



# ARCBC



## ANNUAL REPORT TO THE PUBLIC



**ASEAN Regional Centre  
for Biodiversity Conservation**

*A joint cooperation project between ASEAN and the European Union*



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Printed by: Print Shop Printing Services

March 2002

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The loss of genetic and species diversity and natural habitats is undeniably also a great loss for us. How biodiversity figures prominently in our lives and how sustainable management of our natural habitats contributes to a balanced environment should not be ignored. For when the very web of life is threatened, we need to take action. We have to preserve for the next generation the beauty and sustenance of the Earth's biodiversity.

In this light, the ASEAN Regional Centre for Biodiversity Conservation, through its various activities, allows us to understand more clearly our relationship with biodiversity and the importance of conserving it.

As noted in this Annual Report, ARCBC has organised and sponsored several workshops, the results of which we, the DENR in particular, feel are vital for the protection of our environment and natural resources as a whole. One workshop has formulated a set of guidelines on protecting and conserving biodiversity against forest fire and rehabilitation measures on the affected areas. Considering that fire is one of our worst enemies in the Philippines and all of Southeast Asia, these guidelines would help tremendously in minimising the impact of fire on biodiversity.

One other activity that ARCBC is promoting and which is very useful in the Philippines is Participatory 3-D Modelling (P-3DM), a very important tool for land use or natural resources management that espouses community participation. The DENR agrees that management would be effective only when communities actively participate.

Similarly, the networking activities of the Centre are crucial to the success of conserving biodiversity in a regional or global scale. Establishing viable linkages among member countries both of the ASEAN and the European Union are positive signs of the Centre's commitment to facilitating the

protection and conservation of what is left of our important and biologically diverse flora and fauna. Undoubtedly, cooperation makes every task easy, especially when tackling the global issue of biodiversity loss.

The DENR likewise welcomes the Centre's establishment of the World Roster of ASEAN Biodiversity Specialists, which we in the DENR and in all Southeast Asian countries would be very happy to enlist.

In all the above and other activities, the DENR acknowledges the invaluable financial and technical support being provided by our neighbouring European Union member countries. International support is truly needed because every country is part of this worldwide web of life. On the part of the DENR, we will do our best to fulfill our commitments and responsibilities.

My congratulations to the ARCBC and its entire workforce for this worthwhile effort.



**HEHERSON T. ALVAREZ**

Secretary

Department of Environment  
and Natural Resources



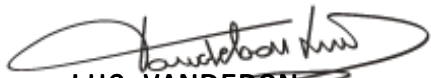
The Delegation of the European Commission to the Philippines is happy to acknowledge the achievements of the ASEAN Regional Centre for Biodiversity Conservation for the year 2001.

The ARCBC has indeed come a long way since the project's inception in 1999. For the past three years, the Delegation has witnessed a remarkable progress in its activities, which can be attributed to the support and cooperation of each National Biodiversity Reference Unit (NBRU), the commitment of the management and staff, and of the Department of Environment and Natural resources. Cooperation is truly a key word as far as intensifying biodiversity conservation is concerned and an essential component in any effort toward sustainability.

We are optimistic that through its final phase, ARCBC shall strengthen its networking and linkage building activities to make a significant impact – or even a historical mark – in the global effort of conserving biodiversity, which in South East Asia is among the most diverse and unique. We also expect to see further progress in the activities of each NBRU.

The assistance of the European Commission for the ARCBC project activities will end at some point, but the EC shall continue supporting efforts in biodiversity conservation, considering that the loss of biodiversity is not confined to one country or region but is a concern of countries worldwide.

The Delegation is looking forward that in the remaining years of the project, ARCBC together with the NBRUs will be established as a strong, respected, and sustainable network in the ASEAN Countries.



**LUC VANDEBON**

Chargé d'affaires a.i.

Delegation of the European Commission to the Philippines





As a new chapter unfolds in this five-year project, we look back to the past three years that have brought us to where we stand now. From the organising of the office to establishing networks and linkages, the Project in 2001 has moved onward toward solidifying and strengthening these



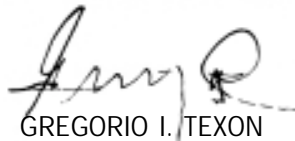
collaborative efforts and linkages amongst the ASEAN and European Union Member Countries.

Our goal of “intensifying biodiversity conservation through improved cooperation in a comprehensive regional context” can only be realised through solid and continuing networks and linkages as well as increasing and sustaining efforts.

The Project’s networking, research, training and information management components, which the European Community fully supports through technical and financial assistance, have focused on institutionalising efforts geared toward their sustainability, especially when the project ends in 2004. As such, several memoranda of agreements have been forged and linkages and networks established and strengthened.

In particular, our outreach and visibility programme has greatly improved with the launch of our website and the publication of our quarterly newsmagazine – *ASEAN Biodiversity* - and other reference materials. These publications are distributed all over Southeast Asia and other major countries of Asia, Europe, Australia, Africa and America.

This Annual Report to the Public provides a brief but informative background on what the project has achieved for the year 2001, and what it intends to do in the coming year.

A handwritten signature in black ink, appearing to read 'Gregorio I. Texon', written over a light blue horizontal line.

GREGORIO I. TEXON  
ASEAN Co-Director

A handwritten signature in black ink, appearing to read 'John R. Mackinnon', written over a light blue horizontal line.

JOHN R. MACKINNON  
EC Co-Director

For the year 2001, the ASEAN Regional Centre for Biodiversity Conservation has increased and strengthened its networking and linkage-building activities to realise its primary goal of intensifying biodiversity conservation through improved cooperation among the 10 ASEAN member countries. Several strategies have been developed to meet the following objectives:

## Maintaining and expanding the Intra-ASEAN and ASEAN/EU Network of Institutions

- ❖ The Centre launched both the ASEAN and EU Chair programmes through the crossposting of ASEAN and European scientists and researchers in ASEAN institutions. Malaysian scientist - Dr. Ang Lai Hoe - was posted to the Universiti Brunei Darussalam (UBD). The European Union's Dr. Eberhard Curio has been posted as research collaborator to other research projects in the Philippines.
- ❖ The visits of the Co-Directors to 23 European institutions to establish more links and develop collaborative programmes resulted in the inclusion of six new activities for ARCBC's 2002 work plan and budget.

