the Long Run"
- Richard S. Higgins, William F. Shughart II, and Robert D. Tollison, "Free Entry and Efficient Rent-Seeking"
- Gordon Tullock, "Back to the Bog"
- Richard S. Higgins and Robert D. Tollison, "Life Among the Triangles and Trapezoids"

III. APPLICATIONS

A. Regulation

- Michael A. Crew and Charles K. Rowley, "Dispelling the Disinterest in Deregulation"
- Fred S. McChesney, "Rent Extraction and Rent Creation in the Economic Theory of Regulation"

B. International Trade

- Gary M. Anderson and Robert D. Tollison, "Ideology, Interest Groups, and the Repeal of the Corn Laws"
- Charles K. Rowley and Robert D. Tollison, "Rent-Seeking and Trade Protection"

C. Political Markets

- W. Mark Crain, William F. Shughart II, and Robert D. Tollison, "Voters as Investors: A Rent-Seeking Resolution of the Paradox of Voting"
- Roger Congleton, "Committees and Rent-Seeking Effort"
- Charles K. Rowley and Robert Elgin, "Government and its Bureaucracy: A Bilateral Bargaining Versus a Principal-Agent Approach"
- Gordon Tullock, "Demand-Revealing, Transfers, and Rent-Seeking"
- Gordon Tullock, "Competing for Aid"

D. The Firm

- Roger L. Faith, Richard S. Higgins, and Robert D. Tollison, "Managerial Rents and Outside Recruitment in the Coasian Firm"

E. Taxation

- Dwight R. Lee and Robert D. Tollison, "Optimal Taxation in a Rent-Seeking Environment"

F. The Environment

- Dwight R. Lee, "Rent-Seeking and its Implications for Pollution Taxation"
- Terry L Anderson and Peter J. Hill, "Privatizing the Commons: An Improvement?"

G. The Law And Legal Evolution

- William F. Shughart II and Robert D. Tollison, "Corporate Chartering: An Exploration in the Economics of Legal Change"
- Gordon Tullock, "Why Did the Industrial Revolution Occur in England?"

IV. Toward Tomorrow

- Richard E. Wagner, "Agency, Economic Calculation, and Constitutional Construction"
- Charles K. Rowley, "Rent-Seeking in Constitutional Perspective"
- Gordon Tullock, "Future Directions for Rent-Seeking Research"

Rowley, Charles, Robert D. Tollison & Gordon Tullock, eds. *The Political Economy of Rent Seeking*. Boston, Kluwer, 1988. pp.512.,. US\$85.00, ISBN 0-89838-241-6

Camels in Development

"This book draws on the expertise of researchers from the Third World on the role that the dromedary can play for milk and meat production in areas struck by drought. It reports from a seminar that occurred October 20-22, 1987."

"Long-term conditions for an improved meat and milk production in today's changing world deserve particular attention, not least since we are concerned with the most vulnerable groups in society. To comprehend the potential sustainable subsistence, special references have to be made to traditional pasture and water rights, and how new technique (land management, feeding, upgrading and animal health) have an influence on production."

The book includes an appendix with extensive information on the Somali Camel Research Project, including a list of the project's publications.

Contents:

1. Camel Management in Africa
 - 1. Eldisougi Mustafa, "An Appeal for a Modified Camel Productivity"
 - Mohamed A. Mohamed Salih, "Camel Production in the Arid Lands of the Sudan: National and Local Perceptions of the Potential"
 - Anders Hjort af Ornäs, "Sustainable Subsistence in Arid lands: the Case of Camel Rearing"
2. Camel Management in an East African Perspective
 - Ayele Gebre Mariam, "Pastoralism at Loggerheads"
 - Mohamed Adbillahi Rirash, "Camel Herding and Its Effects on Somali Literature"
 - Frode Stords, "Does 'Development' Always Imply Progress? The Case of African Pastoralism"
3. Camelidae Management in Latin America and Asia
 - N.D. Khanna, "Traits and Calf Behaviour in Bikaneri Breed of Camels"
 - Julio Sumar Kalinowski, "South American Camelid Raising and Reproduction in the High Andes"

