

At Work With Common Property

IUCN General Assembly

The International Union for Conservation of Nature and Natural Resources (IUCN) held its 17th General Assembly and Technical Meeting in San Jose, Costa Rica from 1-10 February, 1988. The IUCN now convenes these meetings every third year; the previous General Assembly, the 16th, took place in Madrid, Spain in 1984.

The purpose of the General Assembly is to accomplish the operational and administrative business of the Union; receive reports, discuss and adopt a program and budget, approve resolutions, and elect officers.

The Technical Meetings, in contrast, are a scientific conference. Delegates present and discuss papers dealing with a wide range of conservation issues. Some deal with technical questions, many others deal with conservation policy or administration of specific conservation projects.

The turnout in San Jose was excellent, with nearly 1200 delegates and observers registering. Delegates included representatives of member states, government agencies, non-governmental organizations, and other affiliated organizations. Observers included IUCN Commission and Council members as well as representatives from other cooperating organizations. There were numerous representatives from the Costa Rican and international press.

The 17th Session marked one of Dr. Kenton Miller's last official duties as IUCN Director General. Dr. Miller is leaving to assume a position with the World Resources Institute in Washington D.C. His successor, Dr. Martin Holdgate was present and very active in the work of the Assembly. Dr. Holdgate comes to the IUCN with a long history of scientific and administrative experience, most recently having been Deputy Secretary for Environmental Protection and

Chief Environment Scientist at the United Kingdom Department of the Environment.

The current president of the IUCN, Dr. M.S. Swaminathan was re-elected to serve a second term. Well known as the Director of the International Rice Research Institute from 1982 through 1987, Dr. Swaminathan was recently awarded the first World Food Prize.

Over fifty draft resolutions were proposed to the General Assembly; dealing with conservation actions, environmental quality, IUCN programs, IUCN relationships with other institutions, promoting sustainable development, promoting conservation of biological diversity and habitats, and legal instruments for conservation. Discussion of these resolutions was a time-consuming activity for both plenary sessions and the resolutions committee. A number of similar resolutions were combined, many were revised, and a final set of some 30 resolutions was approved in the General Assembly.

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The financial reports and proposed budgets illustrated the changing role of the Union. The 1986 budget amounted to some 16 million Swiss francs, with one third of that being unrestricted funds for general activities and two thirds being restricted funds earmarked for specific programs or projects. Restricted funds are largely grants or contracts in which the IUCN undertakes specific research or monitoring activities for the funding institution, whether it be a national government or international agency. Estimates of income for the coming four years show the overall budget increasing from 18 million Swiss francs in 1987 to 42 million in 1991. The bulk of this growth is expected to take place in restricted programs and projects, with that rubric tripling over a five year period. These estimates vividly illustrate the degree to which the Union is becoming a major player in the implementation and administration of conservation and environmental monitoring activities.

The IUCN does much of its work through commissions. IUCN commissions receive a mandate to study a particular problem or question and commission members are chosen for their expertise in that area. Among the reports received at the San José meeting were those of the Commissions on Ecology, Species Survival, National Parks and Protected Areas, Environmental Policy, Law and Administration, and the Sahel.

IUCN activities currently fall into twelve programs:

1. Conservation and Development
2. Population and Sustainable Development
3. Conservation Science
4. Species Conservation
5. Plants Conservation
6. Protected Area Management
7. Coastal and Marine Conservation
8. Wetlands Conservation
9. Tropical Forest Conservation
10. Arid Lands
11. Education, Training and Awareness
12. Conservation Law

These programs, grouped into five chapters, are implemented through a number of specific activities undertaken by the IUCN alone or in collaboration with other institutions. The Conservation and Development chapter, for example, will be implemented through some 42 separate activities. Collaborators in these activities include the Government of Norway, the United Nations Environmental Program, The Food and Agriculture Organization, World Wildlife Fund, World Resources Institute, as well as CIDA, SIDA, USAID,

The *Common Property Resource Digest* is the primary communication medium of the Common Property Resource Network. Funded with grants from the Ford Foundation, the General Service 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, by various means, 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 Natural Resource Policy and Management of the University of Minnesota. Facilities are provided by the Department of Agricultural and Applied Economics. The Board on Science and Technology for International Development, an arm of the National Academy of Science of the United States, actively collaborates in network activities. Dr. C. Ford Runge is the project director and Edward D. Lotterman is the network administrator and *Digest* editor.

Network functioning depends on active participation by network members. News items, announcements, publications for review, suggestions, and questions are strongly solicited and should be sent to the *Digest* editor at the following address:

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1994 Buford Avenue
St. Paul MN 55108 U.S.A.
Tel: (612) 625-7019

ORSTOM, FINNIDA, NORAD and other bilateral development agencies. Similarly, the Conservation Science chapter is planned to include twenty-one distinct activities; Biological Diversity, nineteen; and Habitat Management, twenty-three.