## Fostering partnership with ASEAN institutions

- ❖ National Biodiversity Reference Unit (NBRU) coordinators and ARCBC held two consultative meetings to report on their major accomplishments, recommend measures to address project concerns, and to plan the project activities and budget for 2002.
- ❖ The ASEAN Senior Officials on the Environment (ASOEN), which is the Steering Committee of ARCBC, approved the core and proposed activities of ARCBC for 2002 during their 4<sup>th</sup> meeting on August 2001 in Brunei Darussalam.
- ❖ ARCBC and IUCN signed a Memorandum of Agreement on October 17, 2001 and agreed to promote the conservation and sustainable use of the components of biological diversity among ASEAN member countries, among other commitments.

## Setting up ASEAN-wide Dialogues on Biodiversity Policies and Issues

- ❖ A set of guidelines on protecting and conserving biodiversity against forest fires was produced during the workshop on Minimising the Impact of

Forest Fire on Biodiversity in the ASEAN region.

- ❖ The Guidelines and Criteria in the Selection and Establishment of ASEAN Heritage Parks have been finalised and copies were distributed to all NBRUs and concerned entities.
- ❖ **Transborder Conservation.** ARCBC and the Danish Agency for Development Assistance (DANIDA) provided financial and technical assistance to the National Environment Agency of Vietnam to host a transfrontier forum for the three IndoChina countries. Several recommendations emerged to better control and prevent actions that damage biodiversity in common border provinces.

### Strengthening Human Resource Capacity in ASEAN for Biodiversity Conservation

- ❖ The ARCBC sponsored an ASEAN Training Needs Assessment (TNA) upon agreement by the NBRUs. The identified training needs were on taxonomy, assessment and management, awareness building, and data access and exchange. A total of 10 proposals as well as theme-focused activity packages were endorsed for ARCBC support.
- ❖ ARCBC has developed new strategies to help the ASEAN improve its human resources capability such as the following: On-Line Training Resources Centre, Best Practice Training Resources Availability to ASEAN and Development of Regional Occupational Standards for professionals and Workers on Biodiversity Conservation and Protected Area Management.
- ❖ The Centre also sponsored a training on Participatory 3-Dimensional Modelling (P3-DM) in Pu Mat National Park in Vietnam with at least 76 representatives from ethnic minority groups providing key information. In line with this, ARCBC is preparing the production of an educational video and a manual on P3-DM in both English and Vietnamese.

### Supporting Biodiversity Research in ASEAN

- ❖ The Scientific Experts Committee has recommended 14 more biodiversity research projects for implementation in the ASEAN. This brings to 38 the number of projects under the ARCBC Research Grant Programme. The programme was officially launched with the signing of contracts between

the Centre and the Philippine research proponents at the Office of the DENR Secretary. As of December 2001, about 50-80% of allocated funds had been disbursed to 15 research projects in the following countries: Indochina (1), Malaysia (4), Philippines (4), Thailand (2), and Vietnam (4). All these funded projects are now under implementation.

### Managing and Maintaining a Web-based Information Sharing System

- ❖ During 2001, the Centre launched its new website - [www.arcbc.org.ph](http://www.arcbc.org.ph) - as an interactive system for sharing information and knowledge about biodiversity. It contains background information on ARCBC and ASEAN member countries, news on regional and global biodiversity conservation, searchable databases, selected biodiversity links, and links to ARCBC's own Biodiversity Information Sharing Service (BISS).
- ❖ The **Web-based Biodiversity Information Sharing Service (BISS)** has increased the data provided on protected areas, descriptions, pictures, distributional data with maps, uses and conservation status of thousands of flora and fauna, among other data available.
- ❖ **ARCBC Interactive.** In line with the networking activities of ARCBC, some 256 specialists and institutions have already joined the **Roster of ASEAN Biodiversity Specialists**, which is a database of specialists and institutions from different parts of the world, in particular those engaged in various areas of biodiversity conservation in Southeast Asia and neighbouring countries.

### Information and Visibility Programme

- ❖ The closing year has also been a productive year in terms of project visibility and outreach. This was facilitated by ARCBC's taking over some of the staff of the EU-funded project, the National Integrated Protected Areas Programme, during the second quarter. The new Annex Office in Quezon City houses the Publications Unit, GIS Unit, and Web Development Unit. A number of publications (ASEAN Biodiversity Newsmagazine, Guidebook of Biodiversity Principles for Developers and Planners, Annual Report to the Public 2000, brochures about ARCBC and the Web) were produced and distributed to thousands of recipients all over Southeast Asia and other major countries of Asia, Europe, Australia, Africa and America. ■



The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) serves as the focal point for networking and institutional linkage among Member Countries of the Association of Southeast Asian Nations (ASEAN) and between ASEAN and European Union (EU) partner organizations to enhance regional capacity in promoting biodiversity conservation. It was established as an institution after being endorsed by the ASEAN Senior Officials on the Environment.

Launched through a five-year (1999-2004) joint cooperation project between the ASEAN and the EU, the Centre operates through its Philippine Headquarters in Los Baños, Laguna and its Annex in Quezon City as well as the National Biodiversity Reference Units in each member country. The Philippines' Department of Environment and Natural Resources (DENR) is the Project's Executing Agency.