4. The Somali Experience and Its Implications
- Set Bornstein, "The Case of African Drylands and Balanced Camel Production"
 - Mohamed Ali Hussein and Anders Hjort af Ornäs, "Camel Herd Dynamics in Southern Somalia: Long Term Development and Milk Production Implications"

5. The Camel and Development

- Moses O. Awogbade and Umaru A. Hassan, "Settlement Scheme for the Nomadic Pastoral Fulani of Nigeria: Some Relevant Issues"
 - Anders Hjort af Ornäs "Concluding Remarks: Camels or People First"
- Hjort af Ornäs, Anders ed., *Camels in Development: Sustainable Production in African Drylands* Uppsala, Scandinavian Institute of African Studies, 1988. 165 pp. ISBN 91-7106-281-5.

Available From:

Scandinavian Institute of African Studies
P.O. Box 1703
S-751-47 Uppsala SWEDEN
Telephone: 018/15 54 80
Cable: AFRICAN, Uppsala

(Editor's note: The following two volumes, published in 1984 and 1985, are not new, but have been brought to my attention by at least four different people, none of whom participated in its production, as useful but not widely-known volumes).

Traditional Knowledge and Management of Coastal Systems

This book is a collection of papers presented at a UNESCO Regional Seminar held in Jakarta in December, 1983. The introduction summarizes the thrust of the volume. "Traditional management techniques for coastal resources ... are another valuable source of information for modern fisheries managers." "Today there is a growing awareness in Oceania that governments should make greater efforts to understand, record and support the best of traditional management customs, and to tailor environmental legislation where feasible to harmonize with those local resource use customs that remain valuable today."

Contents:

A: Oceania

- Antony Hooper, "Tokelau fishing in traditional and modern contexts"
- G.B.K. Baines, "A traditional base for inshore fisheries development in the Solomon Islands"
- Leon P. Zann, "Traditional management and conservation of fisheries in Kiribati and Tuvalu atolls"
- Andrew Wright, "Marine resource use in Papua New Guinea: can traditional concepts and contemporary development be integrated?"
- Stephen Davis, "Traditional management of the littoral zone among the Yolngu of North Australia"

- Bernard Nietschmann, "Torres Strait islander sea resource management and sea rights"

B: Asia

- Kenneth Ruddle, "The continuity of traditional management practices: the case of Japanese coastal fisheries"
- B.L. Wu, "Traditional management of coastal systems in China"
- Mai Davide G. Lopez, "Notes on traditional fisheries in the Philippines"
- Bahauddin Darus, "The management and development of Southeast Asian small-scale fisheries and the example of the Bubun coastal village development project, North Sumatera Province, Indonesia"
- Chairul Muluk, "Tambak systems in the Karawang coast of West Java: a case study of traditional coastal resource use"
- Lachmuddin Sya'rani & N.G. Willoughby, "The traditional management of marine resources in Indonesia, with particular reference to central Java"
- William H. Makaliwe, et.al., "An introduction to the socio-economic aspects of a developing coastal area in south Suluwesi, Indonesia"
- Peter Hinton, "An approach to the study of traditional systems of coastal resources management in Thailand"

Ruddle, Kenneth & R.E. Johannes, eds., *The Traditional Knowledge and Management of Coastal Systems in Asia and the Pacific*. Jakarta, UNESCO, 1985. vi. + 313 pp. ISBN 92-3-102321-7

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Maritime Institutions in the Western Pacific

This is yet another collection of papers from a conference; that held at the National Museum of Ethnology in Osaka and at Lake Biwa, Japan, in November, 1983. As in the volume noted immediately above, the prevailing theme is that modern policy makers can learn many constructive things from traditional marine resource users.

