



# 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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Editing and design by ARCBC Training and Extension Branch

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# Contents

Message from the DENR Secretary .....	<b>5</b>
Message from the EC Ambassador .....	<b>7</b>
Foreword .....	<b>9</b>
Executive Summary .....	<b>11</b>
A Background .....	<b>14</b>
Project Objectives .....	<b>15</b>
The Network .....	<b>16</b>
Maintaining and Expanding the Intra-ASEAN and ASEAN-EU Network .....	<b>17</b>
Fostering Collaborative Partnership with ASEAN Institutions and Members .....	<b>19</b>
Setting Up ASEAN-Wide Dialogues on Biodiversity Policies and Issues .....	<b>21</b>
Strengthening Human Resource Capacity in ASEAN for Biodiversity Conservation .....	<b>23</b>
Supporting Biodiversity Research in ASEAN .....	<b>25</b>
Managing and Maintaining a Web-based Information Sharing System in ASEAN .....	<b>29</b>

Information and Visibility Programme .....	<b>31</b>
Regional Standard Setting Programme .....	<b>36</b>
Fulfilling International Commitment to the Environment .....	<b>39</b>
Sustainability .....	<b>40</b>
Budget and Finances .....	<b>42</b>
The ARCBC Staff .....	<b>45</b>



Biodiversity conservation has been one of the major thrusts of the Department of Environment and Natural Resources (DENR) since the Philippine Government ratified the Convention on Biological Diversity in 1993.

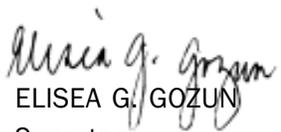
The DENR has been working closely with non-government organizations and other private groups in implementing projects that focus on biodiversity conservation and protected area management. Recognizing that biodiversity conservation is a global issue, the Philippine Government played a key role in the establishment of the ASEAN Regional Centre for Biodiversity Conservation (ARCBC) and the Joint Management of the Turtle Island Heritage Park.

With 3 of the 17 mega diverse countries in this region, there is no doubt that ASEAN's natural resources are not only rich in species but unique and diverse as well. As evidenced by this Annual Report, the ARCBC is achieving its goal of enhancing biodiversity conservation in the region. In addition, the operations of ARCBC have contributed to strengthening the cooperation among the member countries of ASEAN.

The success of ARCBC encourages us to intensify our efforts to provide technical and other forms of assistance to the Centre and to its projects. I am confident that the other member countries of ASEAN will continue to provide support for biodiversity conservation in the region. I am also very hopeful that the European Union will continue providing its invaluable assistance to the Centre.

On behalf of the Department of Environment and Natural Resources of the Philippine Government. I would like to thank the member countries of both the Association of Southeast Asian Nations and the European Union, as well as all the other international institutions, without whose support the Centre could not have been as successful as it has been.

Finally, I would like to congratulate the ASEAN Regional Centre for Biodiversity Conservation for assisting in efforts toward environmental protection and enhancement in the region.



ELISEA G. GOZUN

Secretary

Department of Environment  
and Natural Resources



The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) is an important institution for the conservation and protection of the biological diversity within the Association of Southeast Asian Nations (ASEAN) region. For almost four years ARCBC has been at the forefront of assisting ASEAN countries with its biodiversity conservation efforts through the establishment of a regional network of institutional links among ASEAN countries and between partner organizations in ASEAN and European Union Member States.

We are happy that in 2002, the Kingdom of Cambodia and the Lao Peoples' Democratic Republic have joined Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam in this Project.

Hosting one of the largest tropical rainforest that is home to more than a quarter of the world's diverse plants and animals, the Southeast Asian region deserves international assistance in protecting biodiversity. The European Commission (EC) has shown its support through its more than 20 years of friendly relations with the ASEAN region in terms of financing and technical assistance agreements on trade, environment, or rural development issues, that have been signed between the EC and the ASEAN as well as between EC and individual ASEAN member countries.

The possibility of continuing EC's support to the biodiversity conservation efforts in the ASEAN Region is another step in this friendly relations and commitment to biodiversity conservation. It is encouraging to know that ARCBC is moving forward toward its goal of helping the ASEAN countries in conserving the abundant species richness of the region, which truly deserves each and every country's support not only in the ASEAN and European regions but also worldwide.

We therefore encourage each participating member-country to continue its commitment with greater resolve to support and help any regional or world-wide effort to conserve biodiversity and protect the environment as a whole.



JAN DE KOK

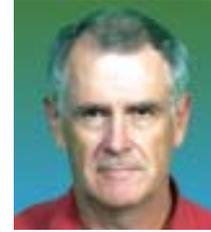
Ambassador

European Commission Delegation to the Philippines



2002 is a very eventful year for ARCBC!

The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) has paved its way in attaining its goal of *intensifying biodiversity conservation*



*through improved cooperation in a comprehensive regional context.”*

Both the regional and global profiles of ARCBC have increased considerably in 2002. ARCBC spearheaded the discussion on harmonising the management and conservation of trans-boundary reserves in ASEAN in collaboration with UNESCO. Likewise, the draft occupational standards for protected area jobs have already been well received. In 2003, we will see a programme of ‘adaptation and adoption” of these in the region.

The implementation of 53 research grant projects is well under way. The ASEAN-wide project “*Research on Systematics for ASEAN Scientists*” has taken off and eight young scientists were sent to Leiden University for a graduate course.

With ARCBC’s commitment to make biodiversity data available to those who need them, the ARCBC website [www.arcbc.org.ph](http://www.arcbc.org.ph) offers information on protected area lists and maps, species data including conservation status, description and pictures of some species of birds, mammals, amphibians and freshwater fish. These information are contained in the Biodiversity Information Sharing System (BISS) feature of the web. The website also houses three other databases: ASEAN Biodiversity Specialists/Organisation Database, the Training Resources Database and the Library Database. The website is serving a growing number of visitors averaging 4,500 per month.

