

asean BIODIVERSITY



The newsmagazine of the ASEAN Centre for Biodiversity



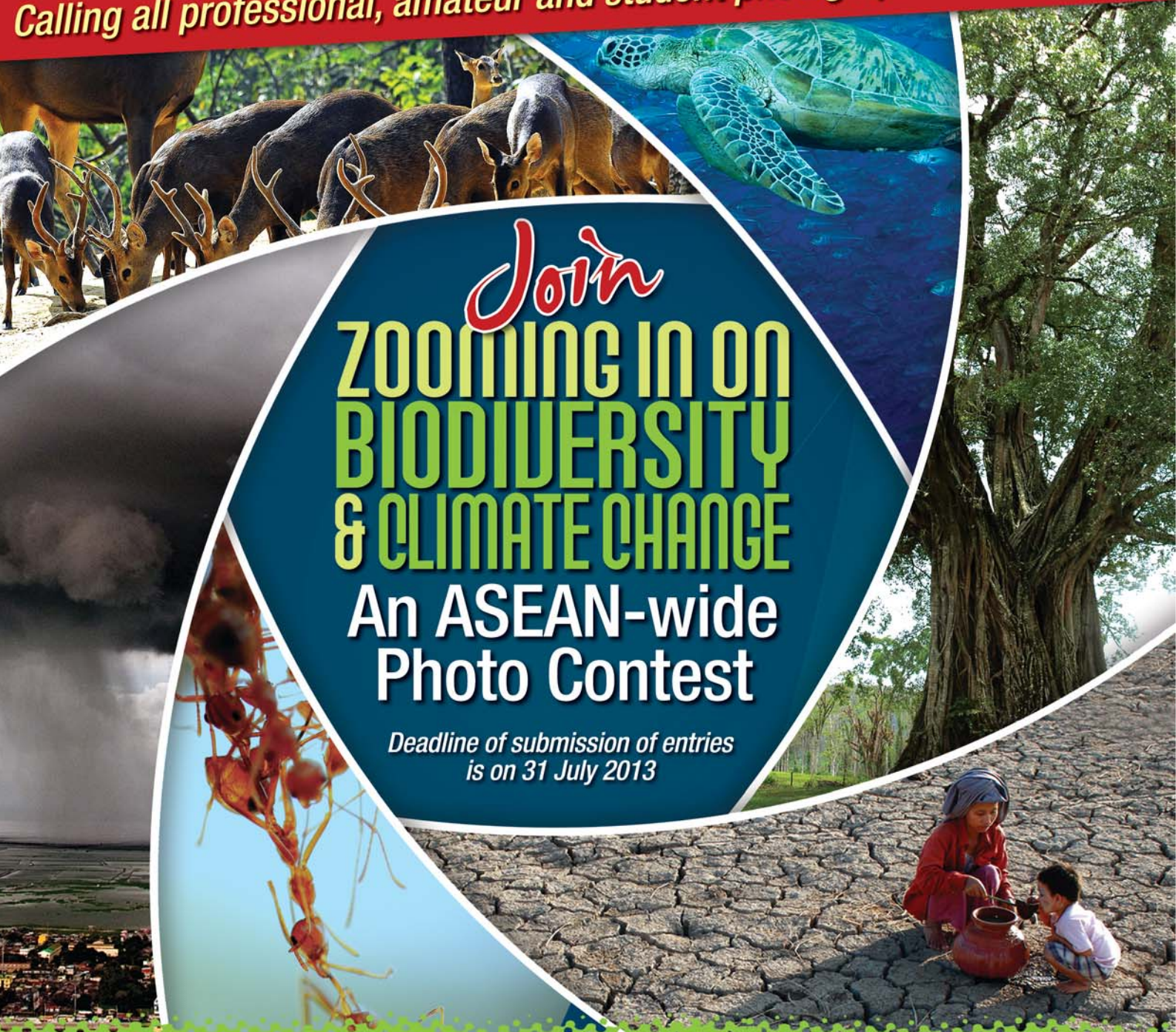
Volume 11, Number 3 ■ September-December 2012



CBD COP11: Global Action for Biodiversity

- World vows more resources and action for biodiversity •
- Wanted: Biodiversity champions • From around the world to Hyderabad
- Corporations see green in biodiversity • Southeast Asia boosts capacity on green economy • Superbrands recognizes ASEAN Centre for Biodiversity

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Join
**ZOOMING IN ON
BIODIVERSITY
& CLIMATE CHANGE**
**An ASEAN-wide
Photo Contest**

*Deadline of submission of entries
is on 31 July 2013*

GUIDELINES:

1. The photo contest is open to all residents of ASEAN (Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam).
2. Contest theme: "Zooming in on Biodiversity and Climate Change."
 - a. Climate change is real. Climate change is here – Photos depicting the tell-tale signs of climate change (e.g. flooding, drought, forest fires)
 - b. Climate change affects us all – Photos that show the impact of climate change on biodiversity (agriculture, species, marine biodiversity, forests, etc.)
 - c. Conserving biodiversity to mitigate impacts of climate change – Photos depicting ways by which people curb climate change (e.g. conservation activities of organizations and individuals, tree growing activities, using of bicycles instead of motorized vehicle, etc.)
3. Categories
 - a. Professional – Professional photographers who derive income from the sale of photographs or provision of photographic services
 - b. Amateur – Amateur photographers (25 years old and above)
 - c. Student – Students (16 to 24 years old)
4. Contestants may submit as many entries as they want.
5. Entries must be original, not digitally enhanced, and should have not been submitted to previous contests.
6. Entries must be submitted in digital format (JPEG or TIFF) format and should have a minimum resolution of six megapixels (6MB) or a screen resolution of 3000 x 2000 pixels.
7. Each photo entry should be accompanied by a completely accomplished Official Entry Form downloaded from www.aseanbiodiversity.org.
8. The criteria for judging include relevance to the theme, creativity, and technical excellence.

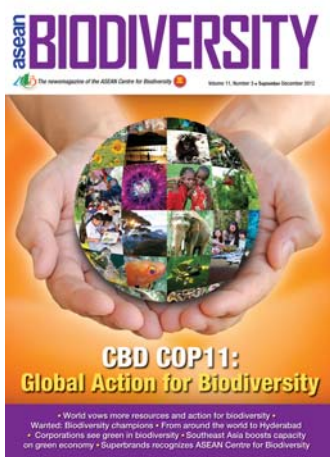
**Cash prizes
await
winners.**

To download the Official Entry Form and to get more details, log on to www.aseanbiodiversity.org



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About the cover. World leaders met at 11th COP of the CBD in India in October 2012 to discuss the state of biodiversity and decide the direction of future global actions to reduce biodiversity loss. It must be stressed, however, that the conservation and management of the world's species and ecosystems is in the hands of all stakeholders. We all must work hand in hand to ensure that future generations will continue to enjoy the best of the world's natural resources.

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Yearend Message from ACB

The end of the year is a time to show appreciation for all the blessings that one received. For the ASEAN Centre for Biodiversity (ACB), there are many blessings and successes to be thankful for.

At the core of these successes is our strong collaboration with the ten ASEAN Member States. We thank the ACB Governing Board for providing us the much-needed policy guidance and support and the ASEAN Working Group on Nature Conservation and Biodiversity for giving us technical guidance. We also express our gratitude to our National Contact Points for their active participation in ensuring the success of ACB activities in their countries.

We thank the Government of the Philippines for its financial support. As Host Country, the Philippines has led the way in showing the ASEAN Member States' commitment to ensuring the Centre's success and sustainability through the years.

We recognize Brunei Darussalam and the Philippines for their contributions to the ASEAN Biodiversity Fund. By contributing to the Fund, Brunei and the Philippines serve as models for regional cooperation in helping reduce biodiversity loss. We also thank Myanmar for approving its contribution to the ASEAN Biodiversity Fund while financial transaction processes are being sorted out by ACB.

We thank the Government of Thailand for facilitating the ratification of the ACB Establishment Agreement (EA) and the Governments of Cambodia, Indonesia and Malaysia for their continuing ratification efforts. Most of all, our sincerest gratitude to the Member States who have earlier ratified the EA: Brunei Darussalam, Lao PDR, Myanmar, Philippines, Singapore and Viet Nam.

With support from our partners, ACB implemented programmes across a wide range of biodiversity thematic concerns. We thank the following partners: GIZ (biodiversity and climate change), Japan-ASEAN Integration Fund, the East and Southeast Asia Biodiversity Information Initiative and Japan's Ministry of Environment (taxonomic capacity building), British Foreign and Commonwealth Office (ASEAN TEEB scoping study), United Nations Environment Programme (UNEP) - Global Environment Facility,



Demetrio L. Ignacio, Jr.
Acting Executive Director, ACB

the ASEAN Secretariat and the United Nations University-Institute of Advanced Studies (access and benefit sharing), UNEP World Conservation Monitoring Center, the Group on Earth Observations-Biodiversity Information Network (GEO-BON), the Asia-Pacific BON, and the Global Biodiversity Information Facility (biodiversity information sharing and management), German Ministry for Economic Cooperation and Development and the KfW (ASEAN small grants programme), ASEAN-Wildlife Enforcement Network and FREELAND Foundation (wildlife protection and law enforcement), Partnerships in Environmental Management for the Seas of East

Asia and the Secretariat of the Ramsar Convention (capacity building for ASEAN Member States in the areas of integrated coastal management and wetland conservation), Southeast Asian Regional Center for Graduate Study and Research in Agriculture (advancing cross-sectoral regional cooperation on biodiversity conservation, and agricultural and rural development), and the Secretariat of the Convention on Biological Diversity (promoting the objectives of the CBD in the ASEAN region)

We thank the media, the conservation organizations, the academe, and many other sectors in the ten ASEAN Member States who were also strong partners not only in 2012, but also in the past years. We are forever grateful to the European Union for its support to the initial five years of operations of ACB.

Last but not the least, we thank the ASEAN Secretary-General and the ASEAN Secretariat for the continuing guidance and support to ACB in fulfilling its mandate and supporting the ASEAN Member States in realizing the ASEAN common vision to ensure environmental sustainability in the region.

Truly, ACB cannot do the job alone. We acknowledge that these partnerships help ensure a better future for the region's natural riches. We will endeavor to further strengthen these partnerships in the years to come.

We invite you to continue joining hands with ACB to conserve biodiversity for future generations.

May your New Year be filled with peace, joy and happiness! ■



World vows more resources and action for biodiversity

By Rolando A. Inciong

Representatives of the world's governments who attended the United Nations Biodiversity Conference in Hyderabad, India have agreed to increase funding to halt the rate of loss of biodiversity. The 11th Meeting of the Conference of the Parties (COP11) to the UN Convention on Biological Diversity (CBD) also adopted 33 decisions on a range of biodiversity concerns.

More resources for biodiversity conservation

Using the average annual national spending on biodiversity between 2006 and 2010 as baseline figures, developed countries pledged to double biodiversity-related international financial flows by 2015. The COP11 also set targets to increase the number of countries that have included biodiversity in their national development plans, and prepared national financial plans for biodiversity, by 2015. All Parties also agreed to substantially increase their bud-



gets for biodiversity protection over the same period.

India took the lead in committing new resources as it pledged US\$50 million in support of the implementation of the Strategic Plan for Biodiversity 2011-2020. A number of African states pledged additional funds above and beyond their core funding towards the work of the CBD.

The COP11 addressed various concerns including the status of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization; implementation of the Strategic Plan 2011-2020 and progress towards the Aichi Biodiversity Targets; implementation of the Strategy for Resource Mobilization; UN Decade on Biodiversity; operations of the CBD; biodiversity and climate change; biodiversity and development; ecosystem restoration; island biodiversity; and marine and coastal biodiversity; among others.

Braulio Ferreira de Souza Dias, Executive Secretary of the CBD, said the results of COP11, coming in a period of economic crisis, demonstrated that the world is committed to implementing the CBD.

"We see that governments are moving forward in implementation and seeing

biodiversity as an opportunity to be realized more than a problem to be solved. We now need to move forward in the next two years, under the able leadership of India, the COP11 President, to consolidate this work and to advance further. I look forward to other pledges in support of the Hyderabad call for Biodiversity Champions that will allow us to realize our goals," said Mr. Dias.

United Nations Undersecretary-General and UN Environment Programme Executive Director Achim Steiner said the UN biodiversity conference has taken forward the renewed momentum, forged two years ago in Nagoya.

"Countries have sent a clear signal and delivered additional commitments underlining the fact that biodiversity and ecosystems are a development priority and central to a transition to an inclusive Green Economy. Mobilizing the necessary financial resources from the public and private sector needed to ensure achievement of the 2020 targets remains a challenge. But here in India, many nations including developing economies have signaled their determination and sense of urgency to seize the opportunities by providing much needed additional support," said Mr. Steiner.



Braulio Ferreira de Souza Dias



Achim Steiner



Photo by George Cabig

More action for biodiversity

Negotiations at the COP11 Hyderabad revolved around practical and financial support for countries in implementing national biodiversity plans to meet the Strategic Plan for Biodiversity and the 2020 Aichi Biodiversity Targets. In reviewing the global progress in implementing such measures, the COP11 reaffirmed the need for enhanced technical and scientific cooperation among countries, while underlining the potential for enhanced cooperation among developing countries.

The COP11 also agreed to a number of measures to engage the main economic sectors, such as business and development organizations, to integrate biodiversity objectives in their plans and programmes.

A new decision, in support of Aichi Target 15, called

for the restoration of 15 per cent of degraded lands.

A decision on climate change and biodiversity called for enhanced collaboration between the CBD and UN climate change initiatives including Reducing Emissions from Deforestation and Forest Degradation (REDD+). Given that forests are home to more than half of all terrestrial species, initiatives such as REDD+, where developing countries can receive payments for carbon offsets for their standing forests, can potentially help achieve international biodiversity targets, as well as those concerned with cutting carbon emissions. The decision covers technical advice on the conservation of forests, sustainable management of forests, and enhancement of forest carbon stocks. However, the COP11 noted discussions around the need for biodiversity safeguards

relating to REDD+ and similar incentives. Actions such as afforestation in areas of high biodiversity value, or the conversion of natural forests to plantations, for example, may have adverse impacts on biodiversity.

The COP11 adopted recommendations for improving the sustainable use and management of species hunted for bushmeat in tropical and sub-tropical regions, where large-scale hunting and trade of animals has led to 'empty forest syndrome', and is increasingly threatening food security, and the ecological stability of forests and other ecosystems. Together with the Food and Agriculture Organization and other organizations, the CBD Secretariat will establish a global 'Collaborative Partnership on Sustainable Wildlife Management' to support developing countries in the implementation of relevant CBD provisions.

The COP11 also adopted a decision calling for the integration of national action plans for Protected Areas into revised National Biodiversity Strategies and Action Plans.

A decision on Article 8(j), relating to indigenous and local communities was adopted which provided a major component of work on customary sustainable use. The decision also advanced three tasks that may contribute to the implementation of the Nagoya Protocol including guidelines related to prior informed consent, mutually agreed terms and others.

Other key decisions include new measures to mainstream biodiversity into environmental impact assessments linked to infrastructure and other development projects in marine and coastal areas. The 193 Parties to the CBD agreed to classify a diverse list of marine areas, some renowned for containing 'hidden treasures' of the plant and animal world, as ecologically or biologically

OPENING STATEMENTS

At the opening plenary session, statements were made by Mr. Ryu Matsumoto, outgoing President of the Conference of the Parties; Ms. Jayanthi Natarajan, Minister of Environment and Forests of the Government of India and President of the COP11; Ms. Amina Mohamed, Deputy Executive Director of UNEP; Mr. Bráulio Ferreira de Souza Dias, Executive Secretary of the CBD; Mr. N. Kiran Kumar Reddy, Chief Minister of Andhra Pradesh; and Mr. Tishya Chatterjee, Secretary of the Ministry of Environment and Forests of the Government of India.

Ms. Natarajan, Minister of Environment and Forests of the Government of India and President of the COP11, said, "The successful implementation of the Strategic Plan for Biodiversity 2011-2020 hinges on strengthening support mechanisms. Well-structured capacity-building processes and effective scientific and technical cooperation on technology transfer are vital and should be actively promoted by all stakeholders, not just governments. The involvement of indigenous and local communities in deliberations under the Convention on issues of relevance to them was unique. I hope that work on issues relating to access and benefit-sharing and traditional knowledge would have a positive impact on negotiations in other multilateral forums."

Mr. Bráulio Ferreira de Souza Dias, Executive Secretary of the CBD, noted the achievements of the tenth and previous meetings of the Conference of the Parties. He said that every effort should be directed at implementing those decisions and agreements. In that connection, he invited participants to review

progress toward the entry into force of the Nagoya Protocol and to ensure that all Parties received the support needed to ratify and discharge their obligations under the Protocol so as to facilitate its early entry into force and effective implementation. Noting that Parties had embarked on an effort to review their national biodiversity strategies and action plans to reflect the targets agreed in Nagoya, he commended the generous support of Japan and other donors, which had enabled the Secretariat to organize 21 regional and subregional workshops in support of that effort.

Mr. Reddy, Chief Minister of the Government of Andhra Pradesh, said that India, one of the world's oldest civilizations, was a melting pot of customs, religions and cultures. Common to its entire people, however, was a tradition of frugal and simple living, a reverence for Mother Nature and a strong conservation ethos.

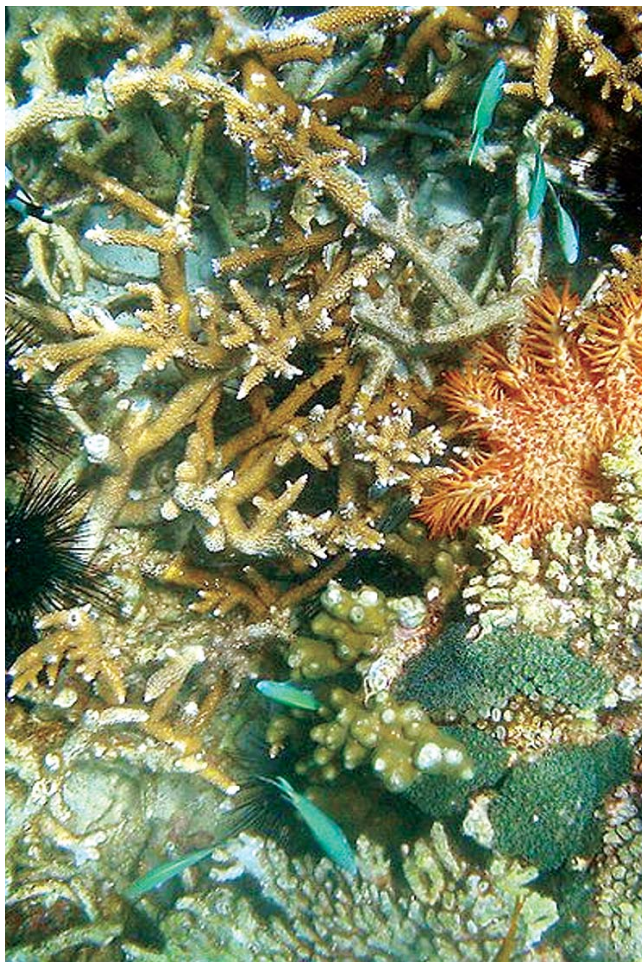
"To some extent, the State of Andhra Pradesh was a microcosm of Indian culture and civilization. It was honored to host the COP11. The State's varied topography supported a rich variety of flora and fauna, which was protected through a range of measures, including biosphere reserves, national parks and wildlife sanctuaries. In addition, the State government had set up the Andhra Pradesh State Biodiversity Board in 2006, under the provisions of India's Biological Diversity Act," Mr. Reddy said. ■



significant. They also called for more research into the potential adverse effects of underwater noise from ships on marine and coastal biodiversity, and highlighted the growing concern on the adverse effects of marine litter. The COP11 recognized the

growing challenge of climate change impacts on coral reefs, which, Parties agreed, will require significant investment to overcome. There was also a call to fisheries management bodies to play a stronger role in addressing the impacts of fisheries on biodiversity.

A parallel summit of Cities and Local Authorities adopted the Hyderabad Declaration on Subnational Governments, Cities and other Local Authorities for Biodiversity, which supports the work of cities to achieve the Global Strategy for Bio-



diversity and calls for greater coordination between levels of government.

The COP11 welcomed the establishment of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) earlier this year and recognized the potential contribution it could make to enhance the effectiveness of the Convention. The COP11 requested IPBES to contribute to assessments of the achievement of the Aichi Biodiversity Targets.



Mr. Manmohan Singh
Prime Minister of India

High-level meeting

A high-level ministerial segment of the COP11 was held at the Hyderabad International Convention Centre, Hyderabad, India, from 16 to 19 October 2012. Chaired by the President of the COP11, the high-level segment was attended by 74 Parties, including 61 Heads of State, Heads of Government or ministerial level, and by heads of intergovernmental organizations.

The Prime Minister of India, Mr. Manmohan Singh, said that, while his country held the presidency of the COP, it would contribute US\$ 50 million to strengthening the institutional mechanism for biodiversity conservation in India and enhancing technical and human capabilities to attain the objectives of the Convention.

(With reports from SCBD, UNEP, ISSD and ACB)

About the UN Convention on Biological Diversity

Opened for signature at the Earth Summit in Rio de Janeiro in 1992, and entered into force in December 1993, the Convention on Biological



Convention on
Biological Diversity

Diversity is an international treaty for the conservation of biodiversity, the sustainable use of the components of biodiversity and the equitable sharing of the benefits derived from the use of genetic resources. With 193 Parties, the Convention has near universal participation among countries. The Convention seeks to address all threats to biodiversity and ecosystem services, including threats from climate change, through scientific assessments, the development of tools, incentives and processes, the transfer of technologies and good practices, and the full and active involvement of relevant stakeholders including indigenous and local communities, youth, NGOs, women, and the business community. The Cartagena Protocol on Biosafety is a subsidiary agreement to the Convention. It seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology. To date, 164 countries plus the European Union

have ratified the Cartagena Protocol. The Secretariat of the Convention and its Cartagena Protocol is located in Montreal. For more information visit: www.cbd.int.

About the United Nations Environment Programme (UNEP)

Established in 1972, UNEP is the voice for the environment within the United Nations system. UNEP acts as a catalyst, advocate, educator and facilitator to promote the wise use and sustainable development of the global environment. UNEP works with a wide range of partners, including United Nations entities, international organizations, national governments, non-governmental organizations, the private sector and civil society. UNEP work encompasses assessing global, regional and national environmental conditions and trends; developing international and national environmental instruments; strengthening institutions for the wise management of the environment; facilitating the transfer of knowledge and technology for sustainable development; and encouraging new partnerships and mind-sets within civil society and the private sector. For more information, visit: www.unep.org.



Wanted: Biodiversity champions

At the 11th Meeting of the Conference of the Parties (COP11) to the Convention on Biological Diversity (CBD), India and the CBD Executive Secretary made strong calls to Parties, partners and other stakeholders to become champions of biodiversity and take urgent action towards achieving the Aichi Biodiversity Targets.

Smt. Jayanthi Natarajan, Indian Minister of Environment and Forests, said, "The present economic crisis should not deter us, but on the contrary encourage us to invest more towards amelioration of the natural capital for ensuring uninterrupted ecosystem services, on which all life on earth depends."

"Let us all be inspired by what Mahatma Gandhi said, 'The difference between what we do and what we are capable of doing would suffice to solve most of the world's problems.' So let us commit ourselves to what we are capable of doing."

India pledged US\$ 50 Million in support of the global biodiversity targets at the inauguration of the High-Level Segment of the COP11.

Mr. Braulio Ferreira de Souza Dias, CBD Executive Secretary, said, "If we really want to fully achieve the 20 Aichi Biodiversity Targets, urgent attention needs to be given to at least half of them to ensure their full implementation, or at least significant progress, by 2015. I would like to invite



each Party and partner to this Convention to select one or more of the Aichi Targets and become a regional or a global champion for its achievement."

"Like the Government of India, and soon many others, you can become one of the Biodiversity Champions. You can make a difference - adopt a target! Make a pledge to support the achievement of the Aichi Biodiversity Targets. This pledge can support one or more Aichi Biodiversity Targets; cover a particular region or sub-region; include financial, technical, or other forms of support; and be time-bound," said Mr. Dias.

Interested Parties, partners or stakeholders are invited to submit their pledge in writing through an official letter to the CBD Executive Secretary at secretariat@cbd.int. ■

ASEAN environment ministers reaffirm commitment to biodiversity conservation



Ministers responsible for the environment of Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam issued a joint statement reaffirming the commitment of the Association of Southeast Asian Nations (ASEAN) to the three objectives of the Convention on Biological Diversity (CBD), namely, the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources.

The joint statement was delivered by H. E. Dr. Yin Kim Seam, Secretary of State,

Ministry of Environment, Cambodia on 18 October 2012 at the High Level Segment of the 11th Meeting of the Conference of the Parties to the CBD in Hyderabad, India.

The Ministers reaffirmed their commitments to implement the CBD Strategic Plan on Biodiversity 2011-2020 and the achievement of the Aichi Targets with the mission "to ensure that by 2020, ecosystems are resilient and continue to provide essential services, thereby securing the planet's variety of life, and contributing to human well-being and poverty eradication".

The Ministers committed to further strengthen ASEAN regional cooperation on bio-

diversity, as embodied in the ASEAN Socio-Cultural Community Blueprint of the Chiam Hua Hin Declaration on the Roadmap for the ASEAN Community, which aims to ensure ASEAN's rich biological diversity is conserved and sustainably managed toward enhancing social, economic and environmental well-being as one of its strategic objectives. They also committed to enhance the role of the ASEAN Centre for Biodiversity to function as an effective regional centre of excellence in promoting biodiversity conservation and management.

Through the statement, the Ministers urged all Par-

ties to effectively implement the CBD Strategic Plan and ensure that sufficient new and additional financial resources and appropriate transfer of relevant technologies are provided in accordance with the principle of common but differentiated responsibility. They also urged Parties, other governments, international organizations, the Global Environment Facility, regional development banks and other financial institutions to provide financial resources to support national capacity building and the development initiatives to support implementation of the Protocol. ■

ACB presents results of scoping study on valuing ecosystem services

The results of a scoping study that gathered and reviewed existing evidence on the value of ecosystem services and identified key critical ecosystems and services in Southeast Asia were presented at a side event at the 11th Meeting of the Conference of the Parties (COP11) to the Convention on Biological Diversity in Hyderabad, India.

The ASEAN TEEB (The Economics of Ecosystems and Biodiversity) Scoping Study was conducted by the ASEAN Centre for Biodiversity (ACB) with support from the British Foreign and Commonwealth Office, the United Nations Environment Programme, and GIZ of Germany.

According to Clarissa Arida, director for programme development and implementation of ACB, the ASEAN TEEB Scoping Study was aimed at assisting ASEAN Member States in developing green growth economies. The study also identified and recommended policy-relevant case studies in ASEAN Member States to be conducted in a future full ASEAN TEEB study.

The side event at the COP11 provided further impetus in recognizing the importance of valuing biodiversity. Over 60 participants attended the side event, which provided an opportunity for discussion and debate on the importance of valuing biodiversity and ecosystems services.

The discussion revolved around the need to highlight the non-monetary values of ecosystems services and the need for broader stakeholder consultations in promoting the values of



Clarissa Arida, Director for Programme Development and Implementation of the ASEAN Centre for Biodiversity (top photo, left), presents the ASEAN TEEB Scoping Study in Hyderabad, India.

nature with considerations of the role of major groups such as women, government officials outside of the environment sector, and businesses, within the context of ASEAN-TEEB study. There was also a suggestion to include valuing of genetic resources, which would merit another separate study.

GIZ, through the Biodiversity and Climate Change Project (BCCP), supported the event where Dr. Berthold Seibert, BCCP Programme Director, expressed

follow through support to the ASEAN TEEB Study through ACB.

Speakers at the side event included Mr. Neville Ash, Chief of Biodiversity and Ecosystem Services Branch, and Biodiversity Unit, Division of Environmental Policy Implementation, United Nations Environment Programme; Dr. Luke Brander, ACB-GIZ Consultant, ASEAN TEEB Scoping Study; and Director Arida of ACB. Dr. Lena Chan, Director, National Biodiversity Centre, National Parks

Board, Singapore; and Dr. Theresa Mundita S. Lim, Director, Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources, Philippines, served as panelists. The event was facilitated by Mr. Rolando Inciong, head of communication and public affairs, ACB. For further information on the ASEAN TEEB Scoping Study, contact: necramirez2@aseanbiodiversity.org. (See separate feature on the ASEAN TEEB Scoping Study in this publication) ■

GEF launches 2020 strategy effort on environmental goals

The Global Environment Facility (GEF) has launched an effort to develop a “GEF 2020 Strategy,” setting long-term goals for the environment and positioning the financing institution as an innovator and partner of choice in supporting the achievement of global environmental targets. This was announced by GEF Chief Executive Officer Naoko Ishii on 17 October 2012 at the opening of the high-level negotiating session of environment ministers from around the world during 11th Meeting of the Conference of the Parties to the Convention on Biological Diversity held in Hyderabad, India.

