NAGA NEWS

Regional Experts Met to Discuss Biodiversity in the Lancang-Mekong River Basin

From 4 to 7 December 2001, the Xishuangbanna Tropical Botanical Garden of the Chinese Academy of Sciences organized an *International Symposium on Biodiversity Management and Sustainable Development in the Lancang-Mekong River Basin.* The symposium was held in Xishuangbanna, Yunnan, China and was co-sponsored by the World Bank. More than 100 participants, mostly from the countries in the Mekong River region, attended the gathering.

Participants from several disciplines presented a range of scientific papers on biodiversity in the basin. A large number of presentations were on fisheries and forestry. Social issues associated with biodiversity conservation and management in the region received little attention. The Mekong River Commission steered the discussion on fisheries as it is the primary organization promoting cooperation among all riparian countries, while the Xishuangbanna Tropical Botanical Garden took the lead on forestry and botanical issues.

The participants had a lively discussion on the ecological implications of China's Lancang Hydropower and Upper Mekong Navigation Project. Presently, there are plans to build a cascade of hydropower dams along the Lancang (the Mekong as known in China) River to regulate downstream water flow and prime the development of a shipping industry in this part of China. The Navigation Project seeks to enable the passage of large barge trains (2000 tonnes) up to Yunnan by 2007 by blasting more than 100 rapids and reefs. Neither of these developments are possible without potentially subjecting the river's ecology to harm.

Dr Ian Campbell of the MRC noted that the extent of biodiversity, at least for the Lower Mekong Basin, is largely unknown. Not much information is known on the biodiversity of invertebrate, freshwater fish, ferns and fungi. Relatively more information is available on vascular plants and mammals. This limitation deserves closer attention to ensure that biodiversity in the region is properly managed and conserved.

International Workshop on the Diversity of Mangrove Systems of Asia

6 - 8 November 2001, Penang, Malaysia

The International Workshop on the Diversity of Mangrove Systems of Asia was held from 6 to 8 of November 2001 at the World Fish Center. This workshop was funded by USAID. It brought together 18 scientists from nine countries. The emphasis of this workshop was on the diverse contribution of mangroves to coastal zone fisheries. Several topics were addressed, namely diversity of mangrove systems in Asia, ecological role of mangroves, mangroves and fisheries, avenues for research and recommendations for management.

Some conclusions:

Mangrove systems: The

characteristics of mangrove systems (geomorphic setting, climate, species composition and export rates) vary throughout Asia. Thus, a typology of these systems does not exist. Given the diversity of Asian mangrove systems, it is irrelevant to extrapolate to a whole country or region the conclusions drawn from a given site.

Ecological role of mangroves: The ecological role of mangroves is an issue of scale. The role varies within mangroves as well as between mangroves. The relationship between the diversity of trees and the diversity of animals depends on the faunal group considered, and possibly the age of the mangrove stand (ecological successions). Fringes play a particularly important role. The ratio of waterways is another important ecological parameter. Both these require more knowledge.

Mangrove and fisheries: The contribution of mangroves seems to vary depending upon the hydro-tidal regime, the presence of alternative coastal habitats and the distance to the shore. The common statistical approaches of relating mangroves and fish production has been acknowledged as spurious due to multiple confounding factors (setting, scale, fishing effort, species considered, coastal habitats, migrations, etc). Working on such relationships requires at least a multivariate approach. The minimal zone to be conserved depends on the morpho-climatic setting, and on the intended purpose (sustenance of fish or prawn or crab fishery, forestry, aquaculture, effluents filtration, coastal erosion, etc).

As an overall conclusion, the ecological approach to the management and rehabilitation of mangroves should go beyond this very system and encompass other estuarine habitats and coastal landscapes, including freshwater zones. Morpho-climatic settings play a dominant role in the functioning and ecological role of mangroves. Acknowledging their influence is critically important to the success of mangrove management schemes and rehabilitation projects.

