



The Common Property Resource Digest

No. 2

Devoted to community-based resource management

March 1987

At Work With Common Property

Welcome to *Tropical Coastal Area Management!*

Newsletters intended to improve communication between researchers and resource managers appear to be high on many people's priority lists. A few days after we mailed the first issue of the *CPR Digest*, our mailbox contained the first issue of a sister publication from the Philippines. Entitled *Tropical Coastal Area Management* and featuring attractive layout and photos, it promises to be a valuable source of information for many. The publisher is the ASEAN/USAID Coastal Resources Management Project (CRMP) which is implemented by the International Center for Living Aquatic Resources Management (ICLARM) in Makati, Metro Manila.

The purpose of this new newsletter is stated as follows. "... a need was discerned for a forum to provide researchers, planners, managers, and other professionals with interests in coastal resources management to communicate with one another while informing them collectively of relevant developments and activities both within and outside the region. It is the newsletter's primary objective to provide such a forum." The first two issues came out in October and December of 1986. Three issues per year are planned for the remaining three years of the CRM project. Each issue is organized around one major story focusing on either key issues in coastal resource management or on specific sites being used in management pilot projects. Other features include profiles of participating institutions, country updates, brief news items, and an information section listing publications of interest as well as upcoming conferences.

The editors solicit articles of varying lengths, news items, and notices of conferences. As with the *CPR Digest*, there is no subscription fee. "The Newsletter is

distributed free of charge to individuals and institutions involved in coastal resources research and management."

All in all, *Tropical Coastal Area Management* promises to be an extremely informative and useful publication. Since many coastal resources are common property, we are sure that it will be useful to many CPR network members. We welcome the efforts of our colleagues at ICLARM and wish them the best of success as they go about their work.

Requests to receive the newsletter, submissions, and other correspondence should be addressed to:

The Editor
Tropical Coastal Area Management
ICLARM
MC P.O. Box 1501
Makati, Metro Manila
Philippines

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ASEAN-US Coastal Resources Management Project

Tropical Coastal Area Management is but one activity of the CRMP. This project is a cooperative program involving the Association of Southeast Asian Nations and the United States. The U.S. Agency for International Development has provided the bulk of the funding for a four year period, and execution is carried out by ICLARM. The first major component of the project is to develop site-specific resource management plans. National agencies from each of the member countries, Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand all are participating in development of these plans. In this context, major research activities are to take place in Lingayen Gulf in the Philippines, Cilicap off southern Java, the southern tip of Johore and the Strait of Johore, in addition to Phangnga Bay and Ban-Don Bay in Thailand.

Education, information dissemination, and manpower training form the second component of the project. *Tropical Coastal Area Management* falls into this category as do a number of short and long-term training activities.

Dr. ChuaThia-Eng is the project coordinator at ICLARM and will be happy to give additional information to anyone who is interested. He can be contacted at:

Dr. ChuaThia-Eng
Project Coordinator
ASEAN/US CRMP
ICLARM
MC P.O. 1501
Makati, Metro Manila
Philippines

Marine Conservation & Development Program

Silliman University in Dumaguete, Negros, the Philippines is participating in the CRMP by implementing a two-year project to enable local communities to protect their marine resources. Their program has been titled the Marine Conservation and Development Program (MCDP). Specific problems in the project area include destruction of coral reef habitat, overfishing, and declining catches. The key premise of the project is that local communities must

be involved in and committed to resource conservation and management. While based at Silliman University and utilizing co-directors from the departments of social work and biology, the project promises to be much more than a traditional research effort.

The main thrust involves work in project communities to build core groups, as well as formalize and strengthen organizations. Specific activities involve establishment of marine reserves, stocking selected species, developing tourist management programs to benefit local communities, and facilitating the development and adoption of marine conservation programs by municipal councils. The co-directors are Ester Delfin and FelinaTiempo.

The *Common Property Digest* is published by the Center for Natural Resource Policy and Management of the University of Minnesota. Its purpose is to disseminate information dealing with common property resources, their management, and policies related to their use. It also seeks by various means to foster communication between professionals who work with common property resources as policymakers, administrators, researchers, and educators.

The Board for Science and Technology in International Development of the National Research Council, The International Union for Conservation of Nature and Natural Resources, and Winrock International collaborate in the publication of the *Digest*. Publication is made possible by a grant from the Ford Foundation.

Please submit news items, announcements, suggestions, and questions to:

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Common Property Digest
Dept. of Agricultural and
Applied Economics
332E Classroom-Office Building
1994 Buford Ave
St. Paul, MN 55108, U.S.A.
Telephone (612) 625-7019

Additional details about this effort, including preliminary lessons learned, are presented in the cover article of *Tropical Coastal Area Management*, Vol 1, No. 2, December 1986. It will also be the subject of a major paper to be presented at the Coastal Zone '87 conference to be held in Seattle in May, 1987. More information can be obtained from the co-directors or project consultant at the following addresses:

Ester Delfin
FelinaTiempo
MCDP
Silliman University
Dumaguete, Negros
Philippines

Allan White
ASEAN/USAID CRMP
ICLARM
MC P.O. Box 1501
Makita
Metro Manila
Philippines

Tropical Forest Preserve

Anyone who is interested in preservation and management of forest resources in the humid tropics should be aware of Beni Biological Station. This 135,000 hectare reserve is located near the town of San Borja in northeastern Bolivia. Administered by the Academia Nacional de Ciencias de Bolivia, the Station was declared a Biosphere Reserve by UNESCO in 1986.

