

3RD RESEARCH CONFERENCE OF THE ASEAN REGIONAL CENTRE FOR BIODIVERSITY CONSERVATION

Economic valuation of biodiversity

■ By Claire Reyes

The economic valuation of biodiversity can be a powerful management tool, and a convincing argument for conservation especially when used alongside social, scientific and spiritual studies of biodiversity.

This was a major consensus of participants to the Third Research Conference with the theme "Economic Valuation of Biodiversity" that was hosted and conducted by the ASEAN Regional Centre for Biodiversity Conservation (ARCBC) on 17-19 June 2002 at Sulo Hotel, Quezon City, Philippines.

The event was attended by members of the Scientific Experts Committee of ARCBC; project leaders from Brunei Darussalam, Cambodia, Indonesia, Lao PDR,

Malaysia, Philippines, Thailand and Vietnam, and Singapore; representatives of the ASEAN Secretariat and ASEAN Working Group on Nature and the Conservation of Biodiversity (AWGNCB); Philippine delegates and officials from the Department of Environment and Natural Resources (DENR) and the National Economic Development Authority (NEDA) as well as ASEAN and European Union Resource Persons.

As one of three priority themes of the ARCBC Research Grant Programme, the economic valuation of biodiversity is useful in raising public and political awareness, setting conservation priorities, and facilitating land-use decisions. The workshop introduced the Total Eco-

nomical Valuation (TEV) framework and Cost Benefit Analysis (CBA) appraisal approaches as important tools for promoting biodiversity conservation. It was also stressed that demonstrating a high value for biodiversity is typically not enough to ensure the conservation of resources; this requires putting in place the correct incentives and mechanisms to capture the resource values. Without such incentives, value estimates would only represent paper values that would have no, or limited, impact on the decision-making process. It was also noted that all approaches have their weaknesses and that the particular strength of the economic approach is that it facilitates comparisons in a world where resources

Marine Protected Areas in Southeast Asia

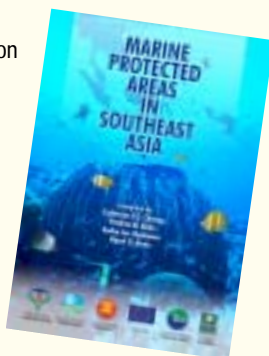
Compiled by Catherine P.S. Cheung, Porfirio M. Aliño, Andre Jon Uychiaoco and Hazel O. Arceo
ISBN: 971-8986-46-4

Publisher: ASEAN Regional Centre for Biodiversity Conservation-Department of Environment and Natural Resources, Los Baños, Laguna, Philippines.

The marine protected areas (MPAs) of nine member countries of the Association of Southeast Asian Nations were reviewed. These countries are Brunei, Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam. The publication notes that although the ASEAN region contains some of the most extensive coastlines and diverse coral reefs in the world, its natural resources remain the most highly threatened.

Several issues pertaining to the MPAs of each country were thus assessed and their management concerns evaluated to analyze the increasing threats such as coastal development, collecting of endangered species, ornamental trading, overexploitation, pollution and tourism that lead to the depletion of the biological resources of the region's MPAs.

Despite the crucial role of MPAs in conserving biodiversity, only a few (around 10-20%) of the MPAs in the region are effectively managed, and as such, MPA management remains inadequate.



Among the priority actions suggested in the publication are the following: 1) improve and effectively implement legislative reforms to enhance MPA effectiveness; 2) incorporate MPA planning and management into an Integrated Coastal Management framework; 3) enhance sustaining mechanisms to enable managers and institutions to continue adaptive management; 4) fill in gaps in the establishment and understanding of representatively adequate MPAs in the various biogeographic zones (e.g. W. Sumatra, E. Philippines and Myanmar); and 5) improve and establish joint research and cooperative management areas (e.g. the Turtle islands and the Spratlys). A priority action agenda and a regional strategic framework have also been proposed.

Marine Protected Areas in Southeast Asia is intended as a valued reference for policy makers, planners, fishermen and other stakeholders as well as students, scientists and park managers. The publication would be a useful guide in the continuing efforts to plan for management that would save, rehabilitate and safeguard the coastal and marine resources in the region.

For readers in ASEAN member countries, you may obtain free copies by writing to the addressee below:

The Distribution Manager
ASEAN Regional Centre for Biodiversity Conservation (ARCBC)
Quezon City Annex
P.O. Box 1614 QC CPO
1156 QUEZON CITY, Philippines

Outside ASEAN, copies may be purchased from the Natural History Book Service (www.nhbs.com).

are limited and choices have to be made.