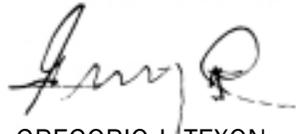
Our commitment toward biodiversity conservation is further enhanced through the development and distribution of the ASEAN Biodiversity, the

ARCBC newsmagazine, which is currently distributed in 64 countries worldwide.

We acknowledge the very important role played by the National Biodiversity Reference Units (NBRUs) and, together, it is our common hope that ARCBC will become a long-term Centre for the ASEAN Region.

The Mid-term Review was completed in 2002 and has concluded that the project is led by experienced and competent people who know what they are doing and can be trusted to do it, and that – it is deeply relevant to the way in which participating AMC governments and peoples respond in an informed fashion to the ASEAN biodiversity crisis. The Mission further concluded that the project is a very valuable enterprise that deserves continued support and urgent attention to the follow-on arrangement.

This Annual Report to the Public gives the full accomplishment of ARCBC in 2002 and intended activities for 2003.



GREGORIO I. TEXON  
ASEAN Co-Director



JOHN R. MACKINNON  
EC Co-Director

The year 2002 saw the ASEAN Regional Centre for Biodiversity Conservation (ARCBC) operating to its full potential, with a wide range of important achievements.

The inclusion of Cambodia and Lao PDR has generated new activities, notably the extension of the research grant programme and support for further transboundary protected area cooperation between these two countries and Vietnam.

The report of the mid-term review, which took place in August and September 2002, was generally positive and included 20 recommendations for the project to meet its objectives. The 2003 ARCBC work plan will reflect these recommendations.

We have also developed a web-based database of specialists and institutions primarily working on ASEAN biodiversity, and we will produce the list in a hard copy format for distribution to nine participating countries.

With the Training Needs Assessment of five countries completed, we hope to complete in 2003 both the TNA for Lao PDR that began in 2002, and for Cambodia.

We have likewise developed occupational standards to guide the national development of specific training activities. Standards were developed in 17 categories (equivalent to modules) up to five levels, and drafts of these were distributed to 9 ASEAN countries. We shall pilot these modules in the region in 2003 with a programme of 'adaptation and adoption', and specific programmes targeted at employers, projects, and training institutions.

Also, we have continued to ensure that biodiversity conservation research standards in the ASEAN Region are upgraded (in terms of methodology and skills) through the ARCBC Research Programme. To date, a total amount of 1,786,870,12 euros representing 65% of the 2.75 million euro grant allocation has been disbursed to the 53 research grant projects (including Cambodia and Lao PDR) of ARCBC; of the 53, three have been completed.

In line with our objective of developing and/or strengthening the

networking between EU and the ASEAN institutions, we have initiated a scholarship scheme in conjunction with Leiden University to allow young ASEAN taxonomists to study in the EU. Nine scholars were selected from the participants at the Regional Taxonomy Training Course held in Indonesia; 8 are now enrolled at Leiden University.

Regular database work continued throughout the year, mainly concerning the metadatabases and further enlarging/enhancing the biodiversity baseline database. In 2003, we will further develop the website metadatabases and the web-based BISS (Biodiversity Information Sharing System). We shall include special projects to provide better national and regional information on habitats and ecosystems and lesser-known taxa. A key challenge for us in 2003 is disseminating the technology and skills required for this innovative system to the NBRUs and other relevant national institutions in the region through regional training workshops and technical assistance visits to all countries. These information and materials developed through the database component will support a programme to develop and adopt ASEAN standards for recording and reporting biodiversity information.

Furthermore, in support to the ASEAN Senior Officials on the Environment (ASOEN) and ASEAN, a policy-development study tour to Europe was realised. ASOEN members were exposed to EU policies and programmes to address biodiversity conservation and other environmental issues at the regional, national and project levels. The activity also helped in enhancing their understanding of the approaches and procedures of the EU in formulating, implementing and monitoring common policies and programmes.

Participants of a regional workshop conducted in September 2000 in Vietnam produced a document "Guidelines and Criteria in the Selection and Establishment of ASEAN Heritage Parks" that were then distributed to participating countries for final comment. We shall forward this document to appropriate bodies in 2003 and then have it published.

In terms of ASEAN policy dialogues/review, we will support the ASEAN Working Group in studying the framework agreement on access to biological and genetic resources in 2003. We have also started planning for a big forum on decentralization, biosafety, transboundary and access to biological and genetic resources in 2003, where relevant policy makers and experts would be invited to review the policies and procedures applied in the region, and to make recommendations.

As for expenditures, we have utilised 2,292,950.40 euro or 71.90% of the combined 2002 EU and GOP budget. For the EU funds, 2,038,625 euro or 69.69% was utilised. To date, 3,664,138 euro or 54% of the total EU funds have been utilised. The last section of this annual report shows the details of these expenditures.■

The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) came into being by virtue of the Financing Agreement between the Commission of the European Communities and the Government of the Philippines on behalf of the Association of Southeast Asian Nations (ASEAN) in July 1997. It is a five-year (1999-2004) joint cooperation project between the ASEAN and the European Union (EU). The EU provides financial and technical assistance for the Centre's operations and major activities while the ASEAN provides office space, facilities and support personnel.

The ARCBC serves as a focal point for collaboration among ASEAN countries and between the ASEAN and the EU in the areas of networking, training and extension, biodiversity research and data management. Original members of the Project are Brunei Darussalam,



**Mt. Kinabalu in Sabah, Malaysian Borneo, an ASEAN Heritage Site.**

Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. Lao PDR and Cambodia officially became members after the approval of Rider No.1 to the Financing Agreement (FA) in June 2002.