Research in the areas of biology, anthropology, and other disciplines is a key function of the station in addition to its mandated role of serving as a nature reserve. Scientists interested in carrying out investigations in many areas including ethnobiology are encouraged to contact the station director. The nearby presence of a facility owned by The Nature Conservancy International adds a touch of synergy to many activities. Information about research possibilities at these locations is available from the following addresses:

Estacion Biologica Beni
Academia Nacional de Ciencias de Bolivia
Av. 16 de Julio-No. 1732
Casilla 5829
La Paz - Bolivia
Telephones 379681 or 363990

The Nature Conservancy International
1785 Massachusetts Ave N.W.
Washington D.C. 20036 U.S.A.
Telephone (202) 483-0231

Notes on Communal Resource Management in India:

(Dr. M. Taghi Farvar, Senior Advisor on Sustainable Development for the International Union for Conservation of Nature and Natural Resources (IUCN) prepared the following article based on conversations with Dr. Sudhakar, Social Anthropologist and Dr. Sandhya Chatterjee, Geographer. Both of these scientists are with Development Alternatives in India.)

"In many states of India, each district consists of a number of *tehsils*, each *tehsil* contains a number of blocks, and each block a number of villages. The *tehsil* level is the older of the units. At village level, there is a system called *sar-panj* which corresponds roughly with *sar-boluk* or *sar-boneh* systems in Iran. (*sar* means "head") The *sar-panj* is often charged with regulating irrigation and other agricultural matters on a communal basis.

Similar systems are found in Assam, one of the more interesting ones being the *dong* system where a number of people are elected to serve on a *dong* committee for a year. In Bhutan, there are water supply as well as irrigation and maintenance systems which are similar to the *boneh* systems. Every household participates.

Pasture and forest lands are often communal property. The *Chipko* movement, which is a communal forest protection and management system has spread to many parts of the country.

Transhumance occurs in both Sikkim and Kashmir. In Sikkim, a system called *peepon* is used. The *peepon* is a village chief, elected annually, who convenes village meetings at which decisions are made regarding the dates of transhumant movements, crop rotations, and planting and harvesting dates. The Guajar, a livestock-raising tribe in Kashmir, follow a similar system, engaging in transhumance during the summer. They also produce butter and other dairy products communally.

In northeastern India, there is a communal system of shifting cultivation called *jhuming*, which is almost dying out. The same is true in Andhra Pradesh, where a wide variety of crops are grown in the *bodo* cultivation system. Here the local university is doing studies of these systems.

Ladakh is an area where there is substantial communal labor. Harvesting is done in a group, which proceeds down the mountain slopes together. Similar activities occur in Madhya Pradesh.

There is such a variety of community-based traditional resource management systems in India, that it seems to warrant examination in a significant book. The IUCN/CEP plans to hold a workshop on common property resource systems in the Indian subcontinent as a whole, including Nepal, Bhutan, Bangladesh, Pakistan and perhaps other countries."

(Editor's note: We will try to publish more information on this proposed workshop when we receive it.)

CPR at the Indian Institute of Management

Dr. Anil K. Gupta, professor at the Indian Institute of Management in Vastrapur, Ahmedabad has provided interesting information about his CPR related work at that institution as well as a list of publications available from IIM. Some of these are noted in the publications section of this issue. Dr. Gupta is working with common property forest resources and with the general question of rule-making. He states, "We are working on the issue of rules about rule making and general theory of rule making in the context of common property resources. I would appreciate any information on the subject available with you or your readers." Dr. Gupta can be reached at the following address:

Professor Anil K. Gupta
Indian Institute of Management
Vastrapur, Ahmedabad -380 015
INDIA

CAMPFIRE in Zimbabwe

In Zimbabwe, the Department of National Parks and Wildlife Management has designed a program to conserve wildlife and other common property resources while benefiting communities in regions

where these resources are located. About 130,000 square kilometers are targeted by the program, most in areas where rainfall is low and soils poor relative to the rest of the country. The program is entitled Communal Areas Management Program for Indigenous Resources or CAMPFIRE.

Announced goals include obtaining "the voluntary participation of communities ...", introducing "... a system of group ownership with defined rights of access to natural resources for communities in the target area" and providing "... the appropriate institutions under which resources can be managed and exploited by resident communities for their own direct benefit." The final version of the plan was published in April, 1986, and implementation is underway. If possible we will publish a progress report on this effort at some later date. More information can be obtained from:

R.B. Martin (Principal Ecologist)
Branch of Terrestrial Ecology
Department of Natural Parks &
Wildlife Management
P.O. Box 8365
Causeway, Harare
ZIMBABWE

Territorial Fishing Use Rights In Peru

Mr. Dominique Leveil at the School of Community & Regional Planning of the University of British Columbia is doing dissertation research on territorial use-rights in fishing (TURF's) and small-scale fisheries management. His geographic focus is on the Peruvian side of Lake Titicaca and he finds that these customary rights are a viable component in management strategies for small scale fisheries of this type. Some of his initial findings were presented in August 1986 at a conference in Rimousky, Quebec. The paper is entitled "Territorial Use Rights in Fishing (TURFS) on Lake Titicaca (Peru)" Mr. Leveil can be contacted at:

School of Community and Regional Planning
University of British Columbia
Vancouver B.C.
Canada V6T 1W5

IIASA and Acid Rain

Degradation of European forests as a result of acid rain and other pollution is one of the major environmental problems facing that continent. The International Institute for Applied Systems Analysis (IIASA) is addressing that problem with its study of Forest Decline in Europe, headed by Dr. Sten Nilsson.

IIASA is an interdisciplinary research institute with headquarters in Austria. It is supported by the national academies of science of some sixteen countries. Fourteen are east or west European, the other two participants being the U.S. and Canada. The Institute's research focuses on four areas, the environment, population, technology-economy-society, and system and decision science.

The objective of the forest decline study, according to its project proposal, is to "gain an objective view of the future development of forest damage attributed to air pollution and changes of climate and of the effects of this damage on the forest sector, international trade, and society in general."

This information gained is intended to be of use to policy makers as they attempt to design measures to deal with this trans-national problem. Project activities involve collection of data on the extent of actual damage to forests, and use of this data in a set of simulation models which will examine the effects of continued forest degradation on wood supplies and other variables. Output from these models will be used to formulate a series of possible scenarios which will be evaluated in a policy workshop to determine feasible policy responses.