Several case studies were presented during the conference, a number of which are included in this issue. These include Ways to Estimate the Value of Forest Catchments (see page 21) in China specifically the Xingshan county of Hubei province.

The conference participants also discussed a number of examples of the monetary value of biodiversity use, and the direct and underlying causes of biodiversity loss, and agreed that without a supportive policy environment, very little can be achieved.

On the highlighted causes of market and policy failures that result in distortions in market prices, the participants proposed a number of policy actions to address these failures. Among these are: removal of perverse incentives; trade liberalization and the introduction of property rights; the introduction of standards, regulations and restrictions; fees and environmental charges; and public financing and environmental funds. But the most important action proposed was to remove perverse incentives – policies, subsidies and low commodity prices that make it profitable to exploit natural resources without concern for long-term outcomes.

The delegates from the National Biodiversity Reference Units of the member countries participating in ARCBC shared their impressions on the status of their biological diversity researches. The Malaysian representative stated that lack of funds deterred the conduct of baseline studies in Malaysia, and thus welcomed ARCBC support to the first comprehensive inventory in Sarawak. The delegates of the other countries shared this opinion and agreed that biological inventories are essential because convincing figures are needed to persuade politicians of the full

Surfing the Web... of Life

The **Centre for Social and Economic Research on the Global Environment (CSERGE)** (www.uea.ac.uk/env/cserge) is renowned for working at the forefront of interdisciplinary research on a range of environmental issues. CSERGE uses social science analysis as a link between existing scientific knowledge and policy guidance, with the aim of mitigating environmental problems in both developed and developing economies. Research topics such as natural resource valuation and management, economic instruments, wetlands and coastal zone management, biodiversity conservation and sustainable development are analyzed using a variety of research tools. These include economic cost-benefit and cost-effectiveness analysis, environmental valuation, strategic environmental impact assessment, integrated environmental-economic modelling, multi-criteria analysis, sustainability indicators, risk analysis, multi-stakeholder mediation techniques, life cycle assessment, material flow accounting, geographical information systems, and political and institutional analysis. CSERGE also has an ongoing project on Valuing Biodiversity Functions, which has assessed the progress made in global biodiversity conservation since the 1992 Rio Conference. It has also examined the social costs and benefits of current conservation strategies and their components.

Resources for the Future (www.rff.org) is a non-profit and non-partisan organisation that conducts independent research, rooted primarily in economics and other social sciences, on environmental and natural resource issues. Output is categorised under four headings:

- Environment (Air, Water, Climate, Solid Waste, Hazardous Waste and Superfund, Regulatory Policy)
- Natural Resources (Forests, Minerals, Energy, Biodiversity, Land Use, Space, Resource Policy)

- Intersections (Electricity Restructuring, Urban Transportation, Sustainable Development, Technological Innovation, Nuclear Weapons Cleanup)
- Methods, Tools and Techniques (Non-Market Valuation, Cost-Benefit Analysis, Risk, Modelling, Regulatory Design)

Ecosystem Valuation

(www.ecosystemvaluation.org) explains the concepts, methods and applications of ecosystem valuation in non-technical language. Funded by the US Department of Agriculture-Natural Resources Conservation Service and the National Oceanographic and Atmospheric Administration, the website describes how economists value the beneficial ways that ecosystems affect people. It is designed for non-economists who need answers to questions about the benefits of ecosystem conservation, preservation or restoration. It also provides a clear, non-technical explanation of ecosystem valuation concepts, methods and applications.

The New South Wales Government is committed to including the environment in decision-making through valuation of changes in environmental quality. As a result, it produced the **ENVALUE** (<http://www2.epa.nsw.gov.au/envalue/>) environmental valuation database, which was developed by the NSW Environmental Protection Authority and first released in 1995. It is a systematic collection of environmental valuation studies presented in an on-line database and aims to assist decision makers in government and industry as well as academics, consultants and environmental groups, to incorporate environmental values into cost-benefit analyses, environmental impact statements, project appraisals and overall valuation of changes in environmental quality. ■

value of important habitats. They, thus, acknowledged the important role played by ARCBC in providing research funds and scientific support needed to build capacity.

Although the projects represented at the workshop are being funded under the theme 'Biodiversity Values and Uses', and are mostly focused on biological inventories, the participants remained optimistic of the possibility

of looking at these projects in a new light and of prioritising areas for valuation. The conference also noted that there are many case studies and appropriate approaches that researchers can draw on. To further assist in this area, ARCBC hopes to produce a guideline document on biodiversity valuation for the ASEAN. ■

Claire Reyes is a Researcher of ARCBC