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. ■

## Goal

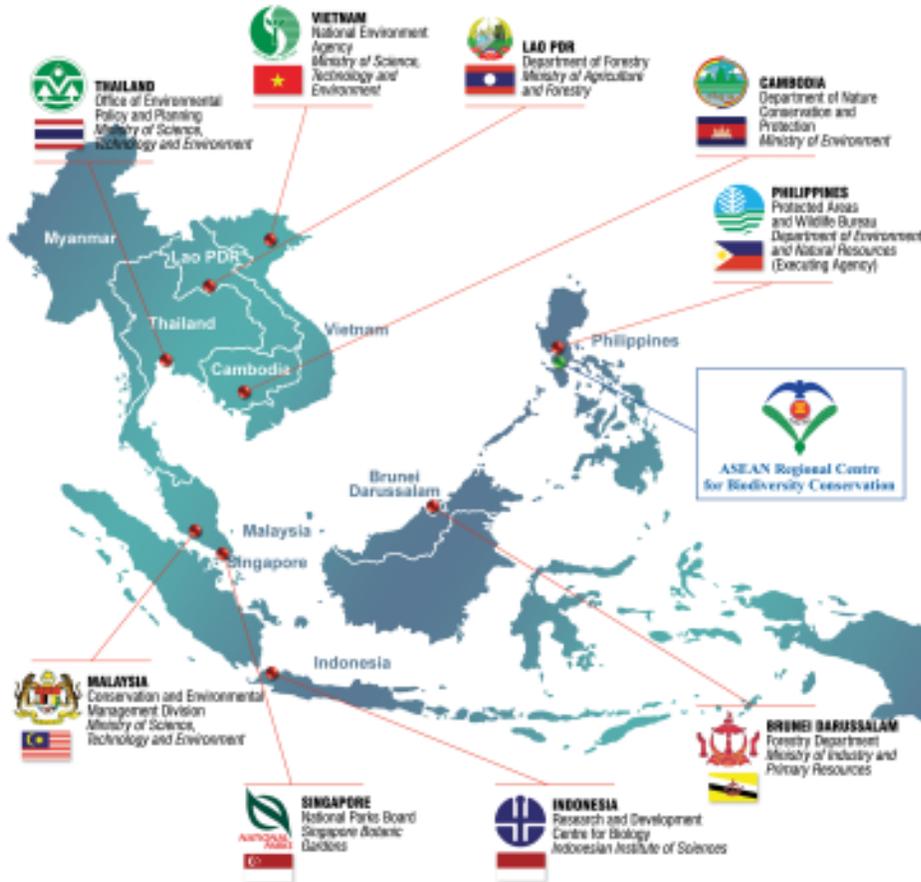
To Intensify biodiversity conservation through improved cooperation in a comprehensive regional context

## 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.■

# ASEAN Regional Centre for Biodiversity Conservation

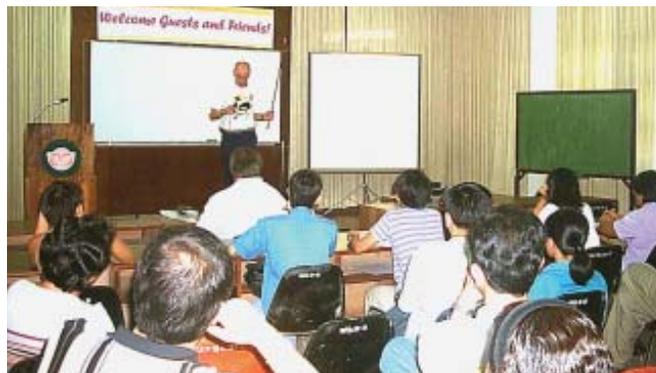
## National Biodiversity Reference Units' Network



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

The ASEAN Regional Centre for Biodiversity Conservation (ARCBC) has substantially increased its regional and global profiles for the year 2002, further strengthening its networking/linkages, which are central to the long-term impact of the project.

- ❖ Three European Union experts were commissioned to provide technical assistance to some projects and organisations in the Philippines:
  - Dr. Eberhard Curio was assigned to the Philippine project funded by ARCBC entitled “Ecological Assessment,



**Dr. Eberhard Curio, the first European leading expert assigned to assist research projects in the Philippines, lectures on 'Regeneration of Philippine Rain Forests: Ideas and Experiments'.**



**The hornbills of Negros island are the subject of Dr. Curio's study.**

Restoration and Protection of The Northwest Panay Conservation Forest Ecosystem”

- Dr. Maurice Kottelat provided his expertise to the Freshwater Fish Database, and
  - Dr. Paul Kessler assisted in the management of the herbarium of the Isabela State University, Philippines.
- 
- ❖ The ASEAN and EU Co-Directors, the EU experts and staff visited European and Regional institutions and acted as resource persons in several international, regional and national workshops.
  - ❖ ARCBC signed a Memorandum of Understanding with Leiden University regarding the execution of the ASEAN-wide project “Research on Systematics for ASEAN Scientists”. Students who excelled in the Taxonomy Training Courses in Bogor, Indonesia were selected as candidates for the MSc programme of ARCBC.
  - ❖ ARCBC signed a Memorandum of Understanding with the international NGO Fauna and Flora International, regarding collaboration in regional capacity building initiatives. ■

# Fostering Partnership with ASEAN Institutions and Members

- ❖ National Biodiversity Reference Unit coordinators and ARCBC held their 5<sup>th</sup> and 6<sup>th</sup> consultative meetings to report on their accomplishments, and to discuss the work plans of each AMC as well as the sustainability of ARCBC.
- ❖ Members and representatives of the ASEAN Senior Officials on the Environment (ASOEN) from Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand and Vietnam, and the ASEAN Working Group Chairpersons went on a policy-development study tour to Europe. The tour exposed them



**ASOEN Members and European experts share insights and thoughts to address biodiversity conservation issues in the ASEAN.**

to EU policies and programmes to address biodiversity conservation and other environmental issues at the regional, national and project levels. The activity also helped enhance their understanding of the approaches and procedures of the EU in formulating, implementing and monitoring common policies and programmes. Places visited included Paris, France; Brussels, Belgium; and the Hague and Amsterdam, The Netherlands.