The project began in mid-1986 and is scheduled to run for two years. Anticipated products of the project include major research papers and other reports. More information can be obtained from:

Prof Sten Nilsson
IIASA
Schlossplatz 1
A-2361 Laxenburg
Austria
Telephone (02236)71521*0
Telex: 079137 iiasa a

PVO's and Common Property

The role of private, voluntary organizations (PVO's) in development work has earned increasing recognition in recent years. These organizations are often able to accomplish significant goals with minimal resources and are often more effective at the grass-roots level than larger governmental bodies. CODEL (Coordination in Development) is a PVO with a strong interest in fostering effective and stewardly use of natural resources. Among other activities, it helped sponsor a workshop on People's Participation in Development and Management of Natural Resources, held in St. Lucia in 1985. Other sponsors included the Caribbean Conference of Churches, the Caribbean Conservation Association, and the Forestry Division of the Government of St. Lucia. While many of CODEL's activities center around health and community development activities, all stress the need to consider environmental implications of development activities. They currently assist activities in 45 countries, and do work collaboratively with national and multi-lateral development agencies. More information can be obtained from:

CODEL
79 Madison Avenue
New York NY 10016 U.S.A.

Scottish Clearances

The privatization of common lands in Great Britain is now largely the subject of economic history, not current events. But attempts to clear or privatize some of the few remaining parcels of common lands still occur sporadically. The British newspaper, *The Observer*, reported in its October 19, 1986 issue that crofters who pastured their sheep on a 67000 acre estate on the island of Harris in the Outer Hebrides are fighting an attempt by the new landowner to turn it into a private deer-shooting preserve. The case is made interesting by the fact that the landlord claims to base his actions on the need for environmental preservation, the sheep are allegedly overgrazing the estate! The question is likely to be settled in the courts, but is a good demonstration of the fact that while competing uses may change, it is difficult to separate social and environmental questions.

About Conferences

Past Conferences

Ottawa World Conservation Strategy

The World Conservation Strategy conference held in June 1986 in Ottawa Canada will likely be remembered as a major landmark in environmental strategy thinking. First of all, it was a major conference with over 500 participants representing some 100 countries. But more importantly, it focused on the need to integrate human and economic development with resource conservation and environmental protection. In the words of one observer, the conference "pointed out how to reconcile human needs and social equity with the integrity of the environment and natural resources." In the six years since the WCS was first laid out, it was frequently criticized for its insensitivity to human issues in conservation. The tone of discussion at Ottawa, and the initiatives which resulted from the conference clearly show that this criticism has been acknowledged by individuals and institutions concerned with conservation.

Much of the conference was devoted to reporting and evaluating actions taken in implementation of the WCS over the past six years. Some 30 countries which have implemented National Conservation Strategies reported on their successes and failures. Other workshops were held on a variety of topics, the common task being a requirement to report back recommended changes or improvements in the WCS to the participants as a whole.

The conference will result in at least two tangible results. First of all, the Ecosystem Conservation Group, which consists of UNEP, FAO, UNESCO and the IUCN, will draft a formal revision of the WCS to reflect changes recommended at the Ottawa conference. Secondly, a series of books dealing with sustainable development are to be published under the auspices of the IUCN. Negotiations are under way with Cambridge University Press to handle production and distribution.

A number of other proposed measures were adopted. These include a proposal to form an Environmental Amnesty organization similar to Amnesty International, which would publicize actions or policies which cause flagrant damage to the environment. Others called for drafting of an

International Code for Equitable and Sustainable Development, and promotion of grass-roots level People's Associations for Sustainable Development.

Organized by the International Union for Conservation of Nature and Natural Resources - Commission on Environmental Planning (IUCN-CEP), the conference was sponsored by a international organizations covering a broad range of environmental and development concerns. These included United Nations agencies such as UNDP, FAO, UNEP, WHO, and UNESCO as well as the World Wildlife Fund, the IUCN, and a number of Canadian private and public institutions. Funds were also made available by the Netherlands, Norway, Sweden, and the United Kingdom. Participants came in many roles, some as representatives of agencies of their governments, others participated on behalf of private groups or international organizations, still others as concerned individuals.

Upcoming Conferences

Forests, Habitats and Resources:

The Forest History Society and American Society for Environmental History will hold a major conference organized around the theme noted above at Duke University from April 30 to May 2, 1987. The program includes a special workshop devoted to CPR management, beginning on April 30, at which time Pauline Peters, Ram Guha, William Burch, and Sherry Olson will present papers. These invited papers will be followed by an open workshop. Numerous other sessions may be of interest to network members. The following list of a few of the session titles gives some idea of the topics available.

- "Forest Destruction and Social Upheaval in Latin America"
- "Management of the Environment in Africa"
- "Comparative Colonization and Settlement on Asian Forested Frontiers"
- "Human Impact on River Systems: The Eastern U.S."
- "Shifting Cultivation in South and Southeast Asia"
- "Global Issues and Economic Trends in Resource Management"

The registration fee through March 15 is \$65.00, increasing to \$75.00 after that date. Student registrations are available at \$20.00 with certification by a department chair. Registrations or requests for more information can be addressed to:

Forest History Society
701 Vickers Avenue
Durham North Carolina 27701 U.S.A.
Telephone (919) 682-9319

Governing the Global Commons:

Anyone who has the good fortune to be in (or near) Paris in the spring should consider attending a public forum to be held on May 20 entitled "Outer Space and Ocean Space: The Governance of the Global Commons." This event will follow a private seminar to be held the day previous and will consist of a number of panel presentations including "The Space-Oceans Analogy" and "Governing the Global Commons." Obviously these topics focus on common property in a very broad sense, but do so in recognition of common themes of shared use and shared responsibility.