The IUCN Draft Programme emphasizes four priority areas for the upcoming triennium:

Conservation and Development: A sound basis for sustainable development will be developed by carrying concepts into practice through implementing a major new on-the-ground programme in the Sahel; preparing and publishing the second edition of the *World Conservation Strategy*; establishing the feasibility of an "Environmental Amnesty" service; establishing a new Programme on Environmental Economics.

Conservation Science: A sounder scientific basis for conservation and sustainable development will be built on promoting the preparation of regional and national data bases on species and ecosystems; electronically linking the IUCN's Conservation Data Base with the world's data bases on resources; preparing the Andean Action Plan, a conservation strategy for the Alps, a conservation strategy for islands, and the Botanic Gardens Conservation Strategy; and establishing a network of regional task forces in coastal conservation.

Biological Diversity: Activities directed at conserving biological diversity will be linked with other development activities through establishing a global Species Information Management Network; completing preparation of a convention on biological diversity; and publishing a series on plant conservation.

Habitat Management: Major progress on managing important habitats made by publishing a conservation strategy for Antarctica, completing work begun in the 1985-87 triennium; publishing and promoting the Global Wetlands Conservation Strategy; implementing protected area action plans in the four tropical realms; and identifying and monitoring critical sites for tropical forest conservation and promoting international support for local action to conserve these sites."

The Technical Meeting portion of the conference was divided into plenary sessions and workshops. The plenary sessions focused on questions of interest to participants as a whole. The first included an update on the World Conservation Strategy as well as the Union's response to the report of the World Commission on Environment and Development and to the United Nations Environmental Program's report *Environmental Perspective to the Year 2000 and*

Beyond. The second plenary, entitled "Conservation and Sustainable development in Central America", began with presentations on efforts in each of the five Central American nations plus Panama. The other half dealt exclusively with programs in Costa Rica, including a restoration project for dry tropical forests in Guanacaste Province.

Technical Meeting Workshops afforded participants an opportunity to interact in smaller groups and to deal with specific problems or cases. Fourteen workshops were held concurrently over a two day period.

1. Coastal and Marine Programme
2. Conservation in Antarctica
3. Global Wetlands Conservation Strategy
4. Population and Conservation
5. Plants for People
6. Sahel
7. Tropical Forestry Action Plan
8. Biological Diversity
9. World Protected Area System
10. Conservation Science
11. International Treaty on Biological Diversity.
12. The Economics of Conservation
13. Building the Human Capacity to Conserve
14. Biological Resources Data Bases

Workshops generally included formal presentations by selected individuals followed with spirited questioning and discussion on the part of other participants.

In the session on economics, participants could be divided into three groups; those who thought that techniques of economic analysis could answer all conservation policy questions; those who thought that the application of economic analysis to resource or environmental questions was immoral and outrageous; and those who saw economics as comprising a set of useful analytical techniques but with important limitations. Such a division is not new; fortunately the first two groups seem to be diminishing in size and influence while the pragmatic third group grows.

In various papers and discussions, one lesson stood out repeatedly. If a development project is bad on environmental grounds, it is probably bad on economic grounds as well, and good economic analysis will show this to be true. Similarly, projects which are successful in providing substantial environmental benefits are also generally positive for society in "economic" terms.

Unfortunately, many influential policy makers, on both sides of important issues, still assume that conservation and the environment on one hand must be antithetical to development and economic growth on the other.

This mindset, in both development agencies and environmental organizations, remains one of the greatest blocks to developing more effective development and environmental programs.

The workshop on the Tropical Forestry Action Plan included spirited comments and discussion. Many of the participants, while feeling that the published TFAP represented a good start, argued that it was too general and incomplete to really be considered a *pian*.

The idea of linking conservation initiatives to measures dealing with the international debt crisis excited a great deal of interest among participants. Costa Rica has been a leader in implementing agreements in which small fractions of its foreign debt are swapped for conservation measures, largely biological preserves. (A similar effort in Bolivia was reported in the September 1987 issue of the *Digest*)

Dr. Alvaro Umaña, Costa Rican Minister of Natural Resources and President of the national organizing committee for the 17th General Assembly, reported in detail on Costa Rica's efforts to convert debt into resources for conservation. He emphasized that debt-for-conservation schemes could be a useful tool for promoting *conservation*, but that they should not be viewed as a panacea for *debt* problems since the amount of debt retired is generally very small relative to the total outstanding. Interest was very high, particularly among delegates and observers from Latin American countries. The General Assembly later passed a resolution urging multi-lateral development banks, lender country governments and others to take necessary steps to foster such transactions.