- ❖ The ASOEN also approved the core and proposed activities of ARCBC for 2003 during their 5<sup>th</sup> meeting on 17 July 2002 in Siem Reap, Cambodia.
- ❖ ARCBC conducted the 4<sup>th</sup> Scientific Experts Committee (SEC) Meeting and the 3<sup>rd</sup> Research Conference on Biodiversity Valuation. The major outputs of the SEC meeting were the selection of six research projects for Cambodia and nine for Lao PDR; and revision of the ASEAN-wide project “Research on Systematics for ASEAN Scientists” that will be funded under the



**Research projects from new members of the project – Cambodia and Lao PDR – were discussed,**

Research Grant programme. The Research Conference enables project leaders to generate ideas on how economic valuation could be applied within the ongoing research studies of ARCBC.

- ❖ ARCBC has provided training and in-country support for the Thailand NBRU and has hosted database staff from Indonesia. Both training sessions led to the compilation and web publication of the Thai NBRU database, and plans by Indonesia to use the ARCBC modules to link local internal databases and publish data in the web. ■

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

- ❖ In collaboration with the UNESCO-Jakarta Office, ARCBC sponsored the “Workshop Towards Harmonising the Management and Action Plan for the Conservation of Transboundary Reserves in the ASEAN” on 7-9 November 2002 in Phnom Penh, Cambodia. As a result, and through a request made by the ASOEN Chairs of Cambodia, Lao PDR and Vietnam, ARCBC will support the conduct of a trilateral cooperation workshop on transboundary conservation for the three countries in 2003.



**A workshop to discuss issues on transboundary reserves was conducted in collaboration with UNESCO-Jakarta.**



**Participants developing plan of action for improved transboundary biodiversity conservation.**

- ❖ ARCBC finalised and distributed copies of the report on the Regional Workshop on the Guidelines in the Selection and Establishment of ASEAN Heritage Parks to participants and experts for their comments and suggestions. In 2003, ARCBC will support the 3<sup>rd</sup> World Commission on Protected Areas Southeast Asia Forum to be led by the Philippine NBRU in coordination

with other concerned agencies and organisations.

- ❖ Guidelines on access to biological and genetic resources were distributed to appropriate bodies for action. In 2003, ARCBC will support the working group that will review the framework agreement on access to biological and genetic resources. ■

# Strengthening Human Resource Capacity in ASEAN for Biodiversity Conservation

- ❖ ARCBC has to date analysed the Training Needs of five countries. The Training Needs Assessment (TNA) for Lao PDR began in 2002; this and the TNA for Cambodia will be completed in 2003. These will be carried out in conjunction with the Regional Standard Setting programme using the ARCBC-developed occupational standards as the basis for identifying current capacity and future needs.
- ❖ ARCBC continues to develop new strategies to help the ASEAN improve its human resources capabilities such as the following:
  - On-line Training Resources Centre. The on-line database enables visitors to the website to register as and search for both specialist and institutions. The Training Resources Database meets the growing regional need for training support materials. Web visitors are able to search an on-line database, many of which can be downloaded directly from the site;
  - Best Practice Training Resources available to the ASEAN; and
  - Development of regional occupational

standards for professionals and workers on biodiversity conservation and protected Area management.



**Participants discuss the DENR R&D Framework that will promote and increase the standards of Philippine biodiversity research.**



**Some 17 participants around the ASEAN completed the Taxonomy training course which focused on invertebrate taxonomy.**

- ❖ A total of 39 participants from 9 countries completed the ARCBC-sponsored Regional Taxonomy Training Courses:
  - Aspects of Plant Taxonomy on Biodiversity Inventory and Conservation of Protected Ecosystems in Southeast Asia held at Bogor, Indonesia on 7 July to 17 August 2002; and
  - Invertebrate Taxonomy with Special Reference to Less Well-Known Groups held at Cibinong, Indonesia on 2 July to 12 August 2002.
  
- ❖ The conduct of the national Seminar-Workshop for the Philippines R & D Agenda on Biodiversity Conservation on 20-21 March 2002 finalised the DENR R & D Framework for Biodiversity Conservation that could promote researches, which are attuned to solving important biodiversity conservation problems and issues in various ecosystems in the Philippines.
  
- ❖ The library is made available to the public, and provides assistance to students and researchers from UPLB, Open University, research and other institutions. ■

# Supporting Biodiversity Research in ASEAN

- ❖ The Scientific Experts Committee (SEC) of ARCBC recommended 15 additional biodiversity projects: six for Cambodia and nine for Lao PDR, bringing to 53 the number of projects under ARCBC's Research Grant Programme. It has a total budget of 2.75 million euro provided by the European Commission. The SEC also revised the ASEAN-wide project "Research on Systematics for ASEAN Scientists" that will also be funded under the Research Grant



**Members of the SEC pose for posterity after discussing the research projects.**

Programme. Three research projects – one for the Philippines and two for Indonesia – have already been completed with remarkable accomplishments. The researches resulted in the discovery of four new records of scleractinian corals out of the inventories conducted along the Pacific Coast of the Philippines, and of two species of hard corals known to be rare in Krakatau Islands, Indonesia.

- ❖ The Research Grant Programme for Cambodia and Lao PDR, and the ASEAN-wide (RE-SEA-002) proposal were submitted to the Steering Committee and the European Commission for sanction. The approval of the ASEAN-wide project on 21 August, and the Cambodia and Lao projects on 19 September 2002 initiated the contracting and fund transfer activities.■



**Transplanting of coral species as a process to rehabilitate coral reef ecosystem.**



Wild species of *Oryza glaberima* and *O. rufipogon* are being tested in the field.



*Johannesteijsmannia* H.E. Moore in the natural habitat and the infructescence and leaf.



One of the cave and karst explorations in South Sulawesi, Indonesia.



Inventory of Flora and Fauna of Limestone Habitat in Sarawak.



Bakong River, tributary of Baram River in Miri province, Sarawak.



Populations of *Argostemma* in Nature: A, *A. lobulatum* Geddes var. *variabile* Sridith at Klong Phanom National Park, Surat Thani, Pen.Thailand; B, *A. neurocalyx* Miq. at Khao Sok Natinal Park, Surat Thani, Pen.Thailand.



Analyses of collected insect specimen in the laboratory.



A Hmong woman tends to the *Coptis* in her garden.