The event is organized by the Hubert Humphrey Institute of Public Affairs and the Lindbergh Foundation in honor of the 60th Anniversary of Charles Lindbergh's solo flight from New York to Paris. The public forum will be held in the Hotel Lutetia beginning at 9:00 AM on the morning of May 20. More information is available from:

Hubert H. Humphrey Institute of Public Affairs
Humphrey Center
301 19th Avenue South
Minneapolis Minnesota 55455 U.S.A.
Tel. (612) 625-0669

Liquid Common Property:

Persons interested in management of groundwater or CPR aspects of stream uses may wish to consider the following upcoming meetings:

International Groundwater Conference: Groundwater and the Environment. June 22-26, 1987, Kuala Lumpur, Malaysia. For more information contact:

Secretary, Groundwater Conference, 1987
Department of Geology
Faculty of Physical and Applied Science
Universiti Kebangsaan Malaysia
4300 Bangi
Selangor Malaysia

United Nations International Symposium on Ground Water Economics. October 19-23, 1987, Barcelona Spain. For more information contact:

Curso Internacional de Hidrologia Subterranea
GWE-87
Beethoven, 15,3.
08021 Barcelona, Spain

International Symposium on River Pollution Control and Management. October 26-29, 1987, Shanghai China. For more information contact:

The Secretariat
International Symposium on River Pollution Control and Management
Room 3-205
Shanghai Association for Science & Technology
47 Nanchang Road
Shanghai China

AEA-AERE Winter Meetings

The December 1987 joint meetings of the American Economic Association and the Association of Environmental and Resource Economists will feature an invited paper session devoted to "Analytical Approaches to Environmental and Resource Problems in Developing Countries." These meetings will be held in Chicago Illinois on December 28-30, 1987. The session is being organized by Jerry Milliman from the University of Florida and will be chaired by Robert Dorfman from Harvard. More details on presenters and papers will be given in the June issue of the Digest.

Common Property Publications

Common Property and Revenue

Taking a broad view, "global common property" as the "common heritage of mankind" is explored in a recent World Bank -International Monetary Fund publication. Network member Per Magnus Wijkman's paper, "The Global Commons as a Source of Revenue" appears in a recent book on development aid policy. In it the author explores the possibility of funding international development activities or transfers to poor countries from the use of global common property, including seabed minerals. Dr. Wijkman is on the staff of Sweden's national Board of Trade in Stockholm.

Wijkman, Magnus, "The Global Commons as a Source of Revenue", in *Development Aid: The Key Issues*. Washington D.C., IBRD, 1986

Available from:
World Bank Publications
1818 H Street
Washington D.C. 20433 U.S.A.

Fishery Management and Other Resources

Dr. Jon Sutinen of the University of Rhode Island and Dr. Clem Britzter of NOAA both sent an interesting document published by the National Oceanic and Atmospheric Administration of the United States. Entitled *Fishery Management - Lessons from Other Resource Management Areas*, the paper cites management approaches from eight other areas, including forestry, grazing lands, migratory birds, and air pollution. As suggested by the title, the purpose of the study was to see if useful lessons for fisheries management could be drawn from seemingly unrelated areas of natural resource use. The findings of the study are summarized in approximately 12 pages. The authors classify resource management policy approaches into four groups, limits on factor inputs, direct control of output, tax programs, and areal rights. Essential features of how these four alternatives are used in managing the eight resources under study are presented in a series of appendices. There is a very useful bibliography with some 150 citations. At present, the paper is available only as a NOAA Technical Memorandum, but Dr. Britzter informs us that it may be available through the National Technical Information Service at some time in the future.

National Oceanographic and Atmospheric Administration, *Fishery Management - Lessons from Other Resource Management Areas*. Washington D.C., NOAA, 1985.

Available from:

NOAA
Office of Policy and Planning
Washington D.C. 20230 U.S.A.

Common Property and Population Growth

Dr. N. S. Jodha examines linkages between population growth, technological change, land reform, and the decline of common property resources in a recent article. Entitled "Population Growth and the Decline of Common Property Resources in Rajasthan, India, the article appeared in *Population and Development Review*, Vol. 11, Number 2, (June 1985). Dr. Jodha argues that while well-intentioned, land reform in Rajasthan deprived the region of its comparative advantage in livestock raising. He also calls for a ban on further curtailment of common property resources through privatization.

In a related article, Dr. Jodha examines the importance of common property to the rural poor in India. "Common Property Resources and Rural Poor in Dry Regions of India", published in the *Economic and Political Weekly*, Vol XXI, No. 27, (July 5, 1986) presents quantitative data on from 80 villages in seven Indian states. The data suggest that the contribution to poor households from CPR is more significant than benefits from anti-poverty programs and that common property is of much greater importance to poorer households than to richer ones.

African Land Tenure

The Land Tenure Center at the University of Wisconsin continues to turn out a great deal of good work dealing with land tenure, resource control, and common property. Recent papers include the following:

Ridell, James C. *Land Tenure in Central Bandundu: A Reconnaissance for the Agricultural Production and Marketing Project*. No. 102, April 1986.

Bennett, John W.; Lawry, Stephen W.; Ridell, James C. *Land Tenure and Livestock Development in Sub-Saharan Africa*. March 1986.

Bruce, John W. *Land Tenure Issues in Project Design and Strategies for Agricultural Development in Sub-Saharan Africa*. March 1986.

Bloch, Peter C. *Land Tenure Issues in River Basin Development in Sub-Saharan Africa*. Land Tenure Center Research Paper No. 90, April 1986.

For information on how to obtain any of these reports, contact:

Land Tenure Center
1300 University Avenue
University of Wisconsin
Madison WI 53706

Alaskan Fisheries

Dr. Oran Young from the Center for Northern Studies in Wolcott Vermont has conducted an extensive analysis of limitation of entry to fishing in the U.S. state of Alaska. These measures were implemented by Alaska in 1973 and Dr. Young was able to review nearly a decade of succeeding experience. His study, published as a journal article in 1983 is valuable not only as a good fishing case study, but in a wider sense as an examination of the real-world effects of a CPR policy initiative. The article reviews basic assumptions about the nature of common property and describes Alaska's fisheries. The permit policies adopted by the State legislature are detailed and resulting effects are described and analysed. Young concludes that the program has been a mixed success with a number of unforeseen and unintended effects. Management of catch quantities is easier, returns to permit holders may be more stable or assured, and some existing fishermen many have been "protected" from outside competition. On the other hand, fishing is becoming more professionalized and concentrated in fewer hands. Young argues that this may be to the detriment of small existing communities and native groups. His overall conclusion is that "...

though limited entry has had a substantial impact . . . , the regime has encountered serious problems and the future prospects . . . are not auspicious. Nevertheless, the alternatives to some form of limited entry . . . are not particularly attractive."