The IUCN is a unique organization in that its membership includes states, organizations and individuals. This diversity allows the Union to function on a variety of levels. During the meetings, the value of this diversity was repeatedly shown. Some policy measures, particularly those dealing with international resources, can only be implemented if a large number of national governments cooperate. To achieve such cooperation, an organization such as the Union with official national participation is virtually an administrative necessity. On the other hand, by not being an official international organization, IUCN can avoid much of the bureaucratic sluggishness common in such institutions. The wide range of non-governmental organizations (NGO's) which are

members give the Union much better information and monitoring capabilities than it would otherwise have. And in terms of speed, flexibility, and cost-effectiveness of carrying out conservation activities, NGO's have proven their effectiveness repeatedly.

At San José, all these facets of the IUCN were visible; diplomatic negotiating to secure approval of draft resolutions by official delegations as well as more direct communication between individuals and small private organizations.

For many participants from countries where the conservation movement is still young and struggling, attending a General Assembly provides a seldom-experienced opportunity to interact with other like-minded people. Publication and poster displays afforded many small organizations an opportunity to share information about their efforts.

IUCN will publish a proceedings report for the General Assembly, including final texts of all resolutions, and upcoming issues of the *IUCN Bulletin* can be expected to feature activities in San José. Anyone wishing to have more information about the 17th General Assembly or about IUCN itself should write to:

International Union for Conservation of Nature
and Natural Resources
World Conservation Center
1196 Gland, Switzerland

CPR and Public Health

The fact that a very diverse range of disciplines are concerned with common property, and that members of these different disciplines need better communication with each other is the reason for the existence of this network. Network member Charles Puccia added to the list of disciplines in a recent letter.

"You may be interested . . . in alerting your readers to the Human Ecology Program here at the Harvard School of Public Health. This is an inter-departmental program, with a focus on preparing people to apply their skills to problems of human health in an ecological context. Inevitably the human health problems relate to their ecological and common resource property setting."

Anyone wishing more information on the Human Ecology Program should correspond directly with Dr. Puccia.

Dr. Charles J. Puccia
Department of Population Sciences
School of Public Health
Harvard University
665 Huntington Avenue
Boston, Massachusetts 02115 USA

Organizations & Institutions

Numerous private research institutions, non-governmental organizations, and networks are involved in conservation and development related activities. Many are member of IUCN. The following section contains brief information on a sampling of organizations represented at the San José meeting.

IPT-Asian Wetland Bureau

"The IPT Asian Wetland Bureau is an independent international organization which aims to promote protection and sustainable utilization of wetland resources in Asia, in conjunction with both governmental and non-governmental agencies.

The history of the IPT Asian Wetland Bureau goes back to 1983. IN that year, INTERWADER was established, principally to identify wetlands of importance to migratory waterbirds and promote their conservation. It set up a network of coordinators and projects in 10 Asian countries. Over 40 projects were completed, including wetland evaluation studies in 6 Asian countries. The emphasis of its work changed progressively from species studies to wetland habitat studies, combined with training and education.

As a result of this change in emphasis, INTERWADER and the Institute of Advanced Studies (IPT) of the University of Malaya created the IPT Asian Wetland Bureau in March, 1987. The Bureau will be operated by former INTERWADER staff. It will also be able to draw on the expertise of IPT and all other faculties of the University of Malaya. INTERWADER projects will be continued as a programme of the IPT Asian Wetland Bureau. AWB deals with wetland inventories, research and management, waterbird studies, training and education, Environmental Impact Assessments, and provides a wetland database and information centre."

"From 1983 to 1987, INTERWADER conducted joint projects with 8 governmental departments, 6 universities and 10 non-governmental agencies, received funds from over 20 different agencies. IPT-AWB will continue to operate in this way."

IPT-Asian Wetland Bureau
Institute of Advanced Studies
University of Malaya
Lembah Pantai
59100 Kuala Lumpur
MALAYSIA
Telephone: 7572176/7566624
Telex: UNIMAL MA 37453

REDES-CENTROAMERICA

A number of Central American non-governmental organizations (NGO's) involved in conservation have formed a regional network too coordinate and integrate their activities. REDES-CENTROAMERICA began at a meeting in Panama City in February, 1987. Organized by the World Resources Institute and the Liaison Centre, this meeting was intended to promote forest management strategies in the region. As the meeting progressed, many participants emphasized the need for a regional NGO network. They decided to initiate such a network at the Central American Environmental Action conference to be held in Managua three months later. The Managua conference was a major event, with representation from virtually all regional conservation NGO's as well as many international organizations and donors agencies.

REDES is still struggling through initial organizational and funding stages. A Board of Directors, with members from Belize, Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, and Panama was formed. The administrative home has been in the Asociacion de Biólogos y Ecólogos de Nicaragua, (ABEN), during this initial period. The organization has set out four general goals:

1. Improve and strengthen communications between environmental NGO's.
2. Promote cooperation between NGO's in order to consolidate and strengthen their internal organization.
3. Support mutual action among NGO's in favor of protection, conservation, and sustainable use of resources, especially when these actions are on a regional level.
4. Encourage and support governmental actions that conserve and protect natural resources and the environment.