The EU provides the means for networking, conducting applied research, training and providing technical assistance while the ASEAN provides office space, facilities and support personnel.■

## Goal

Intensify biodiversity conservation through improved cooperation in a comprehensive regional context

## Specific Objectives

- ❖ Manage a network of intra-ASEAN and ASEAN/EU institutional links;
- ❖ Foster collaborative partnership between ASEAN and European institutions in the fields of networking, training, research and information management;
- ❖ Assess and strengthen human resources capability;
- ❖ Assess and improve the flow of information;
- ❖ Analyze document and disseminate information on regional biodiversity conservation;
- ❖ Maintain an appropriate database referral system;
- ❖ Assist institutions and stakeholders in policy analysis;
- ❖ Propose and coordinate regional initiatives on biodiversity issues; and
- ❖ Assist in improving biodiversity conservation curricula.■



# Maintaining and Expanding the Intra-ASEAN and ASEAN/EU Network of Institutions

## ASEAN Chair Programme: Cross Posting of ASEAN Scientists and Researchers in ASEAN Institutions

The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) launched its ASEAN Chair Programme with the posting of Malaysian Scientist Dr. Ang Lai Hoe, from the Forest Research Institute of Malaysia, to Universiti Brunei Darussalam (UBD) on November 17, 2001. Dr. Ang submitted the First Technical Report on the UBD Project entitled “Vegetation Rehabilitation of Burnt Over Forests of the UBD Campus”, which discusses the strategies in rehabilitating the grassland at UBD. This is one of the research projects funded under ARCBC’s Research Grant Programme.

## EU Chair Programme: Posting of European Experts on Biodiversity or Biodiversity Visiting Chairs in the ASEAN

ARCBC launched the EU Biodiversity Chair Programme in July 2001 with the posting of German scientist Dr. Eberhard Curio of the Ruhr-Universitte Bochum as research collaborator to one of the ARCBC-funded research projects entitled “Ecological Assessment, Restoration and Protection of the Northwest Panay Low Elevation





Biodiversity project entitled “Ecological Assessment, Restoration and Protection of the Northwest Panay-low elevation forest: Developing Community-Based Agroforestry Systems for Natural Resource Management”

Forest: Developing Community-Based Agroforestry Systems for Natural Resource Management”. Candidates for 2002 have also been identified.

### Establishing Linkages with European Institutions

The ARCBC Co-Directors visited 23 institutions and conferred with 32 scientists, researchers and project administrators of European institutions from April 15 to May 08, 2001 to establish more links and develop collaborative programmes and activities dealing with policy analysis, database management, research and training on biodiversity. From these visits, six new activities have been included in the project work plan and budget for 2002. ■

# Fostering Partnership with ASEAN Institutions and Members

## National Biodiversity Reference Units

Two Consultative Meetings were held between ARCBC and the National Biodiversity Reference Unit (NBRU) Coordinators. The 3<sup>rd</sup> Consultative Meeting, held on March 19-20, 2001 in Brunei Darussalam, confirmed the major accomplishments of ARCBC and made recommendations that would address project concerns.

The 4<sup>th</sup> Consultative Meeting was held on November 6-9, 2001 in Manila, Philippines. NBRU Coordinators discussed and planned with the ARCBC Co-Directors and staff the project activities and budget for 2002.



NBRU Coordinators (facilitated by representatives from the ASEAN Secretariat) lay down their project concerns.



NBRU Coordinators help build the training programmes for 2002.

## ASEAN Senior Officials on the Environment

The Steering Committee provides overall directions and approves the project work plans of ARCBC. The ASOEN members approved the ARCBC Research Grant Programme and policy review of ASOEN in EU Countries during the Extraordinary Meeting of the Steering Committee (SC) of ARCBC. The SC Extraordinary Meeting was held during the 6<sup>th</sup> Informal ASEAN Meeting of the Ministers of Environment held on May 15, 2001 at Phnom Penh, Cambodia.

This was followed by the 4<sup>th</sup> Meeting of the SC of ARCBC held on August 2, 2001 in Brunei



ASOEN members look into the progress of ARCBC programmes.

Darussalam. The ASOEN appraised the progress of project activities and approved the core and proposed activities of ARCBC for 2002. The ARCBC Co-Directors attended both meetings.

### Memorandum of Understanding Between ARCBC and IUCN

ARCBC and IUCN-The World Conservation Union, Asia Region (IUCN-Asia), have agreed to support each other in fulfilling their respective missions, cooperate in promoting, among ASEAN Member Countries, the conservation and sustainable use of the components of biological diversity and the equitable sharing of benefits arising from their use, in a Memorandum of Understanding (MoU) signed by both parties on October 17, 2001.

Co-Directors Gregorio I. Texon and John R. MacKinnon signed for ARCBC while Aban Marker Kabraji, Regional Director of IUCN-Asia; and Balakrishna Pisupati, Head of the IUCN Regional Biodiversity Programme in Asia, signed for IUCN-The World Conservation Union.

IUCN-Asia has four offices in the ASEAN: the Asia Regional Office located in Thailand, country offices in Vietnam and Lao PDR, and a liaison office in Cambodia. ■



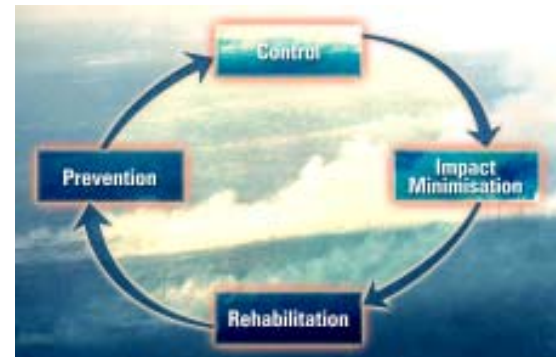
# Setting Up ASEAN-Wide Dialogues on Biodiversity Policies and Issues

## Minimising the Impact of Forest Fire on Biodiversity in ASEAN

The Workshop on Minimising the Impact of Forest Fire on Biodiversity in ASEAN held on March 22-23, 2001 in Brunei Darussalam produced a set of guidelines on protecting and conserving biodiversity against forest fire and rehabilitation measures on the affected areas. ASEAN focal persons on forest fire, NBRU Coordinators, ASEAN and EU forest fire experts and resource persons, and the ARCBC Co-Directors and Staff attended the workshop. ARCBC

finalised the full report on

the Guidelines on Minimising the Impact of Forest Fires on Biodiversity in ASEAN and copies were distributed to all NBRUs and participants. These guidelines are now in process of being forwarded to appropriate bodies.