Contents:

- Arne Kalland, "Sea Tenure in Tokugawa Japan: The Case of Fukuoka Domain"
- Tomoya Akimichi & Kenneth Ruddle, "The Historical Development of Territorial Rights and Fishery Regulations in Okinawan Inshore Waters"
- Tomoya Akimichi, "Territorial Regulation in the Small-Scale Fisheries of Itoman, Okinawa"
- Ryutaro Ohtsuka & Yukio Kuchikura, "The Comparative Ecology of Subsistence and Commercial Fishing in Southwestern Japan, with Special Reference to Maritime Institutions"

- Yukiko Kada, "The Evolution of Joint Fisheries Rights and Village Community Structure on Lake Biwa, Japan"
- Yoshiaki Matsuda & Yoshiyuki Kaneda, "The Seven Greatest Fisheries Incidents in Japan"
- Teruji Sakiyama, "Fisheries Cooperatives in Southeast Asia, an Institutional Perspective"
- Ken-Ichi Sudo, "Social Organization and Types of Sea Tenure in Micronesia"
- Stephen Davis, "Aboriginal Claims to Coastal Waters in Northeastern Arnhem Land, Northern Australia"
- R.E. Johannes & J.W. MacFarlane, "Traditional Sea Rights in the Torres Strait Islands, with Emphasis on Murray Island"
- Nicolas V.C. Polunin, "Do Traditional Marine 'Reserves' Conserve? A View of Indonesian and New Guinean Evidence"
- Richard B. Pollnac, "Investigating Territorial Use Rights among Fishermen"
- John C. Cordell, "Defending Customary Inshore Sea Rights"

Ruddle, Kenneth & Tomoya Akimichi eds., *Maritime Institutions in the Western Pacific*. (Senri Ethnological Studies No. 17) Osaka, National Museum of Ethnology, 1984. 329 pp. ISSN 0387-6004.

Contact:

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FAO Fisheries Papers

The Food and Agriculture Organization of the United Nations is a well known organization but not all FAO publications are as widely circulated as they should be. The following are abstracts of some titles in the FAO Fisheries Technical Paper series that may be of interest to Network members.

Territorial Use Rights in Marine Fisheries

"Territorial use rights in fisheries (TURFS) have existed for centuries. They are widely available for sedentary resources. In addition, however, they have appeared in a number of marine fisheries in traditional communities and are also being acquired, legally or extra-legally, for such techniques as floating fish aggregation devices and other forms of fixed gear.

"TURFs provide interesting opportunities for dealing with two major aspects of fisheries management - efficient production of net benefits and equitable distribution of benefits. Further exploration of the possible adoption of TURFs as a means for management seem desirable.

"This paper explores some of the definitional elements of TURFs and the distinctions between territorial rights and common property. It also exercises some of the conditions that may have an

effect on the creation and maintenance of TURFs. And it discusses briefly some of the implications for equitable distribution of benefits."

Christy, FT. Jr., "Territorial use rights in marine fisheries: definitions and conditions." *FAO Fisheries Technical Paper* No. 227, 1982. 10 p. ISBN 92-5-101269-5

Regulation of Fishing Effort

"The problems of controlling fishing effort are reviewed. Any method should satisfy certain criteria - maintaining the productivity of the resource, economic performance and equity (or social needs). The methods of achieving these objectives are reviewed; they include the setting of catch limits, direct control of fleet capacity (e.g. restricting the number of fishing units), indirect measures (mesh size, closed areas), financial measures and the establishment of property rights to fishing areas or quantities of fish. The advantages and disadvantages of each approach are discussed in the light of the established criteria and appropriate techniques are given for six specific types of fisheries."

Beddington, J.R. and R.B. Rettig, "Approaches to the regulation of fishing effort". *FAO Fisheries Technical Paper* No. 243, 1984. 39 p. ISBN 92-5-101492-2.