More information about REDES-CENTROAMERICA can be obtained from the president of its board:

Lic. Juan Jose Montiel R.
Asociacion de Biólogos y
Ecólogos de Nicaragua
Apartado Postal 2431
Managua,
NICARAGUA
Telephone: 23765 or 24448

International Tree Project Clearinghouse

"The International Tree Project Clearinghouse is an on-going programme of the Non-Governmental Liaison Service of the United Nations. It is a worldwide information center for NGO's doing forestry-related work in Africa, Asia, Latin America and North America. The objectives of ITPC are to facilitate regional exchanges and to coordinate information collection and dissemination among Ngo's governments, and international organizations involved in social forestry, resource conservation, and development.

ITPC collects information on the following:

NGO activities related to forestry, development and natural resource protection.

Pertinent international initiatives undertaken by governments, UN agencies and donors

Specific research initiatives or joint projects, such as women in forestry, evaluation components of forestry-related projects, etc.

ITPC disseminates this information in a variety of ways:

Publications - including NGO directories, articles, special reports and the quarterly ITPC Newsletter sent to 3,300 NGO's and individuals worldwide. Consultations, meetings and information sessions for NGO's.

Direct correspondence service which provides individual responses to NGO's and other agencies seeking information on related topics.

ITPC facilitates cooperation among NGO's, governments and international agencies by :

Sponsoring consultations which bring NGO's together to identify common objectives and national/regional strategies.

Helping with the establishment of regional information centers to assist with the identification of local NGO's and national coordinating NGO's.

Providing a referral system for NGO's which matches organizations with the appropriate resources or specific information required."

For more information about the International Tree Project Clearinghouse, its newsletter, and other activities, contact:

The International Tree Project Clearinghouse
2 UN Plaza-Room 1103

United Nations

New York, New York 10017 USA

Telephone: (212) 963-3125

Telex: 232422

Cable: UNATIONS NEW YORK

Asociacion para la Conservación del Caribe

The Asociacion para la Conservación del Caribe (ACC) is a regional organization which is analogous to the IUCN in a number of ways. Association membership includes governments, NGO's and individuals. Founded in 1967, the association's aims include the conservation and development of the environment and the preservation of the cultural heritage of the region. Geographic coverage is defined as the "Wider Caribbean", including such South American nations as Venezuela and Guyana in addition to Belize and numerous island states.

ACC's activities include operating a reference base to obtain and disseminate information to members; field projects to promote local resource management capabilities, education projects, environmental legislation, training, and publications. The latter include a quarterly periodical, *Caribbean Conservation News*.

ACC has collaborated with a variety of international institutions including UNEP, UNESCO, IUCN, World Wildlife Fund, and the Organization of American States. Most of its operating funds come from member governments and from the Canadian International Development Agency, though funding for specific projects has been received from a wide variety of donors. Annual individual memberships cost U.S.\$15 and include a subscription to the magazine.

Caribbean Conservation Association

Savannah Lodge

The Garrison

St. Michael

BARBADOS

Telephones: (809) 426-5373 & 426-635

Cables: CONCARIB Barbados

Rockefeller Fellowships

The December issue of the *Digest* listed several fellowship programs of the Rockefeller Foundation. We received information on these programs from two different sources, and did not realize that two of our announcements referred to the same basic program. The first item listed - "Agricultural Institutes" - is actually only one component of the third program listed - "Post-Doctoral Research". Otherwise, the description is accurate with the following addition. Applications for the population component must have received the Ph.D degree within the last ten years; for the agriculture component, this degree must have been completed within the last four years.

In addition to the above correction, there is good news. The Rockefeller Foundation plans to continue this program, "Social Science Research Fellowships in Agriculture and Population Studies", for an additional year. They will accept applications for the 1989 competition until December 31, 1988 for persons applying from North America and January 31, 1989 for persons applying from Africa. For more information, contact:

Fellowship Office
The Rockefeller Foundation
1133 Avenue of the Americas
New York, New York 10036 USA
Telephone: (212) 869-8500

About Conferences

Extensive Mariculture

Network member Jean-Paul Troadec, from IFREMER, sent advance notice of a Symposium on the Ecology and Management Aspects of Extensive Mariculture. It will be held in Nantes, France on 20-23 June, 1989. The symposium is being organized by the International Council for the Exploration of the Sea (ICES). The objectives and scope of the meeting are described as follows:

"Considerable attention is focused on the development of aquaculture as fishery resources reach full exploitation. Advances continue in the optimization of intensive culture methods, but the bulk of the world's mariculture production is from extensive forms of mariculture..." "The development and management of extensive mariculture raises complex issues some of which are familiar to those encountered in fisheries. . . . There is clearly a need to develop models to describe the bio-economic optimization of culture in coastal ecosystems. Mechanisms, by which extensive forms of aquaculture can be regulated and coherent balances between uses of coastal living resources can be achieved, need to be analysed."