Young, Oran R., "Fishing by Permit: Restricted Common Property in Practice", *Ocean Development and International Law Journal*, Vol 13 #2 1983.

Optimal Firms on the Commons

Anyone interested in the pure economic theory of common property allocation should examine a brief article by Cornes, Mason, and Sandier in the *Quarterly Journal of Economics*.

The authors develop a theoretic model to determine the optimum number of firms using a commons when the output is sold in an imperfectly competitive market. They argue that this optimum depends largely on the elasticity of input productivity and the price elasticity of market demand. No empirical work is presented. The full citation is:

Cornes, Richard, Charles F. Mason, & Todd Sandier, "The Commons and the Optimal Number of Firms", *The Quarterly Journal of Economics*, Vol. CI, #3, August 1986.

The Ecological Basis of CPR

At the other end of the disciplinary spectrum from abstract economics, a recent article in *Science* deals with energy flows in a pastoral grazing system. Coughenour, et.al. examined annual energy flows for the arid tropical ecosystem inhabited by the Ngisonyoka people of Kenya. They conclude that "Energy utilization by the Ngisonyoke is therefore consistent with ecological patterns that promote rather than diminish ecological stability under stress."

Coughenour, M.B., J.E. Ellis, D.M. Swift, D.L. Coppock, K. Galvin, J.T. McCabe, & T.C. Hart, "Energy Extraction and Use in a Nomadic Pastoral Ecosystem", *Science*, Vol 230, #4726, 8 November 1985.

Property Rights & Agricultural Uses

Sandra Batie, a professor of Agricultural Economics at Virginia Polytechnic Institute in Blacksburg Virginia has recently examined the agricultural policy implications of changing property rights in North America. She argues that US agricultural policies are shifting from a focus on the farmer to a focus on natural resources and the environment. After contrasting different methodological approaches in natural resources research and policy analysis, Batie argues for an institutional approach. She concludes by detailing a research agenda to be explored from an institutional viewpoint.

Batie, Sandra S., "Alternative Views of Property Rights: Implications for Agricultural Use of Natural Resources" in *American Journal of Agricultural Economics*, Vol 66, No. 5, December 1985.

CPR In India

Dr. Anil Gupta, together with colleagues and students at the Indian Institute of Management, have done a number of studies involving common property resources, especially in the arid regions of India. Two were presented at the BOSTID CPR conference at Annapolis in 1985 and will be included in the proceedings of that conference. Others are available from the author, including the following:

"Management Issues in Watershed Development in Arid Regions", 1980.

"Socio-Ecology of Natural Stress, Technological Change and Human Response in Bhutan", 1985.

"Dynamics of Access Differential in Semi-Arid Regions: A Socio-Ecological Perspective on Pasturelands", 1984.

Copies of these publications, a complete list of other papers, and more information about the research tasks being accomplished at IIM are available from:

Dr. Anil K. Gupta
Indian Institute of Management
Vastrapur
Ahmedabad 380 015
India
Telephone: 407241
Telex 121 351 IIMA IN

East African Rangeland

The effects of population pressure on a common property resource are the subject of a recent article in *Population and Development Review*. L.M. Talbot reviews the process of degradation of rangeland in East Africa. He focuses on Maasailand in southern Kenya and northern Tanzania. In addition to describing the ecosystem and its inhabitants, the author critically evaluates the results of development assistance efforts in this region over the past 25 years. Among other conclusions, he argues that these the carrying capacity of these rangelands under any management system has been exceeded, and that continued population growth will have to be accommodated by provision of employment and living opportunities in another location..

Talbot, L.M., "Rangeland Degradation in East Africa", *Population and Development Review*, Vol. 12, #2, September, 1986,

Community Irrigation Management

Community management of irrigation systems was the subject at a recent symposium organized by the National Institute of Bank Management and sponsored by USAID - New Delhi. The objective of the symposium was to identify constraints on community management as well as necessary conditions for its success. Nine papers were presented including seven case studies of actual systems. These included tank and tube-well systems as well as river systems. A typescript volume containing these papers was produced by the Institute.

National Institute of Bank Management, *Symposium on Community Management in Irrigation Systems*. Pune India, NIBM, 1986.

For information on the availability of this report, contact:

National Institute of Bank Management.
Kondhwe Khurd
Pune 411 022
India

Small Scale Forestry

Two private voluntary organizations, Coordination in Development (CODEL) and Volunteers in Technical Assistance (VITA) jointly published a small booklet

entitled *Environmentally Sound Small-Scale Forestry Projects*. The authors are Peter Ffolliott and John Thames, both professors at the School of Renewable Resources of the University of Arizona. As the subtitle "Guidelines for Planning" suggests, the book is a primer intended for non-academic development workers, particularly at grass roots levels.

A list of chapter headings illustrates the contents well. They include "A Planning Process", "Forestry and the Environment", "Understanding Forestry Practices", and "Understanding Institutional Limitations". These are followed by specific chapters on multiple-use forestry, production of wood products, fuelwood management, agroforestry, shelterbelts, and reforestation. Written for intelligent non-specialists, the chapters are clear, straightforward, and illustrated with effective line drawings. It is apparently still available from VITA, no price is stated.

Ffolliott, Peter F., and James L Thames,
Environmentally Sound Small Scale Forestry Projects.
Arlington VA, VITA, 1983.

Contact:

VITA Publications
1815 North Lynn Street
Suite #200
Arlington VA 22209 U.S.A.