Territorial Use Rights & Economic Efficiency

"This paper discusses the mechanics and implications of municipal concessions in the Philippines which govern the use of municipal waters for fish corrals, oyster culture beds and the gathering of milkfish fry. These concessions or territorial use rights are awarded annually by the resource owner (the municipality) to the highest bidder. In the case of milkfish fry gathering, the concessionaire assumes monopsonist rights of first purchase from fry gatherers. The implications of this system for economic efficiency and equity are discussed theoretically with supporting data from milkfish fry concessions in the Antique Province. It is concluded that the system increases economic efficiency in resource use and generates significant income form municipalities which they can then redistribute as they see fit, and not necessarily for the special benefit of fishermen."

Smith, I.R. and Theodore Panayotou, "Territorial use rights and economic efficiency: the case of the Philippine fishing concessions." *FAO Fisheries Technical Paper* No. 245, 1984. 17 p. ISBN 92-5-101137-6

Traditional Seaweed Management

"This document describes and analyses the customs and practices concerning the exploitation, allocation and conservation of seaweed resources in the area of Léon, one of the provinces of Brittany. It constitutes one of a series of technical documents prepared the Fishery Policy and Planning Division of FAO on the principles and various methods of fisheries management. The author demonstrates that the

community composed of seaweed harvesters of the Léon manages the harvest by establishing, for instance, cutting periods and exploitation rotation, as well as regulating the use of tools and practices which might damage the resources. The study also notes that the allocation and share of resources is ruled by a set of regulations regarding effort and competition in order to ensure a more rational and equitable resource scheme. The author concludes that this traditional management scheme has promoted the rational exploitation of the seaweed stocks and the involvement of the community in this exploitation."

Arzel, P., 'Traditional management of seaweeds in the district of Léon.' *FAO Fisheries Technical Paper No. 249*, 1984. 49 p. ISBN 92-5-102144-9

Bio-Economic Model of Shrimp Fisheries

'This paper presents the design and the parameters of a bioeconomic model of sequential artisanal and industrial fisheries for tropical shrimp. It consists of a biological part based on a yield per recruit (Y/R) Thompson and Bell model and an economic part based on simple input-output model.

'The model has been computerized to provide fishery administrators and researchers with an analytical tool, which is relatively easy to be understood and operated and is highly flexible as it can easily be adjusted to the amount of data available and as all parameters can be changed to reflect the conditions of the particular fishery under investigation. Further, the use of the computer facilitates the conduction of sensitivity analyses, which are of particular importance in developing countries, where the lack of adequate data and reliable statistics frequently necessitates the assessment of the robustness of the results and the related policy advice to likely errors in the applied parameters.

'The model and the computer programme have been used to analyze the shrimp fisheries of Suriname. The analysis is based on a review of present biological knowledge on the entire Guyana-Brazil shrimp resources, a modest amount of biological data available in Suriname and on data taken from similar but better studied species or fisheries in other parts of the world. The simulation results presented and the policy advice given have therefore to be interpreted with caution and have to be reviewed when more detailed and reliable data becomes available on Suriname's shrimp fisheries.

"Two main conclusions emerge from the analysis, namely that (i) a strong expansion of artisanal fisheries for juvenile penaeid shrimp in coastal swamps is likely to lead to a reduction in the shrimp catch and gross revenues of the offshore trawler fleet and that (ii) the offshore trawler fleet is heavily over-capitalized. These conclusions are rather insensitive to changes in the applied parameters within reasonable limits and allow for the formulation of two related policy advices. First, that the shrimp nursery areas should be carefully protected from damaging human interventions, not

only in regard to excessive fishing effort, but also in respect to negative influences of competing users of coastal areas such as agriculture or industry (use of pesticides, drainage of swampy areas, land reclamation, etc). Second, that a gradual reduction in the number of shrimp trawlers allowed to fish in Suriname's EEZ leads to higher national incomes under the condition that the additional profits created by such a reduction can be extracted for the benefit of the national economy."

Willmann, R & S.M. Garcia, "A bio-economic model of the analysis of sequential artisanal and industrial fisheries for tropical shrimp (with a case study of Suriname shrimp fisheries)". *FAO Fisheries Technical Paper No. 270*, 1985. 49 pp.