"Contributions are invited on recent advances in ecological and management aspects of extensive shellfish, marine finfish including salmonids-aquaculture..."

Papers and posters are invited, unfortunately the announced deadline for receipt of titles and short abstracts is April 1, 1988. The Symposium is open to all interested scientists with no registration fee. Persons who intend to participate should inform the General Secretary by April 1, 1989. The steering committee includes scientists from Canada, France, Norway, the U.K., the U.S., and the U.S.S.R.

The co-conveners are:

Dr. J.P. Troadec
IFREMER
66, Av d'Iéna
75116 Paris
FRANCE
Dr. S.J. Lockwood
MAFF, Fisheries Experiment Station
Benarth Road
Conwy, Wales LL32 8UB
UNITED KINGDOM

Paper abstracts and administrative correspondence should be sent to:

General Secretary
ICES/CIEM
Palaegade 2-4
1261 Copenhagen K
DENMARK

International Rangeland Congress

Dr. Anil K. Gupta forwarded information on symposia for the Third International Rangeland Congress to be held in New Delhi, India in November 1988. The deadline for submission of abstracts has apparently passed, but some network members may be interested in attending. Some of the symposia focus on "technical" or purely biological aspects of range management, but several deal with management or human-animal-range interactions.

Dr. Gupta is the convenor for a symposium entitled "Eco-sociology and Range Resources: People's involvement for range improvement, its ecosociology for the development of range resources." Other sessions which may be of interest are those entitled "Silvipastures on Rangelands", "Rangeland Problems in Tropics and Grazing Policy", "Dynamics and Systems Analysis of Rangelands" and "Management of Grazing Resources"

We will attempt to get more complete information on this congress. Interested members are urged to correspond directly with the congress secretary:

Dr. Panjab Singh
Third International Rangeland Congress
Congress Secretariat
Indian Grassland & Fodder Research institute
Jhansi - 284 003 INDIA

Those desiring specific information on Dr. Gupta's symposium can write:

Dr. Anil K. Gupta
Centre for Management in Agriculture
Indian Institute of Management
Ahmedabad - 380 015 INDIA

CPR Books and Publications

Desertification Control & Forestry Terms

Papers from the Workshop on Desertification Control and Renewable Resource Management, held in Oslo in June 1986, are now available in a volume from the World Bank. Edited by Francois Falloux and Aleki Mukendi, *Desertification Control and Renewable Resource Management in the Sahelian and Sudanian Zones of West Africa* includes the following six chapters:

"Land tenure as a tool for rational resource management" by Francois Falloux and Alain Rochegude.

"Mechanisms to enhance effective popular participation" by Thomas M. Catterson.

"Management of pastoral production in the Sahel - constraints and options" by Angelo M. Bonfiglioli

"Water management: problems and potentials in the Sahelian and Sudanian zones" by Shawki Baughouti and Dominique Lallement

"Household energy issues in West Africa" by Willem Floor and Jean Gorse

"Migration and settlement of new lands" by Rene Rochette

This volume, Technical Paper 70, is priced at \$12.00 from World Bank Publications. There is a \$4.50 surcharge for international airmail. It is also available from agents in several other countries at varying prices.

A related volume, Technical Paper 61, *Desertification in the Sahelian and Sudanian Zones of West Africa* by Jean Eugene Gorse and David R. Steeds, was published in early 1987. This 74 page report is still available at \$6.50

Finally, the Bank has released a second edition of *Terminology of Forestry and Related Subjects*, an English-French French-English glossary also compiled by J.E. Gorse. Priced at \$7.50, this 53 page glossary goes outside forestry in the traditional sense and includes terminology related to household energy, erosion control, desertification and rural development. The glossary contains about 1500 terms and distinguishes between US and UK variations where necessary.

All of the above items can be purchased from:

World Bank Publications
1818 H Street N.W.
Washington, D.C. 20433 USA
Telephone: (202) 473-2939
Telex: WUI 69145

Resource Restoration

Network members interested in rehabilitation or restoration of freshwater systems should be aware of two books on that subject. Both apparently focus more on biological variables and engineering interventions than on policies or management practices. Since review copies were not available at this time, members are advised to consult other reviews cited below before purchasing these fairly expensive volumes.

Cooke, G. Dennis, Eugene B. Welch, Spencer A. Peterson & Peter Newroth, *Lake and Reservoir Restoration*. Stoneham Mass, Butterworth Publishers, 1986. 450 pp. U.S.\$44.95

Reviewed in *Transactions of the American Fisheries Society*, Vol 116, No. 1 January 1987; *Water Resources Bulletin*, April 1986, *Journal of the American Benthological Society*, Vol. V, 1986.