Agroforestry Bibliography

Fortmann, Louise and James Riddell, et al. *Trees and Tenure: An Annotated Bibliography for Agroforesters and Others*. Madison Wisconsin, Land Tenure Center, 1985. 136 pp. Price not stated.

This slim volume, as the one before, could be included either here in the "Publications" section or in the following section on books. It merits special consideration because of its obvious potential utility for many people. As stated in its subtitle, it is an annotated bibliography of several hundred books, reports, and articles pertaining to agroforestry. The annotations are categorized geographically with separate sections for Africa, Asia, Latin America, and Oceania. All notes are numbered and there are separate indexes by country and tree species as well as the general index. Virtually all of the works cited are in English with the few exceptions being in French. The annotations consist of one or two paragraphs, and are summaries rather than critical evaluations. *Trees and Tenure* would be a

valuable reference for anyone doing research in agroforestry and could certainly reduce time devoted to a literature search. It is unfortunate that this work has not gotten broader attention. Published jointly by the Land Tenure Center and The International Council for Research in Agroforestry, it is available from the former at the following address:

The Land Tenure Center
1300 University Avenue
University of Wisconsin
Madison Wisconsin 53706 U.S.A.

FAO Community Forestry

Two substantial volumes dealing with community forestry in Asia are available from the Food and Agriculture Organization. The first is entitled *Community Forestry: Some Aspects*, and was published in 1984. The second, *Community Forestry: Socio-Economic Aspects*, was produced a year later.

Both are conference volumes which compile papers presented at Regional Workshops on Socio-Economic Aspects of Community Forestry held in Korat and Bangkok Thailand, respectively in 1983 and 1984. These conferences were also sponsored by the East-West Center from Honolulu Hawaii, U.S.A.

The first contains fifteen papers on topics varying from fuelwood supply to soil conservation to enlisting farmer's participation. The second is more extensive, containing 23 papers organized geographically into sections on India, Indonesia, Nepal, Philippines, Thailand, and Sri Lanka. Again, the topics are eclectic, but with a larger proportion of case studies.

For copies or information, contact:

Regional Forestry Economist
FAO Regional Office for Asia & the Pacific
Maliwan Mansion
Phra Atit Road
Bangkok Thailand

About Books

Book Review

Clark, William C. & R.E. Munn, *Sustainable Development of the Biosphere*. London & New York, Cambridge University Press, 1986. 489 pp., charts, tables.

Sustainable Development is a massive work containing a wealth of information and analysis by distinguished scientists. It is a collection of papers, written for the feasibility study of the same name organized by the International Institute for Applied Systems Analysis in 1983.

Seventeen papers are contained in five chapters entitled "Overview", "Human Development", "The World Environment", "Social Response", and "Useable Knowledge." All papers but the introductory one are followed by a brief commentary.

In his introduction, subtitled "Themes for a Research Program", project leader W. C. Clark argues that a global environmental program requires four characteristics. It must be synoptic and directly address many complex interdependencies, must have a long-term time horizon and must address regional or global as opposed to national problems. Finally, a management orientation is required, research must be planned so as to produce knowledge that is useful. The purpose of the collected papers is to "provide innovative points of departure for the planning of a specific research program."

Clark continues with an overview of human-environmental interaction problems, and then provides an integrative preview of subsequent chapters. Some of these, by the very nature of their subject matter, are of greater interest to network members than others.

H.A. Regier and G.C. Baskerville, for example, focus on redevelopment of degraded systems, drawing their examples from New Brunswick forests and Great Lakes fisheries. After reviewing historic experience, the authors generalize about redevelopment. This portion contains some excellent observations on the practical political economy of conservation. They note "that the transition from development to redevelopment necessarily involves considerable tension" between members of different involved groups. They also argue strongly that redevelopment plans must provide for specific actions in specific locations during specific time periods. If thinking globally (or regionally) involves

drawing only of general region-wide goals, without specific local action, desired results will not be met.

Pierre Crosson examines the adaptation of agriculture to tightening environmental constraints by using an induced innovation model. He argues that while agricultural pressure on the biosphere will continue to increase over the next 75 to 100 years, eventual perception of resource scarcity will cause innovative adaptation which will reduce resource intensity of agricultural production. Crosson apparently views many resources as not yet contributing fully to human welfare. For example, he delineates the "conditions for the successful opening of the Latin American and African frontiers." (pp 130-131) Similarly, he seems to view North American agriculture as being environmentally quite benign. "By comparison (with erosion), damages imposed by fertilizer, pesticides, and salinity ... are relatively small and likely to remain so." (p. 121)

Generally however, his viewpoint is moderate, and his optimism suitably qualified. He does a good job of explaining the induced innovation model to non-economists and of applying it to the possible transition of agriculture to sustainability. But I fear that some colleagues in the natural sciences may dismiss him as being overly cheerful about the prospects for that transition.

Articles in the succeeding section on "The World Environment" are generally less optimistic. For example, in "Impact of human activities on climate- a framework", R.E. Dickinson concludes that there is potential for substantial, possibly traumatic, disruption of climate as a result of human activity over the next 100 years.

Overall, the strong point of this volume is the generally successful way in which the contributors communicate viewpoints from their own disciplines to colleagues from other disciplines or to laypersons. It is attractively laid out with useful illustrations and tables, and would serve as an excellent reference for undergraduate courses or interdisciplinary seminars at the graduate level, though its size and probable cost will likely discourage such use. It certainly will serve to increase the level of mutual understanding between scientists on questions of sustainable development.

(Reviewed by the editor)

Books Received

Books listed in this section have been received by the editor and been sent out for review.