Management of Riverine Fisheries

'This paper is concerned specifically with the problems of river fisheries and associated management issues. It deals in particular with the scope for building on traditional practices, through the participation of traditional fishing communities, as a means of improving the quality of river fishery management.

'The paper reviews the most frequently encountered problems of riverine fisheries such as overfishing due to population pressure or migration, and artificially induced environmental factors such as dams, pollution and deforestation. It lays stress on the importance of studying fishing communities, as well as strictly biological factors, and presents a four stage analysis of the evolution of traditional riverine fisheries. Several undesirable consequences of this typical evolution, both on the resource itself and on traditional fishing communities, are identified and illustrated by case studies from the Amazon and the Zambesi. Certain types of traditional management strategies are examined and assessed for their future utility.

"The current ineffectiveness of many existing government river fisheries management policies is noted, either as a result of lack of resources of because they are inappropriate, often rooted in outdated colonial legislation. The lack of both limited access measures and of participation by local fishing communities are highlighted as major deficiencies.

"The paper concludes by linking these two features as crucial components of durable river management strategies for the future, although other possibilities for management are also reviewed and assessed. The paper contains a comprehensive bibliography for further reading."

Scudder, Thayer & Thomas Conolly, "Management systems for riverine fisheries." *FAO Fisheries Technical Paper No. 263*, 1985. 85 pp. ISBN 92-5-102288-7

Occupational and Geographical Mobility

"The conventional bio-economic models on fisheries generally assume that the mobility of labour into and out of a fishery occurs easily, although it has sometimes been recognized that exit from a fishery may be more difficult than entry. This assumption needs to be examined, particularly in the case of small-scale fisheries in developing countries where the presence or lack of employment opportunities is critically important for fisheries management. This paper provides the first attempt to study fisheries labour mobility in a developing country and is part of FAO's Regular Programme of activities devoted to assisting fisheries administrators and others responsible for fisheries management.

"This study was carried out against the background of two opposing tenets: the open-access theory which assumes perfect factor mobility in and out of fishing, and small scale fishery studies which maintain that fishermen are occupationally and geographically immobile.

"Using the results of two surveys taken five years apart in a number of Thai fishing villages and employing different methods of analysis, the present study estimates the degree of mobility among fishing households and identifies and measure the relative significance of impediments to mobility. It is found that the fishermen are responsive to economic incentives and do move between occupations to take advantage of earning differentials. This mobility, however, is tempered by non-economic factors such as age, location-religion, isolation and occupational preference. Labour appears to be quite mobile between occupations but less so between locations.

"Fishermen do not admit having emotional attachment to fishing, but they do admit certain attachment to their area of residence and a distrust for unknown far-away places. Given a choice, they prefer other rural areas over the big city, and crop or fish farming over factory employment. Both religion and distance appear to constrain geographical mobility with Muslims being more mobile than Buddhists.

"Mobility in and out of fishing, though considerable, is lower than mobility in and out of non-fishing occupations. Mobility of labour out of fishing is, if anything, greater than mobility into fishing, but the case with capital may be different. Out-migration is temporary and usually in response to economic incentives, especially in fishing activities elsewhere; in-migration, on the other hand, is more permanent but less significant and it is socially rather than economically induced.

"Thus, both the extreme positions of perfect mobility assumed by the open-access theory and of total immobility advanced by small-scale fisheries studies, are rejected in favor of imperfect but substantial mobility constrained by location, occupation and household specific factors. In the light of this finding, government efforts to upgrade small-

scale fisheries will be met with considerable response from fishermen provided the right incentives are given. However, the only way that allocation of additional resources to small-scale fishermen could benefit them in the long run is if fishing effort could be controlled to prevent gradual dissipation of resource rents and if alternative employment opportunities are developed to raise fishermen's opportunity costs.