Gore, James A. *Restoration of Rivers and Streams*. Stoneham Mass, Butterworth Publishers, 1986. 450 pp. U.S.\$95

Reviewed in: *Journal of the American Benthological Society*, Vol. V. No. 2, 1986.

A related volume, also available from the same publisher, is a proceedings volume from a Symposium of the European Inland Fisheries Advisory Commission.

Alabaster, John S. *Habitat Modification and Freshwater Fisheries*. Stoneham Mass, Butterworth Publishers, 1986. 450 pp. U.S.\$75.00

Reviewed in: *Water Resources Bulletin*, Feb 1987, pp. 863-863.

OECD Resources

The Organization for Economic Cooperation and Development recently published two reports which may be of interest to network members:

Review of Fisheries in OECD Member Countries, 1986. Paris, OECD, 1987. 340 pp. U.S.\$41.00 ISBN 92-64-13026-8

"Describes major developments affecting the commercial fisheries of OECD countries in 1986, particularly as regards government action, production, processing and marketing, and international trade."

OECD Environmental Data Compendium, 1987. Paris, OECD, 1987. 365 pp. U.S.\$42.00 ISBN 92-64-02960-5

"Updates and expands the international data on pollution, natural resources, and environmental

management which were first published in the 1985 OECD *Compendium*. ... statistical information on air, water, sea, land, noise, and radioactivity pollution; the pressures the energy, agriculture, transport, and industrial sectors are placing on the environment; and the responses of governments to these pressures."

The OECD maintains sales offices in each member country as well as at its Paris headquarters. The office for the U.S. is:

OECD Publications and Information Center
2001 L Street NW
Washington D.C. 20036
Telephone: (202) 785-6323

Books by Members

A new catalog from Cambridge University Press lists two books authored by network members. Since we have not yet received review copies, the brief descriptions below were taken from that catalog.

Conrad & Clark

Jon M. Conrad from Cornell University and Colin W. Clark from the University of British Columbia have written a work entitled *Natural Resource Economics: Notes and Problems*. "This book reviews techniques of dynamic optimization and shows how they can be applied to the management of various resource systems. In addition, it highlights the theory, models, and methods employed in the discipline of resource economics. Professors Conrad and Clark have written this text under the premise that the theory and concepts in this field are more quickly learned and made operational through numerical examples. By working through the problems at the end of each chapter, readers will learn the techniques that may be used in empirical studies of natural resources systems. Specifically, the chapters deal with renewable resources, nonrenewable resources, environmental management, and stochastic resource models; in addition to dynamic optimization."

Conrad, Jon M. & Colin W. Clark. *Natural Resource Economics: Notes and Problems*. Cambridge UK, Cambridge University Press, 1987. 242 pp., 20 tables & 46 diagrams.

Cloth - ISBN 0-521-33188-9, \$39.50.

Paper - ISBN 0-521-33769-0, \$14.95

Wade - South India

Many members are familiar with Robert Wade's paper "'Common Property Resource Management in South Indian Villages", presented at the Annapolis conference and printed in the NAS volume *Common*

Property Resource Management. That paper was developed from his book, then in draft, but now published and entitled *Village Republics: Economic Conditions for Collective Action in South India*. "Drawing particularly on research in villages along the Kurnool-Cuddapah canal in the dry interior country of Andhra Pradesh, the author asks why some villages have developed local institutions for the corporate control of irrigation and open-field cultivation while others have not. His conclusion is that corporate control tends to increase in response to ecological factors. Irrigated water becomes progressively scorchier and less reliable as one moves down the canal and the degree of risk makes the need for corporate action more pressing." Dr. Wade is with the Institute of Development Studies at the University of Sussex.

Wade, Robert. *Village Republics: Economic Conditions for Collective Action in South India*. Cambridge South Asian Studies 40, 250 pp. 5 maps. ISBN 0-521-30146-7, U.S.\$32.50

Other Cambridge Books

Cambridge recently published several other new books which, while not written by network members, may be of interest to many:

Perrings, Charles. *Economy and Environment: A Theoretical Essay on the Interdependence of Economic and Environmental Systems*. 192 pp. ISBN 0-521-34081-0 \$34.50

"Environmental external effects are evidence of the inability of market prices to reflect the interdependence of economic activities undertaken within a common environment, and are an essential feature of all market economies. This book shows how external effects are produced by the interaction of the economy with its environment, using a classical mass-balance model."

Johansson, Per-Olov. *The Economic Theory and Measurement of Environment Benefits*. 256 pp. 40 diagrams.

Cloth-ISBN 0-521-32877-2 \$49.50

Paper-ISBN 0-521-34810-2 \$16.95

"... an advanced text in welfare economics and its application to environmental economics. It provides,... a comprehensive survey of developments in the theory of measurement of welfare, and then applies this theory to environmental economics. The first part derives consumer surplus measures ... and the second part looks at international issues."