Schematic diagram of the infinite-cycle of managing wildfires.



Photo courtesy of Thailand National Biodiversity Reference Unit

Thai fire-fighters in action.



Proceedings of the Forest Fire Workshop held in Brunei Darussalam.

## ASEAN Framework Agreement on Access to Biological and Genetic Resources

The ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) held their 11<sup>th</sup> Meeting on July 17-18, 2001 at Melaka, Malaysia and discussed the ASEAN Framework Agreement on Access to Biological and Genetic Resources. The AWGNCB had agreed on a two-pronged approach:



“Several land races of farmers’ varieties are known to scientists and breeders due largely to their high adaptivity to conditions of primitive agricultural practices and thus, are good sources of genetic materials for crop improvement” – National Report on Biodiversity Conservation in Thailand, Office of Environmental Policy and Planning, Ministry of Science, Technology and Environment

- ARCBC would assist in providing the guidelines that would clarify the implications of the Agreement to the implementing agencies; and
- AWGNCB would recommend to ASOEN the formation of a technical panel under ARCBC that would review the Framework for further action.

## Guidelines and Criteria in the Selection and Establishment of ASEAN Heritage Parks

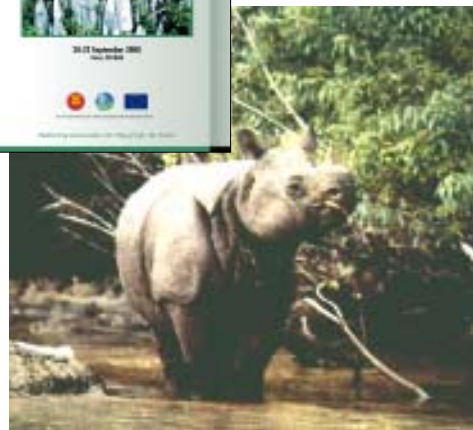
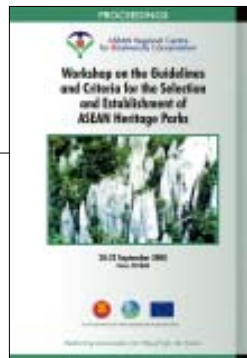
The AWGNCB also discussed the Guidelines and Criteria in the Selection and Establishment of

ASEAN Heritage Parks. As agreed during the 11<sup>th</sup> Meeting, comments may be submitted until December 2001. With this, the guidelines and full report on the workshop were finalised and copies were distributed to all NBRUs and other participants.

## First Biodiversity Conservation Forum of Cambodia, Laos and Vietnam

The First Biodiversity Forum of the Kingdom of Cambodia, Lao People's Democratic Republic (PDR) and the Socialist Republic of Vietnam was held in Ha Tinh, Vietnam from August 15-18, 2001. Some 100 biodiversity scientists and managers attended the event. Representatives of the three countries shared various issues and experiences in the conservation and sustainable use of biodiversity in their respective countries. ARCBC and the Danish Agency for Development Assistance provided financial and technical support to the National Environment Agency of Vietnam to host the transfrontier forum.

At this forum, the three countries agreed to organise a similar event and to create a common strategy for protecting their environment, focusing on the conservation and sustainable use of biodiversity along the borders. Participants also



Javan Rhino (*Rhinoceros sondaicus*) one of endangered species found in Ujung Kulon National Park. Photo courtesy of the Ministry of Forestry and Plantation, Directorate General of Forest Protection and Nature Conservation.

recommended that the three countries accelerate the development of effective mechanisms that would control and prevent actions that cause damage to biodiversity in common border provinces between and among the three countries. They also recommended that they study the possibility of compiling a Common Red List for Cambodia, Laos and Vietnam as well as to call for international assistance in their efforts to promote biodiversity surveys and inventories in the three countries. The three countries were also encouraged to further promote biodiversity information sharing activities and further enhance public awareness on biodiversity. ■

# Strengthening Human Resource Capacity in ASEAN for Biodiversity Conservation

## ASEAN-Wide Training Needs Assessment For Biodiversity Conservation

ARCBC sponsored an ASEAN Training Needs Assessment (TNA) for Biodiversity Conservation after the NBRUs agreed to bring the TNA process to an end. This was conducted through a workshop







Working Groups (*above and right photos*) evaluating training proposals and developing theme-focused activity packages.



## Training Needs Assessment for Biodiversity Conservation in Indonesia

The Workshop on TNA for Biodiversity Conservation in Indonesia was held from February 1-2, 2001. It identified and discussed the training and training materials related to biodiversity. Among the training needs identified for biological diversity were non-destructive techniques of biological resources; identification of endangered wildlife; survey techniques of wildlife population density; biological monitoring techniques; taxonomy; GIS application; wildlife propagation; database management; information sharing; conflict management; and standardisation of methods of data collection.

from April 25-27, 2001 in Bangkok, Thailand. NBRU Coordinators and representatives from Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam presented summaries of their country training needs during the workshop conducted from April 25 to 27 in Bangkok, Thailand. The identified training needs were on taxonomy, assessment and management, awareness building and data access and exchange. Of the 62 training proposals evaluated, 10 were endorsed as suitable for ARCBC implementation. Theme-focused activity packages were also developed and endorsed.

## ARCBC Lectures

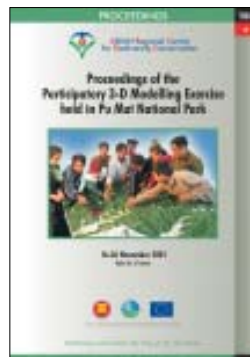
In celebration of the National Science Month and the Environment Month, which is June, ARCBC conducted lectures on Biodiversity Conservation and about ARCBC to high school and college students as well as participants to the International Training Course on Watershed Management, and the ASEAN Society of Foresters.