"This study further indicates that for such a policy to be successful the new opportunities should not only be at least as profitable as fishing but they should be located in the vicinity of the fishing communities (especially for Muslim fishermen) and should have some of the features of fishing that the fishermen considered essential to their way of life and working style. In the long-run, broader occupational and geographic mobility should be encouraged especially from areas with a poor resource base."

Panayotou, Theodore & Donna Panayotou, "Occupational and geographical mobility in and out of Thai fisheries." *FAO Fisheries Technical Paper No. 271*, 1986. 77 p. ISBN 92-5-102347-6

Administration and Conflict Management in Japanese Coastal Fisheries

"Japanese coastal fishermen have legally-guaranteed equitable access to and 'ownership' of the living aquatic resources of coastal waters, through an elaborate fisheries rights system. In Japan no conceptual distinction exists between land holdings and land tenure and sea holdings or sea tenure, and fisheries enjoy a legal status equal to that of land ownership. Sea tenure in Japanese coastal fisheries is a complex subject that is little known in the west. In involves time-honoured customary procedures for management and conflict resolution which have been incorporated into modern legislation.

"The Introduction reviews selected aspects of the general behavioural context within which the administration of Japanese fisheries and the resolution of conflicts should be viewed. Since the degree of continuity with traditional management practises is an outstanding characteristic, Chapter 1 describes and provides examples of the present situation. Present day formal administration is described in Chapter 2.

"Systems of coastal sea tenure reflect and intimate interplay of formal government regulations and informal customary elements. The latter are commonly of greater day-to day importance than the former. In Chapters 3 and 4 this is examined through the problems of conflict management and resolution, proceeding from the personal and small-scale level to the impersonal prefectural and national levels. In Japan the most frequent, effective and culturally legitimate methods employed to manage and resolve conflict are informal and personal. These are operationalized via small-group discussion, verbal communication and the use of go-betweens. Such mechanisms, which ensure that a conflict remains localized and centred directly on the contending

parties, are employed not only to manage conflicts between the fishermen but also in highly formal situations such as arise in the judicial process. Failure to adhere to such a process invariably means that the conflict becomes entrenched and impossible to solve."

Ruddle, Kenneth, "Administration and conflict management in Japanese coastal fisheries." *FAO Fisheries Technical Paper No. 273*. 1987, 93 p. ISBN 92-5-102559-2

Other Papers

Challenge of the Commons

William Magrath's, *The Challenge of the Commons*, is a working paper prepared for the Environment Department of the World Bank. It is a concise, but thorough, review of economic theory regarding nonexclusive resources. The abstract follows:

"This paper examines the forces that determine the allocation of resources which are not subject to completely private ownership, nonexclusive resources. The paper develops the distinction between common property, in which collective action controls resource use, and open access where individual decision making prevails. It is shown that open access regimes are inefficient, but that, although potentially unstable, common property regimes can generate satisfactory outcomes. Policy interventions and socio-economic factors that influence the successful management of nonexclusive resources are reviewed from both theoretical and resource perspectives." The paper includes a brief section in which Magrath examines some implications of Olson's ideas on collective action and of Ruttan and Hayami's induced institutional innovation model.

Magrath, William, *The Challenge of the Commons: The Allocation of Nonexclusive Resources*. Environment Department Working Paper No. 14, Washington, The World Bank, 1989. pp. iii + 52.

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Wasteland Development

Three useful papers related to wasteland development are available from S.A. Shah of the International Tree Crops Institute in Baroda, India.

The first, *Wasteland Development, Policy and Legal Imperatives* critically examines present policies of the government of India for wasteland development and proposes alternative strategies to meet a range of needs. The suggested improvements are largely a call for decentralization and for devolution of decision-making power to local levels.

Village Level Barefoot Foresters focuses on organization of field level execution of wasteland development schemes. Shah argues that the present administrative infrastructure for forestry in India was designed to meet the needs of conventional forest management in a colonial setting, but that it is ill suited for successful execution of wasteland development or social forestry efforts. He proposes the training of a corps of "village level barefoot foresters" as an alternative. These foresters would be local people recruited from their home villages, trained under the auspices of NGO's, and sent back to their home villages to work. Much of the 24-page paper is devoted to detailing a one-year training program for such individuals.