Cornes, Richard & Todd Sandier. *The Theory of Externalities, Public Goods and Club Goods*. 320 pp., 6 tables, 37 diagrams.

Cloth - ISBN 0-521-30184-X \$34.50

Paper- ISBN 0-521-31774-6 \$12.95

"A theoretical treatment of externalities, public goods and club goods which ties together the most recent contributions in public economics, available from many diverse sources."

Cambridge maintains sales agents in many countries. In North America orders or inquiries can be addressed to:

Cambridge University Press

32 East 57th Street

New York, NY 10022

Telephone: (800) 872-7423

The Question of the Commons

The Question of the Commons: the Culture and Ecology of Communal Resources, a collection of essays edited by network members Bonnie J. McCay and James M. Acheson, has just been published by the University of Arizona Press as part of their Arizona Studies in Human Ecology series. It, like the NAS proceedings volume *Common Property Resource Management*, dramatically illustrates the rich variety of common property resource regimes and gives cases of both success and failure.

"This collection of eighteen original essays evaluates the use and misuse of common-property resources, taking as its starting point ecologist Garret Hardin's assertion in "The Tragedy of the Commons" that common property is doomed to overexploitation in any society. This book represents the first cross-cultural test of Hardin's argument, and argues that, while tragedies of the commons do occur under some circumstances, local institutions have proven resilient and responsive to the problems of communal resource use.

Contents:

1. Human Ecology of the Commons - Bonnie J. McCay & James M. Acheson

I. Conservation and the Commons

2. The Lobster Fiefs Revisited: Economic and Ecological Effects of Territoriality in Maine Lobster Fishing - James M. Acheson
3. Common Property Resource Management and Cree Indian Fisheries in Subarctic Canada - Fikret Berkes
4. Game Conservation or Efficient Hunting? - Raymond Ames

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16. A Malaysian Tragedy of the Commons - E.N. Anderson, Jr.

17. Intercepting the State: Dramatic Processes in the Assertion of Local Co-Management Rights - Evelyn Pinkerton

18. The "Grassroots" and the State: Resource Management in Icelandic Fishing - E. Paul Durrenberger & Gísli Pálsson

McCay, Bonnie J. & James M. Acheson eds. *The Question of the Commons: the Culture and Ecology of Communal Resources*. Tucson, University of Arizona Press, 1987. 439 pp. \$35.00 + \$1.00 postage.

The University of Arizona Press

1230 North Park, No. 102

Tucson, Arizona 85719 USA

Gene Banks

Genetic diversity in itself is a common pool resource. Intensified use of many other resources, which may be managed under common property regimes, can have adverse effects on biological diversity. Preserving such diversity is increasingly perceived as a global challenge. Network member Don Plucknett has helped edit a recent book on the use of gene banks to help preserve genetic diversity.

"This book provides a history of germplasm preservation and exchange, from botanical gardens to modern cold-storage units, and a highly readable assessment of the scientific and political ramifications of gene bank programs. Plant genetic diversity is not evenly distributed over our planet. The tropics contain the richest reservoir of plant resources, while the bulk of the capital and technology to develop these resources exists in industrial countries. *Gene Banks and the World's Food* contributes to the debate on how best to preserve some of society's most valuable raw material. Includes an up-to-date report on the stocks and locations of gene banks."

Plucknett, Donald L, Nigel J.H. Smith, J.T. Williams & N.M. Anishetty. *Gene Banks and the World's Food*. Princeton, Princeton University Press, 1987. 248 pp.

ISBN 0-691-08438-6 \$35.00 (Orders outside U.S. must include and additional \$7.00 for surface mail or \$12.00 for airmail)

Brasil Florestal

Anyone interested in Latin American tropical forests should be aware of *Brasil Florestal*, the quarterly journal of the Instituto Brasileiro de Desenvolvimento Florestal - IBDF (Brazilian Institute for Forestry Development). Contents include scholarly articles on plant and animal species, forestry policy and management, forest products and other topics. News items dealing with forestry and the environment are interspersed between articles. Another section summarizes IBDF activities for the quarter. Articles are in Portuguese with abstracts in English. Subscriptions are U.S. \$12.00 and exchange for similar publications can be arranged. Contributed articles are considered and instructions to authors are available on request.

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Setor das Areas Isoladas Norte
Av. L-4 Norte
Brasilia DF BRASIL

Evolution of Cooperation

Dr. Robert Axelrod and Douglas Dion have compiled a very useful bibliography entitled "Recent Research on The Evolution of Cooperation". "This is an annotated bibliography on the evolution of cooperation. It includes works that make use of Robert Axelrod's *The Evolution of Cooperation* or earlier work included in that book . . ."