“We need to be catalytic in building our respective strengths and prioritizing the precious resources at our disposal. That is why it is so important that we at the GEF make use of our strategic position in help-

ing all of you in the quest to mobilize the necessary resources,” Dr. Ishii said. “To fulfil our role in meeting these bold commitments, I am pleased to announce that I am launching a process to formulate a new long-term strategy for the GEF – the GEF 2020 Strategy.”

In the context of the biodiversity negotiations, Dr. Ishii assured delegates to the COP11 that the GEF Strategy would be in concert with the 2020 Aichi Biodiversity Targets and aligned with the guidance the GEF receives from the CBD COP. The meeting in Hyderabad was particularly important, she said, in the context of the targets identified at the COP10 in 2010.

The Aichi Targets lay out a 10-year plan to develop policies worldwide aimed at protecting endangered species and threatened ecosys-



tems, expanding protected areas, and promoting a broader understanding of the economic value of biodiversity. The COP10 at Nagoya also committed to generate funding to support the Targets.

“Over the 20 years of the CBD’s lifetime, we have learned – through long and often hard experience – that good nature conservation is possible. It can also be affordable and cost-effective as well as beneficial to poor communities when it’s done right,” said Rachel Kyte, the World Bank’s Vice President

for Sustainable Development. “To do it right – especially in an era of diminishing public expenditures for biodiversity conservation – we need innovation, communication, and effective partnerships between governments, communities, financial institutions, companies and conservation organizations.”

Dr. Ishii began her tenure as the fourth CEO and Chairperson of the GEF on 1 August 2012 after being unanimously selected by the GEF Council in June. The announcement of the GEF 2020 Strategy process follows the release of her Vision Statement in which Dr. Ishii laid out her broad goals for the GEF in its role as the leading environmental financing institution in the international community.

“The Strategy will further emphasize GEF’s role as a risk-taking innovator, a partner of choice of those



Photo by GEF/Gustavo Fonseca

GEF CEO and Chairperson Naoko Ishii announces the launch of a strategy process that will set long-term goals for the environmental financing organization. From left to right, Rachel Kyte, Vice President, World Bank; Smt. Jayanthi Natarajan, Minister of Environment and Forest, and Chair of the COP11, India; Rebeca Grynspan, Associate Administrator, UNDP; and Dr. Naoko Ishii.

Countries agree to focus on socioeconomic issues on LMOs

The sixth meeting of the governing body of the Cartagena Protocol on Biosafety held in October 2012 in Hyderabad, India concluded with an agreement to advance discussions to clarify socioeconomic issues associated with living modified organism (LMOs). The discussions are intended to assist Parties to the Protocol that may wish to consider socioeconomic factors in reaching decisions on the import of such organisms. Some 1,500 delegates from more than 100 countries attended the five-day meeting.

The delegates agreed to convene a group of experts to further clarify the issue of socioeconomic considerations

and to conduct further research and exchange information and experiences on the issue. An agreement was also reached on a number of other complex issues, including risk assessment, response actions in the event of unintentional movement of LMOs across national borders, and types of documentation accompanying shipments of LMOs.

The delegates agreed on an improved plan of action on capacity-building to support the implementation of the Protocol and adopted further steps to strengthen the Biosafety Clearinghouse – an online information exchange facility under the Protocol. *SCBD News*



sharing the same goals, and a champion of the benefits provided by a healthy environment at the local, regional, and global levels. We will promote the valuation of natural capital to be integrated in decision making at all levels as a unifying theme,” Dr. Ishii said.

“For the first time, we have a set of ambitious targets for biodiversity that has been fully agreed to, and we have a decision by the parties to start mobiliz-

ing the needed resources at all levels,” Dr. Ishii said. “This COP must bring these two key decisions closer together.”

In biodiversity, as well as in the other environmental areas where the GEF provides support – including climate change, forest preservation and international waters – Dr. Ishii said the GEF’s long-term strategy must focus on scaling up programmes to achieve global impact.

“Incremental gains will not suffice if we are to reach the year 2020, able to count on natural capital as the foundation of sustainable development,” Dr. Ishii said. “I firmly believe that the Aichi Targets provide us with the framework to help us achieve that.”

The GEF unites 182 countries in partnership with international institutions, civil society organizations, and the private sector to address global

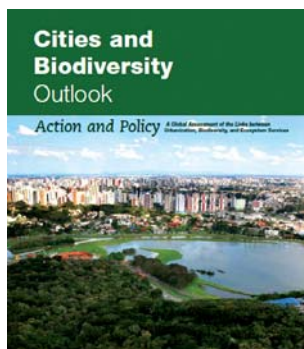
environmental issues while supporting national sustainable development initiatives. Today, the GEF is the largest public funder of projects to improve the global environment. An independently operating financial organization, the GEF provides grants for projects related to biodiversity, climate change, international waters, land degradation, the ozone layer, and persistent organic pollutants.

Since 1991, the GEF has achieved a strong track record with developing countries and countries with economies in transition, providing \$10.5 billion in grants and leveraging \$51 billion in co-financing for over 2,700 projects in over 165 countries. Through its Small Grants Programme, the GEF has also made more than 14,000 small grants directly to civil society and community based organizations, totalling \$634 million. For more information, visit www.thegef.org. *GEF News*

Biodiversity conservation can improve human health

Global urbanization will have significant implications for biodiversity and ecosystems if current trends continue, with knock-on effects for human health and development, according to a new assessment by the United Nations Convention on Biological Diversity (CBD). The report was presented at the 11th Meeting of the Parties to the CBD held in Hyderabad, India.

The assessment, which draws on contributions from more than 123 scientists worldwide, states that over 60 percent of the land projected to become urban by 2030 has yet to be built. This presents a major opportunity to greatly improve global sustainability by promoting low-



carbon, resource-efficient urban development that can reduce adverse effects on biodiversity and improve quality of life.

The Cities and Biodiversity Outlook is the world's first global analysis of how projected patterns of urban land expansion will impact biodiversity and crucial ecosystems.

The world's total urban area is expected to triple be-

tween 2000 and 2030, with urban populations set to double to around 4.9 billion in the same period. This urban expansion will draw heavily on water and other natural resources and will consume prime agricultural land.

For Asia, the report provided the following detailed analyses of regional urbanization trends and their impact on biodiversity and ecosystems:

- The region will be home to almost half the world's increase in urban land over the next 20 years. The most extensive changes will occur in India and China.
- India's growing urban clusters (such as the Mumbai-Delhi industrial corridor) are likely to transform entire regions, with significant

impacts on habitat and biodiversity.

- Loss of agricultural land to urbanization, combined with insufficient planning for food supply lines, places a severe constraint on future food security for India's growing population.
- Lifestyle changes in India due to urbanization may decrease pressures on forests due to less use of fuel wood and charcoal.
- In China, urban areas are increasingly encroaching on protected areas.

The Cities and Biodiversity Outlook was produced by the Secretariat of the CBD in partnership with the Stockholm Resilience Centre, and Local Governments for Sustainability. The full report can be downloaded at www.cbd.int/subnational/partners-and-initiatives/cbo.

SCBD News

Citizens air views on biodiversity

Some 3,000 citizens from 25 countries expressed their views on international biodiversity policies and issues through the World Wide Views on Biodiversity (WWViews), a globe-encompassing democratic deliberation on biodiversity held on 15 September 2012. The global views were disseminated to policy makers involved in the Convention on Biological Diversity (CBD).

Citizens from 25 countries were selected to reflect the demographic diversity in their respective countries and regions. They were provided with unbiased information about biodiversity and the international discus-



sions about policy measures to stop its decline, and were given time to deliberate with fellow citizens.

The following results of WWViews were presented at the 11th Meeting of the Parties to the CBD in Hyderabad, India:

- Most citizens worldwide do have some knowledge of biodiversity.
- Citizens think most people in the world

are seriously affected by biodiversity loss.

- Citizens worldwide are very concerned about the loss of biodiversity.
- The establishment of new protected areas should be given higher priority than economic aims.
- Efforts should be made to protect nature areas.
- Eat less meat and intensify agricultural production.
- Incentives and subsidies leading to overfishing should be phased out.
- Protection of coral reefs is a shared re-

sponsibility.

- More protected areas should be established in the high seas.
- All countries should pay for protecting biodiversity in developing countries.
- Benefit sharing should apply to genetic resources already collected.
- Use of genetic resources from the high seas should benefit biodiversity

The full WWViews results report can be downloaded at http://biodiversity.wvwviews.org/wp-content/uploads/2012/10/WWViews-ResultsReport_WEB_FINAL.pdf ■

On the bright side: Hope for the patient Earth

By Philipp Gassner*

Auroch, Tarpan, Tasmanian Tiger, Quagga-zebra, Steller's Sea Cow, Bluebuck, Pyrenean Ibex, Falkland Islands Wolf, Atlas Bear, Caribbean Monk Seal, Bali Tiger and Javan Tiger, Eastern Cougar, Western Black Rhinoceros. Are you wondering, why you missed out on these exotic animals during your last visit to the zoo?

Little chance of survival

The unpalatable answer is that all these animals are prominent peers of the estimated up to 140,000 species, snuffed out every year. A number that has to be taken with a grain of salt, since most extinctions happen silently and undocumented. Nevertheless, experts agree that we are in the midst of the sixth mass extinction, also known as the Holocene extinction, which started about 10,000 years at the end of the last Ice Age. As a result of climate change and the proliferation of modern humans, it continues into the 21st century. Two out of three ecosystems on Earth are damaged. In other words, only one third of the earth is still reasonably intact. If our planet was a living being, it would have little chance of survival.

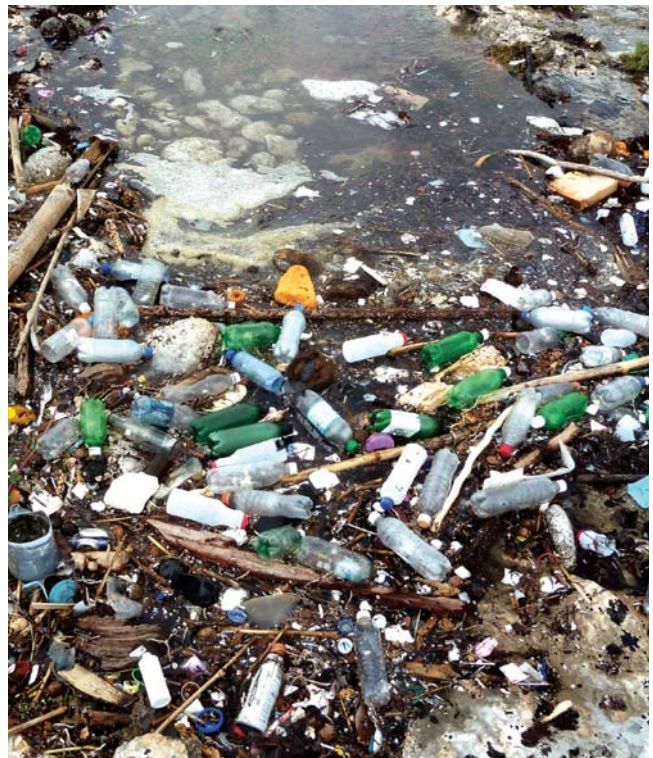
The key agreement to sustainable development

To enhance the chances of the patient Earth, the Earth Summit in Rio de Janeiro on 5 June 1992 opened the Convention on Biological Diversity (CBD) for signature, which entered into force the year after.

Ever since, the international legally binding treaty emboldens and coordinates the development of national strategies for the conservation and sustainable use of biological diversity. More precisely, its objectives are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from genetic resources. This key agreement regarding sustainable development is governed by its Conference of the Parties (COP), which convened for the eleventh time in Hyderabad, India, on 8 - 19 October 2012.

At the COP11, world leaders came together to negotiate the future of biological diversity as a common concern of humankind. Ten years and five meetings ago, the 2010 Biodiversity Target and its strategic plan aiming to halt the decline of biodiversity by the end of 2010 was adopted, which the world turned out to have largely failed to meet. On the contrary, loss of habitat and species has even accelerated, with the current extinction rate 10,000 times higher than the background extinction rate. Also, after the withering results of the Earth Summit Rio +20 earlier this year, one might ask if the sluggish process of global environmental governance is up for the multitude of 21st century challenges.

Let us see: apart from the everyday doomsday scenarios there are also messages on the bright side, as the following examples illustrate:



Jute instead of plastic

The white plague dangles from tree branches, clogs sewers in cities and floats in the sea. Plastic bags are a problem from the beginning to the end of their up to 500 years of long life. They are made from petroleum and do not decay in the environment. It may take half a millennium until the sun has decomposed a bag. By itself, the plastic bag would not be a problem if it was not for their large quantities and careless use.

Giant plastic garbage dumps float in the oceans, from which at least 80 percent come from land. Dropped by man, gone with the wind, the bags end up in the sea, with consequences that are not yet clear. Nobody knows what happens

when the masses of waste decompose over time, what the consequences are on the global marine food web.

Thus, many countries have decided to fight plastic bags. In Bangladesh, they have been banned since 2000. In China, they may no longer be given away but have to be sold. Since 2008, the population has been encouraged to use reusable and recycle plastic bags. In Tanzania, plastic bags are banned, in some regions with six months in jail for violations of the law. Moreover, some bags that are made from renewable resources such as corn starch can be degraded biologically by soil bacteria without residue, putting an end to this threat to the environment and human well-being.

A ban on ocean dumping

From today's perspective, the practice to sink toxic waste in the sea, popular up to the 1990s, appear like a surreal postmodern-scenario. In fact, this used to be the common method of disposal for such waste, like acids as a product of dye production. Even heavy oil residues from ship tanks were legally emptied overboard, with devastating effects on marine biodiversity and fisheries. It is also hard to imagine that liquid nuclear waste was also disposed in this way for decades, until 1993, when a worldwide ban entered into force, which included the dumping and incineration of industrial waste at sea.

Closing the ozone hole

During the mid-1980s, mankind could no longer close its eyes to the fact that the ozone layer of the atmosphere, protective against UV light, had become leaky. New data showed that the concentration of ozone over Antarctica had decreased by 40 percent from 1975 to 1985. At that time also, the culprit was detected: chlorofluorocarbons (CFCs), which were used as coolants in refrigerators and air conditioners, and propellants



in aerosol cans. Typically, ozone acts as planet Earth's natural sunscreen, as it absorbs in 15 to 25 km altitude over 90 percent of harmful UV-B radiation. If the ozone concentration in the stratosphere decreases by only 10 percent, the UV-B exposure on the ground increases by half. To address this issue, in September 1987, 47 states signed the "Montreal Protocol", banning the production and use of five particularly dangerous chlorofluorocarbons substances. Today, 196 countries have signed the treaty, which the former

UN Secretary General Kofi Annan has described as "perhaps the most successful international agreement of all time". As a result, the ozone hole stopped growing and the UN expects that it will close entirely by 2050.

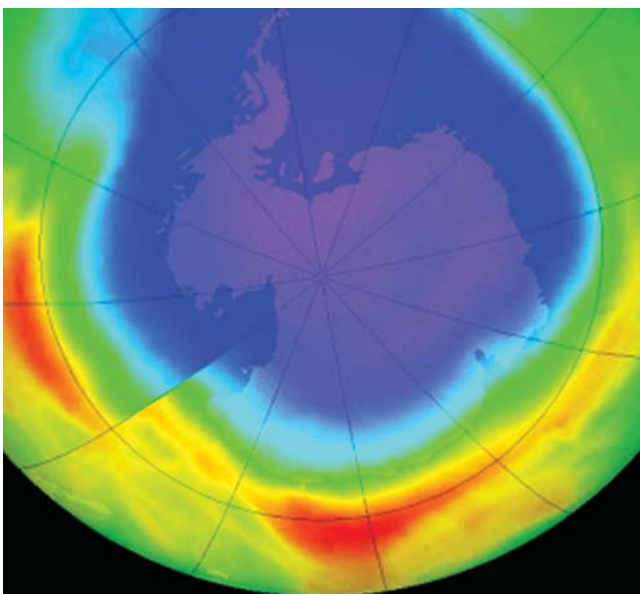
The forces destroying biodiversity are huge and the forces against these are tiny

The good news is environmental policies and legislation can work and make an enormous difference on the state of our planet. Efforts that governments have made to keep the 2010 Biodiversity pledge have soared since 1970 and are respectable. But they clearly have not worked too well. The problem, says Stuart Butchart of the UN's World Conservation Monitoring Centre in Cambridge, UK, is that while there have been lots of plans on paper, "they have been inadequately targeted, implemented and funded". For instance, there are manifold protected areas globally, but they have not been given enough money and are not in the most biologically important places. More than 80 percent of governments have promised to tackle invasive alien spe-

cies, but fewer than half have done anything. The forces destroying biodiversity, all related to human economic expansion, are huge; the forces working against these are tiny. This won't change until a force emerges that is similar in strength to the forces spreading destruction.

To sum up, the total loss of biodiversity is so far not ruinous. In the last 200 years, researchers found, 'only' one to two percent of all species have gone extinct, and, as we have seen, courageous environmental governance and leadership can make the difference, and are urgently needed. Most likely, the world will not end in December 2012. This leaves us with enough time to turn the ship around, and steer away from the fifth mass extinction - erasing some of the species on the red list, you will not see in the zoo, let alone in the wild anymore. We still have time and the means to fix this. ■

**Phillip Gassner is a consultant with the Biodiversity and Climate Change Project being implemented by the ASEAN Centre for Biodiversity and supported by Germany through GLZ.*



Source: NASA/Goddard Space Flight Center

From around the world to Hyderabad

By Agnes Pantastico*

Gardens and abode are words related to ecosystems and biodiversity. According to folklore, Hyderabad, a city of India, derived its name from Baghnader (city of gardens) and “Hyder’s abode”. Call it fate that this city hosted the 11th Meeting of the Conference of the Parties (COP11) to the Convention of Biological Diversity (CBD).

The CBD was one of the outputs of the Rio Earth Summit in 1992 as an expression of global concern over the loss of biodiversity. The Conference of the Parties is its implementing arm through the decisions it takes at its periodic meetings. The Parties meet to reaffirm their commitment to the objectives of the CBD.

The eleventh meeting was hosted by India, taking on the slogan “Nature protects if she is protected”

(Prakruti Rakshati Rakshita). Approximately 8,000 delegates from around the world attended the conference, which provided a unique platform to display, promote, interact, learn and network from each other’s experiences and knowledge relating to the protection of nature and biodiversity.

One important event for the youth parallel to the COP11 was the Go4BioDiv International Youth Forum. It has been an ongoing event since COP9. For this year, Go4BioDiv focused on the conservation of coastal and marine biodiversity due to its relevance in sustaining life and livelihoods for millions of people. The forum brought together 35 outstanding youth messengers from marine and coastal heritage sites around the world who struggle for a stronger protection of the coastal and marine envi-

ronment. They met in India from October 5 to 19.

In the first 10 days, they were on a boat in India’s unique marine World Heritage site, The Sundarbans. Here, they worked together to develop a joint declaration on conserving coastal and marine resources. They then participated at the High-Level Segment of the COP11, where they presented their declaration to decision makers and the wider public.

Go4BioDiv, acknowledged as a project of the UN Decade on Biodiversity, contributed to the creation of public awareness for the issues in an exemplary way. The event offered young dedicated people from all over the world the opportunity to share their on-the-ground conservation experience with their peers and the wider public. It enabled them to participate in politi-

cal discussions by engaging with international leaders during the COP11.

The ASEAN Centre for Biodiversity (ACB) and GIZ, the German development cooperation arm, were key players in Go4BioDiv. Through the GIZ-funded Biodiversity and Climate Change Project, ACB nominated seven out of the 35 youth participants from ASEAN and Pacific World Heritage Sites.

Through the BCCP, ACB held an exhibition featuring Biodiversity Giants – Mother Nature and the Mangrove Garden. These ‘Higantes’, traditional Philippine paper mâché sculptures delicately crafted by artisans from Paete, Laguna, Philippines, depicted how a perfectly functional mangrove forest can deteriorate through human use and abuse. It also showed what we can do to conserve as well as restore this important ecosystem. The event played an important role of raising awareness, particularly of the importance of marine ecosystems at peril - perils beyond plastic bags and industrial waste in our seas.

The art of paper mâché is the result of an unbroken 400-year Paete tradition. Each year, Paete and neighboring towns have held festivals that were well attended. Someone from Paete had the idea that they could cover carvings with paper mâché and then take the paper figures to the festivals to sell. The novel idea proved to be popular. All of the paper mâché images were sold: that was the be-



ginning of the paper mâché cottage industry in Paete. Nowadays, the 30,000 inhabitants of Paete base their livelihoods mainly on woodcarvings and paper mâché, tourism, poultry industry, farming and fishing.

ACB and GIZ also organized a side event where

ACB showcased the results of its initiatives on TEEB (The Economics of Ecosystems and Biodiversity) and ABS (Access and Benefit Sharing) in the ASEAN region; and presented an exhibit at the Communication, Education and Public Awareness hall.

The COP11 delegates from all over the world converged in Hyderabad with one shared sentiment – that we have the responsibility to make sure that nature is protected, because only then will it provide us with everything that we need to survive. Let us not wait for

another two years to get this message across. ■

**Agnes Pantastico is a senior advisor with the Biodiversity and Climate Change Project being implemented by the ASEAN Centre for Biodiversity and supported by Germany through GIZ.*

Voices of the youth

Agnes Bianca Mendoza (23) and Glenda Simon (29) are both from Palawan, Philippines. Their paths have never crossed before until one fateful day, they were invited to participate in the Go4BioDiv International Youth Forum 2012 in Hyderabad.

Agnes has witnessed the growth of her hometown from a backwater city into a prime tourist destination due to the increasing popularity of the underground river. However, she fears that all the development may ruin the serenity of the environment. This is why she said that “ways should be found and encouraged wherein the environment will be sustained as well as the tourism industry.”

Glenda on the other hand, works for the Tubbataha Management Office. Her office has been instrumental in protecting the Tubbataha Reefs. For her, “the sea is a food basket that enriches their waters with marine resources that maintain livelihoods”.

Agnes and Glenda are grateful for their experience in the Go4BioDiv Forum. It was a combination of creative learning, sharing and experiencing. As friends and allies now, they plan to work with other youth leaders from Palawan towards biodiversity conservation. ■

Agnes Bianca Mendoza in India for the the Go4BioDiv Youth Forum at the CBD COP 11.



Biodiversity information at your fingertips!

Check out our website for information materials on biodiversity conservation in ASEAN! The ASEAN Centre for Biodiversity produces a number of public awareness materials on biodiversity in the region, including the quarterly newsmagazine ASEAN Biodiversity, as well as profiles of ASEAN Heritage Parks and endangered species.

Proceedings on workshops organized by ACB focusing on issues such as marine gap analysis, multilateral environmental agreements, and business and biodiversity, among others are already available. The Policy Brief Series focuses on ASEAN actions and recommendations on issues such as community conserved areas, ecotourism, and invasive alien species.

Visitors can access the Biodiversity Information Sharing Service (BISS) to check species lists and protected area network data in ASEAN. Links to biodiversity information in other ASEAN Member States can be accessed here as well.

ACB has also produced videos on ACB and its work in ASEAN, as well as the values and the need to protect our treasured natural resources.

For more information log on to www.aseanbiodiversity.org.



COP 11 – Global Action for Biodiversity

Go4BioDiv International Youth Forum Declaration

We, as international Go4BioDiv youth Messengers from around the globe, represent local and indigenous communities, students, scientists, educators, communicators, lawyers and economists from outstanding marine sites. We want to raise our voice for conserving coastal and marine biodiversity for sustaining life and livelihoods.

Today, young people under 30 represent more than half of the world population. It is us who will live with the consequences of today's actions and inactions, and we are here to create our future.

Marine and coastal biodiversity loss has profound implications on humanity

We, as the youth of today, are concerned that coastal and marine ecosystems are under threat from anthropogenic impacts including mismanagement and over-use of marine resources, habitat loss, pollution, invasive species, massive tourism and unsustainable development, which will further be exacerbated by climate change.

We see conservation and sustainable use of marine and coastal resources as crucial towards livelihoods.

Marine ecosystems cannot exist in isolation. Thus, the approach towards conservation must be in the context of wider land- and seascapes, fostering connectivity and the resilience of ecosystems. We therefore call for biodiversity



conservation measures including sustainable and socially inclusive resource use practices to be a priority at all levels.

We want policy driven by scientific and traditional knowledge

We, as young researchers, demand that scientists are made part of decision-making processes, to guide policies on a more ecologically sound path. It must be ensured that research findings are implemented in immediate and effective action. Science findings must not be compromised due to conflicting interests of media, lobby groups and industries.

Wide participation in decision-making processes requires transparent information

We, as young leaders, call for cooperation and unity among stakeholders on all levels, going beyond the border of age, gender

and cultural background. We demand for coordination of and compliance with all environment-related treaties.

A bottom-up governance approach is needed to empower local communities, encouraging them to maintain their traditions and values of sustainable resource use practices. This can be achieved with an effective participation process based on transparent information, accessible and understandable by all. Capacity building and training of facilitators is essential to encourage communication and to share knowledge between science, media, general public and authorities.

We urge to fairly and equitably share the costs and benefits of biodiversity use

We, as young ecologists and economists, know that biodiversity has an intrinsic value. However, we believe

that the economic valuation of ecological goods and services can promote biodiversity conservation and the sustainable use of its components.

Moreover, the benefits arising from the use of marine and coastal genetic resources and their related traditional knowledge must be fairly and equitably shared. To foster sustainable use of biodiversity and its resources, more technical and financial support is essential.

Strong legal regulations and their enforcement are necessary to protect our marine and coastal realms worldwide

We, as young environmental stewards, emphasize that the precautionary principle should be applied at regional, national and international levels. We urge for strong legal mechanisms, clear rules and regulations as well as their effective and active enforcement to prevent the misuse of resources, especially concerning illegal, unregulated and unreported fishing. Corruption must be combated at every level. Perverse incentives and subsidies must be converted into ecologically sound ones. If livelihoods are negatively affected, alternative income options must be provided.

We want a strong emphasis on environmental education and communication

We, as youth educators and communicators

The “Giants” of COP11

Giant paper sculptures dominated the exhibit area at the 11th Meeting of the Conference of the Parties to the Convention on Biological Diversity (COP11) held at Hyderabad, India in October 2012. The exhibit showed the importance of mangroves in climate change mitigation.

The sculptures stood as tall as 3.3 meters and were made of paper; old newspapers that were converted to giant mache items by skillful artists using starch and wires.

Filipino sculptor Augusto Cadang said, “As an artist, I am very proud to be part of communicating a message to save the environment.”

Even if India has its share of paper mache fabrication, the use of such medium to convey caring messages and hopes about the environment was something new in India.

The paper mache exhibit concept for COP 11 was the brainchild of Dr. Berthold Siebert, a German expatriate living in Los Banos, Laguna, Philippines, where he works as director for the GIZ-funded Biodiversity and Climate Change Project being implemented by the ASEAN Centre for Biodiversity.

Dr. Siebert and his wife, Rosa, love the charm of Paete, a historical town in Laguna with 30,000 art-loving inhabitants. Most of the people in Paete are carvers and artists. After a collaboration of ideas with Dr. Sheila Vergara, marine biologist and director of ACB’s biodiversity information management unit, Dr. Siebert decided to adopt marine biodiversity as the exhibit’s theme: mangrove forests, their disintegration, and the planet’s hope on how the youth will cooperate with nature. The exhibit was designed by Yvette Co and rendered by the artists of Paete.

After COP 11, the exhibit was donated by ACB and GIZ to the Meridian International School in Banjara Hills. The exhibit was handed over to the school through Mr. Darrow Odsey, director of the National Coalition of Indigenous People of the Philippines, and was received by Meridian School Headmistress Rajkamal Akepoge on 19 October at the school’s biodiversity hall.

The other giant paper sculptures, such as the eight-foot seahorse, coral rock, fish and shrimp, were donated to WWF India to be used for its environmental advocacies. ■



“Mother Nature” and “Fatman” sculpted by Augusto Cadang with Zandro Cagayat and Edwin Dalhag. The mangrove trees and animals were sculpted by Lino Dalay of Ang Hugis at Kulay ng Paete.



In photo (L-R): Yvette Co, designer of the paper mache exhibit; Darrow Odsey, director of the National Coalition of Indigenous People of the Philippines; and Rajkamal Akepoge and Venkata Ramesh of the Meridian School.

strongly believe that it is vital to include environmental education in the curriculum and have nature connection programmes. We are convinced that individuals from all sections of society

should have the possibility and financial means to experience the natural environment to become aware of the importance of coastal and marine biodiversity and its ecosystem services.