## Participatory 3-D Modelling Training in Vietnam

The National Environment Agency, Vietnam National Protected Areas Association, Social Forestry and Nature Conservation of Nghe An Project (SFNC) and ARCBC jointly organised a training (16-26 November 2001) on Participatory 3-D Modelling in Pu Mat National Park, Nghe An, Vietnam. Trainees included representatives from government agencies, national parks, non-government organisations, projects and the academe. At least 76 key informants from Ethnic Minority Groups living within the buffer and core zones of the park provided the major inputs to the resulting 3-D model, which displays a wealth of information including 23 different land use

and land covers; 23 different point data and 9 different types of linear data.

Interpersonal dynamics, final workshop assessments and the closing remarks made by the trainees, all clearly indicate how the park and SFNC project staffs valued collective community knowledge as a valid and substantial asset to be considered for the management of the park and its buffer zones. In addition to this, the exercise was the first occasion for most key informants to visit the Protected Area Office Compound, which is located at a considerable distance from the park. Some participants had to travel for two days to reach the venue. It was their first time to be “actors on the scene” and play the role of “resource persons”. All these human interaction dynamics are likely to represent stepping-stones for improved relationships and mutual trust between park/project staff and communities residing within the core area and buffer zone. As Mr. Andrew Weir (EU Co-director, SFNC) spelled out in his closing remarks, “Participatory 3-D Modelling has proven to be – among others - an efficient means for bringing people together”.



The Centre will produce an educational video and a manual on Participatory 3-D Modelling in both English and Vietnamese as integral parts of the information media devised by ARCBC for disseminating the technique. ■



Trainees, supported by park and SFNC staff, students and teachers from local schools, ventured into the various phases of the exercise: tracing contours, cutting out single contour layers and pasting one on top of the other, assembling the model and consolidating the various layers with the use of crepe papers.

# Improving Biodiversity Curricula in ASEAN



## National Trainers' Training on Biodiversity Conservation and Sustainable Development Education at the Tertiary Level

With ARCBC as sponsor, the Philippine Association of Tertiary Level Education Institutions on Environmental Protection and Management, together with the Environmental Management Bureau and the Protected Areas and Wildlife

Bureau of DENR conducted the National Trainers' Training on Biodiversity Conservation and Sustainable Development Education at the Tertiary Level from June 26-29, 2001.

The participants developed their individual, their institutions' and major action plans to strengthen biodiversity conservation and sustainable development education.

ARCBC will continuously build up and maintain linkages/networks for data exchange and sharing of expertise on biodiversity.■

# Supporting Biodiversity Research in ASEAN

## ARCBC Research Grant Programme

The Scientific Experts Committee (SEC) of ARCBC recommended 14 more biodiversity projects for implementation in the ASEAN with funding by the Centre. This brings to 38 the number of projects under ARCBC's Research Grant Programme, which has a total budget of 2.5 million euro provided by the European Commission. The 3<sup>rd</sup> Meeting of the SEC and 2<sup>nd</sup> Research Conference was held from February 7-10 in Tagaytay City, Philippines.



SEC members review the pre-evaluated proposals for the ARCBC Research Grant Programme



Dipping of cutting into a solution of IBA to trigger root formation.

PHL 004 - Ecological Assessment, Restoration and Protection of the Northwest Panay Low-Elevation Forest Ecosystem: Developing Community-Based Agroforestry Systems for Natural Resources Management and Biodiversity Conservation



Aerial photograph of pepper plantation on peatland in the project site. Aborigines used fire to clear portions of land for pepper cultivation, however the burning was uncontrolled affecting the forest reserved adjacent to it. Haze can be clearly seen polluting the air.

MYS 003 - Regional Collaboration for Conservation of Peatland Biodiversity in Southeast Asia



Photo by Louis Deharveng

Collection of cave aquatic crustaceans in a pool inside Gua Saripa, Maros, South Sulawesi

IDN 009 - Marine Biodiversity Loss in Spermonde Islands, Southern Sulawesi, Indonesia: Assessing Capacity and Impacts of Destructive Fishing Practices



Coral reef diversity of Krakatau Islands in Lampung Province, Indonesia

IDN 004 - Identification of Coral Reefs Biodiversity Toward Reef Conservation of the Krakatau Islands in Lampung Province)

ARCBC launched its Research Grant Programme, with the signing of contracts between the Centre and three government agencies and one NGO from the Philippines on July 12, 2001 at the Office of the DENR Secretary in Quezon City, Philippines. The Philippines-based projects have a total worth of 271, 525 euro. Signing of contracts of the other approved biodiversity research projects followed in Brunei Darussalam, Indonesia, Malaysia, Singapore, Thailand and Vietnam.



Visayan warty pig (*Sus cebifrons*), one of the endangered mammal of Negros

PHL 002 - Responses of herpetological and Mammalian Faunas of Negros Island, Philippines to Fragmentation of the Tropical Rainforest



*Acropodium hamulatum* on the tree bark

VNM 010 - The study and conservation of bryophyte diversity of Vu Quang Protected Area in Ha Tinh Province

After the successful launching of the Programme, implementation of the research projects started the same year. Below is the number of projects per country and their corresponding total budget (**Table 1**).

Table 1. Distribution of Projects with the Corresponding Budget under the ARCBC Research Grant Programme

Country	Number of Projects	Total Budget (In EURO)
Brunei Darussalam	2	179,000
Indonesia	9	402,247
Malaysia	4	350,520
Philippines	4	271,525
Singapore	2	115,000
Thailand	5	390,311
Vietnam	10	490,760
ASEAN-wide	2	300,637
<b>Total</b>	<b>38</b>	<b>2,500,00</b>

# Managing and Maintaining a Web-Based Information Sharing System in ASEAN

## Biodiversity Data and Information Sharing Via the World Wide Web

ARCBC manages and maintains the ARCBC website, [www.arcbc.org.ph](http://www.arcbc.org.ph). through the Database Branch and the ARCBC Annex in Quezon City, Philippines. The website features a metadatabase and web-based information sharing system called BISS or Biodiversity Information Sharing System.