"The guide is selective. It emphasized new developments in empirical applications, formal theory, computer tournaments, and detailed critical appraisals."

The bibliography contains 52 typescript pages. About 175 references are annotated and are indexed by author. Interested persons should contact the authors at the following address:

Institute of Public Policy Studies
University of Michigan
Ann Arbor, MI 48109

Iban Land Tenure

Robert A. Cramb has presented an extensive and useful Ph.D dissertation at Monash University.

Entitled *The Evolution of Iban Land Tenure: A Study in Institutional Economics*, "the thesis is an attempt to understand and evaluate the Iban system of community-based land tenure as an institutional framework for the management of land use in the shifting cultivation zone of Sarawak, Malaysia."

"Chapter 1 outlines the problems . . . supposedly associated with Iban land use and identifies the major alternatives advocated in current land policy, namely, a system of individual titles to land and a system of pooling land to form centrally-managed, commercial estates.

Chapter 2 argues that a given system of land tenure results from the need to find a culturally acceptable solution to the problem of order." "The viability of a given system depends critically on the "transaction costs" involved in defining and enforcing property rights in land. The "social efficiency: of a particular tenure form can thus be defined as the degree to which it contributes to a culturally acceptable social order relative to the transaction costs involved."

We are not informed of plans to publish all or part of this dissertation. We do not have Dr. Cramb's address, but it is likely that he can be reached in care of:

Department of Economics
Monash University
Clayton, Victoria
AUSTRALIA 3168

Notes From The Editor's Desk

Announcement Timeliness

Several members have written to complain that they do not receive the *Digest* until after deadlines listed in various announcements have passed. We are aware of this problem and would like very much to correct it. We doubt, however, that we can do so completely. This problem results from three factors.

First of all, the *Digest* is published only four times per year. If we receive an item with a near deadline, there simply may not be an issue in which to put it before the deadline passes. This part of the problem could be corrected by publishing smaller issues more frequently, but at the cost of significantly higher printing and mailing expenses.

Secondly, many items are not brought to our attention until shortly before the announced deadline expires. We have corresponded with organizations such as the American Association for the Advancement of Science and various foundations requesting that we receive conference and fellowship announcements as soon as they are released. However this will do little to improve our knowledge of programs or events in other countries, particularly in Asia, Africa, and Latin America. Additionally, many of the most interesting conferences are organized on an ad hoc basis and never come to the attention of bodies such as the AAAS.

We will overcome this problem only if members participate more actively in the network. If you receive an announcement of any activity which might be of interest to network members, send us a copy immediately. If you are involved in planning or organizing any such activity, send us the important information as soon as decisions are made. Do not wait until the brochures are all printed; dash off a note as soon as date, location, and addresses for abstracts, registrations, applications, or proposals are known! It is much more helpful to get a hand-written note six months before a deadline than a beautifully laid-out brochure with only six weeks lead time.

Finally, mail transit times to some countries are long. For all addresses outside of North America, we use an air-forwarding service which airfreights the *Digest* to countries where they are then placed in the domestic mails. This is cheaper than regular airmail, and we believe, also gives us slightly better delivery times. We plan to do a survey with one of the next issues, enclosing postcards indicating date of mailing and asking that they be returned showing date of receipt. We will simultaneously send letter envelopes

by regular airmail to a small sample to see if they arrive more rapidly. If mail delays are a general problem we will explore whatever alternatives are available.

When we receive an item with a deadline close to our mailing date, we face a difficult decision. If we choose not to run it, we deprive members in North America, Europe, and some Latin American countries of a valuable announcement to which they might wish to respond. But if we run the announcement, we cause frustration for other members, particularly in Asia and Africa, since mailing times to those continents are greatest. We ask for your patience. We also ask for your cooperation in bringing items to our attention as quickly as possible.

Free-Riding in the Network

The CPR Network is in many ways an experiment in the creation of a common property institution. Its organizers are convinced of a serious failure in information markets, and believe that society could be made better off if communication of information about common property is improved. Information about common property has classic public good characteristics of non-rivalry and non-divisibility.

Foundations were convinced with this argument and provided the funds necessary to meet the costs of administering a network and of printing and mailing the newsletter. But there are few funds for actual collection or capture of information. This function depends on the efforts of individuals in the network.

To date, we have been very liberal in admitting people to the network. No fee is charged since we calculate that the transaction costs of remitting small sums are high compared to the marginal costs of printing and mailing another newsletter. We request that network members participate by submitting information, but do not make such activity a condition of membership.

Perhaps the Network is thus too much an open-access good. The membership list has grown rapidly, and we receive correspondence indicating that the *Digest* is appreciated, but more useful input is still lacking from 80% or more of the membership. Perhaps we need other activities to foster more of a sense of group identity. Perhaps we simply need stricter rules to discourage free-riding.

Comments or suggestions from you for solving this problem would be highly appreciated!