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

- ❖ The website ([www.arcbc.org.ph](http://www.arcbc.org.ph)) features a metadatabase and web-based information sharing system called BISS (Biodiversity Information Sharing System). BISS continually increases the data provided on protected areas, ecosystems, distributional data with maps, uses and conservation status of thousands of flora and fauna, among other data available across the Southeast Asian Region.
- ❖ Collaboration with EU partners has yielded a vast database (more than 30,000 records) of plant type specimens for the region held by the National Herbarium of the Netherlands. A similar exercise is about to start with the Edinburgh Royal Botanic Gardens (UK). Contacts with the Kew Herbarium (UK) were established for the creation of the Distribution of the Palms in the ASEAN project.
- ❖ ARCBC maintains data on biodiversity in the ASEAN Region, together with the data on protected areas and socio-economic and demographic profiles of the 10 member countries. Table 1 summarises the available data in the web.
- ❖ ARCBC Interactive <http://www.arcbc.org.ph/interactive/>. The Web-based Training

**Table 1. Available data in the web.**

Online Data													
Taxa	ASEAN Affiliated Countries										Total No. of Individual Species*	% with Description in/out	% with pictures in/out
	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM			
Birds	480	459	1,537	630	668	997	668	388	933	790	2,397	99.12	67.88/0
Mammals	228	152	648	247	305	265	218	61	250	259	945	24.02	34.18/0
Amphibians	57	33	365	73	225	94	114	32	136	141	655	23.1	7.16/2.21
Freshwater Fish	80	477	1,007	483	499	314	296	104	649	373	1,995	0/99.3	0/depends on Fishbase
Reptiles	69	210	803	213	462	363	375	195	481	401	1,638	0/56.24	0/12.95
Plants	3,396	809	11,546	370	12,851	2,270	8,749	533	3,634	1,170	36,088	0.84/41.32	0.05/depends on Fishbase
Butterflies	284	8	123	22	2,029	754	2,109	485	1,734	1,141	5,229	0/5.66	0/10.06
Taxa	ASEAN Affiliated Countries										Total No. of PAs	% with Description	% Mapped
	BRN	KHM	IDN	LAO	MYS	MMR	PHL	SGP	THA	VNM			
Protected Areas	28	21	1,034	17	195	3	118	11	189	53	1,669	-99.8	-42.58

\*Countries may contain same bird species as other countries

Resources Centre collates as much information as possible on training resources, materials and trainers available in the region. The Centre has three components:

- Training Resource Database – A web-based searchable repository of training resources is available in various formats. This on-line database is updated monthly. Web site visitors are able to search an on-line database of 666 training resources, many of which can be downloaded directly from the site.
- Training Experts and Institutional Database – An on-line database which enables visitors to the website to register as or search both for specialists and institutions was established. This database includes 130 regional specialists and 430 institutions on biodiversity conservation and related fields.
- Library Resource Database – The database includes 1,226 library materials and 1,240 books on biodiversity conservation and related fields.■

# Information and Visibility Programme

The Centre continues to develop, package, produce and disseminate information materials such as a quarterly newsmagazine, manuals/guidebooks, and electronic data in support to biodiversity conservation and protection of natural resources. Other forms of visibility activities include setting up of exhibits during major national and regional conferences and submitting news and feature articles as well as announcements to major national newspapers.

NBRUs play a major role in the development and distribution of all information materials to our stakeholders.

## ASEAN Biodiversity Magazine

The 2002 first quarter issue (Volume 2, Number 1) of *ASEAN Biodiversity*, the official newsmagazine of ARCBC, was printed and distributed. This issue featured articles on the integration of Geographic Information Technologies (GIT) with intermediate community-based technologies as experienced in different continents. The second quarter issue (Vol.2, No.2) focused on resource valuation and revenue-sharing mechanisms, and hopes to provide various stakeholders a better appreciation of the economic importance of biodiversity in the ASEAN

region. The articles featured in the special reports section were presented during the ARCBC-sponsored and conducted third research conference on the “Economic Valuation of Biodiversity”, which is also one of three priority

themes of the ARCBC

Research Grant

Programme.

The third

issue

focuses on

the

responses or

country reports

of each ASEAN

member country

10 years after

the Rio

Declaration in Brazil, and the fourth, on Alien Invasive Species.

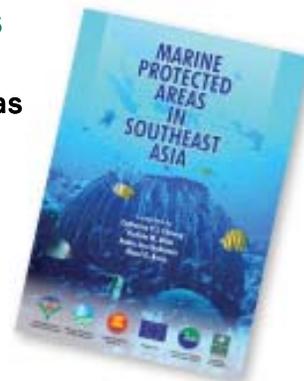
ARCBC produces 5000 copies of each issue of the newsmagazine, which to date has over 2,000 subscribers from more than 64 countries of Southeast and other Asian countries, Europe, Australia, Africa and America.

## Marine Protected Areas in Southeast Asia

### Marine Protected Areas in Southeast Asia

is intended as a valued reference for policy makers, planners, 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. The publication was compiled by Catherine Cheung of the Asian Bureau of Conservation; and Porfirio M. Aliño, Andre Uychiaoco and Hazel O. Arceo of the University of the Philippines (Diliman)-Marine Science Institute. It was edited and produced by ARCBC with a total of 4000 copies.



## Participatory 3-Dimensional Modelling: Guiding Principles and Applications

**Participatory 3-Dimensional Modelling: Guiding Principles and Applications** provides hands-on guidelines on how to organise and

implement a P3DM exercise. It also includes insights on adult learning and spatial cognition, on the history of relief modelling and an analysis of P3DM experiences in the Philippines, Vietnam and Thailand over a period of 15 years.

The Companion CD-ROM contains the following: *Resource Book*: Participatory 3-D Modelling: Guiding Principles and Applications; *Magazine*: GIS and the Fingertips (ASEAN Biodiversity Vol. 2, No.