We call for coordination, cooperation and unity among all stakeholders

We, as the youth are strongly committed to biodiversity conservation and its sustainable and respon-

sible use. By being globally connected and working in unity, we will create a change for our common future. And we invite the international community to join us! ■

The ASEAN TEEB Scoping Study

Valuing ecosystem services in Southeast Asia

There is a substantial existing body of evidence on the value of ecosystem services in Southeast Asia. This was the finding of the ASEAN TEEB Scoping Study, which gathered and reviewed existing evidence on the value of ecosystem services in Southeast Asia. The study identified key critical ecosystems and ecosystem services in Southeast Asia; conducted an initial set of case studies to highlight the value of ecosystem services; and identified and recommended policy relevant case studies in ASEAN Member States to be conducted in a future full ASEAN TEEB study.

TEEB is short for The Economics of Ecosystems and Biodiversity, a study that provides an assessment of the economic impacts associated with losing natural capital. The study outlines the cost of policy inaction. It finds that under a “business as usual” scenario, an average year’s natural capital loss would lead to a loss of ecosystem services worth around US\$ 2 trillion to US\$ 4.5 trillion over a 50-year period. The TEEB also describes in economic terms the deep links between eliminating poverty and conserving biodiversity and ecosystems. It highlights the importance of looking at ecosystem services not merely as a percentage of the national Gross Domestic Product (GDP), but also as a percentage of the “GDP” of poor rural and forest-dwelling communities who depend on forests for their livelihood. The TEEB study covers reports for businesses and consumers, national policy makers, and local administrators.

Objective of the scoping study

The ASEAN TEEB Scoping Study was aimed at pursuing the mainstreaming process of the economics of ecosystems and biodiversity through the conduct of an assessment and valuation of key ecosystems and ecosystem services in Southeast Asia. The study was also aimed at assisting ASEAN Member States to develop green growth economies.

A total of 182 studies that address the valuation of ecosystem services in Southeast Asia were collected and organized in a database. These studies provided 787 separate value estimates of ecosystem service values. The geo-

graphic distribution of this information is uneven, with a large number of studies for Indonesia, Philippines, Thailand, Malaysia and Viet Nam, but none for Brunei Darussalam and Myanmar.

Forests have been by far the most extensively studied ecosystem, followed by wetlands, coastal ecosystems (combinations of coral reefs, mangroves and seagrasses), and mangroves. Provisioning services, particularly food and raw materials, have been the most extensively valued, along with cultural services, particularly for the opportunities provided by nature areas for recreation and tourism. Regulating services, such as flood and storm protection, have received relative-

ly little attention, although these ecosystem services are likely to increase in importance over time in the context of climate change.

The four case studies presented in the Scoping Study highlighted the importance of key ecosystems in Southeast Asia. The case studies were conducted at different scales (regional, provincial and local) and addressed ecosystem services from mangroves, coral reefs and forests. The case studies illustrated how information on the economic value of natural capital can draw attention to the need for conservation, the trade-offs involved, and the design of policy instruments to aid and finance conservation.

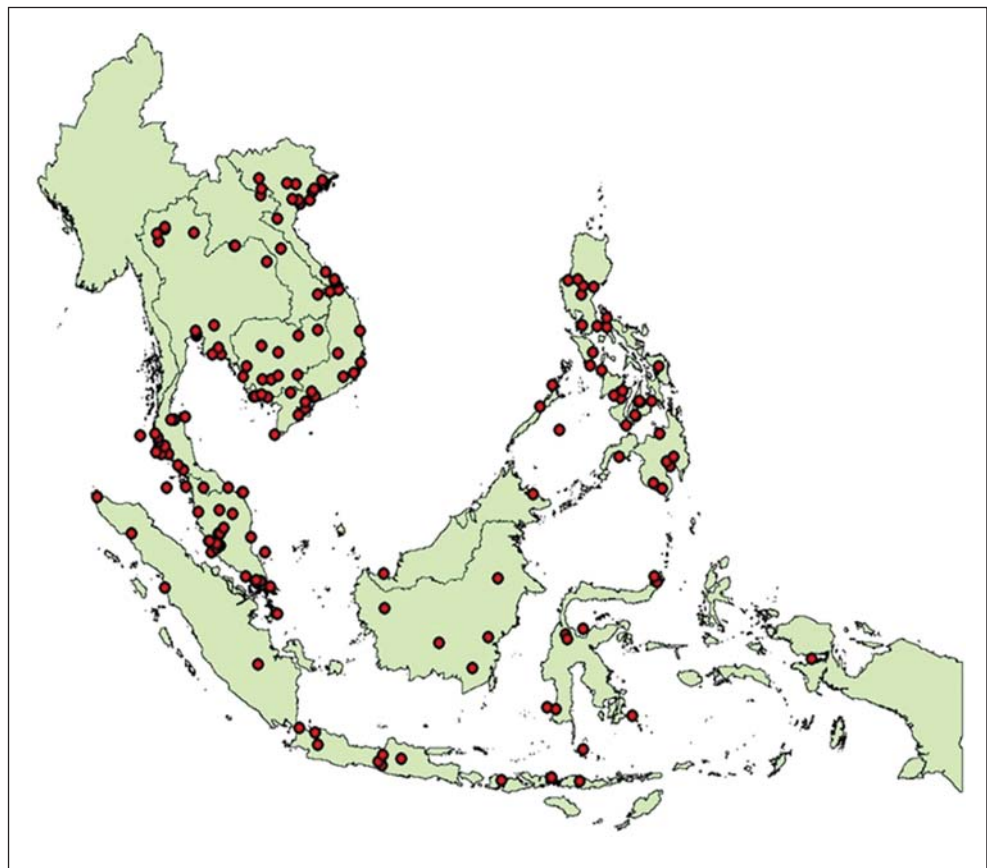


Figure1. Location of valuation study sites in ASEAN Member States

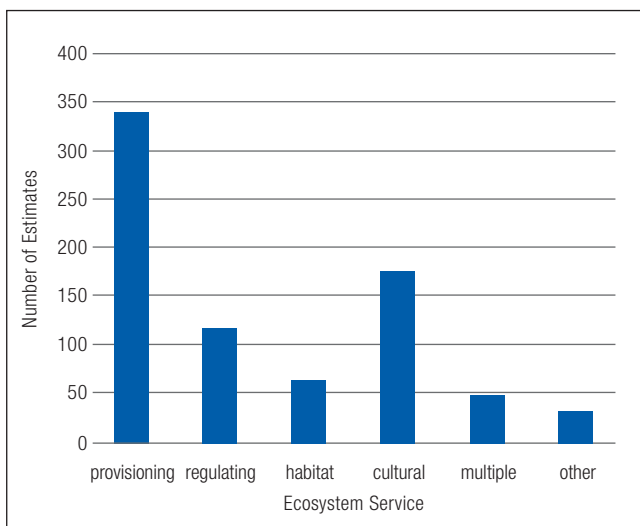


Figure 2. Number of valuation estimates for each ecosystem service.

Mangroves

- The case study on mangroves presented a “business-as-usual” scenario of the loss in area of mangroves in Southeast Asia over the period 2000-2050 and estimated the reduction in the value of two ecosystem services: coastal protection and habitat/nursery support for fisheries. The estimated foregone annual benefits in 2050 for Southeast Asia as a whole is valued at US\$ 2.2 billion.

Coral Reefs

- The case study on coral reefs examined a business-as-usual scenario of loss in coral reefs in Southeast Asia for the period 2000-2050. The annual loss value of reef related fisheries is estimated to be approximately US\$ 5.6 billion in 2050.

Forests

- The case study on the Leuser forest ecosystem in Sumatra, Indonesia highlighted the distribution of ecosystem service benefits

across different stakeholders and the trade-off between short term gains for some versus larger long term losses for others.

Protected Areas

- The case study on the Hon Mun marine protected area (MPA) in Viet Nam illustrated the potential impact of information on the economic values of ecosystem services to improve decision making regarding nature conservation and finance. The recommendation to introduce a user fee that is earmarked for use by the MPA has been adopted and the MPA is now partially self-financed.

Next Steps

Suggestions for future policy relevant TEEB studies have been elicited from environment officials in the ASEAN Member States. The suggested cases for a full ASEAN TEEB study cover a wide spectrum of environmental and policy contexts from the provision of urban green space to the financing of protected forests and wetlands. ■

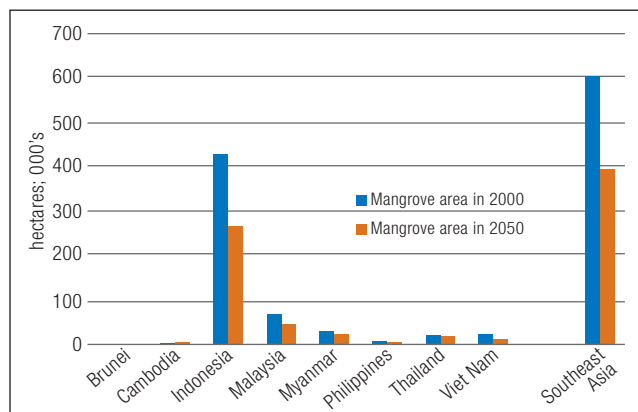


Figure 3. Total area of mangroves in 2000 and 2050.

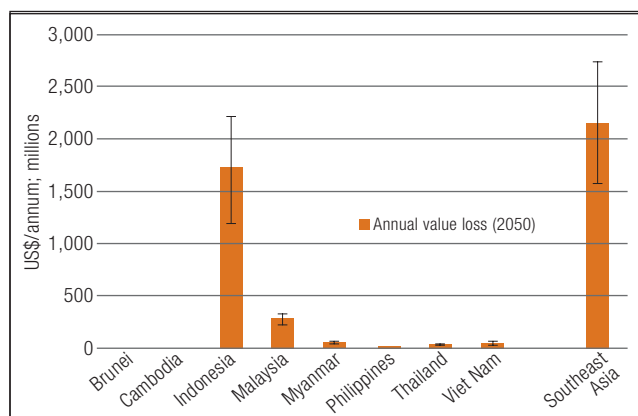
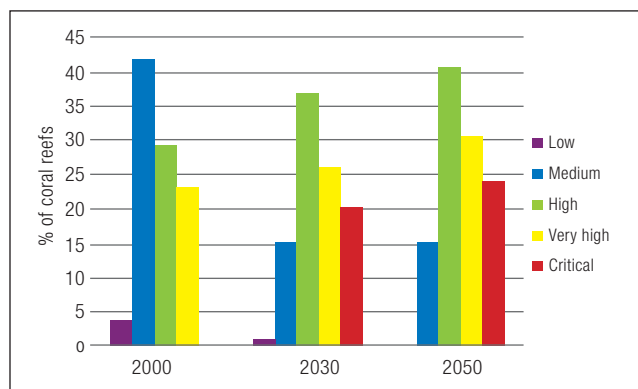


Figure 4. Value of lost mangroves in 2050.



Source: Burke et al. (2011)

Figure 5. Level of threat to coral reefs in Southeast Asia 2000, 2030, 2050.

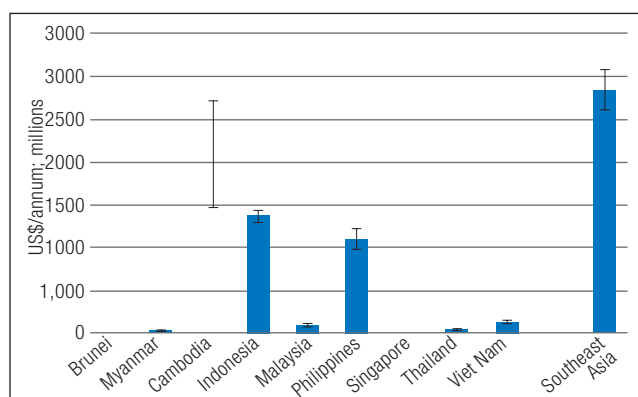


Figure 6. Total area of mangroves in 2000 and 2050.

Corporations see green in biodiversity

By Marwaan Macan-Markar*

The gentle hills on the edge of the remote village of Atisan in San Pablo, Philippines are lush with tropical fruit trees that yield fine wines for the Broadchem Corporation and also give the agro company a green label. It was not always like this. Until the Manila-based Broadchem stepped into this 17-hectare range, it was the haunt of timber merchants who ruthlessly stripped the hills bare and left them vulnerable to soil erosion.

This corporate nod towards biodiversity has resulted in a sprawling orchard of tropical fruits including banana and soursop (locally called *guyabano*) that is used to make juices, smoothies, or ice cream. The orchards also support a range of wild berry trees that produce a range of fruit wines including 'bignay' made from the deep pink berries of that name.

Last year, Manila's wine stores saw the entry on their racks of St. Ambrose Bignay Wine that is becoming increasingly popular, according to Jose Reano, president of Broadchem.

"During our first run in 2011, we produced 12,000 bottles of dessert wine, which has 11.5 percent alcohol. Our goal is to produce 30,000 bottles," said Reano.

With drinking habits in the Philippines expanding from local beers and spirits to wine, producers of 'bignay' are assured a growing market share.

"Bignay wine is sought after not only for its unique flavor and appetizing red color, but also for its high

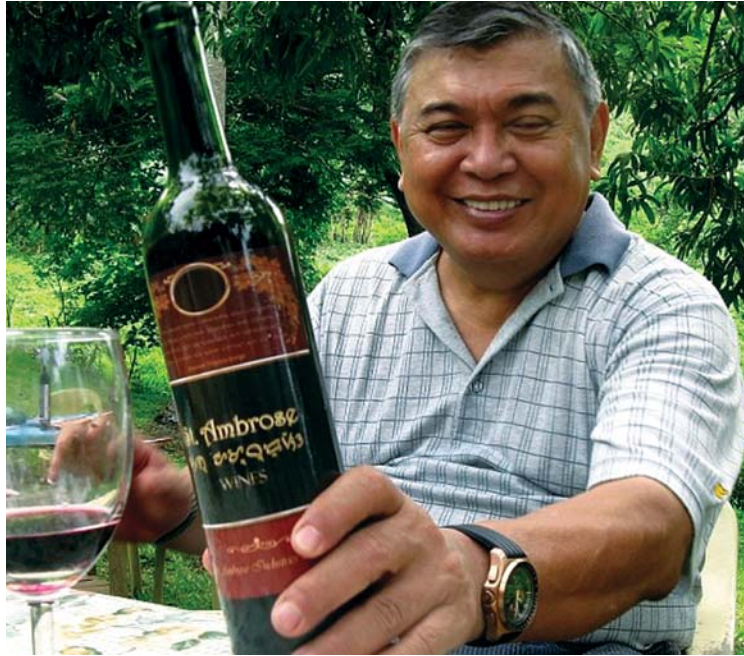


Photo by Marwaan Macan-Markar/IPS

Winemaking can help conservation.

antioxidant activity that has health benefits," says Erlinda Dizon, director of the Institute of Food Science and Technology at the University of the Philippines' Los Banos campus.

Jams and juices have also been flowing from this venture by Broadchem, that has stakes in animal care and veterinary products.

"This is how we view corporate social responsibility," Reano said. "Local communities are involved in our conservation programmes. We have convinced them about the advantages of growing fruit trees."

A growing number of companies across this Southeast Asian archipelagic country have adopted similar business models that see conservation not as charity but as an opportunity to make profits (such as by selling wine) through long-term green invest-

ments.

"This business model for denuded areas has been utilized to grow various crops such as mango, citrus, coffee and cacao," says Lory Tan, Chief Executive Officer of the World Wildlife Fund for Nature's Philippines office.

"These are early days," Tan adds cautiously. "We cannot yet assume that this is a growing trend. I think it is a good idea, within limits."

Tan believes that for denuded areas, agro-forestry is a good model. "Aside from environmental benefits, such as slope stabilization, water recharge and flood management, it can provide recurring income for local communities – unlike timber trees that are grown to be cut."

The corporate rush to acquire green credentials marks a break from earlier attitudes towards corporate social responsibility.

"Previously, companies would indulge in one-shot projects like medical missions or seek a dole out for their activities," says Mars Mendoza, Deputy Executive Director of Fair Trade Alliance, a Philippines non-governmental organization.

"Today there are community-based farmers' cooperatives that enter joint undertakings to plant, for example, tropical vegetables that are used as raw materials for making

food supplements," she tells the Inter Press Service. "It is giving new depth to companies' social responsibilities."

The green approach grew out of a need to help marginalized communities revive denuded terrains following the devastating typhoons and floods that swept through this country three years ago, affecting thousands of lives and damaging large swathes of land.

Even the country's investment arm has acquired a green shade. The Department of Trade and Industries now expects investors to have environmental compliance certificates covering commitments to donate seedlings or help tree-planting programmes.

Last year, the Philippines division of CEMEX, the Mexican cement giant, began converting part of its property in Cebu into a for-

est community with the involvement of the local government. CEMEX also has a programme to conserve white sharks in Philippine waters with support from international environmental groups that won recognition in 2010-2011 from the ASEAN Centre for Biodiversity (ACB).

The ASEAN, a 10-member regional bloc which includes Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam, is home to 18 percent of all known plant and animal species.

ACB has also hailed Broadchem for “linking biodiversity with agriculture entrepreneurship” and fostering renewed interest by local communities in tree planting.

“Considering the limited resources of developing countries in the region amidst numerous socio-economic challenges they face, the participation of business in biodiversity protection and preservation is truly the way forward,” Lourdes Orijola, Assistant Secretary to the Philippines’ Department of Science and Technology, remarks in an ACB publication.

The success of “bignay” wine makes women like Maria Victoria Katigbak, a community leader in Atisan, feel there is a future for its 1,200 poverty-stricken households in environment-friendly productivity.

“We have stopped cutting down trees for charcoal production and switched to growing fruit trees to make the wines and juices,” she said. “It is bringing in money we didn’t have before.” ■

**Marwaan Macan-Markar is a Sri Lankan journalist and foreign correspondent for the Inter Press Service.*



Doha conference opens gateway to greater ambition and action on climate change

(Doha, 8 December 2012) – At the UN Climate Change Conference in Doha, Qatar (COP18/CMP8), governments have taken the next essential step in the global response to climate change. Countries have successfully launched a new commitment period under the Kyoto Protocol, agreed on a firm timetable to adopt a universal climate agreement by 2015, and agreed on a path to raise necessary ambition to respond to climate change. They also endorsed the completion of new institutions and agreed ways and means to deliver scaled-up

climate finance and technology to developing countries.

“Doha has opened up a new gateway to bigger ambition and to greater action – the Doha Climate Gateway. Qatar is proud to have been able to bring governments here to achieve this historic task,” said COP President Abdullah bin Hamad Al-Attiyah.

The Executive Secretary of the UN Framework Convention on Climate Change (UNFCCC), Christiana Figueres, called on countries to swiftly implement what has been agreed in Doha so that the world can stay below the

internationally agreed maximum two degrees Celsius temperature rise.

In Doha, governments also successfully concluded work under the Convention that began in Bali in 2007 and ensured that remaining elements of this work will be continued under the UN Climate Change process.

The next major UN Climate Change Conference – COP 19/ CMP 9 - will take place in Warsaw, Poland, at the end of 2013.

The results of COP18/ CMP8 in more detail:

Amendment of the Kyoto Protocol

The Kyoto Protocol, as the only existing and binding agreement under which developed countries commit to cutting greenhouse gases, has been amended so that it will continue as of 1 January 2013.

- Governments have decided that the length of the second commitment period will be eight years.
- The legal requirements that will allow a smooth continuation of the Protocol have been agreed upon.



Photo by Tun Aung

- The valuable accounting rules of the Protocol have been preserved.
- Countries that are taking on further commitments under the Kyoto Protocol have agreed to review their emission reduction commitments at the latest by 2014, with a view to increasing their respective levels of ambition.
- The Kyoto Protocol's Market Mechanisms – the Clean Development Mechanism (CDM), Joint Implementation (JI) and International Emissions Trading (IET) – can continue as of 2013.
- Access to the mechanisms will be uninterrupted for all developed countries that have accepted targets for the second commitment period.
- JI will continue to operate, with the agreed technical rules allowing the issuance of credits, once a host country's emissions target has been formally established.
- As part of accounting rules, provisions relating to carry-over of assigned amount units from the first to

the second commitment period were further developed, aiming to strengthen the environmental integrity of the Kyoto Protocol regime. In addition, Australia, the EU, Japan, Liechtenstein, Monaco, Norway and Switzerland clarified, through declarations attached to the Doha decision on the second commitment period that they will not purchase such surplus units from other Parties.

Time table for the 2015 global climate change agreement and increasing ambition before 2020

Governments have agreed to speedily work toward a universal climate change agreement covering all countries from 2020, to be adopted by 2015, and to find ways to scale up efforts before 2020 beyond the existing pledges to curb emissions so that the world can stay below the agreed maximum 2 degrees Celsius temperature rise. A significant number of meetings and workshops are to be held in 2013 to prepare the new agreement and to explore further ways to raise ambition. Governments have agreed to submit to



Photo by Arie Basuki

the UN Climate Change Secretariat, by 1 March 2013, information, views and proposals on actions, initiatives and options to enhance ambition. Elements of a negotiating text are to be available no later than the end of 2014, so that a draft negotiating text is available before May 2015.

The UN Secretary-General Ban Ki-moon announced he would convene world leaders in 2014 to mobilize the political will to help ensure the 2015 deadline is met.

Completion of new infrastructure

In Doha, governments significantly advanced the completion of new infrastructure to channel technology and finance to developing nations and move toward the full implementation of this infrastructure and support. Most importantly, they have endorsed the selection of the Republic of Korea as the location of the Green Climate Fund and the work plan of the Standing Committee on Finance. The Green Climate Fund is expected to start its work in Songdo in the second half of 2013, which means that it can launch activities in 2014. They confirmed a UNEP-led consortium as host of the Climate Technology Center (CTC), for an initial term of five years. The CTC, along

with its associated network, is the implementing arm of the UNFCCC's Technology Mechanism. Governments have also agreed on the constitution of the CTC advisory board.

Long-term climate finance

Developed countries have reiterated their commitment to deliver on promises to continue long-term climate finance support to developing nations, with a view to mobilizing US\$100 billion both for adaptation and mitigation by 2020. The agreement also encourages developed countries to increase efforts to provide finance on 2013-2015 at least to the average annual level with which they provided funds during the 2010-2012 fast-start finance period. This is to ensure there is no gap in continued finance support while efforts are otherwise scaled up.

Governments will continue a work programme on long-term finance during 2013 under two co-chairs to contribute to the on-going efforts to scale up mobilization of climate finance and report to the next COP on pathways to reach that target. Germany, the UK, France, Denmark, Sweden and the EU Commission announced concrete finance pledges in Doha for the period up to 2015, totaling approximately US \$6 billion. ■

About the UNFCCC

With 195 Parties, the United Nations Framework Convention on Climate Change (UNFCCC) has near universal membership and is the parent treaty of the 1997 Kyoto Protocol. The Kyoto Protocol has been ratified by 193 of the UNFCCC Parties. Under the Protocol, 37 States, consisting of highly industrialized countries and countries undergoing the process of transition to a market economy, have legally binding emission limitation and reduction commitments. The ultimate objective of both treaties is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system. ■



The Subanen celebrate nature and life on Mt. Malindang

By Sahlee Bugna Barrer

To the Subanen, Mt. Malindang Range Natural Park, which spans the provinces of Misamis Occidental, Zamboanga del Sur and Zamboanga del Norte in Mindanao, is home. Long considered the first caretakers of this mountain environment, the Subanen express pride in their ancestral domain and in its declaration as an ASEAN Heritage Park.

The Subanen (read as Suban-on) are the indigenous peoples of the mountainous areas of the Zamboanga Peninsula, Mindanao, Philippines. They are divided into five sub-groups: Central Subanen, Northern Subanen, Koligugan Subanon, Western Subanon and Southern Subanon, each with its own dialect and geographical area. They

derive their name from the Visayan word “suba” meaning river, and are thus known as the people who live along the river. The name Subanen can also be traced to Subayen (read as Subayon), another Visayan word “subay,” meaning looking through.

Mt. Malindang is considered the ancestral domain of the Subanen, who comprise 75 percent of the occupants of the park. Fernando M. Magante, Provincial Tribal Coordinator for the Subanen, relates that Mt. Malindang is considered sacred ground by the tribe.

The Subanen believe that nature is a gift from God. They enjoy an intimate relationship with nature, and take only what is needed. The Subanen survive on the bounty of Mt. Malindang,

the forests of which thrived with fruit, honey, deer, wild boar, and other wildlife.

Traditionally, the Subanen are hunters and gatherers, but most have settled down to plant corn, vegetables, bananas and coconuts. Fernando relates that the Subanen hold rituals at the start of planting and harvest seasons, where they pray for a rich harvest throughout the year. Aside from providing food and material for shelter, the forests are also a source of traditional medicine, some of which remain available and are used to this day. These include a decoction made from the bark of almaciga, which is used to treat stomach ache. Chewing the bark of the kalingag tree is also said to help ease headaches.

These days, Mt. Malindang continues to thrive, but Fernando laments that its rich biodiversity has been affected by incidences of illegal logging. The Subanen continue to protect the mountain by reporting poachers and by supporting the Protected Area Office in their conservation efforts. He hopes that Mt. Malindang will continue to be safeguarded from wanton destruction, particularly in the light of its declaration as an ASEAN Heritage Park.

Mt. Malindang Range Natural Park covers 53,028 hectares and encompasses grassland areas, dipterocarp forests, lower montane forests, upland wetland areas, and mossy forests. A biodiversity inventory in 2004 revealed the presence



Photos by Jimmy Domingo

of 1,284 plant species and 257 terrestrial vertebrates, including 26 species of amphibians, 33 reptiles, 162 birds and 36 mammals. These include threatened species such as the Philip-

pine eagle, Philippine deer, tarsier, rufous hornbill, flying lemur, Mindanao warty pig, and other species.

Mt. Malindang Range Natural Park is part of 32 ASEAN Heritage Parks

(AHPs), four of which are in the Philippines. The others are Mt. Apo Natural Park, Mts. Iglit-Baco National Park, and Mt. Kitanglad Range Natural Park. AHPs are defined as “protected areas of high conservation importance, preserving in total a complete spectrum of representative ecosystems of the ASEAN region”. The AHPs aim to generate greater awareness, pride and support for the conservation of ASEAN’s rich natural heritage.

Mt. Malindang Range Natural Park was launched as an ASEAN Heritage Park on 4-5 August 2012. Held in Oroquieta City, Misamis Occidental, the launch was organized by the ASEAN Centre for Biodiversity with support from the Department of Environment and Natural Resources (DENR), Protected Areas and Wildlife Bureau (PAWB), GIZ, DENR Region 10, and the local government through the offices of Governor Herminia M. Ramiro of Misamis Occidental and Mayor Jason P. Almonte of Oroquieta City. The launch coincided with the Second National AHP Conference, which allowed AHP managers to share management experiences, challenges and good practices.

“Traditional knowledge has been recognized as significant to biodiversity conservation since indig-

enous groups have first hand knowledge and decades of understanding of the relationships between species and ecosystems and the services they provide. The knowledge and relationship of the Subanen with Mt. Malindang should be documented and preserved since it harbors critical information on natural resource management and conservation of the park. The status of Mt. Malindang as an AHP will hopefully generate greater protection for this key site in Philippine biodiversity, as well as conserve a primary example of the rich natural heritage of the ASEAN region,” said Dr. Monina Uriarte, head of the AHP Programme Secretariat and Capacity Development Specialist with ACB.

The ASEAN Centre for Biodiversity serves as the Secretariat of the ASEAN Heritage Parks Programme and helps to strengthen AHP management and awareness through conferences, capacity-building activities, and development of information materials. For more information on ASEAN Heritage Parks, log on to www.aseanbiodiversity.org. ■

Sahlee Bugna-Barrer is senior writer-researcher with the ASEAN Centre for Biodiversity.

Take time to learn about biodiversity.

Log on to
www.aseanbiodiversity.org
or
chm.aseanbiodiversity.org.








- Myanmar

Nat Ma Taung National Park

Nat Ma Taung National Park (NMTNP) is located close to the border with India and features Mt. Victoria, which at 3,035 meters above sea level is the highest mountain in Chin Hill, Chin State, in the western part of Central Myanmar. Mt. Victoria was named in honor of the Queen of England, but in the Chin language it is called Khaung Neu Thom or Earth Mother Goddess.



MYANMAR

NMTNP encompasses 722.6 sq. km. of rugged and verdant mountainous terrain. The Chin Hills form part of the Araken-Yoma range that skirts the Bay of Bengal and bears northwards along Myanmar's western border. The peak rises steadily in elevation until they meet the Himalayas in Manipur, northeast India. It is composed of three townships, namely Kampetlat, Mindat and Matupi, an important watershed area of central dry zone of the Myanmar.

Nat Ma Taung National Park was already well known for its biodiversity as early as the 1930s, when renowned British botanist Frank Kingdon-Ward often visited the park for botanical surveys and collection expeditions. He called it a "plant hunter's paradise" because of its floral diversity. Nat Ma Taung National Park was designated as a reserved forest in 1936 and declared a national park in 2010.