Workman, John P., *Range Economics*. New York, McMillan, 1986. 217 pp. \$34.50

Plucknett, Donald L, Nigel J.H. Smith, J.T. Williams, and N. Murthy Anishetty, *Gene Banks and the World's Food*. Princeton NJ, Princeton University Press, 1987. 247 pp. \$35.00

Easter, K. William ed., *Irrigation Investment, Technology, and Management Strategies for Development*. Boulder Colorado, Westview Press, 1986. 270 pp. \$27.50

Easter, K. William, John A. Dixon, & Maynard Hufschmidt, editors, *Watershed Resource Management: An Integrated Framework With Studies From Asia And The Pacific*. Boulder Colorado, Westview Press, 1986. \$24.00

Dorcey, Anthony H.J., *Bargaining in the Governance of Pacific Coastal Resources: Research and Reform*. Vancouver, Westwater Research Center, 1986.

Brower, David J. and Daniel S. Carol, editors, *Managing Land Use Conflicts: Case Studies in Special Area Management*. Durham North Carolina, Duke University Press, 1987. 323 pp. \$47.50.

Book Notices

The following books have been brought to our attention as being of possible interest to network members, but copies have not been received. Notes or comments are quoted when applicable.

The World Bank, *Tropical Forests: A Call for Action*. Washington D.C., World Bank Publications, 1985. \$12.50.

(Printed in three short volumes, this publication is the result of an international task force convened by the World Resources Institute, the World Bank, and the United Nations Development Program. Part I is entitled "The Plan"; Part II, "Case Studies", and Part III, "Country Investment Profiles." Being reviewed.)

Putterman, Louis, *Peasants, Collectives and Choice: Economic Theory and Tanzania's Villages*. Greenwich Connecticut, JAI Press, 1986.

("...the first book-length study with an emphasis on economic theory of the work incentive problem in group farming. Half the book is devoted to theoretical analysis and half to analysing the Tanzanian experience, including a study of data from 43 semi-collective villages in five regions of Tanzania.")

Pontecorvo, G., editor, *The New Order of the Oceans: The Advent of a Managed Regime*. New York, Columbia University Press, 1986

Soni, Ramanlal, *Control of Marine Pollution in International Law*. Cape Town, Juta & Co. Ltd, ?. 328 pp. Rand 98.32.

Devine, D.J., et al. *The Law of the Sea*. Cape Town, Juta & Co. Ltd, 1986. 224 pp. Rand 73.88

(A set of 13 articles evaluating the 1982 United Nations Law of the Sea Convention, originally published in *Acta Juridica*.)

Chattopadhyay, Manabendu, *Mahalanobis Survey Revisited: Prospects of Agrarian Change in West Bengal*. Calcutta, Indo-Overseas Publications, 1982.

McCay, Bonnie and James Acheson, editors, *Capturing the Commons*. Tucson Arizona, University of Arizona Press, 1987.

(A symposium volume, *Capturing the Commons* is the first book in a new series on human ecology under the general editorship of Robert Netting. Case studies by anthropologists from a wide variety of ethnographic contexts are provided to evaluate Hardin's "Tragedy of the Commons" model. Contributions by economists and political scientists are included)

A table of contents and further information are available from:

Dr. James Acheson
Dept. of Anthropology
University of Maine
Orono, Maine 04469 U.S.A.

Dr. Bonnie McCay
Dept. of Human Ecology
Rutgers, Cook College
P.O. Box 231
New Brunswick, New Jersey 08903 U.S.A.

Notes From The Editor's Desk

Letters to the Editor:

I want to encourage all of you to write letters commenting on articles in the *Digest* or expressing your opinion on any issue of interest to CPR network members. Feel free to criticize or correct any mistakes you feel we have made. Feel free to stimulate discussion among your colleagues or challenge them to confront new ideas. We do ask that you be concise, and we reserve the right to edit letters for brevity. As is usual, we will consider withholding any correspondent's identity on request, but will not publish unsigned or anonymous submissions. If you have an idea or observation which you feel would benefit others, write us today!

Opinion Articles:

In keeping with the above, I also wish to solicit longer, more structured opinion articles. We will not be able to devote a great deal of space to polemics on esoteric topics, but we will welcome forthright expressions on issues of interest to any substantial component of our readers. I am looking for compact, cogent 500-800 word articles. They should focus on a current management or policy issue, research methodology, or project strategy, and should present a distinct point of view. Descriptive material and research news are not what I am looking for here. Writing an article of this type certainly takes more time than dashing off a letter to the editor, but has correspondingly greater impact. If you feel strongly about any issue, start your first draft today!

Defining Common Property:

More than one reader has made the following comment, "your newsletter looks great, now why don't you just tell everybody what common property is." After half a year in this position, I have come to the conclusion that "common property" yields only to "terrorism" as a term with flexible and elusive meaning. For some, it applies only to common fields or communal grazing lands controlled by a strictly defined group of people. For others, common property includes the oceans and the atmosphere. We do not wish to define common property so narrowly as to exclude resources which have many common property

characteristics, but which are controlled in fact by governmental agencies or even individuals. On the other hand, one can very legitimately argue that if no group is able to exercise any control over use, the resource may be subject to "open access", but is not "common property." Our subtitle reflects our own biases, that common property resources are subject to some degree of control by some "community", broadly or narrowly defined.

In any case, recognizing that a discussion of just what is included in or implied by "common property" may extend our understanding of possible policy implications, I have asked a number of individuals from different disciplines to write short essays laying out what they perceive to be the key characteristics of common property. These essays will be featured in future issues of the *Digest*, and I hope will generate useful discussion within the network.

Conferences:

We want to develop our section on past and upcoming conferences into a major, useful component of the *Digest*. We need your help to accomplish this. Send us a notice of any CPR-related conference you may be involved in organizing. We have contacted some of the major academic associations and asked them to notify us of their activities. Unfortunately, these were largely limited to North America. We need much more timely information about activities in Asia, Europe, Latin America, and Africa. Often small ad hoc or special purpose meetings are of greater use than the standard annual meetings of a single discipline.

We will solicit brief reports from organizers of conferences which come to our attention, but we also solicit such reports from you, our readers. If you organize or participate in a conference with CPR implications, please send us a short report. Feel free to write in french or Spanish. We hope to be able to print reports in those languages by the third or fourth issue. We will include a translation, or at least a summary in english.