1, 2002); *Manual*: Manual on Participatory 3-D Modelling for Natural Resources Management, September 2000; *Movie*: Giving Voice to the Unspoken: A 20-minute video production showing the hands-on aspects of 3-D modeling; *P3DM Tools*: A selection of ready-to-use scaling and referencing tools; and

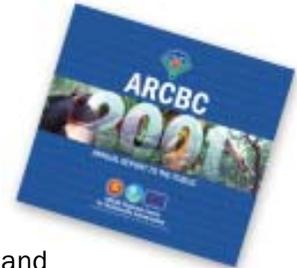
*Image Collection*: Carefully selected images of coding means (pins and yarns) to simplify the preparation of accurate legends for 3-D models.

The Centre produced 4,000 copies, with about three fourths already distributed to subscribers and other interested entities.



## Annual Report to the Public 2001

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 updated and reprinted 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.



## Other Information Materials Produced and/or Distributed

- 100 of the World's Worst Invasive Species for the International Day for Biological Diversity, NBRU-Vietnam
- The Global network for Taxonomy, NBRU Thailand

- Proceedings of the Regional Taxonomy Courses, NBRU Indonesia.
  - 1) Plant Taxonomy and Biodiversity Inventory and Conservation of Protected Ecosystems in Southeast Asia
  - 2) Invertebrate Taxonomy with Special Reference to Less Well-Known Groups.
- Proceedings of the First Biodiversity Conservation Forum in Cambodia, Lao PDR and Vietnam
- R & D Agenda on Biodiversity Conservation, NBRU-Philippines
- Proceedings of the Human and Wildlife Conflict Mitigation Workshop, NBRU-Indonesia
- Essentials of Protected Area Management in the Philippines (produced and developed by the EU-funded National Integrated Protected Areas Programme or NIPAP)

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

Officially launched in June, 2001, the Centre's website is continually updated, enhanced and expanded. The homepage has a new layout containing a brief project background and ARCBC/ other ASEAN biodiversity announcements and



**ARCBC website**

events. Other new features on the homepage include: species focus, links to interactive databases and the BISS, Conservation Updates and E-News both on regional and global biodiversity conservation efforts. The website received more than 4,600 visits in 2002. Frequently visited pages include the Guidebook for Biodiversity Planners and Developers and the Conservation Digest.

### **ARCBC Press Releases in Leading National Newspapers**

Leading national newspapers have published a total of 17 news, feature and editorial stories and photo releases as well as announcements on ARCBC programmes and activities.



Exhibit at the Botanical Garden, UPLB-CFNR.



Exhibit at ADB, Philippines.

## ARCBC Exhibits

To help provide background information about ARCBC and its various activities, exhibits have been set up during regional conferences such as the:

- 3<sup>rd</sup> Research Conference and 4<sup>th</sup> SEC meeting on 16-20 June 2002 at the Sulu Hotel in Quezon City, Philippines
- CGIAR Conference on 28 October 2002 at the Botanical Garden, UPLB-CFNR, College, Laguna, Philippines
- Two-day Workshop on Forest Strategy on 14-15 February 2002 at the Asian Development Bank headquarters, Philippines ■

# Regional Standard Setting Programme

The main goal of the Regional Standard Setting Programme is to gain regional endorsement and widespread use of a set of generic standards (competencies) for protected area staff. The Programme has four main stages:

**Stage 1.** Review of current practice in human resource management and development within the Protected Area Management Agencies

- A general review was carried out on the development of the occupational standards in the industry and their emerging role,



Images from the Standard Setting Workshop.

internationally, in conservation and environmental management. A summary of this was published in the ASEAN Biodiversity newsmagazine (Volume 1, Number 4).

- A regional review of the current approaches to human resources management and development for protected areas staff in 10 AMCs was completed between January and July 2002. This involved meetings in each country (except for Myanmar) and examining a wide range of published and unpublished materials.

**Stage 2.** Compilation of skills compendium for the region

A total of 30 documents were analysed. These include Training Needs Assessment Reports; National Protected Areas Reviews: syllabi of major national and regional training courses; international training materials widely used in the region; and training records and plans of protected areas authorities. These skills were tabulated into a “Skills Compendium” for the region, containing over 300 identified skills in 17 categories, cross referenced to countries and sources.



**Stage 3.** Development of competencies, levels and occupational standards

A participatory standard setting workshop facilitated by the EU Training Adviser was held at Kota Kinabalu National Park in Sabah, Malaysia in July 2002. All the focal countries of ARCBC were represented and also international organisations with an interest in training in the region. The workshop completed 5 main activities:

- A review of the competencies and structure of the skills compendium;
- Agreement of a set of generic occupational levels (I-V) for protected areas staff in the region and a suitable minimum level for each skill in the compendium;
- Grouping of skills and addition of knowledge requirement added resulting in a set of competencies for up to 5 levels in 17 categories;

- Agreement of a set of generic occupational titles; and
- Selection of competence requirements and levels of each occupation resulting in a set of 25 generic occupational standards for the region.

A draft of the workshop outputs was circulated for comments since August 2002. Likewise, the draft was put in the web. As of December 2002, the draft had been downloaded over 300 times.

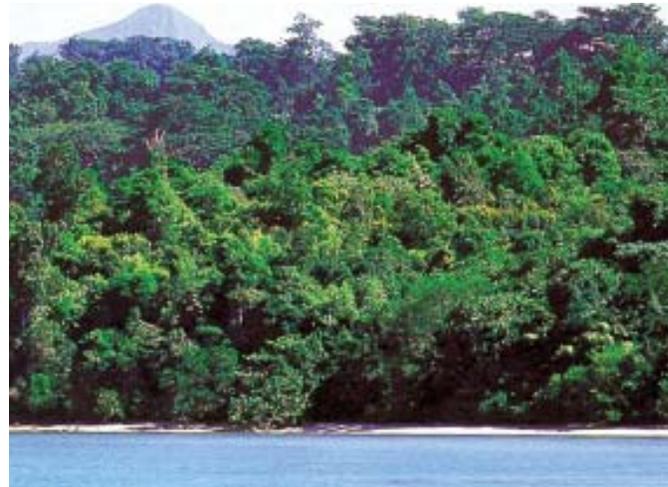
**Stage 4.** Standards Dissemination

The Kota Kinabalu workshop discussed and agreed on a set of priorities and actions for promoting and disseminating the standards in the region. These included translating the standards into regional languages, pilot testing these in the ASEAN countries, and working to promote their use among employers, NGOs and training institutions.■