Results of query on BISS.



(<http://www.arcbc.org.ph/biss.htm>).

BISS provides basic data on protected areas, descriptions, pictures, distributional data with maps, information on uses and conservation status of many thousands of species of flora and fauna across the Southeast Asian Region. ARCBC

maintains data on the biodiversity in the ASEAN region, together with data on protected areas and socio-economic and demographic profiles of the 10 member countries. **Table 2** summarises the available data on the web. ■

Table 2. Summary of available data on web as of December 21, 2001.

Taxa	ASEAN Member Countries										Total No. of Species	% with Description	% with pictures
	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM			
Birds	480	457	1,530	628	667	997	668	388	932	787	2,386	95.93	68.82
Mammals	228	152	648	247	305	265	218	61	250	259	945	23.92	36.83
Amphibians	57	25	348	69	216	81	98	30	130	122	655	68.70	9.16
Freshwater Fishes	80	476	1,005	482	488	315	295	103	619	374	1,997	~99.65	Depends on Fishbase
Protected Areas and Other Areas of Interest	ASEAN Member Countries										Total No. of Species	% with Description	% with pictures
	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM			
Protected Areas and Other Areas of Interest	15	30	300	25	50	20	246	10	242	117	1,055	77.07	70.52

# Information and Visibility Programme

## Development, Packaging and Printing of Publications

### ASEAN Biodiversity Magazine

A total of 4,500 copies of the maiden issue of 'ASEAN Biodiversity', the official newsmagazine of ARCBC, was printed and released during the third quarter. Two other issues followed, each focusing on forest fire and on training. The newsmagazine has close to 2,000 subscribers from 62 countries of Southeast and other Asian countries, Europe, Australia, Africa and America.



### Guidebook of Biodiversity Principles for Developers and Planners

The Centre produced 4,000 copies of the Guidebook of Biodiversity Principles for Developer and Planners to help lessen the damages caused the increasing development activities in Southeast Asia. John R. MacKinnon, Colin Rees and Monina Uriarte wrote the guidebook.



### Annual Report to the Public 2000

A total of 2,000 copies of the ARCBC Annual Report to the Public was printed and distributed to key individuals and institutions in Southeast Asia, Europe and other parts of the world.



### ARCBC Web Flyer and Brochure

The Centre printed 5,000 copies of the ARCBC brochure and 4,000 of the web brochure, and distributed to various audiences within and outside the ASEAN region.



### Adoption of a New Logo

ARCBC adopted a new logo showing the ASEAN symbol being supported by the plant and animal kingdoms, represented by a dipterocarp seed and a bird. The bird and dipterocarp seed also represent the air and land surrounding the ASEAN. The logo depicts the life and economic support that biodiversity provides the ASEAN region.



### ARCBC Website ([www.arcbc.org.ph](http://www.arcbc.org.ph))

DENR Secretary Heherson T. Alvarez as head of the Executing Agency officially launched the Centre's website on June 11, 2001. The web contains background information on ARCBC and the NBRUs, updates on ARCBC programmes, news on regional and global biodiversity conservation efforts, searchable databases and links to NBRUs and webs of selected organisations. ARCBC's Biodiversity Information Sharing Service (BISS) database is likewise linked to this website.

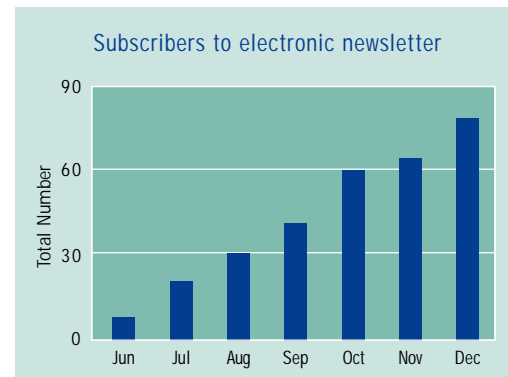
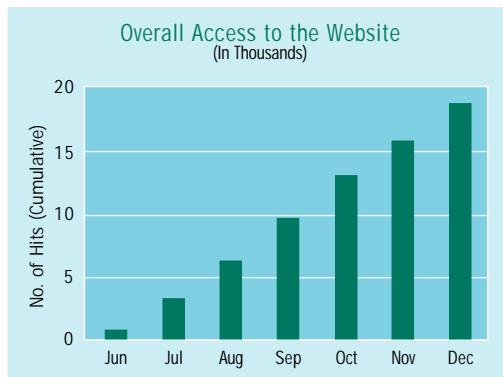


Screen shot of the ARCBC website: [www.arcbc.org.ph](http://www.arcbc.org.ph)

## World Roster of ASEAN Biodiversity Specialists

In line with ARCBC's over-all goal of setting up a network of institutional links among ASEAN countries and between ASEAN and EU partner organisations, some 256 specialists and institutions have joined the World Roster of ASEAN Biodiversity Specialists. The roster is a database of specialists and institutions from different parts of the world, particularly those engaged in various areas of biodiversity conservation in ASEAN and neighbouring countries. It is readily available through the Centre's website: [www.arcbc.org.ph](http://www.arcbc.org.ph).

There is no doubt that the development of an appealing, user friendly and up-to-date web site has drawn the attention of the Internet community as shown by the following statistics:



## ARCBC Press Releases in Leading National Newspapers

Leading newspapers in ASEAN member countries have published a total of 26 news, feature and editorial stories and photo releases on ARCBC programmes and activities. ■

B-4 *The Philippine Star* **BUSINESS**

### RP-based center leads int'l effort to intensify biodiversity conservation

LOS BAÑOS, Laguna — Biodiversity in Southeast Asia is now getting the attention it rightly deserves.

Now spearheading the thrust is the Los Baños-based ASEAN Regional Center for Biodiversity Conservation (ARCBC), which came into being in July 1987 following the signing of a financing agreement between the European Communities (EC) and the Association of Southeast Asian Nations.