The last paper, *Socio-cultural and Technological Inputs in the Development of Wastelands*, was presented at the National Workshop on "Agroforestry in the Amelioration of Wastelands" held in New Delhi in December, 1988. Shah argues that wasteland development efforts have focused unduly on technological questions while ignoring socio-cultural considerations which ultimately are far more critical to the success of failure of these schemes.

Dr. Shah will be in the United States until October 15 at the first address listed below. After that date he can be reached at the Institute:

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Forest Resources in Rural Development - Nepal

The Management of Forest Resources in Rural Development is a substantial report produced jointly by the International Centre for Integrated Mountain Development (ICIMOD) and the Nepal - Australia Forestry Project (NAFP). The contents of the report are summed up in the following "Key Points":

"This case study examines the features of indigenous systems of forest management in Sindhu Palchok and Kabhre Palanchok Districts and draws upon this analysis to examine externally-sponsored local organizations.

"The essential feature of indigenous systems is the presence of institutionalized norms based on a degree of consensus among users. Formal organizations, where they exist, are a superstructure (sometimes inessential) built onto this essential substratum. The absence of a formal organizational structure does not

mean that no local system exists; nor does the disappearance of the organizational superstructure constitute the disappearance of the system.

Committees are not often the locus of decision making in indigenous systems and it is a mistake to assume that the presence or absence of a committee equates to the presence or absence of an effective local organization.

In externally-sponsored systems formal organizations often exist without institutionalized norms or roles and, consequently these organizations often do not function effectively.

Failure to take adequate note of existing use-rights or to make sure that there is an adequate institutional basis for local organizations is a major limitation of attempts by outside agencies to set up effective forest management systems."

Fisher, R.J., Hukum Bahadur Singh, Deepak Raj Pandey & Helmut Lang. *The Management of Forest Resources in Rural Development: A Case Study of Sindhu Palchok and Kabhre Palanchok District of Nepal*, Mountain Populations and Institutions Discussion Paper No. 1, Kathmandu, ICIMOD, 1989. v. + 117 pp..

Anis A. Dani, who forwarded the report included the following information about the availability of the report.

"ICIMOD has only produced a limited number of copies at this stage. If there is greater demand, more copies can be made available. Inquiries should be addressed to the undersigned at ICIMOD.

This report is part of a series of case studies being conducted in China, Nepal, Pakistan, and, hopefully, Bhutan. A joint publication is planned on completion of the studies."

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Private Tree Planting - Nepal

Yam B. Malla evaluates an ongoing tree planting project in Nepal in *The Case for Placing More Emphasis on Private Tree Planting Programmes*. Private forests are one of the four components of Nepal's community-oriented forestry policy. Malla examined the efforts of the Pakhribas Agriculture Centre which he describes as "one of the few - possibly the only - project which has emphasized a private tree planting programme in a relatively structured manner." The core of the study was a survey of eighty rural households from four different panchayats.

Malla concludes that the programme has been a relative success, some 500 blocks of fodder and fuelwood trees have been established on private land and over 200,000 seedlings were distributed. He notes (see Shah's *Village Level Barefoot Foresters* above) that "the Centre's approach to hiring highly-motivated local persons to work as field staff in their own areas is probably the factor contributing most to its success." (Editor's emphasis) There were several problems however, including lack of suitable tree species for some farms, non-availability of adequate extension messages, and failure of some families to participate due to lack of suitable land on which to plant trees.

One of the author's conclusions is noteworthy. "(I)t appears that the present approach of community forestry development needs some modification." "The Centre, "which has been fairly successful in a programme which relies for its motivation on private gain, rather than public concern, has better prospects in the early stages of the Programme. Government's effort on the other hand, has been largely to motivate public opinion, and so far the establishment of Panchayat Forests and Panchayat nurseries have been the main approaches it has adopted to motivate the public. While it appears that the strategy needs to be flexible in order to meet the requirements of each panchayat, the government's overall effort in private and public forestry should be about equal rather than the present approach of emphasizing public forestry only."...Nevertheless, it is very important that private planting is not seen as the solution to all the forestry problems in Nepal. It addresses only a part of the problem and other issues and problems will still have to be resolved through community forestry programmes."