# Fulfilling International Commitment to the Environment

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

Guidelines on access to biological and genetic resources and biosafety were finalised and forwarded to appropriate bodies for action. ARCBC will conduct a big forum on decentralization, biosafety, transboundary and access to biological and genetic resources in 2003, where relevant policymakers and experts would review the policies and procedures applied in the region and make recommendations. ■



**A beach forest in Palawan, Philippines.**

# Sustainability

A number of aspects of sustainability of the project have already been put in place. With the NBRUs all established, although not yet self-sufficient, their importance and capacity will increase with continued future support and encouragement. Also, the databases developed will be relevant for at least 10 years and, with a modest investment in maintenance and updating, would be useful indefinitely. Sustainability of research and training activities will be in improved capacity for biodiversity conservation in the region. ARCBC has now assisted hundreds of biodiversity conservationists in the ASEAN region and while specific benefits are hard to quantify, the capacity established will benefit the whole region and some of the beneficiaries will become future leaders and decision makers.

In terms of the Centre itself, the ARCBC staff, NBRU network, the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB) and the ASOEN are of the consensus that ARCBC should have a secure life beyond EU support that ends in 2004. Hopefully, a future ARCBC will be more autonomous and more flexible than is this case as a single project and that its core costs will be covered by a consortium of sponsor agencies.



**One of the topics discussed during the 6<sup>th</sup> consultative meeting with the NBRUs was the sustainability of ARCBC beyond EU Funding.**

The Mid-term Review Mission also considered the question of sustainability and included several useful recommendations in their report.

The project is thus hiring consultants to draw up a full sustainability plan to clarify the form of the Centre beyond 2004, clarify its role and identify avenues for continued financial support for the Centre's functions. The Steering Committee, which is the ASOEN, has instructed the ARCBC to prepare a proposal for Phase 2 including the identification of funding sources to be submitted for

consideration by the DENR as the Executing Agency, to the ASEAN Working Group on Nature Conservation and Biodiversity, the ASOEN National Chairs and the ASEAN Secretariat. However due to overlap of schedules with the planned follow up Identification and Appraisal Mission, this consultancy may take place in a revised form later in 2003.

The Identification and Appraisal Mission will commence in January 2003 and will be

carried out in two phases with a break of two months in between. The Mission will identify the options available to ensure the sustainability of the ARCBC, and then prepare a draft financing agreement and related documents.

More specifically, the PMU has made applications to several funding organisations such as the Ford Foundation, Rockefeller Foundation, Dutch Government, the Japan International Cooperation Agency (JICA), and the Asian Development Bank (ADB). ■

# Budget and Finances

The total budget for the project as outlined in the Financing Agreement is Euro 10.3 million comprising 8.5 million EU contribution and 1.8 million ASEAN contribution. Following the increase in funding provided through Rider No. 1, the total budget of the project is now 11.514 million Euro consisting of 9.424 million Euro from EU contribution and 2.090 million Euro from the ASEAN contribution.

The ASEAN contribution is mostly in kind, covering office space, ASEAN staff and basic operational costs of the NBRUs and ARCBC. The largest part of this ASEAN contribution comes from the Government of the Philippines which provides the ARCBC building, local staff and the national NBRU – Protected Areas and Wildlife Bureau.

The ARCBC has utilised 2,292,950.40 euro or 71.90% of the combined 2002 EU and GOP budget.



For the EU funds, 2,038,625 euro or 69.69% was utilised. **Table 1** shows the details of these expenditures. To date, 3,664,138 euro or 54% of the total EU funds have been utilised.

The Government of the Philippines has spent 11,444,644.24 pesos or 96.20% of its 2002 budget. **Table 2** shows the details of these utilisation. To date, GOP has spent 59 million pesos

**Table 1: Utilization of EU funds per approved 2002 Annual Work Plan and Budget**

Budget Headings	2002 Budget (Euro)	2002 Actual Expenditure (Euro)	2002 Budget (Peso)	2002 Actual Expenditure (Peso)	2002 Expenditure as % of Budget
1. Services (paid by ARCBC)	961,786	440,597	43,280,370	21,770,310	46%
2. Supplies/Equipment	190,1000	14,404	8,554,500	678,417	8%
3. Not stated	0	0	0	0	0%
4. Information – Visibility	21,000	16,292	945,000	783,084	78%
5. Operation & Maintenance	98,783	46,839	4,445,235	2,209,353	47%
6. Not stated	0	0	0	0	0%
7. Grants for Applied Research	1,218,199	1,322,632	54,818,955	64,366,419	109%
8. Others	435,060	191,916	19,577,700	9,407,343	44%
<b>Total</b>	<b>2,924,928</b>	<b>2,042,682</b>	<b>131,621,760</b>	<b>99,214,926</b>	<b>70%</b>

Note: Exchange rate: 1 Euro=P???.??

**Table 2: Utilization of GOP funds per approved 2002 Annual Work Plan and Budget (in Peso)**

Budget Headings	2002 Budget (Peso)	2002 Actual Expenditure (Peso)	2002 Expenditure as % of Budget
1. Personnel Services	1,805,000.00	1,805,000.00	100%
2. Maintenance and Operating Expenses	10,095,000.00	9,670,146.83	96%
3. Capital Outlay	0.00	0.00	0%
<b>Total</b>	<b>11,900,000.00</b>	<b>11,475,146.83</b>	<b>96.4%</b>

of the total 5-year budget, as shown in **Table 4**.