Biodiversity richness of Nat Ma Taung National Park

- 2,500 species of plants
- 35 species of orchids
- 152 species of mosses
- 31 species of mammals
- 300 species of birds
- 106 species of reptiles and amphibians
- 77 species of butterflies
- 35 species of beetles

Habitats

Nat Ma Taung National Park has diverse vegetation resulting from the combined effects of geography, elevation and human activities. The ridge around the site at an altitude of 1,200 meters supports the local human population and comprises a secondary forest consisting mainly of fast growing trees with wind-dispersed seeds such as pine and alder. Forest types include lowland dipterocarp forest, hill evergreen forests, moist upper mixed deciduous forests, pine forests (above 9,000 feet), and hill savannah.

Wildlife

About 2,500 plant species are known to occur in Nat Ma Taung National Park, including *Potentilla montisvictorade*, *Rhododendron burmanicum* and *Rhododendron cuffeanum*, which are unique to the site. Other significant *Rhododendron* species include *Roseoea australis* and *Hyponodopis spatulata*.

Nat Ma Taung National Park is also home to 35 orchid species belonging to 17 genus, of which five are terrestrial and 30 are epiphytic. One hundred fifty-two mosses have also been recorded in NMTNP.

The park is home to 31 species of mammals, 300

species of birds, 106 species of reptiles and amphibians, 77 species of butterflies, and 35 species of beetles. Located in the Chin plateau, NMTNP connects with the endemic bird area in the southern part of the Himalayan range. The park harbors a number of bird species, including the White Browed Nuthatch (*Sitta victoriae*), which is endemic to Myanmar. Globally significant large mammal species such as the Serow (*Capricornis sumatrensis*), gibbons, and the Himalayan Black Bear also live in the area. The lizard *Calotes chinollium* is also endemic to the park.

Conservation Management

The Park Warden's office was established in 1995 and is located in Kampetlet Township, Chin State. The office has a total of 31 staff, including the park warden, branch clerk, range officer, nine rangers, 13 foresters, forest guard and five daily-paid workers. The staff conduct various conservation activities such as regular patrolling of the area, environmental education programmes, boundary demarcation, scientific surveying of flora in the site and adjacent area, and introduction of agro-forestry to reduce the practice of shifting

cultivation in the region. Park management infrastructure include an office building, three officers' houses, 11 staff quarters, three rest houses and two guard posts.

The management plan of the park is currently being designed and the conservation activities that will form part of the AHP Management Plan include the following:

- Protection of the watershed areas of the following rivers: Lemro, Myittha, Saw Chaung, Maw Chaung, Salin Chaung, Che Chaung, Yaw Chaung and Mone Chaung.
- Conservation programme to protect the scenic beauty of natural forests; five species of rare birds found only in Myanmar and other native and migratory birds and their habitats; and rare species of Myanmar orchids, among others.
- Education, Information and Communication and targeted public awareness campaign to educate local people to shift to more sustainable cultivation of the forests; and promote the park as an ecotourism destination.
- Conservation, development and research programmes such as inventory of forest flora, birds and their natural habitats.
- Establishing a modern Forest Village with the assistance of rural people to initiate a permanent Taungya planning system with perennial crops.
- Field survey and inventory to promote and upgrade the park for ecotourism.



Rhododendron burmanicum



Roseoea australis



The Chin women

Local People and Culture

The Chin people are said to consist of 50 separate groups, based primarily on their locality and language. They have their own unique traditions, which are still fairly distinct from those of surrounding areas, and serve as one of the attractions for domestic and overseas tourists.

Chin National Day is celebrated annually on 20 February and is an event where all Chin clans living around Mindat, Matupi area congregate to celebrate the occasion. The event includes traditional Chin dances, stalls set up to show traditional Chin arts and crafts, sports competitions including the traditional archery contests, and the chance to see many women folks with tattooed faces.

There are various theories as to why the Chin ladies tattoo their faces. One says it is to make identification easier when the attacking enemies take away the women as hostages in olden days; another says it is to disfigure themselves and dissuade potential kidnappings. Many of the Chin tribal women still engage in this practice.

Chin shawls are also popular among the ladies living in more cosmopolitan surroundings. These are woven on back looms with distinctive Chin motifs and patterns. In olden times,

the women folks spin their own cotton and use the natural dyes from the plants found in the Chin Hills. But this practice has been supplanted by the import of readily available cotton yarns and chemical dyes. However, many Myanmar companies are reviving this tradition and some have even begun exporting the shawls overseas, mainly to Japan and Europe.

At Aye Sakan and also at many other Chin villages, visitors will see curious Y-shaped posts, which are used to record significant events and dates in the families' life. Also inside many houses are boards hung with skulls of various animals. This is called the trophy board and it is a proud memento for the owner to announce to the village that he is a great hunter. There may be skulls of monkeys and birds and other animals, even a bear if the hunter has been most fortunate to encounter one in the forest.

Curious slabs of stone can also be seen at Aye Sakan. Under these stone slabs are earthen pots. The stone slabs are said to be the dwellings of the departed souls whose bones and ashes are in the pots underneath.

Local communities in and around the national park rely greatly on the wealth of the forest for their livelihood. Shifting cultivation or slash and

burn cultivation is the main way of farming to cultivate maize, their staple food. Timber made from pine logs are used for building houses. A large number of plants from the forest are widely used by local people for their daily food, as well as medicine. Sustainable use of non-timber forest products for years to come will only be possible when the biodiversity of the forest is conserved by the people who live there.

Ecotourism

Mt. Victoria is a famous attraction for overseas tourists and is the site of many local traditional customs.

Trekking and mountaineering enthusiasts can climb Nat Ma Taung from both Kanpetlet and Mindat sides. Really keen climbers can start from Mindat, go down about 2,000 feet towards Chi Chaung, and then climb up to Aye Sakan at more than 4,000 feet. They can make a brief stop at Aye Sakan and then continue to the summit. Another alternative is to take a four-wheel drive to a point beneath the summit and climb about 30 to 40 minutes to get to the top. The panoramic scene from the Nat Ma Taung is spectacular and on clear days the sparkling silvery ribbon that is the Ayeyarwady River can be seen far in the east.

Other opportunities for ecotourism include bird watching, observing endemic flora and fauna, and witnessing traditional customs of the Chin tribe. There are also organized orchid tours for people interested in seeing the variety of orchids from Myanmar.

Arrangements have to be made in advance to visit Mt. Victoria since it is required to get special permission from two ministries that must be made at least 30 days before arriving in Yangon.

There are a number of choices in terms of accommodations. Kanpetlet offers simple, eco-friendly, and charming guesthouses with Chin traditional huts built at an elevation of 2400 meters above the sea level. In Mindat, visitors can stay at the government operated Kaw Nu Guesthouse and the privately owned Victoria guesthouse.

How To Get There

Nat Ma Taung National Park can be accessed from Yangon to Bagan-Nyaung-Oo (512 km) by plane, Bagan-Nyaung-Oo to Chauk (29 km) by car, Chauk via Seikpyu to Hsaw (109 km) by car and Hsaw to Kan-pet-let (19 km) by car or Hsaw to Mindut (67 km) by car. ■

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Sta. Maria Travel and Tours Company (<http://myanmartravels.net/mtvictoria-chinvillagewalks.htm>)

TrekThailand (<http://www.trekthailand.net/myanmar/parks/natmataung/>)



- Viet Nam

U Minh Thuong National Park

Located in An Minh and Vinh Thuan districts, Kien Giang Province about 365km south-west of Ho Chi Minh City, U Minh Thuong National Park (UMTNP) is a vast wetlands area rich in fish and waterbirds. The park lies 0.5 to 0.7 meters above sea level and covers a total area of 21,800 hectares. The park is divided into a core zone comprising 2,851 hectares and a buffer zone covering 13,291 hectares.



A system of dykes and canals in and around the core zone was constructed for fire control. As a result, the core zone is dissected by six canals and surrounded by two more, while the buffer zone contains more than 21 canals.

UMTNP supports one of the last two significant areas of peat swamp forest remaining in Viet Nam (the other one being U Minh Ha), and is recognized as one of the three highest priority sites for wetland conservation in the Mekong Delta. The park is also one of only three sites in the world known to support a population of Hairy-nosed Otter (*Lutra sumatrana*) and its wetlands support some of the highest avian biodiversity in the Mekong Delta. The sunsets in U Minh Thuong are fantastic as thousands of birds return from feeding grounds to their nests. The forest is full of wildlife and the sounds of monkeys and wild pigs can often be heard.

These highlight the biodiversity values of the park and led the government of Viet Nam to upgrade UMTNP to national park status in January 2002.

Habitats

UMTNP supports a range of wetland habitats, including a semi-natural Melaleuca forest, seasonally inundated grassland, and open swamp.

The core zone of UMTNP covers an area of 8,509 hectares, consisting of 2,851 hectares of Melaleuca forest and Melaleuca mixed with Phragmites grassland, 2,428 hectares of grasslands and 1,737 hectares of Melaleuca in various stages of re-growth after fire. The remaining 493 hectares is made up of open water areas. The buffer zone, surrounding the core zone and covering an area of

13,291 hectares, is largely cleared agricultural land. The buffer zone also contains a water-bird breeding colony in the north-western corner where there is a small forest area covering (1,200 hectares) that is home to 11,000 water birds.

Soils in the area have been formed by the deposition of alluvial sediment from the Mekong River system. The soil formation allowed mangrove forests to evolve, depositing masses of organic material that gradually raised the soil depth to a point where there was no longer a tidal impact and Melaleuca ecosystems began to form. The Melaleuca forests continued to return masses of organic material to the soil and brought about the appearance of two main soil types, specifically peat soil and acid sulphate soil.

The U Minh Thuong peat swamp forest plays a

crucial role in the prevention of acidification of topsoil and surface water and stores fresh water, serves as a spawning and nursery area for fish and shellfish, and filters surface water. As such, it also provides significant environmental and livelihood benefits for surrounding communities.

Wildlife

This park harbors a diversity of flora with 226 species of non-cultivated vascular plants. Among these is the duckweed (*Lemna tenera*), which is rare throughout its range in Southeast Asia but common at U Minh Thuong. Scientists have classified the vegetation of the core zone into four types: forest dominated by *Melaleuca cajuputi* on both peat and mineral soils; seasonally inundated grasslands dominated by *Phragmites valleria* and *Eleocharis*

dulcis; open swamps dominated by *Nymphaea nouchali*, *Pistia stratiotes*, *Salvinia cucullata* and *Typha domingensis*; and natural streams and canals. The vegetation of the buffer zone consists of seasonally inundated grassland, open swamps, Melaleuca plantations, agricultural land, fishponds and canals.

The species richness of the park includes 24 species of mammals belonging to 10 families and seven orders. Ten of these 24 mammal species are nationally or globally threatened, including four species listed in the Red Data Book of Viet Nam (2000), five species listed in the IUCN Red List (2000), and five species listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Significant species include Oriental Small-clawed Otter (*Aonyx cinerea*), Sunda Pangolin (*Manis javanicus*) and Large-spotted Civet (*Viverra megaspila*).

A total of 185 bird species from 43 families have been recorded, including 13 species which are listed in the IUCN Red List of Global Conservation Concern as having important conservation value. The park is home to nine globally threatened or near-threatened species, specifically the Oriental Darter (*Anhinga melanogaster*), Spot-billed Pelican (*Pelecanus philippensis*), Painted Stork (*Mycteria leucocephala*), Lesser Adjutant (*Leptoptilos javanicus*), Black-headed Ibis (*Threskiornis melanocephalus*), Glossy Ibis (*Plegadis falcinellus*), Greater Spotted Eagle (*Aquila clanga*), Grey-headed Fish Eagle (*Ichthyophaga ichthyaetus*) and Asian Golden Weaver (*Ploceus hypoxanthus*).

U Minh Thuong also



Small-clawed Otter



Large-spotted Civet

arkive.com

carnivoratorum.com



Grey-headed Fish Eagle

supports globally significant congregations of a number of commoner waterbird species, including Purple Swampfen (*Porphyrrio porphyrio*), Little Cormorant (*Phalacrocorax niger*) and Purple Heron (*Ardea purpurea*).

The park harbors seven species of amphibians representing three families. All amphibians were characteristic of disturbed habitats and are of low conservation significance. Previous surveys recorded 34 species of reptiles representing 10 families. Eight of these reptile species are listed in the Viet Nam Red Data Book and four are listed in the IUCN Red List. The Yellow-headed Temple Turtle (*Hieremys annandalii*) is found here and is listed as endangered in the IUCN Red List 2000.

Threats

Some of the threats in the park include risk of low water levels during the dry season, which may dry out the peat layer in the forest. This increases the possibility of forest fires and the frequency and severity of forest fires when they occur. Additional threats to the park's biodiversity include the illegal hunting of wildlife.

Conservation Management

U Minh Thuong National Park is managed by a Management Board belonging to the Kien Giang Provincial People Committee.

The preparation of the updated management plan is in progress, although an action plan for the UMTNP was designed when it was recommended as a National Park. Some components of the action plan have been implemented since 2002. Activities for the rehabilitation and sustainable use of peatlands in and around the national park are being undertaken.

Since 1998, Care International and Kien Giang Provincial Department of Agriculture and Rural Development have been working in partnership to implement a DANIDA-funded integrated conservation and development project, the main aim of which is to conserve the existing biodiversity of UMTNP by strengthening local management capacity and improving the livelihood security of local communities, thereby reducing their dependency upon natural resources.

Some major management activities being implemented



Purple Heron

in the U Minh Thuong National Park include capacity building for the park management, conservation and rehabilitation of peatlands ecosystems and biodiversity, and water and forest fire management in peatlands.

The management activities of U Minh Thuong National Park will help expedite the implementation of the Viet Nam peatland management strategy. The main focus of activities will follow main objectives including activity plans at the provincial and local level in the U Minh Thuong area. These objectives include the following:

1. Strengthen policies and institutional arrangements for peatland management and strictly enforce policies and rules for the management and conservation of peatlands.
2. Stop the further conversion and/or drainage of deep peat and peat domes and maintain and restore the hydrology of peatland systems to prevent fires, minimize greenhouse gas emissions, and maintain ecological services.
3. Improve the current forestry, agriculture and plantation management practices to ensure that they contribute to the sustainability of peatlands.
4. Promote international studies to assess the role of peatlands in mitigating climate change and the potential future impacts of climate change and land use on the peatland carbon pool.
5. Undertake an assessment of the vulnerability of peatlands to climate change and extreme events, effectively disseminate the knowledge generated by the scientific community for use by decision makers, support the assessment processes and later develop adaptation strategies to guide peatland managers, and strengthen activities for monitoring changes in the status of tropical peatlands to guide wise management.

Local People and Culture

There are about 20,000

people (3,675 families) living in the buffer zone. The majority of families in the buffer zone are of Kinh ethnicity, with a small percentage of Khmer. A buffer zone development board was established by the Provincial People's Committee of Kien Giang Province to manage activities in the buffer zone. Through the buffer zone development board, the park has a role in buffer zone development and continues to ensure that the integrity of the core zone of the park remains intact. The UMTNP Management Board helps implement the state-funded buffer zone programme mostly through infrastructure development such as roads, electricity, health care clinics and schools.

Ecotourism

Aside from the wealth of biodiversity in the park, U Minh Thuong National Park



has historical values as well since the area was used as a base by resistance forces during the First and Second Indochina Wars. Due to the almost complete loss of natural forest in the Mekong Delta region, U Minh Thuong is one of the few places where visitors can see the landscape as it was at the time.

How to get there

From Rach Gia, the bigger of the two towns of Kien Giang Province, visitors can go to U Minh Thuong National Park by car or boat. If by car or motorbike, head for Rach Soi, cross Tac Cau Ferry and take National Highway 63. The trip takes about two hours. ■

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ASEAN Biodiversity magazine online

For in-depth information and news on biodiversity across Southeast Asia, check out the ASEAN Biodiversity Newsmagazine, the international publication of the ASEAN Centre for Biodiversity (ACB)!

ASEAN Biodiversity features special reports on biodiversity-related themes in the ASEAN context, such as climate change, ecotourism, transboundary protected areas, and ASEAN Heritage Parks. Profiles on protected areas provide information on the status of habitats and wildlife, and interesting activities in the parks. The magazine also features ongoing programmes and activities of ACB that assist ASEAN Member States in addressing various biodiversity conservation issues.

ACB welcomes contributions from volunteer writers and photographers who want to help popularize biodiversity. Interested parties may contact Mr. Rolando Inciong, Editor-in-Chief of ASEAN Biodiversity at rainciong@aseanbiodiversity.org, or Ms. Leslie Castillo at lavjose@aseanbiodiversity.org, or call ACB at (+632) 928-3210 and (+632) 929-4147.

For more information visit the ACB website at www.aseanbiodiversity.org.



ACB NEWS



ASEAN and India cooperate on promoting ABS

The Association of Southeast Asian Nations (ASEAN) and India are working together for the first time to promote access and benefit sharing (ABS) of genetic resources. The collaboration was launched with the holding of a Capacity Building Workshop on ABS and Traditional Knowledge (TK) on 4-5 September 2012 at Hotel Ashok in New Delhi, India. Promoting ABS is one of the three objectives of the Convention on Biological Diversity (CBD).

The workshop helped build the capacity of workers from environment, foreign affairs, economic planning and development, and science and technology ministries; legislative ministries; and legal and patent offices to understand the basic and key elements of ABS and TK. The event provided an opportunity for ASEAN Member States and India to share experiences on ABS and TK, including country updates on the ratification of the Nagoya Protocol.

As ASEAN Member States are preparing to accede to and ratify the Nagoya Protocol, the workshop recommended to further provide support to developing national ABS legal frameworks, including support to implementation at the national level, taking into account existing support from other projects in the region.

The workshop also recommended the following:

- Address the capacity of ASEAN Member States in increasing awareness and better understanding of intellectual property rights in relation to biodiversity, including ABS and the role of relevant offices or institutions related to intellectual property rights.
- Further promote public awareness to develop champions and enhance support from senior officials, legal professionals, media practitioners, intellectual property officers, and academe on biodiversity concerns specific to ABS, intellectual property rights, and traditional knowledge.
- Document experiences from communities in managing biodiversity, exchanging and sharing the benefits at national levels, including experiences in mainstreaming in national policy making on ABS.
- Explore cooperation in other areas of biodiversity such as urban biodiversity and achieving the Aichi Targets.

In his opening remarks, Dr. Balakrishna Pisupati, Chairman of India's National Biodiversity Authority, said there

ACB welcomes acting Executive Director

The ASEAN Centre for Biodiversity (ACB) welcomes its Acting Executive Director, Demetrio L. Ignacio, Jr., concurrently Undersecretary of the Philippines' Department of Environment and Natural Resources (DENR). The appointment was approved by the ACB Governing Board during its 14th Meeting held on 26-29 August 2012 in Siem Reap, Cambodia.



As Acting Executive Director, Undersecretary Ignacio will provide policy guidance and operational supervision to ACB until the appointment of a new Executive Director. The recruitment process is being supervised by the ASEAN Secretariat.

Undersecretary Ignacio is also the ASEAN Senior Official on the Environment for the Philippines and a member of the ACB Governing Board. He has been head of many Philippine delegations to multilateral environmental agreements; presiding officer of the Pollution Adjudication Board and the National Water Resources Board; and supervising official for the water sector and international affairs. Before joining the DENR, he worked at the Philippines' Presidential Management Staff.

Undersecretary Ignacio is a graduate of the University of the Philippines, Diliman and took up post graduate studies at the University of Manchester in England, US Department of Agriculture in Washington D.C., and the Australian Administrative Staff College in Melbourne. He has received various awards and recognitions, which include the Presidential Medal of Merit in 1998 for his exemplary performance, leadership and integrity.

was a need to further strengthen collaboration as the two regions celebrate the 20th anniversary of the ASEAN-India Cooperation.

Mr. Hem Pande, Joint Secretary of the Ministry of Environment and Forestry of the Government of India, highlighted the 20 years of ASEAN-India cooperation, and enumerated the initiatives and efforts leading to the 11th Conference of the Parties to the CBD in Hyderabad in October 2012.

Dr. Raman Letchumanan, Head of the ASEAN Secretariat's Environment Division, encouraged the participants to take the lead in implementing the Nagoya Protocol so that there will be less chances of exploitation of the region's biodiversity. He stressed that countries need to collaborate on the resources that are common to them. He added that the ASEAN Framework Agreement on ABS has been given legitimacy by the Nagoya Protocol, and that the Framework lays out measures on regional collaboration.

Ms. Clarissa Arida, Director of ACB's Programme Development and Implementation Unit, said, "The effective implementation of ABS policies is important, and we are

grateful to India and the National Biodiversity Authority for the opportunity to share their experiences with the ASEAN Member States.”

The workshop was assisted by the ASEAN-India Green Fund, set up in 2010 to support cooperative pilot projects between ASEAN and India on promoting technologies on climate change adaptation and mitigation.

ASEAN holds third workshop on ABS

Fifty-six representatives of indigenous and local communities, non-government organizations, national policy-making bodies, research institutions and industries from ASEAN Member States and Timor Leste participated in a workshop aimed at building the capacity of key stakeholders in developing a national roadmap towards an ABS legal framework. The event was held at the Hotel Novotel in Kuala Lumpur, Malaysia on 10-13 December 2012. Workshop participants also included representatives from pharmaceutical, industrial and agricultural biotechnology, and ornamental horticulture who all rely on genetic resources for their raw materials.

The workshop was the third in a series under a project on *Building Capacity for Regionally Harmonized National Processes for Implementing Convention on Biological Diversity (CBD) Provisions on ABS* being implemented by the ASEAN Centre for Biodiversity (ACB) and supported by the UN Global Environment Facility, ASEAN Secretariat and the United Nations University-Institute for Advanced Studies (UNU-IAS). The first was held in Manila, Philippines in October 2011 and the second in Bangkok, Thailand in August 2012.

ABS is one of the three objectives of the CBD, promoting the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies.

Workshop topics included an analysis of relevant articles of the Nagoya Protocol and how key elements can be incorporated in national laws; promotion of the draft ASEAN Framework Agreement on ABS; proposal and evaluation for a regional mechanism on benefit sharing; recognition and assessment of science-traditional knowledge-ABS interlinkages; comprehension of experiences on ABS; and

preparation of national roadmaps towards an ABS legal framework.

Ms. Clarissa Arida, Director for Programme Development and Implementation of ACB, said in her opening remarks that a “more striking aspect of ABS is the economic values of genetic resources and the fact that the value of biotech products are not yet well defined.”

“Such issues must be confronted and we hope this will lead to serious considerations in developing national ABS policies to protect and preserve ASEAN’s biological and genetic resources to benefit our own indigenous and local communities (ILCs) and to alleviate the economic condition of this region,” Director Arida emphasized.

Mr. K. Nagulendran, Deputy Undersecretary of the Biodiversity and Forestry Management Division of Malaysia’s Ministry of Natural Resources and Environment, emphasized the need for ASEAN to work together and to have a common ground in understanding the Nagoya Protocol in moving forward towards an effective and workable national and regional ABS mechanism.

“To make any domestic ABS measures workable, from our experience, it must have legal certainty and the processes of implementation are clear and transparent and inclusive. In Malaysia, we are trying to work in developing community protocols, which we hope to serve as an effective tool to engage ILCs but also bring clarity to the process,” Mr. Nagulendran said.

The workshop was facilitated by Professor Gurdial Singh Nijar, Director of the Centre of Excellence for Biodiversity Law. Professor Nijar delivered lectures on developing national law to implement the Nagoya Protocol, highlighting the elements of the Protocol. He also provided a policy review of selected national policies on ABS, specifically that of the Philippines and Viet Nam. He also lectured on preparing and assessing national roadmaps in developing and implementing ABS legal frameworks.

Other resource speakers included Mr. Geoff Burton of UNU-IAS, Dr. Raman Letchumanan of the ASEAN Secretariat, Mr. Olivier Rukundo of the CBD Secretariat, Ms. Lim Li Ching of the Third World Network, Dr. Rita Manurung of the Sarawak Biodiversity Centre, Atty. Elpidio Peria of the Philippines, and Dr. Sumida Seizo of Japan BioIndustry Association.

A fieldtrip to the Forest Research Institute Malaysia (FRIM) on the third day of the workshop gave the participants a view on how Malaysia has been documenting its traditional knowledge with the active participation of the Orang Asli of Peninsular Malaysia. The documentation project was a good case on the implementation of ABS on the ground, even with the lack of a legal framework in the country.

ASEAN Heritage Parks Committee meets in Surabaya

Members of the ASEAN Heritage Parks (AHP) Committee met in Surabaya, Indonesia on 21 November 2012 to review the performance of the ASEAN Heritage Parks (AHPs) and discuss appropriate activities to ensure better management of these protected areas.

The AHPs are home to very rare and endangered species and all have outstanding wilderness and important environmental, historical and cultural values. The parks provide





habitats for some of the world's most enigmatic species and harbor a globally significant wealth of biodiversity. The ASEAN region has 32 AHPs: one in Brunei Darussalam, two in Cambodia, three in Indonesia, one in Lao PDR, three in Malaysia, seven in Myanmar, four in the Philippines, two in Singapore, four in Thailand, and five in Viet Nam.

According to Demetrio L. Ignacio, Jr., acting executive director of the ASEAN Centre for Biodiversity (ACB) and concurrently undersecretary of the Philippines' Department of Environment and Natural Resources, the establishment of the ASEAN Heritage Parks emphasizes that the ASEAN Member States share a common natural heritage and should collaborate in their efforts to protect the rich biodiversity that supports the lives of millions of ASEAN peoples. The AHP Committee was established to provide technical assistance and guidance in the planning and conduct of AHP related activities. ACB functions as the Secretariat of the Committee.

Dr. Monina Uriarte, head of the AHP Secretariat and capacity building specialist at ACB, said the AHP Committee discussed the outputs of the 2nd AHP Committee Meeting and the 3rd AHP Conference; recognized the four new AHPs; presented the pilot projects for funding by the ACB-GIZ Biodiversity and Climate Change Project and the ASEAN Small Grants Programme; planned for the 4th AHP Conference in 2013; and launched the AHP Logo Contest.

While in Surabaya, the AHP Committee members participated in the International Meeting-Workshop on Communication, Education and Public Awareness for Taxonomy and ASEAN Heritage Parks" organized by ACB and funded by the Japan-ASEAN Integration Fund.

Members of the AHP Committee are Dyg Hjh Siti Norhayatty bte Hj Morni, Acting Curator, Natural History, Brunei Museum Department; Mr. Yang Phyrum, Park Director, Preah Monivong "Bokor" National Park, Kampot Province, Cambodia; Mr. Agus Haryanta, Head of Sub-Directorate, Nature Conservation Information, Directorate of Area Conservation, Indonesia; Mr. Savanh Chanthakoummane, Deputy Director, Division of Forestry Resources Conservation, Ministry of Agriculture and Forestry, Lao PDR; Mr. Rahman Abd Rahman Bin Yusof, Principal Assistant Secretary, Biodiversity and Conservation Management Division, Ministry of Natural Resources and Environment, Malaysia; Mr. Win Naing Thaw, Director, Nature and Wildlife Conservation Division, Forest Department, Myanmar; Dr. Theresa

Mundita Lim, Director, Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources, Philippines; Mr. James Gan, Assistant Director, Central Nature Reserve, Singapore; Mr. Jeerawat Jaisielthum, Forest Technical Officer, Department of National Parks, Wildlife, and Plant Conservation, Thailand; and Dr. Tran Ngoc Cuong Head of Ecology Division Biodiversity Conservation Agency, Viet Nam Environment Administration.

ASEAN workshop promotes taxonomy and biodiversity conservation

Government information officers, journalists and members of the ASEAN Heritage Parks (AHP) Committee from the ten ASEAN Member States met in Surabaya, Indonesia on 19-21 November 2012 for a workshop on promoting public awareness of the role of taxonomy in biodiversity conservation. In partnership with the Ministry of Natural Resources and Environment (MoNRE) of Indonesia and the Universitas Pelita Harapan (UPH)-Surabaya, the event was funded by the Japan-ASEAN Integration Fund (JAIF) through the "Expanded Taxonomic Capacity Building and Governance for Conservation and Sustainable Use of Biodiversity Project".

The opening programme was addressed by Dr. Adrianus Mooy, Professor and Rector, UPH Surabaya and former Executive Secretary of the UN Economic and Social Commission for Asia and the Pacific.

Mr. Demetrio L. Ignacio, Jr., Acting Executive Director of the ASEAN Centre for Biodiversity (ACB) and concurrently Undersecretary of the Philippines' Department of Environment and Natural Resources, said the lack of trained human resources and inadequate capacities on taxonomy has been stressed as one of the obstacles in the implementation of Convention on Biological Diversity commitments, especially in Southeast Asia.

"Access to scientific information on biodiversity in this region is a crucial issue in the assessment and prediction of biodiversity changes, caused mainly by inadequate taxonomic capacity in data collection and analysis. This is further compounded by the lack of awareness by the media sector that there exists such a treasure trove of information, although they have a big role in its dissemination," Mr. Ignacio explained.