The center's overall project goal is to intensify biodiversity conservation through improved cooperation in a comprehensive regional context by assisting in setting up a network of institutional links among ASEAN countries and between ASEAN and Europe.

Dr. Mac Kinnan, and ASEAN co-director Gueorgui Tzeve described Southeast Asia as one of the most important regions of the world in terms of its biological richness; but its resources are under heavy pressure considering that the region is one of the most densely inhabited parts of the world.

Southeast Asia now has a population about 400 million who heavily depend biodiversity through the daily extracts timber, wildlife, fruits, fibers, and medicinal plants and harvesting of valuable gem materials from the native germplasm of a region on an increasing scale.

The ARCBC office stressed that it

An ARCBC research program on biodiversity conservation has been set in motion. Thirty-one research proposals have been approved. Of these, seven will be undertaken in Indonesia, seven in Vietnam, three in the Philippines, three in Malaysia, and one in Thailand.

### Asean to tackle forest fire issue

By RUDY A. FERNANDEZ

Every year, especially during summer, natural and man-induced fires gobble up vast tracts of forestlands in the Philippines.

The same is true with Indonesia, whose lush forests decades back offered a scenic greenery in most of its more than 13,000 islands.

Less affected but similarly situated are other member countries of the Association of Nations (ASEAN).

MBE) are considerably endan-

of Indonesia's prized orang-

inated that 97 percent of the itans have been eradicated entry. Of the survivors, 35

in the past four years.

were heavily affected by the killed animals, caused lung smoke inhalation, destroyed 4 changed the fruiting pat-

terns," lamented Dr. John R. director for the European at Los Baños-based ASEAN for Biodiversity Conserva-

tioned. "Although fires burn and secondary forest, each into the evergreen forest, es-

soils or when logging leaves able later.

In the past few decades, ASEAN n have experienced the ad-

verse fire, not to the physical and eog-

omy of the ASEAN countries. large it causes, the smoke forest fire has put in danger people living within and in

### Biodiversity Center has two new member-countries

LOS BAÑOS, Laguna — The ASEAN Regional Center for Biodiversity Conservation (ARCBC) based here has two new member countries.

The admission of Cambodia and Lao People's Democratic Republic (PDR) brought to nine the members of ARCBC, which was created to intensify the promotion of biodiversity conservation and the use of its components in the Association of Southeast Asian Nations

(ASEAN) region. Original members were Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam.

ARCBC, which was launched in 1989, aims to achieve its objectives through improved cooperation and coordination among the member countries in a comprehensive regional context.

"We appreciate the objectives of ARCBC and would like to start actively participating

in the activities of the center as a member country," Soukhata Vichit, ASEAN Senior Official on the Environment (ASOEN) chairman for Lao PDR, said in his letter to the ASOEN chairman Philippines. He is also the focal person of ARCBC in his country.

The Prime Minister's Office of the Science, Technology and Environment temporarily serves as the national biodiversity reference unit (NBIRU) in



WE WISH THEM SUCCESS IN THEIR GREAT EFFORT TO IMPROVE AND PROMOTE ENVIRONMENTAL AWARENESS IN THE REGION AND THE WHOLE WORLD.

... as the project's es-... about the events of fire and have been... following of the meeting...

# Fulfilling International Commitment to the Environment

## Seminar-Workshop on Biodiversity and Management of Alien Invasive Species in the Philippines

In celebration of the International Day for Biological Diversity, ARCBC conducted the *Seminar-Workshop on Biodiversity and Management of Alien Invasive Species in the Philippines* from May 22-23, 2001.

The workshop participants recommended precautionary and preventive measures to successfully deal with Alien Invasive Species, and also the creation of a Task Force that would look into the different issues and concerns. They likewise called on the agencies involved to work together; review existing policies; formulate action plans; and implement them properly. ■



The apple snail had infested 11% of the irrigated rice fields in the Philippines, displacing the native kuhol (*Pila luzonica*).

Table 1: Utilization of EU funds per approved 2001 Annual Work Plan and Budget

Budget Headings	2001 Budget (Euro)	2001 Actual Expenditure (Euro)	2001 Budget (Peso)	2001 Actual Expenditure (Peso)	2001 Expenditure as % of Budget
1. Services (paid by ARCBC)	425,000.00	313,264.30	19,448,000.00	14,334,598.45	73.71
2. Equipment	90,000.00	96,013.44	4,118,400.00	4,393,459.80	106.68*
3. Not stated	0.00	0.00	0.00	0.00	0.00
4. Information – Visibility	15,000.00	14,129.50	686,400.00	646,548.96	94.19
5. Operation & Maintenance	30,500.00	57,126.95	1,395,680.00	2,614,060.68	187.30*
6. Not stated	0.00	0.00	0.00	0.00	0.00
7. Grants for Applied Research	1,500,000.00	459,018.63	68,640,000.00	21,004,141.69	30.60
8. Others	333,750.00	186,039.50	15,272,400.00	8,512,944.27	55.74
<b>Total</b>	<b>2,394,250.00</b>	<b>1,125,592.32</b>	<b>109,560,880.00</b>	<b>51,505,753.85</b>	<b>47.01</b>

Note: Exchange rate: 1 Euro=P45.76

\* Unexpected expenditure caused by absorption of Quezon City Annex.