Over time, we are confident that this section will take on a life of its own. We ask for your help in getting it off to a good start.

Book Reviews and Notes:

We face a similar need with regard to books. After corresponding with major publishers in North America, we are starting to receive review copies of books dealing with common property or natural resources use in general. We have not yet had great success in getting information about books published in other areas. You can help by doing one or more of the following:

1. Inform me of any publishers in your region who are likely to publish books which may be of interest to our readers. Include a complete postal address if possible.
2. Inform me of specific books which you feel merit review or annotation in the *Digest*. Include a complete bibliographic citation as well as price and ordering information.
3. Write a short descriptive annotation of a book which comes to your attention. Include a complete citation as well as price and ordering information. Try to limit the note to 300 words or less.
4. Review a book. Critically evaluate the book from a professional point of view in 700-1500 words. Include the same information requested above. It may be best to query me before starting to make sure that another review of the same work has not already been requested.

In a future issue, I will include a short form soliciting volunteers to review books and inquiring about your areas of expertise and subject matter preferences.

Subscription Charges:

Many new readers have expressed some question about whether there is any cost associated with receiving the *CPR Digest* or whether there will be at some time in the future. There is no charge for these initial pilot issues of the *Digest*. Any modification of this policy in the future will depend on the levels of grant funds we are able to obtain.

If we are forced to institute charges, they will likely be instituted in the following order:

1. A charge for copies sent to libraries, government agencies, and similar institutions in developed (OECD) countries.

2. A charge for copies sent to individuals in OECD countries.

We do not plan to institute a charge for individuals or educational institutions in developing, non-OECD countries at any time.

CPR Network Directory:

In correspondence, many of you have pointed out that a directory of network members, including some sort of coding of skills and interest, would be very useful. We have intended to publish such a directory since we began our activities last June. Other more pressing tasks, and the continued rapid growth of membership list have prevented our accomplishing this task thus far. Many of you joined the membership list through correspondence with Jeff Gritzner at the National Academy of Science in Washington D.C. In that case, you very likely filled out a questionnaire and submitted a curriculum vita for the network files. Others have communicated directly with me at Minnesota, and have not yet provided such information. With this issue, you should also receive a letter of instructions and a questionnaire. If you have already filled out such a questionnaire and submitted it to the NAS, simply ignore the letter. If you have not, please follow the instructions in the letter. We will send a complete directory of all network members along with the June issue of the *Digest*. The listing will include names, addresses, and self-identified areas of interest. We will also provide listing of names by country and lists of institutions or libraries which receive the *Digest*. Please cooperate by returning the questionnaire promptly so that we can be sure to list your correct address and areas of interest.

Money and Plans:

As we explained in the first issue, the grant we received from the Ford Foundation was intended to cover publication of only one or two pilot issues. To continue over a longer period, we needed to secure additional funding. Working to secure such funding has been a major activity for us over the past two months. We have been gratified by the Ford Foundation's offer to continue our baseline support for an additional three years. We need matching or supplemental money to make the *Digest* into the type of publication we can be proud of and to begin to provide other services such as an electronic bulletin board and a registry of CPR professionals.

Our goal is to make the network into a real **network**, not just a list of newsletter recipients. We have approached a number of other funding institutions with proposals for supplemental funds and are confident of receiving some additional amount.

Our long term goal is to turn operations over to an institution in some developing country after three more years of operation here at Minnesota. These plans also will hinge on the level of support we receive. We appreciate the positive comments and expressions of support that we have gotten from many of you. We will keep you advised of the progress of our efforts in future issues. We do have adequate funding for the June issue as well as the membership directory noted above, and are quite hopeful that we will be able to produce an additional four issues per year in each of the next three years.

Apologies to Canada:

I have learned that some Canadian network members did not receive copies of the first issue of the *Digest*, received them late, or in battered condition. We mailed the first issue flat, without envelopes, paying First Class postage. These copies were mailed about two weeks before Christmas. Our experience with this issue taught us that it would be better to mail all copies, North American as well as international, in envelopes. If you know that you were on the network list prior to December, but did not receive a copy of the first issue, please inform me. We have a few copies of the first issue left and will attempt to satisfy members who missed out on the first issue for one reason or another.

New Typefaces:

As noted in the first issue, Mason Miller and his crew in the communication department at Winrock International Institute helped us design and produce the first issue of the *Digest*. We owe them a many thanks for the attractive design and other good work. We have taken over physical production ourselves beginning with this issue. We are doing the "typesetting" ourselves using a variety of software packages and a laser printer. We were unable to match the type style of the first issue perfectly, but hope that this issue is equally as readable. We have learned a great deal about the new field of "desktop publishing", albeit at the cost of some gray hairs and nervous tension. If any of you are venturing into this field and

would like our advice and counsel, feel free to drop us a note or call us.

CPR&Ag Econ

I recently received an advance notice of the XX International Conference of Agricultural Economists which is to be held in Buenos Aires, Argentina in August, 1988. The tentative lists of topics for the program included most traditional fields in agricultural economics, with the startling exception of land or resource economics. It strikes me that resource economics, including common property questions, should be a high priority at an international conference of agricultural economists, particularly one held in Latin America. I am writing the organizers, who did solicit comments. If any of you would like to make similar suggestions, nominate presentors, or secure information, write Dr. Alberto Valdes at the following address:

Dr. Alberto Valdes
Vice-President-Program (IAAE)
IFPRI
1776 Mass Ave. N.W.
Washington D.C. 20036 U.S.A.

Short Address:

Our address, as printed in the corner of our mailing envelopes and on page two of each issue is a cumbersome one. Since we mail to U.S. addresses using the University of Minnesota's bulk mailing permit, we have to include that identification in our return address. If you wish to correspond with us, feel free to use the following shorter version:

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1994 Buford
St. Paul MN 55108 U.S.A.

Our telephones are (612) 625-7019 or (612) 625-0240. Our BITNET address is userid SBKC at node **UMINN1**.