Dr. Filiberto Pollisco, Jr., coordinator of the ACB-JAIF project and programme management specialist at ACB, added that the challenge is the relative low level of awareness with policy and decision-makers and media practitioners to pay adequate attention to this mounting problem, which is leading to insufficient human, financial and institutional resources.

"The level of awareness and skills must be high, particularly in the management of protected areas and critical conservation areas. The evolving problem of other environmental issues, such as climate change, land use changes, and pollution, requires constant bombardment of communication, education and public awareness (CEPA) campaigns and materials. An integrated national programme covering public awareness, skills training, research and information sharing must be developed to manage these concerns," Dr. Pollisco explained.

Rolando Inciong, head of ACB's Communication and Public Affairs, said the workshop helped build the capacity of ASEAN Member States to address the lack of awareness on issues relating to biodiversity conservation.

"After the workshop, the participants had a clearer understanding of the importance of taxonomy in biodiversity conservation; familiarity with the AHP Programme; and upgraded skills in developing a CEPA strategy and action plan and promoting taxonomy and the ASEAN Heritage Parks. The participants came up with drafts of CEPA strategy and an action plan for their respective countries," Mr. Inciong said.

Resource persons during the workshop included Mr. Inciong; Dr. Pollisco; Dr. Monina Uriarte, Capacity Building Specialist, ACB; Ms. Sahlee Barrer, Communication Consultant, ACB; Mr. Guillermo Santos, Professor of Journalism, Lyceum of the Philippines and Former Publisher, Journal Group of Companies; Ms. Olivia Sylvia Inciong, External Relations Officer for GMS, Asian Development Bank; and Prof. Rochelle Divinagracia, UPH-Surabaya.

The workshop was coordinated in Surabaya by Professor Louie Divinagracia, Vice President for Academic Affairs and Dean of the Faculty of Business, UPH Surabaya.

ASEAN strengthens capacity to undertake ecosystem assessments

Forty representatives from various government agencies in Southeast Asia participated in the *Regional Workshop on Capacity Building for Undertaking Ecosystem Assessments* held in Kepong, Malaysia on 29 October – 2 November 2012. The workshop was aimed at strengthening the capacity of ASEAN Member States to undertake ecosystem assessments as part of their engagement in the process to promote the interface between science and policy through IPBES.

IPBES stands for Intergovernmental Platform on Biodiversity and Ecosystem Services, a global effort to establish a strong linkage between the scientific community and policy makers so that science can be used as a basis for policy making.

Jointly organized by the ASEAN Centre for Biodiversity (ACB) and the United Nations Environment Programme-World Conservation Monitoring Center (UNEP-WCMC), the workshop was hosted by the Forest Resources Institute Malaysia (FRIM).



In her opening message, Ybrs. Pn. Wan Hasmah Binti Wan Mohd, Undersecretary of the Biodiversity and Forestry Management Division, Ministry of Natural Resources and Environment, Malaysia, highlighted the importance of biodiversity assessment as a major focus of the 2020 Targets of the Convention on Biological Diversity.

Ms. Nina Vik, Senior Adviser of the Norwegian Directorate for Nature Management, said the workshop was an opportunity for consultation among ASEAN Member States to determine their capacity building needs so that they can participate in the IPBES process.

Serving as workshop facilitators were representatives from UNEP-WCMC, UNEP Regional Office for Asia and the Pacific, and the Norwegian Directorate for Nature Management. Participants learned the IPBES process, tools and methods of ecosystem assessment, and were exposed to a success story on ecosystem assessment by the United Kingdom. They underwent exercises on ecosystem assessment and packaging the assessment outputs.

Part of the workshop was a field trip to FRIM Forest Science Park, culminating with a canopy walk. The park is located at the Bukit Lagong Forest Reserve, which is about 300 meters above sea level. The canopy walkway spans 150 meters and is suspended between trees at approximately 30 meters above the ground.

Recognized by both the scientific and policy communities, IPBES is a global mechanism that brings information together and synthesizes and analyzes them for decision making in a range of policy fora such as the global environmental conventions and development policy dialogues. IPBES serves as the mechanism that addresses the gaps in the science policy interface on biodiversity and ecosystem services. *Corazon de Jesus*

ASEAN-Japan conduct training on fish taxonomy

Taxonomists, as well as fisheries and aquatic resources workers from the ten ASEAN Member States, China, Korea, Japan and Mongolia, attended a training course to upgrade their skills on fish taxonomy. The course, which also aimed to expand the network for taxonomical information of fishes in East and Southeast Asia, was held on 5-11 November 2012 in Bangkok and Ubon Ratchathani in Thailand.

The course focused on freshwater and brackish water fishes; reviewed basic taxonomy; and discussed the natu-



ral history of freshwater fishes, current status of freshwater fish taxonomy in Southeast Asia, and the system of naming fish or how to propose a new species. Through practical exercises, the participants learned methods in preparing and managing fish specimens, identifying fish species using prepared specimens and keys, collecting and field/laboratory treatment of fish specimens, photographing fresh fish specimens for scientific use, and managing/cataloguing fish specimens.

Trainers were from Japan, Thailand, Cambodia, Lao PDR and Viet Nam. Technical support was provided by the Japan Wildlife Research Center and the Nagao Natural Environment Foundation of Japan. Guidance was given by specialists from the Natural Science Museum in Pathum Thani, and Bangkok Aquarium.

The course was part of a series of taxonomic training courses under the project titled "Expanded Taxonomic Capacity Building and Governance for Conservation and Sustainable Use of Biodiversity" being implemented by the ASEAN Centre for Biodiversity (ACB) and assisted by the Japan-ASEAN Integration Fund. The East and Southeast Asia Biodiversity Information Initiative (ESABII), through its secretariat in the Ministry of the Environment of Japan (MoE Japan), is involved in the project by providing experts as resource persons during the training courses.

According to Dr. Filiberto Pollisco, Jr., ACB coordinator for the taxonomic project, the diminishing interest of students to take up courses on taxonomy has reduced the number of taxonomists all over the world. The lack of trained human resources and inadequate capacities on taxonomy has been stressed as one of the obstacles in biodiversity conservation.

"Taxonomy is one of the keys to successful biodiversity conservation. You cannot protect a species which you do not know. Adequate taxonomy is also one of the necessary fundamental tools required for the global community to be able to implement the Millennium Development Goals and the development targets from the World Summit for Sustainable Development."

"Without adequate long-term investment in the human, infrastructural support structure including important biological collections, and information resources necessary to underpin the science of taxonomy, the now well-recognized taxonomic impediment will continue to prevent adequate implementation of sound, scientifically-based sustainable, environmental management and development policies," Dr. Pollisco explained.

Southeast Asia boosts capacity on green economy

Policy makers from across Southeast Asia convened in Manila to boost their capacity in designing and implementing policies that support sustainable production and consumption and the development of a green economy. SWITCH Asia, in cooperation with the ASEAN Centre for Biodiversity (ACB), the Philippines' Department of Environment and Natural Resources (DENR), the United Nations Environment Programme (UNEP), and the United Nations University-Institute of Advanced Studies (UNU-IAS), conducted the workshop for trainers on sustainable production



and consumption on 15-16 October 2012 at the Eastwood Richmond Hotel, Quezon City, Philippines. The event was held back to back with the 5th ASEAN+3 Leadership Programme on Sustainable Production and Consumption on 17-19 October 2012 at the same venue.

The training of trainers covered the fundamentals of sustainable production and consumption policy, key sectors for policy reform, poverty reduction, institutional partnerships, international collaboration, mainstreaming of sustainable production and consumption, corporate sustainability, sustainable lifestyles, sustainable infrastructure, urban planning, sustainable waste management, sustainable public procurement, sustainable tourism, ecological budget and tax reform, energy efficiency, education and training for policy makers, and challenges and opportunities. Case studies and best practices from across the Asia Pacific region were also highlighted.

The 5th ASEAN+3 Leadership Programme on Sustainable Production and Consumption, on the other hand, was aimed at contributing to debates on green economy, which

seeks to improve human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. The programme also provided government policy makers with relevant knowledge and skills for policy making, and facilitated change or potential change processes that may be developed in the course of the programme. Topics included changing consumption; sustainable production and livelihood practices; green business and impact assessment; sustainable public procurement; improving energy efficiency, business and ecosystem services; green mining; and social business and poverty reduction, all in the context of a Green Economy.

The UNU-IAS and the ASEAN Secretariat have over the years since 2008 collaborated in the offering of the ASEAN+3 Leadership Programmes on Sustainable Production and Consumption under the framework of the ASEAN Environmental Education Action Plan endorsed by the Governments of ASEAN Member States. One of the strategic actions of the plan is on human resource capacity building, which prioritizes the leadership and governance of

ACB conducts internship on taxonomy of monocot plants

Twelve botanists, plant ecologists and taxonomists from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore and Thailand completed a two-week internship programme on taxonomy of monocot plants. Held in the Queen Sirikit Botanic Gardens in Chiang Mai, Thailand on 3-15 December 2012, the programme was part of a project titled "Expanded Taxonomic Capacity Building and Governance for Conservation and Sustainable Use of Biodiversity" being implemented by the ASEAN Center for Biodiversity (ACB) and funded by the Japan-ASEAN Integration Fund.

The internship programme capacitated participants in the rigors of taxonomy especially on the terrestrial plant group on monocots. The participants were introduced to the taxonomy of terrestrial plants particularly selected families of monocots (orchids, palms, grasses and zingibers), including general biology and ecology of these plants. Their skills were upgraded in the following areas: methods of morphological observation, sample collection, and the processing and managing specimens. Participants were exposed to hands-on experience through a field exercise in sample collection. They were also guided in producing a scientific publication such as a field guide.

The opening programme was addressed by Dr. Suyanee Vesabutr, Deputy Director of the Queen Sirikit Botanic Gardens. Resource speakers were Dr. Prachaya Srisanga, expert on monocot ecology and herbarium curator; Dr. Piyakaset Suksathan, expert on general taxonomy and herbarium; Dr. Santi Watthana, orchid taxonomist; Dr. Monthon Norsangsri, grasses taxonomist; Dr. Charan Maknoi, zingiber taxonomist; Dr. Ratchada Pongsattayapipat, palms taxonomist; Dr. Edwino Fernando, senior taxonomist; and Dr. Filiberto Pollisco, Jr., project coordinator of the Global Taxonomy Initiative in ACB.



organizations in addressing the pressing sustainability programmes of the region. Building on past experiences, the 5th ASEAN+3 Leadership Programme will embark on a new approach and modality that carries the programme into a process of change, from awareness building into a change programme.

The opening ceremonies of the training for trainers was addressed by Demetrio L. Ignacio, Jr., Undersecretary, DENR and Acting Executive Director, ACB; Juan Miguel Cuna, OIC-Director, DENR-Environmental Management Bureau; Stefanos Fotiou, Regional Coordinator, UNEP RE/SCP; Matthieu Penot, Environmental and Energy Attache, Delegation of the European Union to the Philippines; Mario Tabucanon, Visiting Professor, United Nations University Institute of Advanced Studies; and Raman Letchumanan, Head, Environment Division, ASEAN Secretariat.

According to Undersecretary Demetrio L. Ignacio, Jr., ASEAN is a highly populated region, one of the highest in the world. The economy of the region hinges on three main sectors - industry, service and agriculture - with industry and service sectors serving as the biggest Gross Domestic Product contributors. However, as elsewhere, ASEAN is also gravely affected by the unsustainable exploitation of natural resources and degradation of environmental services.

“ASEAN is fully aware of the dangers it will face if it follows the conventional path of development. As reflected in the ASEAN Charter, ASEAN is therefore committed to promoting sustainable development so as to ensure the protection of the region’s environment, the sustainability of the natural resources, and high quality of life for the people,” Mr. Ignacio said.

He added that the attainment of a green economy and sustainable production and consumption requires the active involvement of policy makers, business establishments, ordinary citizens, and other relevant sectors.

“Empowering policy makers with knowledge and skills in support of sustainable production and consumption can result in better decisions and relevant policies that are geared towards a sustainable environment that will meet the needs of future generations,” Mr. Ignacio explained.

Superbrands recognizes ASEAN Centre for Biodiversity

Superbrands has bestowed on the ASEAN Centre for Biodiversity (ACB) an Outstanding Dignitary Award for its work

on biodiversity conservation and advocacy in Southeast Asia. The recognition was presented to ACB by Karl Mclean and Harry Tambuatco, Chairman and President/CEO, respectively, of Superbrands Marketing International, Inc., on 19 September 2012 at a ceremony held at the Makati Mandarin Hotel, Philippines. The award was received on behalf of ACB by Rolando Inciong, head of ACB’s communication and public affairs unit.

In receiving the award, Inciong said, “ACB shares this honor with our Acting Director Demetrio L. Ignacio, Jr., the ACB Governing Board and the ACB National Contact Points. We dedicate this award in memory of the late Executive Director, Rodrigo U. Fuentes.”

Superbrands Marketing International Inc. (SMI) is an award-giving body tasked to celebrate the success of brands worldwide. Superbrands is a global brand arbiter with over 14,000 brands awarded the past 18 years.

According to Mr. Mclean, the Outstanding Dignitary Award is given to persons or organizations of high position or rank, whose actions and opinions strongly influence courses of events. Through the award, Superbrands celebrates the work of Dignitaries who contribute to the country’s international status and interests towards nation-building.

“Without our Dignitaries, the private and public sectors cannot survive today’s innovations and global developments. The agenda for our award is to place on center stage our Dignitaries who are responsible for our economic and national development,” Mr. Mclean emphasized.

“Branding is all about product and service deliverables; it must be with absolute consistency. Strategic management and control in brand management dictates that consistency must be forthright. Only with consistency can integrity be developed. There is a dire need to generate awareness for the brands that are established over years of service. Thus, we initiated the award to identify and celebrate our Dignitaries,” Mr. Tambuatco explained.

The other awardees were: Organizations: Futuristics Centre of the Philippines, Lyceum of the Philippines University and Manila Business College; Individuals: Ambassadors of Australia, United States, Indonesia, Malaysia, Singapore, Thailand and Viet Nam; former Secretaries of Foreign Affairs of the Philippines, Albert F. Del Rosario and Roberto Romulo; former Secretary of Tourism of the Philippines, Gemma Cruz Araneta; former Senator of the Philippines, Santanina Tillah Rasul; and former Filipino Ambassadors Jose V. Romero, Reynaldo O. Arcilla and Roy Villareal Seneres.





The Rotary Club of San Pablo City Central and the ASEAN Centre for Biodiversity donate information materials on biodiversity conservation to the San Pablo City National High School at the recent school forum on biodiversity.

ACB and Rotary engage students in conservation advocacy

Some 400 students and teachers from the San Pablo City National High School (SPNHS) in Laguna, Philippines participated in the ASEAN School Forum Series on Biodiversity conducted by the ASEAN Centre for Biodiversity (ACB) and the Rotary Club of San Pablo City Central on 7 September 2012.

With the theme “What can schools and students do to conserve our natural heritage?”, the forum discussed the values of biodiversity, the richness of biodiversity in the Philippines and Southeast Asia, drivers of biodiversity loss, impacts of biodiversity loss to human development and survival, and tips on how students and schools can contribute to biodiversity conservation. Rolando Inciong, head of ACB’s communication and public affairs, served as resource speaker.

“Schools can help promote conservation by integrating biodiversity lessons in appropriate subjects; conducting activities that promote biodiversity conservation; and encouraging students to conduct environment-friendly activities,” Mr. Inciong emphasized.

Governor Dennis Suño of Rotary International District 3820 challenged the students and teachers to take the lead in their homes and communities in avoiding irresponsible activities that will contribute to biodiversity loss and in practicing environment-friendly lifestyles.

President Carmela Acebedo of the Rotary Club of San Pablo City Central explained that one of Rotary’s missions is to promote environmental protection conservation among the youth. “The youth will inherit what the



Students at the San Pablo City National High School view an exhibit on biodiversity conservation at the recent school forum on biodiversity organized by the ASEAN Centre for Biodiversity and the Rotary Club of San Pablo City Central.

adults are doing now so we need to empower them to shape their future by increasing their awareness of the values of conservation,” Ms. Acebedo stressed.

Ms. Laila Maloles, principal of the SPCNHS, thanked ACB and Rotary for providing the students and teachers with tips on biodiversity conservation.

The ASEAN School Forum Series on Biodiversity in San Pablo City was coordinated by Ms. Mayos Briñas, a teacher at the SPCNHS and an officer at the Rotary Club of San Pablo City Central. The forum series was launched in 2009 and is designed to promote environmental awareness among students in different academic institutions in the ten ASEAN Member States. ACB has already conducted biodiversity lectures in over 20 schools in Indonesia and the Philippines.

ASEAN science filmfest focuses on water

The 4th ASEAN Science Film Festival (SFF) kicked off in Kuala Lumpur on 15 October 2012 and simultaneously took place in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand and Viet Nam until 10 December. The theme for 2012 was Water for Life.



The Science Film Festival was first organized by Goethe Institut Thailand in 2005 and developed into a regional project in 2010. The SFF presents films that communicate technological and scientific issues in an entertaining manner, mostly to an audience of children and the youth. This approach aims to create a culture of science by developing films that combines education and entertainment to show that science need not be daunting, and science communication and learning can be fun.

The 2012 ASEAN Science Film Festival received 111 film entries from 20 countries. The films shown in each country

were chosen by a pre-jury composed of local organizing partners, media professionals, environmental practitioners and science educators. In the Philippines, a selection of 21 films from 11 countries were presented in the following venues in Manila: Manila Ocean Park, The Mind Museum, Museo Pambata, The National Library of the Philippines, Quezon City Interactive Center, Philippine Science Centrum, Department of Science and Technology, Science Discovery Center at the SM Mall of Asia, and at various schools. In Los Banos, Laguna, film screenings were facilitated by the ASEAN Centre for Biodiversity.

The ASEAN Science Film Festival Philippines held a press conference at the Manila Ocean Park featuring messages from Mr. Carlos P. Manuel, Director for Sales and Head of Sales Innovation, Training, Education and CSR of the Manila Ocean Park; Dr. Filma G. Brawner, Director of the Department of Science and Technology – Science Education Institute; Dr. Petra Raymond, Director of Goethe-Institut Philippines; and Dr. Laura David of the University of the Philippines – Marine Science Institute. The press conference included demonstrations that showed how marine studies were conducted and experiments that highlighted the properties of water.

The ASEAN Science Film Festival opened in the Philippines on 14 November at the Mind Museum. Parallel activities included a Manila Bay clean up on 17 November at the Manila Bay walk area near the United States embassy, and a “Water for Life” Exhibition at the National



Library of the Philippines on 15 – 30 November. In the Philippines, the SFF was organized by Goethe Institut, ABS-CBN Foundation, Inc., UNESCO, Department of Science and Technology, and the Department of Science and Education with the following partners: Embassy of France in the Philippines, Alliance Francaise de Manille, ASEAN Centre for Biodiversity, Felta, Science Discovery Center, GIZ, Gov. Roque B. Ablan, Sr. Shrine and Library, Manila Ocean Park, The Mind Museum, Museo Pambata, The National Museum of the Philippines, Philippine Science Centrum and the Quezon City Science Interactive Center.

ASEAN workshop strengthens ABS

Fifty representatives from government agencies, academe, non-governmental organizations and indigenous and local communities involved in promoting access and benefit sharing (ABS) of genetic resources in the 10 ASEAN Member States and Timor Leste convened in Bangkok, Thailand from August 20 to 23 for the *Southeast Asia Training Workshop on Building Institutional and Stakeholders Capacities on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS) from their Utilization*. The workshop provided a venue for the participants to better understand and apply ABS concepts at the national level.

In his opening remarks, Mr. Surapol Pattanee, Deputy Permanent Secretary of the Ministry of Natural Resources and Environment of Thailand, said the workshop provided his country an opportunity to showcase successes in the development of community level practices toward sustainable livelihood and biodiversity conservation.

The training-workshop was the second activity under the Project on Building Capacity for Regionally Harmonized National Processes for Implementing the Convention on Biological Diversity Provisions on ABS.

With the first workshop in 2011 discussing the Nagoya Protocol on ABS, the training workshop in Bangkok focused on developing the capacities of different stakeholders in each of the participating countries on ABS concepts. The ABS Management Tool, a best practice standard and handbook for implementing genetic resource ABS activities, was used during the workshop.

The training workshop enabled the participants to discuss ways to develop and implement ABS frameworks in their respective countries, raise awareness on ABS, and develop their national clearing house mechanisms on ABS information.

Highlighting the training workshop was a field trip to Bann Santitham where the participants and community folks shared experiences on local community biodiversity management, community protocol governing the utilization of biological resources, and the different ways of sharing benefits in communities. The participants also observed community-based production of shampoo, facial wash, mouth wash and balm made from plants available in the village.

In his closing message, Dr. Raman Letchumanan, head of the Environment Division at the ASEAN Secretariat, emphasized that the region needs to move forward in the ABS process. Citing the draft ASEAN Framework Agreement on ABS, he explained that once the framework is signed, it



will become the first regional instrument on ABS. “This will demonstrate the strong commitment of ASEAN Member States in protecting their rich natural resources and biodiversity,” Dr. Letchumanan said.

Resource speakers included Mr. Geoff Burton, consultant of the ABS project; Dr. Andreas Drews of GIZ; Mr. Rolando Inciong, head of ACB’s communication and public affairs; and Dr. Sheila Vergara, director of ACB’s biodiversity information management unit.

■ BCCP NEWS

ASEAN planners learn to integrate ecosystem services into development planning



Twenty-five development planners from Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, Thailand and Viet Nam learned how to integrate ecosystem services into development planning at a training-workshop organized by the ASEAN Centre for Biodiversity (ACB), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA). Held on 3-7 December 2012 in Los Baños, Laguna, Philippines, the training-workshop was part of the ACB-GIZ Biodiversity and Climate Change Project (BCCP).

Acting ACB Executive Director Demetrio L. Ignacio, Jr., concurrently Undersecretary for Field Operations of the Philippines' Department of Environment and Natural Resources, said development planners are often confronted with a set of multifaceted challenges in development planning processes.

"Projects and policies intended to meet development goals often go forward unwittingly at the expense of nature. Frequently, development goals are also undermined as the effects of these trade-offs are felt by people who depend on nature for their livelihood and well-being.

"Recognizing the links between ecosystem services and development goals can mean the difference between a successful strategy and one that fails because of an unexamined consequence for an ecosystem service. A better ability to assess, describe and value benefits of ecosystem services could help in good decision making," Mr. Ignacio explained.

Dr. Bertholt Seibert, Project Director of BCCP, said the GIZ developed a guide for development planners and policymakers on integrating ecosystem services into development planning. The guide, he said, advocates a step-wise approach through which it is possible to recognize, demonstrate and capture the value of biodiversity and ecosystem services for development planning. The development of the guide was based on the findings of the TEEB (The Economics of Ecosystems and Biodiversity) study and the practical experience of the GIZ. The guide served as main reference during the training-workshop.

The training-workshop provided participants with an overview of the TEEB initiative and applications: historical background, objectives and outcomes. The participants learned how to recognize linkages between ecosystem services and development; familiarized themselves with TEEB related tools and mechanisms; and contextualized the TEEB approach to fit the ASEAN needs.

Germany and ACB approve new projects on biodiversity and climate change

Six new projects that will help ASEAN Member States mitigate climate change through biodiversity conservation efforts in ASEAN Heritage Parks have been approved for implementation by the ASEAN Centre for Biodiversity (ACB) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). To be funded by the ACB-GIZ Biodiversity and Climate Change Project (BCCP), the initiatives will be implemented in Lao PDR, Myanmar, Philippines and Viet Nam. The projects are also intended to improve the management of participating ASEAN Heritage Parks and the communities living near these protected areas.

The new projects, which will serve as two-year pilot initiatives, include: Rapid Assessment of Climate Change Impacts on Protected Areas in Viet Nam; Climate Change Mitigation and Adaptation in Bai Tu Long National Park in Viet Nam; Development of Collaborative Management of Indawgyi Lake Wildlife Sanctuary, and Wildlife Sanctuary Management Plan in Meinmahla Kyun Wildlife Sanctuary,



both in Myanmar; Sustainable Management of Mt. Malindang Range Natural Park in the Philippines; and Ecotourism Initiatives in Nam Ha National Protected Area and ASEAN Heritage Park in Lao PDR.

According to Dr. Bertholt Seibert, Project Director of BCCP, the projects focus on building institutional capacity at regional, national and local levels on project cycle management and through the planning and implementation of pilot projects in the ASEAN Member States, aiming at improved ecosystems management and valuation of ecosystems and biodiversity.

“The regional outreach was incorporated in grouping similar pilot projects in sector-specific regional programmes, enhancing the ASEAN regional focus of ACB and BCCP, and making use of possible synergies and mutual learning effects along their implementation.”

ACB Acting Director Demetrio L. Ignacio, Jr. said the ASEAN region, though gifted with abundant biological resources, is highly vulnerable to the adverse effects of climate change. “Through these pilot projects, GIZ and ACB work hand in hand to support ASEAN Member States in the elaboration of policies and practices to appropriately address the interface between biodiversity and climate change,” Director Ignacio explained.

ACB and GIZ launch award for best news reporting on biodiversity and climate change

It has become evident that biodiversity and climate change are intrinsically linked. Ecosystems and their biodiversity are highly vulnerable to the effects of climate change. However, when conserved and managed sustainably, intact and biodiverse ecosystems pose immense opportunities for climate protection and adaptation to climate change.

Biodiversity and ecosystems provide livelihood to millions of Southeast Asians in rural and urban areas. The region is home to more than 20 percent of the global biodiversity, approximately 35 percent of the global mangrove forests and 30 percent of the coral reefs. It is therefore not surprising that the Philippines, as part of the ASEAN, is considered as the haven of a multitude of the world’s rarest plant and animal species.

However, many of these ecosystems and their biodiversity are already being affected by climate change, which puts sustainable development at peril.

The challenge lies in the promotion of appreciation and awareness of biodiversity and the services it provides, while encouraging conservation efforts to mitigate and adapt to climate change.

As Dr. Bertholt Seibert, project director of the ACB-GIZ Biodiversity and Climate Change Project once said, “the relationship between biodiversity and climate change cannot be translated into a gut issue that the man-on-the-street will understand without the help of the media, especially the newspapers. GIZ and the ASEAN Centre for Biodiversity (ACB) recognize media’s significant role as a partner in demystifying biodiversity and promoting the link between biodiversity and climate change and highlighting their importance to humans”.

Accordingly, at the 16th Philippines National Press Forum, the hot issue of biodiversity and climate change re-

ceived a much-needed public awareness boost when ACB, GIZ and the Philippine Press Institute (PPI) launched the special award on “Best in Biodiversity and Climate Change Reporting”. This is a special award under the 2012-2013 Civic Journalism Community Press Awards. Through this special category, ACB, GIZ and PPI will recognize the efforts of community journalists in educating the public on the linkage between biodiversity and climate change.

■ ASEAN-WEN NEWS

AIPA and ASEAN-WEN to strengthen fight vs. wildlife crimes



The 33rd General Assembly of the ASEAN Inter-Parliamentary Assembly (AIPA) held in Lombok, Indonesia on 16-22 September 2012 passed a resolution calling for cooperation with the ASEAN Wildlife Enforcement Network (ASEAN-WEN) in combatting wildlife crimes.

The resolution called upon AIPA Member Countries to review and upgrade their wildlife and criminal legislation to maximize deterrence of illegal wildlife trafficking; include wildlife crime in the permanent agenda of the ASEAN Senior Officials Meeting on Transnational Crimes and ASEAN Chiefs of Police; take appropriate measures, consistent with their domestic legislation and legal frameworks; and support law enforcement agencies associated with ASEAN-WEN and its national interagency networks by ensuring that financial and legal frameworks are in place to adequately support their work.

The resolution recommended the creation of AIPA national parliamentary groups or caucuses to provide oversight in the implementation of national strategies to support ASEAN national commitments in curbing wildlife crime; and authorized the AIPA Secretariat and the Secretary General to enter into a joint programme/cooperation with ASEAN-WEN and ARREST Programme/FREELAND in the promotion of a “green legislative agenda” for AIPA, its member parliaments, and other ASEAN partners.

The resolution also expressed support for ASEAN to establish a common or regional mechanism to ensure CITES implementation (CITES Common Regulation) in an Integrated ASEAN by 2015, as directed by the Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan 2 (2009-2015).

GLOBAL NEWS

First Executive Secretary of CBD passes away

Angela Cropper, the first Executive Secretary for the Convention on Biological Diversity (CBD), has passed away. Serving as CBD Executive Secretary from 1993 to 1995, she and her team was responsible for establishing the interim secretariat and the building blocks for the work of the Convention. During her tenure, the first two meetings of the Conference of the Parties (COP) to the CBD were held: COP1 in the Bahamas set the CBD on the path towards the Programme of Work it has now, and COP2 in Indonesia produced the Jakarta Mandate, which remains the foundation and framework for protection of the oceans today.