**Tables 3 and 4** show the utilisation of the EU and GOP budgets from start to December 2002. ■

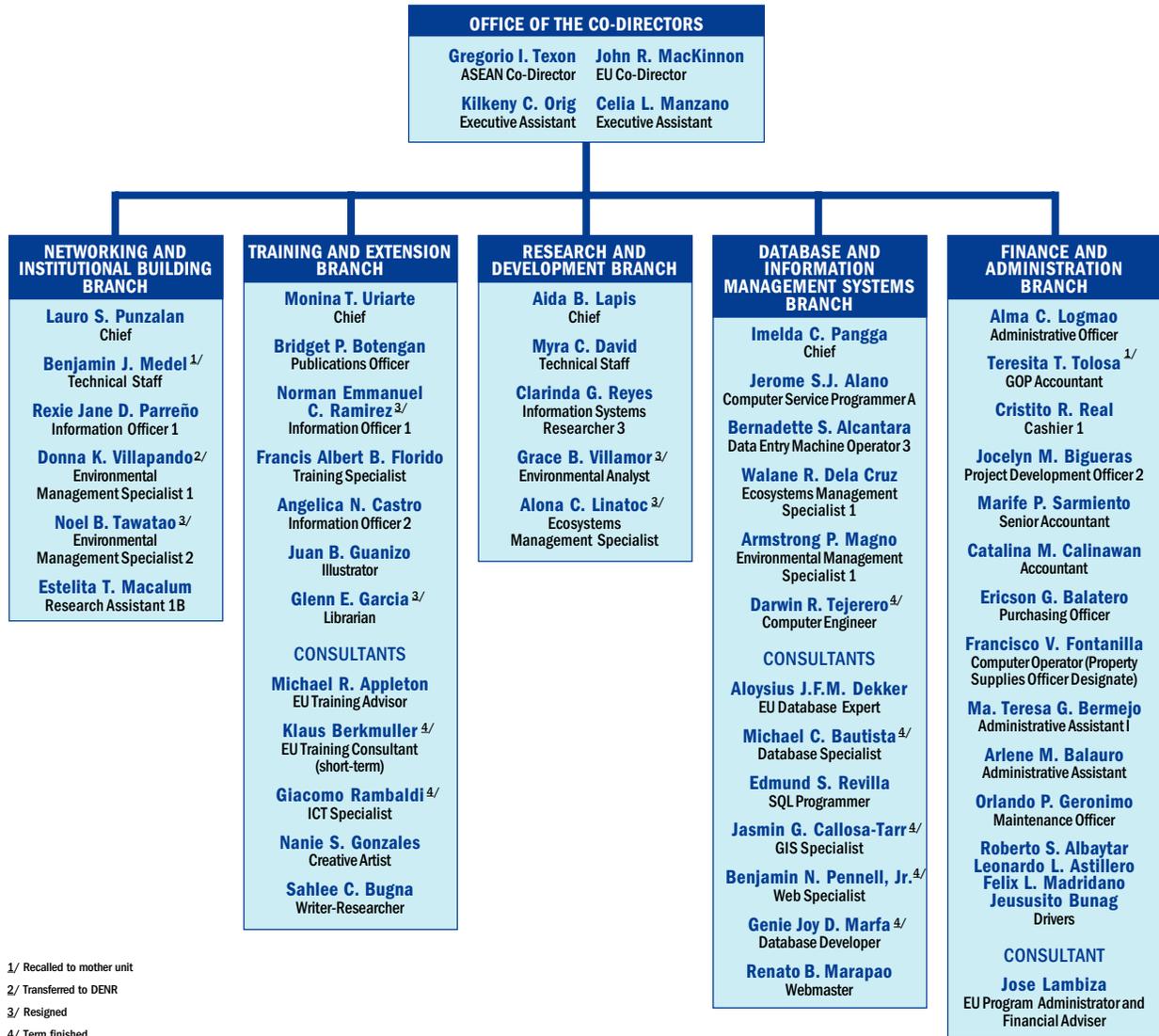
**Table 3: Utilization of EU funds as of 31 December 2002**

Budget Headings	EU Budget as per Financing Agreement	Expenditure to Date (Euro)	Balance Remaining (Euro)	EU Budget as per Financing Agreement	Expenditure to Date (Peso)	Balance Remaining (Peso)	Balance Remaining as % of Budget
1. Services (paid by ARCBC)	1,737,500	833,327	904,173	78,187,500	39,393,603	38,793,897	52%
2. Equipment	564,000	314,176	249,824	25,380,000	13,275,950	12,104,050	44%
3. Not stated	0	0	0.00	0	0	0	0%
4. Information – Visibility	50,000	34,023	15,977	2,250,000	1,604,508	645,492	32%
5. Operation & Maintenance	260,600	198,666	61,934	11,727,000	8,635,075	3,091,925	24%
6. Not stated	00	0	0.00	0	0	0	0%
7. Grants for Applied Research	2,750,000	1,791,651	958,349	123,750,000	85,906,588	37,843,412	35%
8. Others	1,129,000	492,035	635,965	50,805,000	22,459,553	28,345,447	56%
<b>Total</b>	<b>6,491,100</b>	<b>3,664,878</b>	<b>2,826,222</b>	<b>292,099,500</b>	<b>171,275,277</b>	<b>120,824,223</b>	<b>44%</b>

Note: Exchange rate: 1 Euro=P???.??

**Table 4: Utilization of GOP funds as of 31 December 2002 (in Peso)**

Budget Headings	Allotment						
	1997	1998	1999	2000	2001	2002	TOTAL
1. Personnel Services	–	326,854	–	1,963,000	1,805,000	1,805,000	5,899,854
2. Maintenance and Operating Expenses	8,906,000	2,864,500	7,493,000	8,837,000	7,837,000	10,095,000	46,032,500
3. Capital Outlay	7,094,000	–	–	–	–	–	7,094,000
<b>Total</b>	<b>16,000,000</b>	<b>3,191,354</b>	<b>7,493,000</b>	<b>10,800,000</b>	<b>9,642,000</b>	<b>10,900,000</b>	<b>59,026,354</b>



1/ Recalled to mother unit

2/ Transferred to DENR

3/ Resigned

4/ Term finished



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

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