International Consultative Workshop on Economic Valuation and Policy Priorities for Sustainable Management of Coral Reefs

10-12 December 2001, Penang, Malaysia

In October 1998, the World Fish Center initiated a set of activities as part of the project, Improving Policies for the Sustainable Management of Coral Reefs. The Project was funded by Sida and was carried out in the period between 1998-2001 by two programs in the Center, namely the Aquatic Environment Program and the Policy Research and Impact Assessment Program. In the meantime, the International Coral Reef Action Network (ICRAN) has received funding through the UN-Foundation in the area of the economics and policy priorities of coral reefs for the period 2001-2004. The workshop aimed to review the research progress in this field, and to put together various research packages for the coming years under ICRAN.

An *International Consultative Workshop on Economic Valuation and Policy Priorities for Sustainable Management of Coral Reefs* was conducted at the Center Headquarters, Penang, Malaysia from 10-12 December 2001. Sida is the main sponsor for the workshop while ICRAN, ACIAR (Australian Centre for International Agricultural Research) and EEPSEA (Economy and Environment Program for Southeast Asia) sponsored selected

participants in different regions.

The overall goal of the workshop was to identify future research directions for economic valuation and policy research relevant to sustainable management of coral reefs through (i) review and discussion of policy instruments and their effectiveness; (ii) analysis of past research findings; and (iii) analysis of interdependency between com-munity livelihood, and coral reefs and their resources.

The workshop objectives were to: (1) Discuss the progress and achievement on valuation, policy analysis and related socioeconomic research under ICLARM-Sida Project, including those of partners and other organizations; (2) Review policies and institutional arrange-ments, and their effectiveness in relation to management of coral reefs; (3) Discuss the future applied research directions and develop specific research plans/proposals on the economics and policy issues for sustainable management of coral reefs for the next five years; and (4) Discuss funding options and implementation strategy for valuation and policy analysis under the ICRAN work plan.

The workshop was designed around 3 themes: (1) economic valuation of coral reefs; (2) policy analysis/ instruments for coral reefs management; and (3) stakeholder management and participation. To attain these objectives, four workshop sessions were organized: (1) The Economic Valuation And Policy Analysis: Issues, Approaches and Methodologies; (2) Case Studies On Economic Valuation, Management Measures And Policy Instruments Of Coral Reefs; (3) Focus And Themes Of Future Research; and (4) Specific Research Proposals.

A total of 48 participants from 15 countries from Southeast and East Asia, Caribbean, East Africa and South Pacific Regional Seas Programs (RSPs) attended the workshop. Seven keynote papers and 19 research papers were presented in the workshop. All objectives were successfully met during the course of the 3-day workshop. The issues raised included benefits transferability and values appropriation; policy instruments applicable at local, national and global levels; and increasing com-munity and stakeholder participa-tion in coral reef management in the future. Follow-up activities include preparation of the workshop proceedings and proposals for future research, identification of collaborators and consultations with regional seas programs and identifications of training needs of local level managers of coral reefs.

NTAFP NEWS Newsletter of the Network of Tropical Aquaculture and Fisheries Professionals

Interactive Website for Development of Tilapia Aquaculture in Honduras

Honduras has a large network of NGOs working with farmers at village level. An educational institution in Zamorano, Escuela Agricola Panamericana El Zamorano and an established in-country sustainable development electronic network operated by Red de Desarrollo Sostemnible-Honduras (RDS-HN), in collaboration with Georgia University and Auburn University, USA, established a web-based information delivery system for tilapia (WIDest). The interactive website provides a way to connect local NGOs, farmers, decision-makers and experts in the various fields of aquaculture (scientists from the University of Georgia, Auburn University and Zamorano in Honduras), for exchanging information and enabling them to make informed decisions.

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Source: Verma, B.P., D. Meyer, T. Popma, J. Molnar and E.W. Tollner. 2001. Web-based infor-mation delivery system for tilapia for sustainable development of aquaculture in Honduras. Simposio Centroamericano de Acuacultura. Proceedings: Tilapia Sessions, Tegucigalpa, Honduras; 22-24 Agosto de 2001. For further information, refer to http://acuaculture-ca.org.hn

Publications of Interest

A Book on Nutrition and Fish Health

The health and the ability of the fish immune system to resist diseases depend to a great extent on its nutritional well-being. A new book edited by Chorn Lim and Carl Webster entitled *'Nutrition and Fish Health'* has been published in 2001. This contains information on diseases affecting warm and cold