Following her tenure at the CBD Secretariat, Ms. Cropper continued to champion for the environment. Her Cropper Foundation became an important organization for promoting sustainable development in the Caribbean and beyond. She also continued to contribute to the biodiversity agenda, including serving as Co-chair of the assessment panel for the Millennium Ecosystem Assessment and as a member of the Scientific and Technical Advisory Panel of the Global Environment Facility.

Even as she battled illness in recent years, Ms. Cropper continued her service to the environment, serving as Deputy Executive Director for UNEP. In that capacity, she maintained a focus on biodiversity and the work of the Convention. *CBD News*

Green List shows species on path to conservation success

The IUCN World Conservation Congress has adopted a motion sponsored by the Wildlife Conservation Society (WCS) and partners to create a Green List to assess conservation success. The Green List for Species would include species identified as ‘fully conserved,’ which are those that exist in ecologically significant numbers, interacting fully with other species in their ecosystems. The motion was adopted at the World Conservation Congress, which was held in September 2012 in Jeju, Republic of Korea.



The aim of the Green List is to highlight species that are thriving parts of a healthy ecosystem and will emphasize that conservation is about more than

just preventing extinction. “Successful species conservation involves the conservation of a species with significant populations, interacting fully with a complete suite of other native species and processes,” said WCS President and CEO Dr. Cristián Samper.

“The conservation community should be giving to the world a positive and proactive vision of success: species at or near their natural carrying capacity, as integral parts of fully functional ecosystems. The Green List will be a step in that direction.”

The Green List will complement the IUCN Red List, which focuses on avoidance of extinction. The Red List has been critical in assessing conservation prioritization and has been a scientifically-rigorous tool highly regarded by governments and other conservation actors.

For the Green List to reach the same level of effectiveness, the motion recommends that IUCN conducts an international scientific consultation process to develop consensus and rigorous criteria.

Dr. Elizabeth Bennett, WCS Vice President of Species Conservation, said: “The Green List represents a positive vision for conservation in the future. It is a roadmap for species to follow on the way to full conservation recovery.”

Dr. Simon Stuart, Chair of IUCN’s Species Survival Commission, said: “The Green List process is about optimism and success. It will incentivize conservation action and encourage investment in programmes and policies that enhance and measure conservation success and management effectiveness.” *Science Daily*

GBIF launches Ebbe Nielsen Prize



free and open access to biodiversity data
GLOBAL BIODIVERSITY INFORMATION FACILITY

The Global Biodiversity Information Facility (GBIF) invites nominations for the 2013 Ebbe Nielsen Prize, awarded annually to a person or team who demonstrates excellence in combining biodiversity informatics and biosystematics research.

The €30,000 award is intended to allow the recipient(s) to engage in biosystematics/biodiversity informatics research outside his/her/their country of residence for a period of three to six months.

GBIF also invites proposals from graduate students for the 2013 Young Researchers Award. This prize intends to foster innovative research and discovery in biodiversity informatics. Two awards will be available to graduate students from a GBIF Voting Participant or Associate Participant country. Students must be enrolled in a master’s or doctoral programme.

Nominations for the Ebbe Nielsen Prize are due by 15 February 2013. These should be sent to the Head of Delegation of any GBIF Voting or Associate Participant country. Individuals or institutions who wish to be nominated should contact the Head of Delegation of the relevant GBIF Participant country. The list of contacts is available at <http://www.gbif.org/communications/directory-of-contacts/governing-board-of-gbif/>.

Proposals submitted for the Young Researchers Award will be reviewed by the Head of Delegation of a GBIF Voting

ing or Associate Participant country. Students are encouraged to contact the Heads of Delegation or national node managers regarding the deadline for proposal submissions at the national level. Contacts of the Heads of Delegation are available at www.gbif.org/communications/directory-of-contacts/governing-board-of-gbif/ and Node Managers at <http://www.gbif.org/communications/directory-of-contacts/nodes-committee/>. *GBIF News*

UNEP launches blue carbon portal

The UN Environment Programme (UNEP) has launched “The Blue Carbon Portal,” a website that aims to improve understanding of blue carbon habitats – marine ecosystems that capture and store atmospheric carbon – and highlight initiatives that support them.

Blue carbon habitats include mangrove forests, sea-grass meadows, saltwater marshes and other marine ecosystems with the potential to mitigate climate change. The Blue Carbon Portal, co-managed by UNEP and GRID-Arendal, is “the world’s premier community-based website for all matters related to blue carbon,” providing a discussion forum and networking platform for blue carbon issues and initiatives worldwide. Features of the website include: blue carbon news; a global map illustrating blue carbon projects; an expert blog; a resources page for blue carbon publications, presentations and videos; and a calendar of blue carbon events.

The new website is part of UNEP’s Blue Carbon Initiative, which aims to develop a global partnership to promote the sound management of coastal and marine ecosystems in order to ensure that their carbon sequestration and storage functions are sustained. *IISD*

UNGA resolution on ecotourism’s role on poverty reduction, environment protection and sustainable development

The United Nations General Assembly has adopted a resolution recognizing ecotourism as key in the fight against poverty, the protection of the environment and the promotion of sustainable development.

The resolution, adopted on 21 December 2012 and entitled ‘Promotion of ecotourism for poverty eradication and environment protection,’ calls on UN Member States to adopt policies that promote ecotourism, highlighting its “positive impact on income generation, job creation and education, and thus on the fight against poverty and hunger.”

It further recognizes that “ecotourism creates significant opportunities for the conservation, protection and sustainable use of biodiversity and of natural areas by encouraging local and indigenous communities in host countries and tourists alike to preserve and respect the natural and cultural heritage.”



The resolution – facilitated by Morocco and sponsored by a record 105 delegations – draws on the recommendations contained in one of the reports of the UN World Tourism Organization (UNWTO), put together on the basis of responses from 48 Member States.

In line with the UNWTO report’s recommendations, the resolution underscores the need for national tourism plans to account for market demand and local competitive advantages.

It also encourages Member States to promote investment in ecotourism, in accordance with their national legislation, including creating small and medium-sized enterprises, promoting cooperatives and facilitating access to finance through inclusive financial services such as microcredit initiatives for the poor, local and indigenous communities, in areas of ecotourism potential and rural areas.

The resolution builds on a 2010 resolution on the same subject, and reflects developments since then – namely, the inclusion of tourism in the outcome document of the UN Conference on Sustainable Development (Rio+20), held in Brazil in mid-2012, and the results of the 11th meeting of the Conference of the Parties to the Convention on Biodiversity.

During Rio+20, world leaders acknowledged the importance of an inclusive, transparent, strengthened and effective multilateral system to better address the urgent global challenges of sustainable development.

According to the UNWTO, tourism accounted for nine percent of global gross domestic product when totaling its direct, indirect and induced impact, according to the agency, which also noted that one in every 12 jobs and up to eight percent of the total exports of the world’s UN-designated Least Developed Countries depend on tourism.

UN News

Winners of the MIDORI Prize for Biodiversity 2012 announced



The winners of the MIDORI Prize for Biodiversity were announced in Tokyo. The MIDORI Prize is a biennial international prize organized by the AEON Environmental Founda-

tion in collaboration with the Secretariat of the Convention on Biological Diversity to honor individuals who have made outstanding contributions to the conservation and sustainable use of biodiversity at global, regional or local levels.

The winners of the 2012 Prize are: Dr. Juan Carlos Castilla, Professor of Marine Ecology at Pontificia Universidad Catolica de Chile; Dr. Rodrigo Gamez-Lobo, President of Instituto Nacional de Biodiversidad (INBio) and; Dr. Vo Quy, Honorary President at the Center for Natural Resources Management and Environmental Studies (CRES), Vietnam National University, Hanoi.

Each recipient is awarded a wooden plaque, a commemorative gift and a monetary prize of US\$ 100,000 to support their work in safeguarding biodiversity. The Prize was awarded at a ceremony in Hyderabad, India, on 17 October 2012, held in conjunction with the high-level segment of the eleventh meeting of the Conference of the Parties (COP11) to the Convention on Biological Diversity. A Winners' Forum was then held in Tokyo, Japan on 22 October 2012 at the U Thant Hall of the United Nations University.

Takuya Okada, the Chairman of the AEON Environmental Foundation said: "I hope the outstanding work of the winners, and the recognition given by the MIDORI Prize, will serve to inspire others to achieve the Aichi Biodiversity Targets and the objectives of the United Nations Decade on Biodiversity 2011-2020."

Braulio Ferreira de Souza Dias, the Executive Secretary of the Convention on Biological Diversity, said: "Protecting life on earth, which is the basis of, and closely connected to our daily lives, is not only the responsibility of the ministries and agencies in charge of protection of the environment, but is also the responsibility of each and every citizen and all sectors of society. The Secretariat is pleased to be a partner of this unique initiative that strongly supports promotion of public awareness on biodiversity".

The MIDORI Prize was established by the AEON Environmental Foundation in 2010, during the International Year of Biodiversity.

The 2012 Midori Prize Winners

Dr. Juan Carlos Castilla (Chile) – Professor, Marine Ecology, Pontificia Universidad Catolica de Chile. Dr. Juan Carlos Castilla is a marine scientist who has succeeded in translating the findings of his research into national policy to enable the conservation and sustainable use of biodiversity. His work with governments, coastal and more marginalized artisanal fisher communities who are among the most vulnerable ecologically and economically in the face of biodiversity loss and adverse impacts of climate change, is commendable. He proved that small scale Marine Protected Area are effective for sustainably developing the community as well as improving the livelihood of small sized fishermen. His achievements can be regarded as an integration model of science, policies and capacity development, and indicate the possibility of growing a Green Economy. With more community-based researchers and practitioners like him to ensure ecosystem based management in communities around the world, there is hope that the Aichi Targets will be met.

Coastal and marine biodiversity, also addressed at Rio+20, is an internationally growing concern. It has been the theme for the 2012 International Day for Biological Di-

versity and was a major agenda item at COP11. Dr. Castilla's pioneering activities in the marine field will call attention to the urgency of actions needed to reduce pressures on coastal and marine biodiversity.

Dr. Rodrigo Gamez-Lobo (Costa Rica) – President, Instituto Nacional de Biodiversidad (INBio). Prior to the Rio Earth Summit in 1992, Drs. Rodrigo Gamez-Lobo and Daniel Janzen founded Instituto Nacional de Biodiversidad (INBio) in 1991 in order to organize the inventory of biodiversity. Dr. Gamez has contributed to the organization of the inventory in Costa Rica through training of parataxonomists, and has made significant efforts for thoroughly introducing biodiversity into the school and university curricula. He has headed INBio since its establishment and presented the importance of biodiversity in a unique and concrete way. His achievements are outstanding. He has also been successful in providing ecotourism income more valuable than agriculture to Costa Rica by designating a stable set of national parks covering 25 percent of Costa Rica, a country of mega-diversity. He has demonstrated a good model of conservation and sustainable use of biodiversity to tropical countries that have problems of development and conservation. Thanks to his persistent commitment, his research activities facilitated policy, which is now the foundation of lifestyle and nature tourism and a pathway to economic development, and put biodiversity on Costa Rica's national agenda. Among his numerous contributions, his work has shown that good science can and does lead to good policy and governance. His contributions to major issues of the Convention on Biological Diversity, including the Global Taxonomy Initiative and access and benefit sharing, are also highly evaluated.

Dr. Vo Quy (Viet Nam) – Honorary President, Center for Natural Resources Management and Environmental Studies (CRES), Vietnam National University, Hanoi. War is often said to be one of the main drivers of environmental degradation. The Vietnam War is one such war of which the country still bears the scars. Dr. Vo Quy devised an ambitious master plan for rehabilitating 50 percent of the country's forests from severe environmental devastation. This plan, underpinned by his scientific expertise, was adopted by the government as the National Conservation Strategy, and he has steadily implemented the plan. He has also contributed to heightened public awareness and capacity building by making efforts to foster young researchers and community involvement. His work to regenerate the forests seriously devastated by adverse effects of Agent Orange is a living testimony to one man's commitment to using science to work with communities to rehabilitate the degraded environments around them, restore habitats and increase biodiversity. His achievements are influential at national and regional levels and a model to other developing nations of the conservation and rehabilitation of nature, offering hope that lands devastated by urbanization or warfare can be regenerated. War and its impacts aside, forest degradation and increased biodiversity loss is a challenge faced by communities worldwide and the example led by his lifework could potentially contribute to forest regeneration and biodiversity conservation activities beyond the borders of Viet Nam. *SCBD News*

REGIONAL NEWS

New ASEAN Heritage Parks highlight the best of ASEAN's natural capital

At the 12th ASEAN Ministerial Meeting on the Environment held in September 2012 in Bangkok, Thailand, the ministers of environment declared two national parks as new ASEAN Heritage Parks (AHPs) - U Minh Thuong National Park in Viet Nam, and Nat Ma Taung National Park in Myanmar, increasing the total AHPs to 32.

The two new AHPs join the AHP Programme, which aims to generate greater awareness, appreciation, enjoyment and conservation of ASEAN's rich natural heritage, through the creation of a regional network of representative protected areas. The parks represent the best of the region's natural heritage and present a view into the species and ecosystems that are uniquely ASEAN.



U Minh Thuong National Park in the Mekong Delta's Kien Giang Province is a vast wetlands area rich in fish and waterbirds and was declared a National Park in September 2000. The wetland area comprises peat swamp forest and seasonally inundated grassland. Surveys have confirmed the presence of 187 bird species, including nine species of global conservation concern such as the oriental darter, spot-billed pelican, painted stork, lesser adjutant, black-headed ibis, glossy ibis, greater spotted eagle, grey-headed fish eagle and Asian golden weaver. In addition, at least eight species of economically valuable fish are found in the park, which also harbors a diversity of flora with 226 species of non-cultivated vascular plants. The natural vegetation was classified into 10 types, belonging to four main classes: Melaleuca forests, seasonally inundated grasslands, permanent swamps and vegetation along canals and streams.

The sunsets in U Min Thuong are fantastic as thousands of birds return from feeding grounds to their nests. U Minh Thuong National Park has historical values as well since the area was used as a base by resistance forces during the First and Second Indochina Wars. Due to the almost complete loss of natural forest in the Mekong Delta region, U Minh Thuong is one of the few places where visitors can see the landscape as it was at the time.

Nat Ma Taung National Park (NMTNP) is located close to the border with India and features Mt. Victoria, which at 3,035 meters above sea level is the highest mountain in



Chin Hill, Chin State, in the western part of Central Myanmar. NMTNP encompasses 722.6 square kilometers of rugged and verdant mountainous terrain. The Chin Hills form part of the Araken-Yoma rangeland that skirts the Bay of Bengal and bears northwards along Myanmar's western border.

Nat Ma Taung National Park was designated as a reserved forest in 1936 and declared a national park in 2010. The major forest types found in the national park include hill evergreen forest, moist upper mixed deciduous forests, pine forest (above 9,000 ft) and hill savannah. About 2,500 plant species are known to occur within the site, including 152 mosses. In terms of fauna, 31 mammals have been recorded including tiger, bear, wild boar, serow, and gibbon. Records also indicate the presence of 300 bird species, 106 reptiles and amphibians, 77 butterflies and 35 beetles.

The ASEAN Centre for Biodiversity serves as the Secretariat of the ASEAN Heritage Parks Programme and provides opportunities for networking, information exchange, capacity building, and implementation of conservation activities in law enforcement, education and public awareness, and ecotourism, among others. For more information on the ASEAN Heritage Parks, log on to www.aseanbiodiversity.org.

APEC economic leaders agree on trade in environmental goods

Through the adoption of the 2012 Leaders' Declaration, also known as the Vladivostok Declaration, member countries in the Asia-Pacific Economic Cooperation (APEC) have agreed to significantly reduce tariffs and duties on green technologies. The Declaration, titled "Integrate to grow, innovate to prosper," was adopted at the completion of the 20th APEC Economic Leaders' meeting, held in Vladivostok, Russia, on 8-9 September 2012.

Through the Declaration, leaders agree that, by 2015, member countries will reduce tariff rates to five percent or less for environmental goods including sustainable flooring, wind turbines, equipment for treating wastewater or removing pollutants, and machinery for physical and chemical analyses for environmental assessments.

The Declaration also affirms that efforts to protect the environment will not result in protectionism, but rather will



be implemented by member countries in a manner consistent with international trade agreements.

On illegal trade, the Declaration commits member countries to increasing efforts to prevent illegal trade in endangered and protected wildlife and associated products.

In support of sustainable development, the Declaration commits to the implementation of sustainable marine and forest management, including the promotion of “sustainable, open and fair trade of non-timber forest products.”

ISSD News

ASEAN-India environment ministers agree to strengthen conservation efforts and cooperation



Ministers responsible for environment and their representatives from ASEAN and India met in New Delhi, India and discussed areas of common interest that will strengthen biodiversity conservation efforts and cooperation. The Ministers, on 7 September 2012, agreed to enhance awareness among all stakeholders, especially policy-makers and the private sector, on the values of and threats to biodiversity; strive towards mainstreaming biodiversity concerns into development processes, and encourage involvement of all stakeholders in this exercise; and work together towards conservation and management of flagship species that would contribute to conservation of the entire ecosystem.

They also agreed to prioritize resource allocation and mobilization for biodiversity management in respective national developmental planning processes and called upon the Eleventh Meeting of the Conference of the Parties (COP11) to the Convention on Biological Diversity (CBD) to agree on interim measures on financial resource mobilization to infuse confidence in the Parties and generate momentum for the implementation of the Aichi Targets. They also called upon COP11 to discuss issues relating to biodiversity and livelihoods regularly and recommend concrete actions, considering the critical linkages of biodiversity with livelihoods and poverty alleviation.

The Ministers agreed to work together for enhancing the capacity for conservation, management and sustainable utilization of coastal and marine biodiversity; continue dialogue on imminent and emerging issues related to biodiversity including marine and coastal biodiversity through consultations and other means as may be appropriate; and strive for mutual support and cooperation across borders for conservation and sustainable management of coastal and marine biodiversity, as well as to address activities that

threaten marine biodiversity rich areas.

They also agreed to create networks for sharing best practices in conservation and resource enhancement in marine and its related ecosystems; take preparatory national work as a sound and informed basis for ratifying the Nagoya Protocol; and call upon COP11 to enhance capacity of the Parties to the CBD in ensuring preparedness for implementing the provisions of the Nagoya Protocol.

The Ministers agreed to support the recommendations of the ASEAN-India Capacity Workshop on Access and Benefit Sharing and Traditional Knowledge held in New Delhi on 4-5 September 2012 and to implement a programme of mutual cooperation and support on issues relating to access and benefit sharing, urban biodiversity and achieving the Aichi Targets among India and ASEAN Member States under the ASEAN-India Green Fund; support the recommendations of the ASEAN-India Expert meeting on climate change held on 27-29 June 2012 in Bangalore, India and to implement a work programme on climate change among India and ASEAN Member States under the ASEAN-India Green Fund; and call upon COP11 to facilitate and encourage the private sector to contribute to the implementation of the CBD and its Strategic Plan, while emphasizing that developed country Parties bear primary responsibility for providing adequate resources for the implementation of the CBD and its Strategic Plan.

The Ministers welcomed the proposal for ASEAN-India Ministers and senior officials responsible for environment to meet and exchange views on issues of common interest at appropriate ASEAN Environment Ministers meetings.

ASEAN environment ministers hold 12th meeting

The 12th ASEAN Ministerial Meeting on the Environment was held on 26 September 2012 in Bangkok, Thailand where the ministers of environment reviewed regional cooperation on a number of environmental issues, including actions in the environmental sustainability section of the ASEAN Socio-Cultural Community Blueprint. They also discussed new initiatives to further promote regional environmental cooperation.

The Ministers adopted the Bangkok Resolution on ASEAN Environmental Cooperation to reaffirm ASEAN's commitment to further strengthen ASEAN regional cooperation on natural resources and environment for sustainable development and regional integration and the realization of the ASEAN Socio-Cultural Community.

They also adopted the ASEAN Action Plan on Joint Response to Climate Change, which aims to implement the ASEAN Leaders Statement on Joint Response to Climate Change adopted at the 16th ASEAN Summit in April 2010 in Hanoi, Viet Nam.

The Ministers agreed to continue efforts to establish a balance among economic growth, social development and environmental sustainability, strengthen ASEAN's commitments for the attainment of Millennium Development Goals; accelerate the implementation of the Rio+20 United Nations Conference on Sustainable Development's outcomes; contribute actively towards the agreed outcome under the United Nations Framework Convention on Climate Change; and continue to work closely with dialogue partners to ad-



dress existing and emerging global environmental issues.

They also agreed in principle to issue the Joint Statement of ASEAN Environment Ministers for the Eleventh Meeting of the Conference of the Parties (COP11) to the Convention on Biological Diversity (CBD) in October 2012, highlighting ASEAN's position towards a positive and equitable outcome at the COP11.

The Ministers urged Parties to the CBD to develop domestic legislative, administrative and policy measures on access and benefit sharing in contributing to the conservation and sustainable use of biological diversity, poverty eradication, and environmental sustainability following the adoption of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the CBD.

The Ministers approved the nomination of U Minh Thuong National Park in Viet Nam and Nat Ma Taung National Park in Myanmar as 31st and 32nd ASEAN Heritage Parks (AHP), respectively.

They also reviewed national, sub-regional and regional activities to address land and forest fires in the region and its associated transboundary haze pollution. The Ministers welcomed the significant progress in the implementation of the Work Programme of the ASEAN Agreement on Transboundary Haze Pollution, including concrete on-the-ground activities; the progress in the development of the ASEAN-wide Fire Danger Rating System; implementation of the ASEAN Peatland Management Strategy (2006-2020) and the implementation of the Strategic Review on Sub-Regional Ministerial Steering Committee on Transboundary Haze Pollution programmes. The Ministers, however, expressed serious concern on the report of the ASEAN Specialised Meteorological Centre, which shows significant increase in hotspots in the region in 2012.

On 27 September, the Ministers met their counterparts from the People's Republic of China, Japan and Republic of Korea at the 11th ASEAN Plus Three Environment Ministers Meeting where they exchanged views on global environmental issues, and discussed activities on areas such as biodiversity, climate change, environmental education, water resources management, promotion of environmentally sound technology and cleaner production, and environmentally sustainable cities. The Ministers also met their counterparts from the East Asia Summit participating countries at the 3rd East Asia Summit Environment Ministers Meeting where they discussed and exchanged views on the progress of EAS cooperation on environment.

The Ministers responsible for the environment met again in Indonesia in October 2013 on the occasion of the 14th Informal ASEAN Ministerial Meeting on the Environment.

ADB releases 2nd edition of the *GMS Atlas of the Environment*

In celebration of the 20th anniversary of the Greater Mekong Subregion (GMS) Economic Cooperation Programme, initiated in 1992, the Asian Development Bank (ADB) has launched the second edition of its *GMS Atlas of the Environment*.

The Atlas highlights progress made in GMS countries on reducing poverty, stimulating economic growth, improving infrastructure connectivity, and promoting trade and investment. It also outlines the challenges faced by the rapidly-growing subregion in pairing further development with environmental protection and sustainability.

The Atlas features six sections, focused on the interactions between people and the environment in GMS countries: Cambodia, China, Lao People's Democratic Republic, Myanmar, Thailand and Viet Nam. The first three sections provide details of the subregion, consisting of: a GMS profile, outlining the geography, economy and social conditions of countries in the subregion; people of the GMS, describing the cultures and diversity in the subregion, including their dependence on natural resources; and environment and natural resources, detailing the states of the geology, rivers and wetlands, seas and coasts, and biodiversity.

The Atlas also contains sections that explore the challenges of development and opportunities for response, with chapters on the development in the GMS, including in the agricultural, energy and transport sectors; challenges and responses, including human resources development, climate change and natural disasters, and regional cooperation; and information resources, pointing to additional data sources and information on the subregion. *ADB News*

Lao PDR, first ASEAN country to ratify Nagoya Protocol on genetic resources

Lao Peoples' Democratic Republic (PDR) is the sixth country to ratify the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (CBD). The Nagoya Protocol will enter into force 90 days after the deposit of the fiftieth instrument of ratification.

Braulio Ferreira de Souza Dias, Executive Secretary of the CBD, said: "The accession of Lao PDR to the Protocol represents the first of a new wave of ratifications that we expect to see in the months ahead."

In order to become Parties to the Nagoya Protocol, Parties to the Convention that have signed the Nagoya Protocol may then proceed to take steps at the domestic level that would lead to depositing their instruments of ratification, acceptance or approval with the Depositary. Parties to the Convention that were not be able to sign the Nagoya Protocol by 1 February 2012, but still wish to become Parties, may accede to the Protocol by depositing an instrument of accession with the Depositary. Ratification, acceptance, approval and accession have the same legal effect.

Acting ACB Executive Director Demetrio L. Ignacio, Jr., concurrently Undersecretary of the Philippines' Department of Environment and Natural Resources, lauded Lao PDR for

its action. "Lao PDR becomes the first country in South-east Asia and the Association of Southeast Asian Nations to ratify the Protocol."

The entry into force of the Nagoya Protocol will provide greater legal certainty and transparency for both providers and users of genetic resources, creating a framework that promotes the use of genetic resources and associated traditional knowledge while strengthening the opportunities for fair and equitable sharing of benefits from their use. Hence, the Protocol will create new incentives to conserve biodiversity, sustainably use its components, and further enhance the contribution of biodiversity to sustainable development and human well-being. *SCBD News*

Indonesia site among four new members of Global Geoparks Network

Batur Global Geopark in Indonesia, along with three sites in China, Hungary and Spain, are the new members of the Global Geoparks Network. The new sites bring the total number of Geoparks in the Network to 91, located in 27 countries. The new members were admitted by the Global Geoparks Network Bureau during the 11th European Geoparks Conference, which took place in Arouca, Portugal on 19 - 21 September 2012.

The Global Geoparks Network links geological heritage sites of international importance, rarity or beauty that are also used to promote sustainable development for local communities. The Network was created with UNESCO's support in 2004 to encourage cooperation between geo-

logical heritage experts and practitioners. It also seeks to promote awareness of geological hazards and disaster mitigation strategies, climate change and the need to manage our natural resources sustainably.

Sites given the Geopark label possess an effective management structure and clearly defined boundaries. They cover a sufficiently large area to permit significant sustainable economic development, primarily through tourism. The Global Geopark brand is a voluntary, quality label and UNESCO offers its support to sites that are part of the Network on an ad-hoc basis via requests from Member States.

Batur Global Geopark in Indonesia is centered on an active volcano located in northeast Bali, between two round calderas, which are large volcanic craters that formed about 22,000 years ago. The volcano belongs to the Pacific 'Ring of Fire' and forms part of a long chain of similar active volcanoes in Indonesia. The area is rich in elements of macro- and micro-volcanic landforms produced by the volcano across several thousands of years. The volcano of Batur is a typical strato-type volcano built up of alternating layers of pyroclastics and lava flows. The two cataclysmic eruptions in its geological history have produced the amazing caldera-walls, the inside of which is today filled with a deep volcanic lake. The active cone of Batur Volcano has erupted at least 22 times since the 1800s. The island of Bali is a place with many natural and cultural tourist attractions, yet the Batur Volcano stands out for its unique geology and grand scenery. From the cultural side, the Geopark showcases very specific local customs related to the Balinese Hindu religion. *UNESCO News*



Philippines names subterranean river Ramsar Site

The Government of the Philippines has chosen as its fifth Wetland of International Importance the extremely interesting Puerto Princesa Subterranean River National Park (22,202 hectares, 10°10'00"N 118°55'00"E), which is already a UNESCO World Heritage Site and Man and Biosphere (MAB) Biosphere Reserve. As summarized by Ramsar's Nessrine Alzahawi, based on the Ramsar Information Sheet, the site, located on the island of Palawan, is unique in the biogeographic region because it connects a range of important ecosystems from the mountain-to-the-sea, including a limestone karst landscape with a complex cave system, mangrove forests, lowland evergreen tropical rainforests, and freshwater swamps.

It is home to about 800 plant and 233 animal species, including the critically endangered Philippine cockatoo (*Cacatua haematuropygia*) and Hawksbill turtle (*Eretmochelys imbricate*), as well as the endangered Green sea turtle (*Chelonia mydas*) and Nordmann's greenshank (*Tringa guttifer*). There are also some 15 endemic species of birds such as the Palawan peacock pheasant (*Polyplectron emphanum*) and the Tabon scrub fowl (*Megapodius freycinet cumingii*).

One of the unique features of the park is an 8.2 km long section of the Cabayugan River that flows underground



within large formations of stalactites and stalagmites. The river provides water to local communities for domestic and agricultural uses, before flowing towards the underground river. The site is a major ecotourism destination, and community-based sustainable ecotourism has been initiated to involve the local communities in Park management as well as to generate income. *Ramsar News*

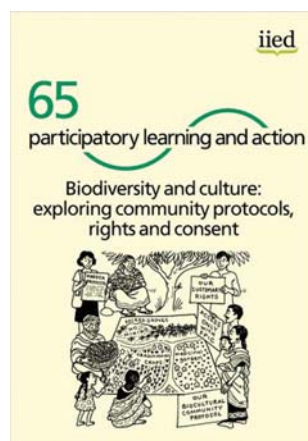
PUBLICATIONS

Biodiversity and culture: exploring community protocols, rights and consent

The International Institute for Environment and Development (IIED) has a new publication on biodiversity and culture. Guest edited by Krystyna Swiderska, Kanchi Kohli, Harry Jonas, Holly Shrumm, Wim Hiemstra and Maria Julia Oliva, Biodiversity and Culture: Exploring Community Protocols, Rights and Consent is part of IIED's Participatory Learning and Action Series.