Table 2: Utilization of GOP funds per approved 2001 Annual Work Plan and Budget (in Peso)

Budget Headings	2001 Budget (Peso)	2001 Actual Expenditure (Peso)	2001 Expenditure as % of Budget
1. Personnel Services	1,805,000.00	1,805,000.00	100
2. Maintenance and Operating Expenses	7,837,000.00	7,837,000.00	100
3. Capital Outlay	0	0	0
<b>Total</b>	<b>9,642,000.00</b>	<b>9,642,000.00</b>	<b>100</b>



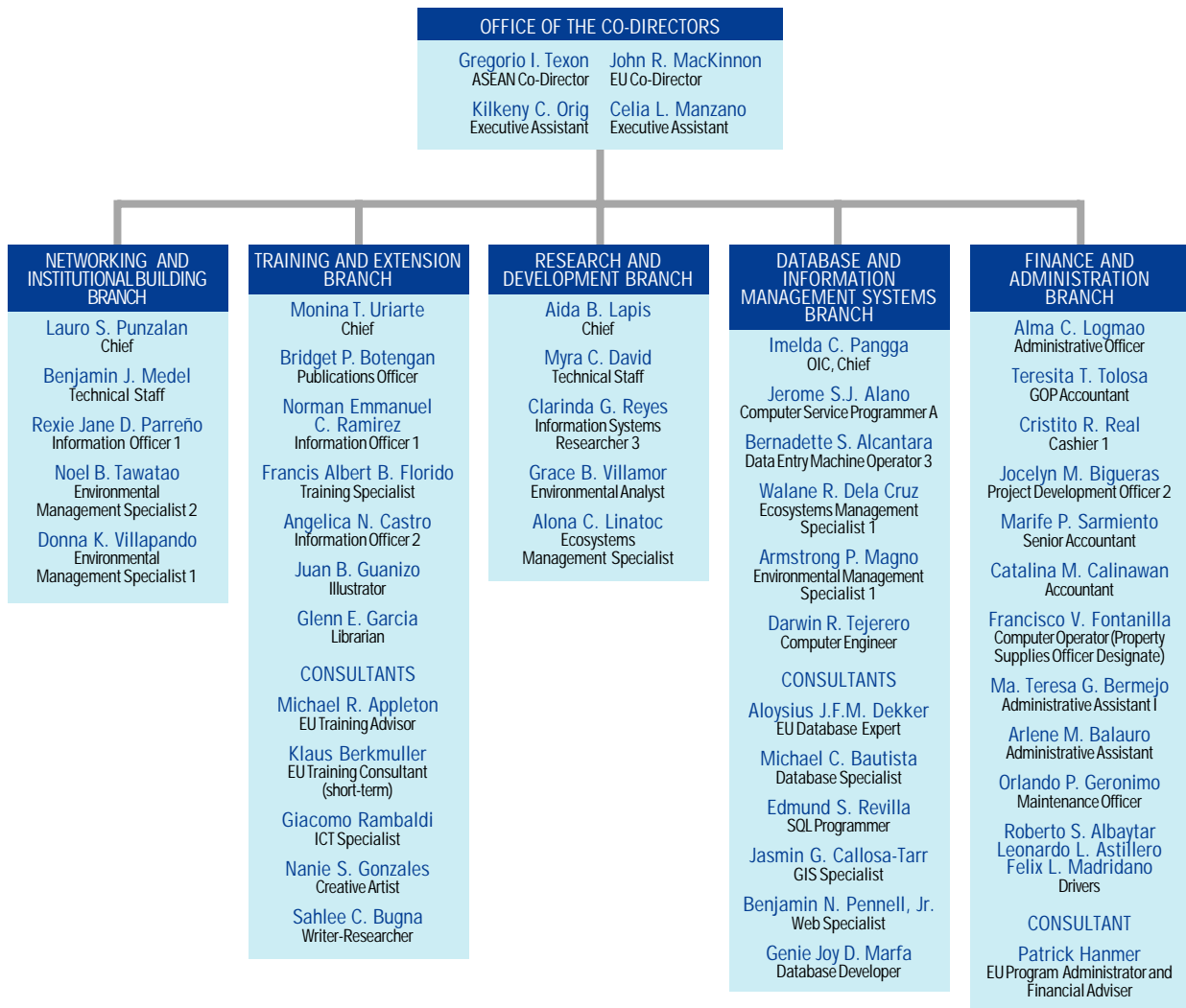
Table 3: Utilization of EU funds as of 31 December 2001

Description (ase defined in the Financing Agreement, including creditors and debtors)	EU Budget as per Financing Agreement	Expenditure to Date	Balance Remaining (Euro)	EU Budget as per Financing Agreement	Expenditure to Date	Balance Remaining (Peso)	Balance Remaining as % of Budget
1. Services (paid by ARCBC)	1,486,500.00	394,466.13	1,902,033.87	68,022,240.00	18,050,296.75	49,971,943.25	73.46
2. Equipment	512,000.00	299,643.00	212,357.00	23,429,120.00	13,711,304.00	9,717,816.00	41.48
3. Not stated	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4. Information – Visibility	50,000.00	16,653.00	33,347.00	2,288,000.00	762,021.30	1,525,978.70	66.69
5. Operation & Maintenance	260,600.00	151,548.00	109,052.00	11,925,056.00	6,934,654.62	4,990,401.38	41.85
6. Not stated	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7. Grants for Applied Research	2,500,000.00	459,018.63	2,040,981.37	114,400,000.00	21,004,141.69	93,395,858.31	81.64
8. Others	1,006,000.00	304,184.00	702,816.00	46,034,560.00	13,919,094.82	32,115,465.18	69.76
<b>Total</b>	<b>5,815,100.00</b>	<b>1,625,512.76</b>	<b>4,189,587.24</b>	<b>266,098,976.00</b>	<b>74,381,513.18</b>	<b>191,717,462.82</b>	<b>72.05</b>

Note: Exchange rate: 1 Euro=P45.76

Table 4: Total GOP support funding as of 31 December 2001 (in Peso)

Budget Headings	Allotment					
	1997	1998	1999	2000	2001	TOTAL
1. Personnel Services	–	326,854.00	–	1,963,000.00	1,805,000.00	4,094,854.00
2. Maintenance and Operating Expenses	8,906,000.00	2,864,500.00	7,493,000.00	8,837,000.00	7,837,000.00	35,937,500.00
3. Capital Outlay	7,094,000.00	–	–	–	0.00	7,094,000.00
<b>Total</b>	<b>16,000,000.00</b>	<b>3,191,354.00</b>	<b>7,493,000.00</b>	<b>10,800,000.00</b>	<b>9,642,000.00</b>	<b>47,126,354.00</b>





*For more information about the project, please write or call:*

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