Malla, Yam B. *The Case for Placing More Emphasis on Private Tree Planting Programmes: A Case Study of Pakhribas Agriculture Centre's Private Tree Planting Programme*. Forestry Research paper Series No. 13. Kathmandu, HMG-USAID-GTZ-Ford-Winrock, 1989. iv + 47 pp..

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Watershed Management in Haiti

Tobey Pierce's *Watershed Management in Haiti: The STAB Experience* is a case study of the Haitian government's Secretariat Technique a l'Aménagement des Bassins Versants (STAB) activities "to develop and implement a coordinated national watershed and natural resource program that would reverse the degradation of Haiti's hillsides."

The report sketches the extent of erosion and natural resource degradation in Haiti and briefly summarizes the history of watershed management in that country. Pierce describes the institutional history of STAB and reviews its performance over a two-year period. He concludes with a useful section on "Lessons Learned." It is instructive to note that many of the lessons appear to be organizational - relations with NGO's and with other government agencies - rather than operational. The author includes a brief postscript noting how political turmoil in Haiti has terminated much external funding for resource management programs such as STAB.

Pierce, Thomas H., *Watershed Management in Haiti: The STAB Experience*. Washington, Development Alternatives Inc, 1988. 36 pp.

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Sustainable Development & Intergenerational Equity

John Pezzy, visiting Harkness Fellow in the Environment and Behavior Program at the University of Colorado, forwarded two challenging papers which reflect his recent work. He describes them as follows: "The main innovation in these papers... is to try to combine both non-renewable resource depletion and environmental quality into an optimal economic growth model, by treating the depletable resource as both a private input to the production process and a public environmental good (through either an 'environmental amenity' effect on the utility function or an 'environmental productivity' effect on the production function). The results provide a very simplified rationale of how pure environmental policy, aimed at internalizing environmental externalities, can also have the automatic effect of slowing the depletion of non-renewable resources and making economic development more sustainable."

The first paper, "Defining sustainable development: intergenerational equity, environmental amenity and environmental productivity" is 18 pages long. An abstract follows:

"Sustainable development (SD) is defined as achieving non-declining utility per capita over the indefinite future. Proposing SD as a goal is therefore giving priority to intergenerational equity. Other

definitions of SD are shown to be inappropriate to the policy concerns that underlie SD. Yet other definitions, such as sustained yield management of natural resources, are derivable from non-declining utility. Fundamental questions are raised about the relationship between the SD criterion, and the conventional optimality criterion of maximizing the present discounted value of utility. These questions go to the heart of the neoclassical theories of utility functions and collective choice.

"Applying SD to simple cake-eating models of economic growth shows that sustainability can always be achieved if technological progress is high enough in comparison with the utility discount rate, and vice versa. When environmental resources affect the economy as a whole, either by their direct amenity value or as inputs into the productive process, sustainability is generally harder to achieve, and so is social optimality. Resource conservation policies designed to achieve optimality may in passing achieve sustainability, in which case separate policies for SD are unnecessary. Or, the optimal path itself may be unsustainable, in which case stronger policy intervention is required to achieve sustainability. Such intervention can be justified only by an appeal to intergenerational equity."

The second paper "Economic analysis of sustainable growth and sustainable development", developed from the first, is considerably longer at 60 pages. Prepared for the Environment Department of the World Bank and discussed there last November it takes the basic ideas of the first paper and develops them in more detail. John describes his own work as "trying to use pure neoclassicism to see how policies dear to the heart of conservationists can be justified.", though he obviously is not an ideology.

Network members interested in such an approach or desiring information about these two papers, should contact the author directly:

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