The publication aims to provide guidance for those implementing the Nagoya Protocol and other natural resource and development practitioners, and to raise awareness of the importance of community designed and controlled participatory processes.

Many rural communities in the global South – including some 370 million indigenous peoples – are directly dependent on biodiversity and related traditional knowledge for their livelihoods, food security, healthcare and well-being. But with the loss of biodiversity, valuable resources such as



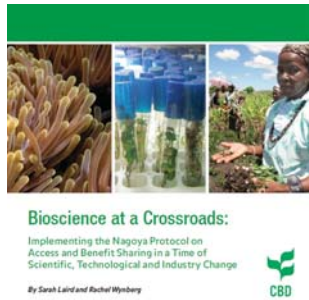
climate-resilient crops, medicinal plants and wild foods are being lost. Cultural diversity is being eroded at an unprecedented rate and with it, ancestral knowledge of how to use and conserve biodiversity.

The publication also explores two important participatory tools that indigenous peoples and local communities can use to help defend their customary rights to biocultural heritage: Community Protocols – or charters of rules and responsibilities – in which communities set out their customary rights to natural resources and land, as recognized in customary, national and international laws; and Free, Prior Informed Consent (FPIC) processes, in which communities decide whether or not to allow projects affecting their land or resources to go ahead, and on what terms. The publication reviews the experiences of communities in Asia, Latin America and Africa. It also looks at government experiences of establishing institutional processes for FPIC and benefit-sharing. It identifies practical lessons and guidance based on these experiences and aims to strengthen the capacity of a range of actors to support these rights-based tools effectively in practice. *IIED News*

CBD publishes brief on ABS Protocol implementation

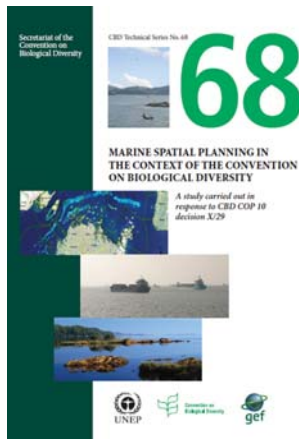
The first policy brief in a series of new communication materials on the implementation of the Nagoya Protocol on Access and Benefit Sharing (ABS) developed by the Secretariat of the Convention on Biological Diversity (CBD) has been published. Authored by Sarah Laird and Rachel Wynberg, the policy brief is titled "Bioscience at a Crossroads: Implementing the Nagoya Protocol on Access and Benefit

Sharing in a Time of Scientific, Technological and Industry Change.” It reviews recent scientific and technological advances with implications for ABS and the Nagoya Protocol, recent business trends, and industry engagement with ABS and the CBD. The brief also offers a series of recommendations aiming to assist policy makers seeking to accommodate advances in science and technology and changes in business environments and models as they revisit ABS policies and work to implement the Nagoya Protocol. *SCBD News*



CBD report highlights potential benefits of marine spatial planning

The Secretariat of the Convention on Biological Diversity (CBD), in collaboration with the Scientific and Technical Advisory Panel (STAP) of the Global Environment Facility (GEF), has published a report on marine spatial planning. The report, published as CBD Technical Series No. 68, was written in response to a request by the 10th Meeting of the Conference of the Parties to the CBD (COP 10) Decision X/29.



“Marine Spatial Planning in the Context of the Convention on Biological Diversity” compiles and synthesizes available information in collaboration with Parties, other governments and relevant organizations on their experiences and use of marine spatial planning, in particular on ecological, economic, social, cultural and other principles used to guide such planning and the use of area-based management tools.

The assessment outlines the theory and practice for implementing marine spatial planning, challenges in implementation and means to overcoming them, and the strategic role of marine spatial planning in management of transboundary resources. It provides available tools and innovative methodologies for putting marine spatial planning into practice. The report concludes that comprehensive marine spatial planning has the potential to improve management of marine ecosystems, reduce the loss of ecosystem services, help address or avoid conflict, and create economies of scale and efficiencies for enforcement and management. *CBD News*

FAO releases report on potential effects of climate change on pollination

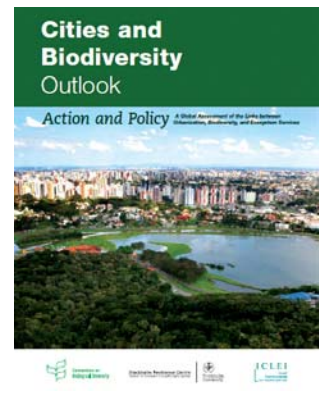
The Food and Agriculture Organization of the United Nations (FAO) has released a report titled “Potential Effects of

Climate Change on Crop Pollination.” The report emphasizes the central role of pollination in food systems and in conserving genetic diversity, and examines how climate change may impact the provision of pollination services. It stresses that the potential interactions between climate change and pollination are poorly understood and that more information is needed.

The report also presents a framework for building greater knowledge on the topic by elaborating on data needs and recommendations. It calls for standardized sampling protocols on pollinator activity, temperature sensitivities of pollinators, and the roles of climate variables and other threats. The report also identifies important experiments that should be undertaken to assess crop and pollinator responses to different climate scenarios. *FAO News*

Cities and Biodiversity Outlook analyzes how urban land expansion will impact biodiversity

A new report, titled “Cities and Biodiversity Outlook,” was produced by the Secretariat of the Convention on Biological Diversity (CBD), together with the Stockholm Resilience Centre (SRC) and Local Governments for Sustainability (ICLEI) and released on the sidelines of the 11th Meeting of the Conference of the Parties to the CBD on 8-19 October 2012 in Hyderabad, India.



The “Cities and Biodiversity Outlook” draws on contributions from over 123 international scientists and represents the first global analysis of how projected patterns of urban land expansion will impact biodiversity and ecosystems. According to the Outlook, 60 percent of land projected to become urban by 2030 has yet to be built on, presenting a major opportunity to greatly improve global sustainability by promoting low-carbon, resource-efficient urban development that can reduce adverse effects on biodiversity and improve quality of life. The assessment provides examples of how urban areas can play a central role in achieving the Aichi Biodiversity Targets, and highlights successful initiatives by cities, local authorities and sub-national governments in both developed and developing countries.

FAO releases State of the World's Forests 2012

The Food and Agriculture Organization of the United Nations (FAO) has released its report on The State of the World's Forests 2012 (SOFO 2012). The report reveals that forest loss and degradation over the past 10 years are estimated to have cost the global economy as much as US\$4.5 trillion per year. SOFO 2012, the tenth edition of the State of the World's Forests, highlights that forests cover about

31 percent of the Earth's terrestrial surface, and that an estimated one billion people around the world depend on forests including the 60 million indigenous peoples who intensively use forests. The report's analysis focuses on forests as energy sources, providers of ecosystem services, and as sources of economic activities.

With regards to the contribution of forests to sustainable development and green growth, the report notes that the value of woodcraft exports has increased from an estimated US\$500 million in 2002, to approximately US\$1.5 billion in 2010, while over 10 million people are currently employed in forest management and conservation. The report notes that this growth could continue if further investments in forest products and industries are efficient, targeted and equitable.

In particular, the report stresses the importance of reforestation and forest restoration, the promotion of small and medium forest enterprises, including considerations of gender equity, good management of wood as an energy source, enhancing communication and coordinating sustainable development. *ISSD News*

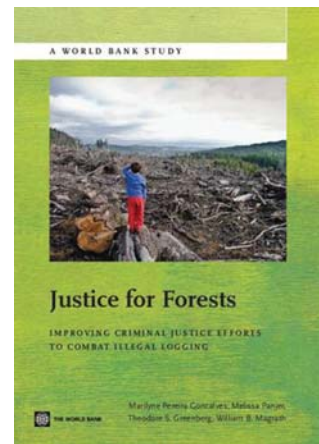


protein for 17 percent of the world's population and nearly a quarter in low-income food-deficit countries."

World Bank releases study on illegal logging

A World Bank study, titled "Justice for Forests: Improving Criminal Justice Efforts to Combat Illegal Logging," reviews law enforcement tactics to prevent corruption and prosecute criminal organizations dealing in "dirty money" from illegal logging. The study said illegal logging is controlled by organized crime, accounts in some countries for up to 90 percent of all logging, and involves "dirty money" that is untaxed and used to pay off corrupt government officials.

The World Bank study, which discusses policy and operational strategies to combat corruption, aims to inform policy makers and forestry and law enforcement actors how they can use the criminal justice system in fighting illegal logging. The study underscores that illegal logging has "enormous environmental and societal costs," as it leads to biodiversity loss, increases carbon emissions, causes landslides, and undermines the resource-based livelihoods of rural peoples. *WB News*

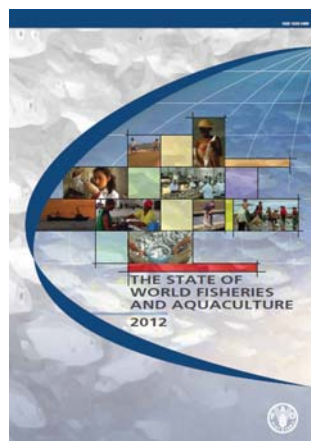


FAO releases new State of World Fisheries and Aquaculture report

Sustainable fisheries and aquaculture play a crucial role in food and nutrition security and in providing for the livelihoods of millions of people. The Food and Agriculture Organization's (FAO) latest flagship publication on the state of fisheries and aquaculture, launched at the opening of the 30th session of the FAO Committee on Fisheries, highlights the sector's vital contribution to the world's well-being and prosperity, a point reflected in the recent Rio+20 Outcome Document.

The State of World Fisheries and Aquaculture 2012 reveals that the sector produced a record 128 million tons of fish for human food – an average of 18.4 kg per person – providing more than 4.3 billion people with about 15 percent of their animal protein intake. Fisheries and aquaculture are also a source of income for 55 million people.

"Fisheries and aquaculture play a vital role in the global, national and rural economy," said FAO Director-General José Graziano da Silva. "The livelihoods of 12 percent of the world's population depend directly or indirectly on them. Fisheries and aquaculture give an important contribution to food security and nutrition. They are the primary source of



UNEP publishes report on voluntary and compliance regimes for biodiversity offsets

The UN Environment Programme has released a report, "Biodiversity Offsets: Voluntary and Compliance Regimes." The report reviews existing biodiversity offset schemes and initiatives and appraises the opportunities and risks of using biodiversity offsets to businesses. The 24-page report features sections on biodiversity offsets and the financial sector.

The report said the current global annual biodiversity market size is between US\$2.4-4.0 billion, and is primarily driven by offset programmes in the US that operate through wetland banking and species or conservation banking. The report highlights challenges and difficulties facing business aiming to use biodiversity offsets including reputation problems related to poor outcomes and metrics, issues of design, costs and timing, and application needs for different business clients.

UNEP News



■ Brunei Darussalam



People urged to stop buying wildlife. The Minister of Industry and Primary Resources Yang Berhormat Pehin Orang Kaya Seri Utama Dato Seri Setia Hj Yahya Begawan Mudim Dato Paduka Hj Bakar urged the public to stop buying wildlife being sold in some markets around the country. He hopes to reduce or eradicate the demand for wildlife by educating the public on the importance of wildlife, and laws such as the Wildlife Protection Act. He also hoped to facilitate legal action against illegal wildlife trade by amending the Wildlife Protection Act and strengthening the Wildlife Division to tackle legal issues. The minister hopes to improve environmental protection given the significance of wildlife to maintaining healthy ecosystems and to encourage tourism to Brunei Darussalam.

The Brunei Times

International Energy Conference and 10th Sustainable Energy and Environment Forum held in Brunei Darussalam. An International Energy Conference was conducted in Brunei Darussalam on 21-23 November 2012. The conference aimed to gather the energy research community to share advances in various areas of energy research and to deliberate on possible pathways for clean energy solutions. The International Energy Conference was jointly organized by Universiti Brunei Darussalam Energy Research Group, Material Research Cluster, the Sustainable Energy and Environment Forum and the ASEAN University Network. The 10th Sustainable Energy and Environment (SEE) Forum was also held in conjunction with the conference. The SEE Forum is an Asia-Pacific academic and science and technological forum

that brings forward the dialogue on global climate and energy security issues of common concern. The primary objective of the SEE forum is to seek academic, scientific and technological cooperation that will contribute to solving the global climate and energy security issues through the New Energy Initiative.

SEE Forum

Brunei Shell Petroleum and Wetlands International join to conserve biodiversity. Brunei Shell Petroleum and Wetlands International embarked on a five-year partnership agreement focusing on sustainable and continuous development of the country's biodiversity. The agreement will begin with an 18-month project to develop and implement a Biodiversity Action Plan (BAP) for Brunei Shell Joint Venture's coastal concession area and the peatlands. The project will complement government efforts in biodiversity conservation and is aligned towards promoting and supporting the country's efforts towards local business development, specifically for ecotourism, by generating jobs and supporting programs towards clean energy, sustainable cities, food security, sustainable agriculture, potable water supply, healthy oceans and disaster readiness. *The Brunei Times*

Brunei's Minister Pehin Yahya Bakar urges renewed commitment to the preservation of rainforests in the Heart of Borneo. The Minister of Industry and Primary Industries for Brunei Darussalam, Pehin Yahya Bakar, spoke at a Public Forum on Protecting Nature in the Heart of Borneo (HoB) held in Singapore and stressed the need to reconvene the meeting of the Ministers responsible for Forestry from Brunei Darussalam, Indonesia and Malaysia to take stock of achievements and refresh the HoB Declaration mandate after five years of progress. He called for a reinvigoration and renewed focus on the vision of the three governments for the Heart of Borneo, made in Bali in 2007. That vision was the effective management of forest

resources and conservation of a network of protected areas, productive forests and other sustainable land-uses within the HoB, while sustaining people's welfare. The Minister also called for the commitment of the international community to help support research and development efforts, as well as the education of the general public to help sustain public interest in the HoB initiative. *WWF*

■ Cambodia

Cambodia opens rescue center for endangered pangolins. Cambodia opened a new Pangolin Rehabilitation Centre to provide special care to endangered pangolins rescued from the growing wildlife trade. The facility is located at the Phnom Tamao Zoological Park and Wildlife Rescue Center in Takeo Province where the pangolins are cared for until they are ready for release back into the wild. In Cambodia, trafficked pangolins are typically kept alive as they fetch the best price on the market live. Hunted with snares and hunting dogs, many confiscated pangolins have severe injuries that require professional medical treatment. Pangolins, or "scaly ant-eaters," are covered with protective, overlapping scales, and can quickly roll up into a tight ball when threatened. They are nocturnal and sleep in hollow trees or burrows emerging at night to forage for ants and termites, using their extraordinarily long and sticky tongue. Half of the world's species of pangolins are found in Asia where they have been hunted heavily to very low numbers. The Sunda pangolin is the only species found in Cambodia and is now very rare due to hunting pressures to supply the international illegal market. The greatest threat to the survival of Asian pangolins in the wild is illegal hunting for meat and scales used for luxury food, tonics and traditional medicines. The price for a live pangolin is often more than US\$ 100, and is an irresistible incentive for poor hunters and farmers despite the international and national ban on hunting of the species. *NZWeek*

Cambodia approves plan to build dam. Cambodia gave the green light to a multi-million dollar hydropower dam backed by companies from China and Viet Nam. The Hydro Power Lower Sesan 2 project will invest \$781.5 million to build a 400-megawatt hydroelectric dam on a tributary of the Mekong River in northern Stung Treng province. To address the needs of the affected villagers, the government ordered authorities and the company to build new homes and prepare land for an unspecified number of families that would be resettled for the project. The environmental group 3S Rivers Protection Network estimated more than 50,000 people would be affected by the dam. Nine dams, including at least four funded by China, are set to open by 2019, and once they are all operational the government says they will generate 2,045 megawatts of power, serving all of Cambodia's provinces.

DGR News Service

Support from local communities needed to protect endangered Mekong dolphins. Local communities publicly expressed their support for a ban on gillnets in a ceremony highlighting the importance of the Mekong River Irrawaddy dolphin as a national treasure. The event was organized by the Commission for Dolphin Conservation and Development of the Mekong River Dolphin Eco-tourism Zone, Fisheries Administration, and World Wide Fund for Nature. The dolphins in the Mekong are sacred to the people of Cambodia and are an important source of income for communities involved in dolphin-watching tourism. The dolphin population in the Mekong River has been



declining due to human activities in the last few decades especially due to modern fishing practices. Gillnets are particularly dangerous to dolphins and could cause the extinction of this species in the Mekong. In an effort to save the Irrawaddy dolphin, the Cambodian government issued a sub-decree in September banning the use of gillnets within the dolphin's habitat, a 180-km stretch of river between Kratie town and the Lao PDR border. The Cambodian Rural Development Team in partnership with the Cambodian Government and WWF has implemented an alternative livelihoods programme to reduce the dependence of local communities on fishery resources, in favor of activities such as aquaculture, livestock-raising, vegetable growing and community based ecotourism. *WWF*

■ Indonesia

22 turtles saved in latest bust on Bali smugglers. Police in Bali have successfully prevented the attempted smuggling of 22 endangered turtles into the island, bringing the number saved from the restaurant trade in December to 55. Community guards patrolling Pandawa Beach in South Kuta discovered the 22 turtles, all tied and bound. The green sea turtles were an average of one meter in length and estimated to be at least 50 years old. The resale value of green sea turtles is at least Rp 5 million (US\$ 518) per animal. The smugglers are believed to have planned to sell the turtles to restaurants for slaughter and consumption, and fled when the patrol came along. Some of the newly seized turtles were suffering from dehydration and wounds and would be rehabilitated by wildlife officials before they are released back to into the sea. Green sea turtles are listed as endangered and are a protected species under Indonesian law. Officials acknowledged that Bali is a profitable smuggling destination because of the continuing high demand for turtle meat, both for consumption and for Hindu ritual sacrifices, despite an official prohibition. *Jakarta Globe*



Indonesia's fisheries most 'vulnerable to collapse'. A study published in *Environmental Science* states that Indonesia and Liberia's coral reef fisheries are most vulnerable to collapse. The study ranked the vulnerability of coastal nations based on indicators such as coral reef management, fisheries and food security. It looked at 27 countries that depend significantly on coral reef fisheries for food and ranked them according to their exposure and sensitivity to the effects of climate change and man-made disturbances and capacity to adapt to changes. An average Indonesian gets almost 60 per cent of its animal protein from fish, while in Pacific island countries this figure is between 50 to 90 per cent. In the new study, a higher sensitivity indicates that a country is highly dependent on coral reef fisheries for human protein sources, and is already close to or below the minimum protein consumption level, while capacity to adapt is the potential to respond to changes in the contribution of reef fisheries to the food system. The study found that Indonesia is the most vulnerable because of the combined effects of man-made disturbance and very high sensitivity. The study points to the need to build adaptive capacity in low-income countries, and decrease sensitivity in middle-income countries. The results of the study should be a wake-up call for nations to begin enacting policies to promote alternative protein sources, either through land-based means such as growing beans and poultry farming, or increased aquaculture. *SciDev.Net*

Indonesia to double efforts at climate conference. The Indonesian government stressed the significance of the climate issue by sending more delegates to the United Nations Framework

Convention on Climate Change in Doha, Qatar in November. The government hopes to engage more in global cooperation, mainly in the green-business sector. In the conference, the Indonesian government held an Indonesia Climate Change Day to promote opportunities for investment and business that will promote low carbon emissions in Indonesia. The Indonesia Climate Change Day featured seminars and exhibitions with the theme of "The Business Response to the Challenges and Opportunities of Climate Change in Indonesia," highlighting the focus of the government on energy and renewable resources.

The Jakarta Post

Javan rhino clings to survival in last forest stronghold. For most people in Southeast Asia, the Javan rhino is effectively already a relic from the past. The stocky herbivore that once roamed across Myanmar, Viet Nam and Indonesia is now a rarely glimpsed inhabitant of Ujung Kulon National Park in Java. Camera traps and footprints in the park confirm that the rhino does still exist. There are 35 confirmed Javan rhinos in the park – 22 males, 13 females and five juveniles. However, NGOs estimate the total number could be as high as 47. The sharp decline of the species has been due to habitat loss and poaching. The Javan rhino is listed as critically endangered by the IUCN and was confirmed extinct in Viet Nam in 2011. There is potentially a low genetic pool as there are so few of the species left. Generally, the Javan rhino produces just one calf every three years in prime breeding conditions with a 16-month gestation. The fact they are



Photo by Mary Plage/Getty Images

A Javan rhinoceros in Ujung Kulon National Park.

all in one place is better for breeding, but it also means that a catastrophic event could wipe all of them out. Splitting the population to create a second population can help raise numbers. There is still hope though following successful efforts to raise the population of Indian and white rhinos. *The Guardian*

■ Lao PDR

Government officials discuss



Seized illegal wildlife

protection of wildlife and aquatic animals. The Forestry Inspection Department, Ministry of Agriculture and Forestry assessed the implementation of laws and regulations related to the Lao-Wildlife Enforcement Network (Lao-WEN). Lao-WEN is part of ASEAN-WEN, a regional inter-agency and inter-governmental initiative to counter the illegal cross-border trade in endangered flora and fauna that covers the ten ASEAN Member States. In Lao PDR, over 1,200 wildlife and aquatic animals of species have been confiscated from animal traffickers and poachers over the past two years. In addition, almost 300,000 tonnes of non-timber products and forest plants have been seized from illegal traffickers. Provincial authorities will thus step up inspections and prevent endangered wildlife trading in markets and restaurants as well as impose a ban on the use of hunting equipment such as batteries, guns, bombs and traps.

Lao News Agency

Lao PDR approves Xayaburi 'mega' dam on Mekong. Lao PDR has given the go-ahead to build a massive dam on the lower Mekong river despite opposition from neighboring countries and environmentalists. Countries downstream from the \$3.5bn dam fear it will affect fish stocks and the



livelihoods of millions. Landlocked Lao PDR is one of Southeast Asia's poorest countries and its strategy for development is based on generating electricity from its rivers and selling the power to its neighbors. Cambodia and Viet Nam expressed concerns about the dam's impact on fish migration and the flow of sediment downstream. The Lao PDR government believes that these concerns have been addressed with modifications to the original dam design costing more than \$100m. Sediment will be allowed out of the bottom of the dam periodically through a flap and lifts, and ladders will help the fish travel upstream. Critics say many of the modifications are untested and the decision to proceed amounts to a huge experiment on one of the world's great rivers. *BBC News Asia*

Bamboo preservation enriches lives and the environment. Over 900 people in eight villages in Sangthong District in Lao PDR are part of a United Nations Development Programme-supported scheme turning bamboo into high-value products that help low-income villagers turn a profit. The villagers



Bamboo preservation project

work through the Sangthong Bamboo Traders Association, which makes household products such as outdoor furniture, lamps, bamboo baskets, bags, dining sets, hammocks, and sofas. The products sell locally in Vientiane and are exported overseas to countries such as Germany and Switzerland. The project has brought over US\$175,000 into the district since it began operating three years ago. Sangthong is one of Lao PDR's poorest districts and the project is facilitating a significant rise in income for farmers. The association trains members in making high-end bamboo products and provides advice on techniques for cutting bamboo to ensure regular regrowth and a sustainable crop. The project receives support from the Global Environment Facility Small Grants Programme and is implemented by UNDP in partnership with Oxfam Novib, the Netherlands Development Organisation, and the Gender and Development Group. This project supports farmers to bring the goods to the market and make an income, while providing protection for the bamboo. Community land titles were also granted for bamboo production forests in 2011. The land titles not only protect the bamboo forests from exploitation by outsiders but also help foster a shared sense of increased responsibility for land management among the community. *UNDP*

Strengthening capacity for Xesap National Protected Area staff. WWF-Laos provided training for the staff of Xesap National Protected Area (Xe Sap NPA) on Global Positioning System and camera trap skills. The training aims to strengthen the staff's capacity to monitor wildlife and human practices in Xesap NPA focal areas. WWF-Laos provided 17 GPS devices and 29 camera traps to Xesap NPA for the KfW-funded CarBi Project. The equipment will help gather important data regarding human activities, forest cover, and NPA and village boundaries, and other data that will lead to appropriate management solutions for Xesap NPA. *WWF*

■ Malaysia

Elusive Malaysian leopard caught on film. A Malaysian Sunda clouded leopard, one of the world's most elusive cats, has been captured on video by a vacationing biologist. Footage of a young female leopard relaxing in the forests of Borneo is only the second time a Sunda clouded leopard has been captured on film. Clouded leopards living in Southeast Asia are the smallest members of the big cat family, and the Sunda clouded leopard was determined to be a distinct species in 2006. The Sunda clouded leopard is rarely seen or photographed, but wildlife videographer and biologist Jyrki Hokkanen was in Malaysian Borneo exploring the forest at night using a flashlight when he spotted an unusually big pair of eyes. The eyes pointed at his group, did not move and a round face was just about visible in the flashlight he was using. He filmed the animal for a few moments until it moved through the vegetation and disappeared. The future for the Sunda clouded leopard is uncertain as its forest habitat on the islands of Borneo and Sumatra is being cleared at a rapid pace. The International Union for Conservation of Nature has classified the species as vulnerable, with a total population of fewer than 10,000 mature individuals throughout its range. *UPI.com*

Borneo may lose half its orangutans to deforestation, hunting, and plantations. Borneo will likely lose half of its orangutans if current deforestation and forest conversion trends continue, warns a comprehensive new assessment published in the journal *PLoS ONE*. The study overlays orangutan distribution with land use regulations in Malaysian and Indonesian Borneo. Borneo has suffered high rates of deforestation,



logging, and forest conversion for industrial plantations in recent decades, endangering the world's largest surviving populations of orangutans. The study found that 78 percent of forest currently inhabited by orangutans in Borneo is unprotected. Of that, 29 percent is under logging concessions, 25 percent is licensed for conversion to industrial oil palm and timber plantations, and 24 percent lies outside protected areas or concessions. The researchers then modeled the impact of future land use on the distribution of orangutans. They estimate that under a business-as-usual scenario "at best only 51 percent of the current orangutan distribution (in protected areas and logging concessions) would remain". To avoid the worst outcome for orangutans, the paper argues for spatial planning that incorporates the best science and accounts for the value of ecosystem services afforded by healthy forests. To ensure long-term survival of orangutans, a masterplan at the landscape level is needed that will consider all remaining viable populations as well as all the different land uses that are active within the orangutan's range.

mongabay.com



WWF-Malaysia

Terrapin

WWF-Malaysia releases 80 young terrapins. The World Wildlife Fund for Nature-Malaysia's Terengganu branch, in collaboration with the Setiu Women Association, released 80 young terrapins near the Kampung Mangkuk river. In 2009, WWF started terrapin conservation activities by monitoring beaches, protecting the eggs, collecting data and making studies on terrapins that were trapped in fishing equipment. WWF has enhanced its public awareness programmes particularly for the

Kampung Mangkuk community as the area holds the biggest habitat for the terrapins in Malaysia and has organized road shows to increase education and understanding of turtle and biodiversity conservation in the country. *The Green Reporter*

Malaysia strengthens marine biodiversity through Tun Mustapha Park Expedition. A team of marine scientists from Malaysia, the Netherlands and Australia began an expedition in the proposed Tun Mustapha Park, Kudat, Malaysia. The Tun Mustapha Park Expedition (TMPE) will assess aspects of marine biodiversity and ecology, and the socioeconomic benefits of the marine ecosystems to local communities in the proposed park. The expedition is organized by Universiti Malaysia Sabah, Naturalis Biodiversity Center, Sabah Parks and WWF-Malaysia. The proposed Tun Mustapha Park (TMP) covers 1.02 million hectares with more than 50 islands and islets located across Kudat, Pitas and Kota Marudu districts in the Kudat-Banggi Priority Conservation Area. TMP supports a series of complex and linked habitats and is home to endangered marine animals, such as green sea turtles and dugongs. The proposed TMP produces Sabah's third largest volume of fishery products and provides livelihoods to 80,000 coastal inhabitants of diverse ethnic groups. The TMPE is jointly funded by Malaysian-CTI, USAID's Coral Triangle Support Partnership and WWF-Malaysia's individual supporters. *WWF Malaysia*

■ Myanmar

Myanmar to assess mining project's environmental impact. The Myanmar Environmental Institute has been assigned to assess environmental degradation and impact on social life brought about the Monywa Letpadaungtaung Copper Mining Project in northwestern Sagaing region. The Monywa Letpadaungtaung copper mining project is being implemented by a joint venture between Myanmar Economic Holding Ltd and China's Wanbao Mining Ltd and Yang Tze

Copper Ltd in accordance with Myanmar's Foreign Investment Law. The probe into the Monywa Letpadaungtaung copper mine project will determine if the project is profitable for the state and the people and if it should be allowed to continue. The Monywa copper mining project comprising Letpadaungtaung and Kyayzintaung projects has been undertaken by the Myanmar-China joint venture under the approval of the Ministry of Mines in March 2010.

Indo Asian News Service



National dialogue on land tenure and land use rights

Government meets activists at land conference. Government officials and civil society groups came together for the first ever National Dialogue on Land Tenure and Land Use Rights, a conference aimed at fostering a national debate on land law in Myanmar that ensures sustainable economic development. The conference was a collaboration between the Ministry of Environmental Conservation and Forestry, the National Economic and Social Advisory Committee, and the Food Security Working Group, a network of over 100 local and international NGOs working in Myanmar. The conference was another indication that Myanmar's reform process had provided a window of opportunity where citizens and civil society can have direct access to the government and was one of the largest, most serious discussions of land rights that Myanmar has had in 50 years.

Myanmar Times

Experts start work on tourism master plan. Experts have been visiting and analyzing tourism destinations in Myanmar before drawing up a Tourism Master Plan. The team began its study at Inle Lake in October. After

collecting data and information for the master plan, a workshop will be held to study the results with the participation of the Asian Development Bank and Ministry of Hotels and Tourism. The Norwegian government has given US\$225,000 to Myanmar to implement the master plan, which will include a sector assessment to examine Myanmar's tourist assets and liabilities, visitor traffic, infrastructure and human resource needs, existing laws and policies, and the role of private sector organizations. It will also look into the cultural and environmental impacts of tourism and recommend new policies and investments to ensure the industry's expansion is sustainable, with the benefits equitably shared.

Myanmar Times

Flooding forces 85,000 people to flee. Authorities in Myanmar say 85,000 people have fled their homes after the worst flooding in years submerged hundreds of thousands of hectares of rice fields. Heavy rains caused the inundation, which has primarily affected the country's southern delta region. About 70,000 people had fled their homes in the delta and were being housed at 219 emergency relief centers that have been set up at schools and monasteries. Another 15,000 people were displaced elsewhere in the country. The delta region was devastated in 2008 by Cyclone Nargis, which killed about 130,000 people. *The Daily Star*

■ Philippines

DENR partners with UN to boost biodiversity conservation efforts of local government units.

The Department of Environment and Natural Resources (DENR) has partnered with the United Nations to boost biodiversity conservation and sustainability by aligning the economic and ecological development initiatives in five key biogeographic regions of the country. The Partnerships for Biodiversity Conservation: Mainstreaming in Local Agricultural Landscapes/Biodiversity Partnerships Project aims to synergize systems, policies and

capacities that are in place at the local level. The project would enable capable local government units (LGUs) to work hand in hand with non-government organizations, indigenous peoples and other stakeholders in planning and managing economic activities within the eight identified key biogeographic areas (KBAs) covering a land area of more than 700,000 hectares. The project will be implemented by the DENR through the Protected Areas and Wildlife Bureau (PAWB) in pilot provinces. The total cost of the project is US\$17 million, of which US\$4.8 million will come from a grant by the United Nations Development Programme, US\$10.2 million in counterpart funds from the government, and another US\$2 million from partner organizations. *DENR*

123 sea turtles seized from poachers. In a mangrove area in Balabac, Palawan, the Philippine Navy and local governments found three submerged cages containing 123 sea turtles, collected by poachers. They found six of these turtles dead and 117 still alive. The Naval Forces West and local officials seized the sea turtles but failed to arrest the suspected poachers. Made of fish nets and reinforced by mangrove branches, the cages measured 20 by 30 meters. Each cage packed around 30 sea turtles – species of which have been declared endangered.

The interagency operation was intended to apprehend suspected poachers reported to be collecting sea turtles for eventual sale to allegedly Chinese financed buyers. Six unidentified suspects escaped using two small boats upon seeing the Navy. Philippine laws prohibit the collection and sale of sea turtles and corals. Several violations of these laws have been reported in Balabac, known for illegal poaching activities. *Rappler.com*

DENR declares Agusan del Norte's coastal area as safe haven for sea turtles. Department of Environment and Natural Resources Secretary Ramon Paje has signed an administrative order designating the coasts of Carmen town, covering five barangay (villages) and some 5,756 hectares, in Agusan del Norte as a “critical habitat” for sea turtles. The coastal areas in Barangays Vinapor, Gosoon, San Agustin, Cahayagan, and Tagcatong form part of the “Carmen Critical Habitat” for marine turtles. The declaration would help guarantee the survival of the species and encourage the local community to work with the DENR in protecting and conserving critically endangered species such as the hawksbill sea turtle. The turtles mostly feed on seagrass, plankton and jellyfish. The hawksbill sea turtle gets its name from its sharp curving beak and saw-edged shell. Young sea turtles usually fall prey to predators

such as seagulls and bigger fish while adults are usually hunted by people for their shells, which are used as ornaments or accessories, and for their meat. Carmen town in Agusan del Norte is known for its dive sites with rich marine life. The designated critical habitat, along with other coastal areas in the adjacent municipality of Magsaysay in Misamis Oriental, has been observed as a nesting ground of the hawksbill sea turtle. Under the administrative order, the DENR Caraga office is tasked to establish the statistical, topographic and geographic features of the area. It must ensure that the ecosystems within the critical habitat are preserved and remain conducive to the marine turtles and other forms of wildlife. A Critical Habitat Management Plan shall be jointly prepared by the DENR-Caraga along with the local government of Carmen and other stakeholders, and shall serve as guide in the management of the critical habitat.

DENR

NGO starts biodiversity conservation project in Cagayan.

Process Luzon has started a biodiversity conservation project at Barangay Rapuli and Palau Island, Cagayan. The United Nations Development Programme-funded project was conceptualized in partnership with fishers and environment protectors' associations in the area to mobilize the people to rehabilitate, conserve and protect their environment. Capability building activities have been conducted to strengthen local organizations and a nursery has been established to grow tree species to be used for “rainforestation” and mangrove rehabilitation activities. Training on the weaving and processing of pandan leaves were also conducted to provide livelihood opportunities for the local community. The training was conducted in cooperation with the Department of Environment and Natural Resources, Bureau of Fisheries and Aquatic Resources, Cagayan Economic Zone Authority, the local government unit, Philippine Navy and the National Commission on Indigenous Peoples.

Philippine Information Agency



Photo by WWF-Philippines/Gregg Yan

Olive Ridley sea turtles (*Lepidochelys olivacea*) are some of the species nesting on West Philippine Sea shores.

■ Singapore

New carbon emission scheme for cars to start on Jan 1. The Land Transport Authority (LTA) announced that the new Carbon Emissions-based Vehicle Scheme (CEVS) will apply to all new cars, taxis and newly-imported used cars registered from January 1, 2013. Car buyers are advised to look out for the mandatory Fuel Economy Labelling Scheme (FELS) labels with the LTA's logo at car showrooms. The label is required to be affixed on cars that have been LTA-approved and provides the carbon emissions and fuel efficiency performance of the car model. Only cars that are approved by LTA under FELS can be registered for use from January 1 and low emission models will qualify for CEVS rebates. Under the new scheme, registered cars with low carbon emissions of less than or equal to 160g carbon emissions per kilometre (CO₂/km) will qualify for rebates of between \$5,000 and \$20,000. *The Straits Times*

TEEB for Business Coalition launched in Singapore.

International leaders from business, government and NGOs gathered in Singapore to celebrate the official launch of the new TEEB (The Economics of Ecosystems and Biodiversity) for Business Coalition Headquarters, which aims to achieve a shift in corporate behavior to preserve and enhance, rather than deplete, the earth's natural capital. The Coalition brings together global stakeholders to study and standardize methods for natural capital accounting to enable its valuation and reporting in business. This is the business application of the G8+5 and United Nations Environment Programme-supported TEEB programme. This provides a compelling economic case for the conservation of natural capital and is the cornerstone of current Green Economy policy. The Coalition's activities focus on global stakeholder engagement, focused research, and development of methods for natural capital accounting. Founding organizations and supporters of the Coalition include The Institute of Chartered Accountants in England and Wales

(ICAEW), HRH The Prince of Wales' Accounting for Sustainability Project, International Union for Conservation of Nature (IUCN), WWF-UK, Economic Development Board of Singapore, Conservation International, The Global Reporting Initiative, Global Initiatives and The University of Cambridge Programme for Sustainability Leadership. From government, observer members include the United Nations Environment Programme (UNEP) and The World Bank. Puma and Deutsche Bank are some of the companies serving in advisory roles. The Coalition is a not-for-profit organization and has secured cornerstone funding from the Gordon and Betty Moore Foundation, as well as from the United Kingdom and Singaporean Governments. Headquartered in Singapore, it will provide a growing knowledge hub in Asia Pacific and internationally on natural capital valuation in business.

TEEB for Business Coalition

Indonesia-Singapore Environmental Partnership holds sixth bilateral meeting.

The Ministry of Environment, Indonesia, and Ministry of the Environment and Water Resources, Singapore conducted the 6th Indonesia-Singapore Environmental Partnership Meeting in Bali, Indonesia, on 30 Oct 2012. The Ministers discussed environmental issues of mutual interest, shared their respective approaches towards meeting the challenges of achieving environmental sustainability, and reviewed the progress of works carried out by the Indonesia-Singapore Joint Working Group on the Environment. The Ministers also exchanged views on how both countries could work closer on environmental concerns, especially in the area of climate change and sustainable development. There was fruitful discussion on issues and co-operation relating to areas such as electronic waste management, river management and environmental education among others. The Ministers also considered new areas of collaborations, including capacity building for local governments in water resource management, and the use of mapping and Geographic

information system technologies to monitor the occurrences of haze.

Ministry of the Environment and Water Resources

Singapore G1 attracts more than 20,000 participants in republic's largest known green walkathon.

Singapore's largest environmentally-sustainable lifestyle event, Singapore G1 2012, attracted more than 20,000 people to the Marina Barrage, making it Singapore's biggest ever walk-for-green event. Organized by the Singapore Environment Council, the Singapore G1 2012 is a distinctive event and its theme – Live Green – highlights the link between the protection of the environment with healthy living and the reduction of carbon footprints. The event was planned with a "zero waste" objective to show that it is possible for events to be carbon neutral and generate as little waste as possible. The event also launched the climate change exhibition, "Our Green Home", organized by the National Climate Change Secretariat. The exhibition provides information on Singapore's climate change plans, highlights the opportunities arising from climate change and the importance of individual and community actions to address climate change. The exhibition incorporates a Partnership Corner where sector partners showcased their initiatives and projects as examples of the diverse ground-up efforts on climate change.

Singapore Environment Council

■ Thailand

City air tipped to take drastic turn for worse.

The Ministry of Natural Resources and Environment's Pollution Control Department predicts that the quality of air in Bangkok in 2013 will deteriorate significantly due to a dramatic increase in the number of private cars in the city. The prediction is based on the department's 2011 survey of the level of benzene detected by four air quality measurement stations in the Din Daeng, Pathumwan, Wang Thonglang and Thon Buri areas. The survey found the level of benzene in the capital's air in

2012 remained well above the safe air quality standard of 1.7 milligrammes per cubic metre. According to the survey report, air in Din Daeng contained 6.3mg per cubic metre of benzene, followed by 6.1 in Pathumwan, 4.3 in Wang Thonglang and 3.6 in Thon Buri. Daily intake of the polluted air could cause cancer and other health problems. Benzene occurs naturally but it is primarily used as an additive in petroleum products. Its use has been restricted in many countries due to its carcinogenic qualities. The Pollution Control Department and the Energy Ministry expressed concern about the high concentration of benzene in the city's air and are working closely to help reduce benzene emissions. More than 1.2 million cars have been sold when the government encouraged people to buy a first car with promises of a 100,000 baht tax rebate. *Bangkok Post*

WWF urge Thai government to ban all ivory trade in the country.

While Thailand has made progress in addressing illegal wildlife trade, thousands of Africa's elephants continue to be slaughtered each year to supply the rising demand for ivory in Asia. Thailand remains the largest unregulated ivory market in the world and has a responsibility to address illicit wildlife trafficking. In response, Thailand has committed to addressing trans-national crimes and conservation organizations are urging the government to take the additional necessary step of banning all ivory trade in Thailand. Poaching for international trade has escalated dramatically in recent years. Rhino poaching in South Africa increased by more than 3,000 percent between 2007 and 2011, while tens of thousands of elephants are killed each year for their ivory, and there are as few as 3,200 tigers left in the wild. Illegal trade is one of the greatest factors in the continued decline of these species. The current demand for endangered species products in Asia is unprecedented and largely driven by demand for medicinal products, such as rhino horn and tiger parts, or as a demonstration of economic and social status, through products like ivory and rhino horn carvings or tiger bone wine. *WWF*

Renewable energy and ecotourism could be 'green' boost for rural Thai province.

Millions of tourists flock to Thailand every year but fewer people make the journey into Thailand's rural north. To catch the eyes of potential visitors, Mae Hong Son Province is trying a green approach through a combination of ecotourism and use of renewable energy resources to preserve a distinct cultural heritage. The effort is part of a joint project with the United Nations Development Programme to explore ways where renewable energy can be used as a means to develop and promote ecotourism in underserved areas. The UNDP project has three main goals: enhance productivity, diversify the economic base and promote small business development, with attention given to vulnerable groups such as agricultural communities in remote areas, ethnic minorities, refugees in camps and migrants. The project also aims to promote sustainable natural resource management and conservation and increase access to social services such as health and education. Two communities have been selected as pilot sites where the province's community-based and green tourism potential are being tested: Muang Paem in the north and Muang Pon in the south. Options that have been put forward include bringing back a water-powered rice pounding mortar in Muang Pon, a traditional practice of renewable energy which has been abandoned for more than a generation. This will form part of the area's cultural tourism and revive renewable energy technologies and water-resource management that are part their cultural heritage. In Muang Paem, villages are interested in preserving the Grand Salt Lick, a large natural mineral and salt deposit that wildlife use to gain important nutrients. Villagers are optimistic that a local-learning site would not only attract foreign tourists, but educate and preserve Karen culture, which has deep ties to the forest. *UNDP Thailand*

Floods dampen Thai adaptation plans. Thailand's flood-management blueprint received a jolt when the dykes in Sukhothai were breached by the rain-swollen

Yom river in September, submerging large stretches of the former royal capital. The barriers designed to prevent the river overflowing were in need of repair, but this wasn't done after the catastrophic floods that occurred in 2011. This realization comes barely two weeks after the government unveiled plans about its flood management strategy for the country that conveyed a new attitude towards coping with floods in urban areas. The 11.5-billion-dollar flood management plans were conceived to avoid the mistakes from the past, aiming to go beyond just defending urban centers from floods. The main principle in the plan is to include the need to live with the impacts of climate change. Factored into these calculations is the new use for the network of rivers and canals that have served as waterways for central regions in this kingdom. Now water management not only ensures that rice farmers get a steady supply of water during the dry season, but is also geared towards flood management. Thailand's experience with floods in 2011 and its flood-management plans are being scrutinized in the region for the lessons it offers.

Inter Press Service News Agency

■ Viet Nam

Viet Nam bear rescue centre faces eviction. The Vietnam Bear Rescue Centre, which is sited in a temperate, lowland valley in Tam Dao National Park north-west of Hanoi, is facing eviction from the national park. Animals Asia, which runs the rescue centre, says officials stated that the land is needed for national security purposes. The charity, however, suspects that the motive is profit, pointing to plans backed by the national park director for eco-development. The Vietnam Bear Rescue Centre houses more than 100 endangered bears rescued mainly from the illegal bile-farming industry, where bears are kept caged and digestive bile is forcibly extracted from their gall bladders to be sold on the black market for use in traditional medicine. Animals Asia says it would take two years to find a replacement location, and worries how it would care



for the rescued bears during this time. It fears it would receive no compensation for lost infrastructure, and says 77 local staff would lose their jobs. Animals Asia also claims the Vietnamese government would breach its legal obligations to the charity, under agreements both have signed, and is calling on the government to abandon its plans to evict the rescue centre. The bears at the centre are in various stages of recovery from the physical and psychological trauma of being caged. For now, the sanctuary's bears can socialize and enjoy the large outdoor enclosure of their new-found home. Eviction will mean having to re-cage the bears, which means possibly re-activating the symptoms of their trauma.

BBC News Asia

Norway helps Viet Nam cope with climate change. The Vietnam Red Cross in coordination with its Norway partner organized a seminar in Hanoi to share experiences in disaster risk reduction (DRR). Present at the seminar were representatives from the Vietnamese Ministry of Agriculture and Rural Development, the Ministry of Education and Training, the Embassy of Norway, Red Cross organizations from Viet Nam, China, and Norway, the International Red Cross and Red Crescent Movement and other international organizations involved in DRR in Viet Nam. The DRR project funded by the Norway Foreign Ministry targets

32 communes in Phu Yen, Binh Dinh and Lao Cai provinces at an estimated cost of US\$1.8 million for five years (2010-2014). More than US\$1 million has been disbursed for 21 communes in these provinces. The project aims to improve the capacity of local authorities, Red Cross chapters and people to cope with disasters and climate change. Its main focus is on vulnerable groups, including women, children, disabled people, elderly people and others living in high-risk areas.

Voice of Vietnam

Climate change hikes flood risks. Latest research estimates 39 percent of the Mekong Delta and more than 20 percent of HCM City would be flooded by the end of this century if sea levels rise by one meter. The latest studies on the effects of climate change and rising sea levels also predicted the same problem would affect more than 10

percent of the Red Delta and 2.5 percent of the central region. The scenario would affect 35 percent and 7 percent of the population in the Mekong Delta and HCM City respectively, and more than 4 percent of railways and 9 percent of national highway systems would be affected. The information was provided by the Vietnam Institute of Meteorology, Hydrology and Environment at a conference held by the Ministry of Natural Resources and Environment (MONRE), the United Nations Development Programme and the National Assembly's Committee for Science, Technology and Environment in Hanoi to report to National Assembly deputies about the implementation of the national plan for climate change. Officials have noted that one problem in coping with climate change is the slowness in putting climate change issues into social and economic development policies. Many localities are still not ready to build their own action plans for climate change, and only 30 out of the total 65 cities and provinces nationwide had climate change plans in place. The UNDP stated that Viet Nam should stimulate private sector investment in climate change plans since the State budget alone would not be enough, while the national and international private sector held vast amounts of investment potential and modern technology. The private sector requires cohesive, transparent and above all a predictable policy and a level playing field in order to generate green investments. Increasing taxes on fossil fuels and enhancing the environmental tax law should be considered. *tuoitrenews*





Photo by Lilian Chua



Photo by Wendy Yong Sze Yee

Dipterocarpus kerrii King

Dipterocarpus kerrii occurs near coastal areas from lowland semi-evergreen and evergreen dipterocarp forests to hill forests at 400 m altitude. Gondol (bald) describes the globose and shining calyx tube of the fruit. It is a large tree and is widely distributed in Andaman Islands, Myanmar, Thailand, Sumatra, Peninsular Malaysia, Borneo (Sabah) and the Philippines.

Dipterocarpus kerrii has a large trunk and is dark gray in colour. The outer bark is thin with irregular flakes. The leaf is usually ovate-elliptic (shape is between that of an egg and a narrow oval) with size of about 11 x 7 cm, has a wavy margin, is bluntly acuminate (tapering to a long point), cuneate or wedge-shaped at the base and nine-nerved. When the leaf still in fresh, it has pink stipules (outgrowths borne on either side or sometimes just one side of the base of a leafstalk), and is covered with silvery silky hairs on the inside. The fruit has a short stalk, is globose and about 3.5 cm across when it ripens, with a wing size to about 14 x 3 cm, and is blunt with three to five at the base.

Local names for *Dipterocarpus kerrii* are lagan beras (Indonesia), keruing gondol, keruing chair, damar minyak (Malaysia), malapanau, panalsalan (Philippines), see-bin (Myanmar), and yang-mammu, yang-man-khon, yang-wat (Thailand).

This species is valued as a source of timber and keruing wood-oil known as damar minyak or gurjun balsam. In Malaysia, the Orang Asli use the wood-oil for caulking boats, making torches and also in wood coating. In addition, it is used as an adhesive in perfumes and cosmetic products.

Dipterocarpus kerrii is considered Vulnerable in Malaysia. This species is threatened by logging activities and loss of habitats. Furthermore, intensive tapping activities for the wood-oil cause much damage to the trees. Even though it is given a low threatened category in Peninsular Malaysia, regular monitoring from the authorities is still required and tapping activities must be controlled in order to protect this species.

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Photo by Teo Siyang

Elaeocarpus angustifolius Blume

Elaeocarpus angustifolius is a common species that is widely distributed from Northeast India to Southeast Asia, Papua New Guinea, Australia and the Pacific islands.

In Peninsular Malaysia, *E. angustifolius* is a medium-sized tree to 40 m tall. It usually has thin buttresses that extend up to six meters from the base and its crown is often partly deciduous. The species grows in secondary forest and is commonly found on the east coast, particularly along the Jemaluang-Kuala Terengganu road.

E. angustifolius takes its name from the shape of its leaves, which are lanceolate (narrow oval shape tapering to a point at each end), since *angustifolius* in Latin means narrow-leaved. The leaves are hairy when young, glabrescent (hairless) when mature and often turn red when senescing. Domatia (tiny chambers produced by plants that house arthropods) can be found on the underside of the leaves, along the midrib and occasionally on the secondary veins. The petioles (stalk attaching the leaf blade to the stem) are short (0.5–2 cm long) and are not kneed. The racemose inflorescences are about 3–8 cm long, and bear 10–30 cream-coloured or white flowers. The sepals are ovate and entire, whereas the petals are spatulate (broad at the apex and tapered to the base) and fimbriate (fringed) in the distal half. The stamens are numerous, up to 53 in each flower. The ovary is globose, densely covered

with short brown hairs, consists of 4–5 locules or chambers, and contains four ovules in each locule. The drupes (fruit) are iridescently blue, due to surface diffraction instead of pigmentation (Lee 1991). The pulp is edible, but tastes sour or astringent. The fruit stones are shallowly or deeply sculptured. In Sanskrit, the fruit stones are called rudrak or rudraksha and have religious significance in Hinduism and Buddhism, where they are used as prayer beads.

Elaeocarpus angustifolius is known locally in Malaysia as mendong, but this common name applies to all *Elaeocarpus* species. Taxonomically, *E. angustifolius* is a complex and poorly-understood species. Its morphology is highly variable across its wide geographical and ecological range. In addition, there is some confusion between the wild species and the cultivars in Malesia because botanical records are inadequate (Coode 2010). The species is cultivated for its fruit stones in Indonesia and the smaller stones that contain higher number of locules are highly favoured by Hindus and Buddhists, therefore those stones are produced artificially to meet the demand in prayer-bead making industry (Burkill 1966).

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Photo Chew Ming Yee

Pandanus helicopus Kurz

This tree-like, erect pandan can grow to six meters tall, usually standing in water with the lower part of the trunk and roots submerged. The bark is beset with short spines, while the leaves have noticeable orange-brown bases and purple teeth. The seldom seen inflorescence is creamy yellow and is protected by bright yellow leaf-like bracts. The infructescence is a large, oblong aggregate fruit made up of many tightly compressed fruitlets which change from green to warm brown when ripe, and due to its heavy weight it hangs pendant on a zigzag peduncle (stalk) from the centre of the leaf rosette. As the tree becomes top-heavy with leaves, branches and fruit, the many thick prop roots provide support in the usually soft peaty substrate. These combinations of characters make identifying this freshwater swamp species relatively easy.

Known in Malaysia as rassau, it is extremely common in Tasik Bera and Tasik Chini where it forms monotonous, tall and dense thickets along the edge of open waters, which can form a few

meters-wide border to a wide zone choking the lake and causing obstruction to boat passage. Together with the Lepironia reed beds, rassau swamp forms the second largest microhabitat type in Tasik Bera, covering more than 30 percent of the total lake area. Sometimes burnt rassau patches can be seen and this is the result of local communities wanting to clear waterways for their boats or to flush out the freshwater terrapins and turtles that take refuge among the tangle of roots, which are prized as local delicacies.

Despite this periodic burning, rassau exhibits the fast growing traits of pioneer species and continues to dominate the two freshwater lakes. Elsewhere, rassau can be found in riparian forest and river backwaters mainly in the state of Pahang and Johor.

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Photo by Teo Siyang

Panisea uniflora Lindl.

Panisea uniflora Lindl. (Orchidaceae) was first reported from Perlis in Peninsular Malaysia in 2005. Prior to this the genus had been recorded from Nepal to China and Indo-China as far south as Thailand.

A single specimen was found in a damp shady valley at the foothill of Bukit Wang Pisang, a limestone hill in Perlis. It is easily distinguished from other orchids by the long-necked bottle-shaped pseudobulbs, a character not found in other species in Peninsular Malaysia.

It is an epiphytic herb with a very short rhizome. The pseudobulbs are close together, arranged alternately in two rows, is bottle-shaped with the terminal portion elongated, 1.4–3.2 × 0.6–1.25 cm, widest at the middle, base constricted, the base covered with overlapping sheaths. It has two leaves at the top of the pseudobulb, very shortly petiolate or nearly sessile (stalkless and attached directly at the base), twisted at the base, linear to narrowly

lanceolate, 7.1–11.8 × 0.9–1.1 cm, l/w 7.9–10.7 cm, tip acute. Inflorescence of a solitary flower, arise from the base of the pseudobulb. Lip of the flower has three lobes, base constricted, 18 × 7 mm, l/w 2.6; keels 2, inconspicuous, from the base reaching to the middle of the epichile. The lateral lobes are falcate, apex rounded. The epichile is linear in outline, 9 × 5 mm, margin undulate, apex rounded. The column 9 mm long, with broadly rounded wings.

Panisea uniflora is a predominantly Indo-Malayan species, recorded from India, Myanmar, Thailand, Laos, Cambodia, and Viet Nam. It is therefore not surprising to encounter this species in Perlis, which floristically belongs to the Indo-Malayan division of the Malaysian flora.

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The ASEAN Centre for Biodiversity

Conserving Southeast Asia's Biodiversity for Human Development and Survival

The ASEAN Centre for Biodiversity (ACB) is an intergovernmental regional centre of excellence that facilitates cooperation and coordination among the ten ASEAN Member States and with relevant national governments, regional and international organizations on the conservation and sustainable use of biological diversity, and the fair and equitable sharing of benefits arising from the use of such natural treasures.

ACB's goals are:

- To serve as an effective coordinative body to facilitate discussion and resolution of cross-country biodiversity conservation issues;
- To provide a framework and mechanism for sharing information, experiences, best practices and lessons learned for efficient access of ASEAN Member States;
- To implement a pro-active approach in monitoring and assessing biodiversity conservation status as a strategic approach towards identifying critical issues and future trends;
- To deliver/facilitate conduct of capacity-building services and technology transfer through engaging relevant and appropriate expertise;
- To enhance common understanding of biodiversity conservation issues, strengthening ASEAN regional positions in negotiations and in compliance with relevant multilateral environmental agreements;
- To promote public awareness to develop champions and enhance support at different stakeholder levels on biodiversity concerns; and

- To undertake innovative resource generation and mobilization measures to pursue high-impact activities that will enhance biodiversity conservation in the region.

ACB supports ASEAN Member States in the following thematic concerns that are of global and regional importance: Agriculture and food security, including food certification and biodiversity; Access to, and fair and equitable sharing of benefits from biological and genetic resources; Climate change and biodiversity conservation; Ecotourism and biodiversity conservation; Payment for ecosystems services and valuation of biodiversity; Wildlife enforcement; Managing invasive alien species; Peatland management and biodiversity; Support to the Global Taxonomy Initiative; Support to the Convention on Biological Diversity's (CBD) Programme of Work on Protected Areas; Managing biodiversity information and knowledge; and Business and biodiversity.

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GIZ and ACB Cooperate for Climate Change Mitigation and Adaptation

- An intact biodiversity and its sustainable use pose immense opportunities for protection and adaptation to climate change and have a great developing potential for the ASEAN region. However, this tangible value to society has not yet been fully appreciated. National development strategies consider only some aspects of biodiversity conservation and sustainable development and national policy frameworks addressing climate change are still not thoroughly articulated. The ASEAN challenge is to develop adequate policies, instruments, and the capacity to tackle issues on biodiversity and climate change.
- In response to this challenge, GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit) and the ASEAN Centre for Biodiversity (ACB) are jointly implementing the Biodiversity and Climate Change Project which will run until 2015.
- The ACB-GIZ Biodiversity and Climate Change Project focuses on the elaboration and implementation of ASEAN-wide regional and national strategies to appropriately address the interface between biodiversity on one side, and sustainable development and climate change on the other side. The project targets to benefit the vulnerable population of the region who depends on the ecosystem services and biodiversity resources for subsistence.



ACB-GIZ BIODIVERSITY AND CLIMATE CHANGE PROJECT
