

asean BIODIVERSITY

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Biodiversity for Sustainable Development



*The ASEAN Centre for Biodiversity (ACB) and the ASEAN Member States express their heartfelt condolences to the family of the late **Pak Dana Kartakusuma**, former Chairman, ASOEN-Indonesia; Assistant Minister for Global Environment, Ministry of Environment, Indonesia; and former Chairman of the ACB Governing Board, who passed away on October 27, 2014.*

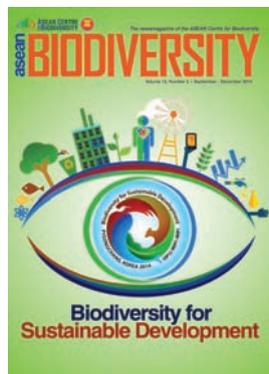
We will always remember Pak Dana as an ardent supporter of biodiversity conservation in the ASEAN region. His visionary leadership in the ACB Governing Board and his guidance to the ACB officers and staff have been most crucial in propelling ACB into the reputable international organization that it is today.

We vividly recall Pak Dana's brand of leadership during official functions and his love for music during informal gatherings.

Pak Dana will always be remembered.

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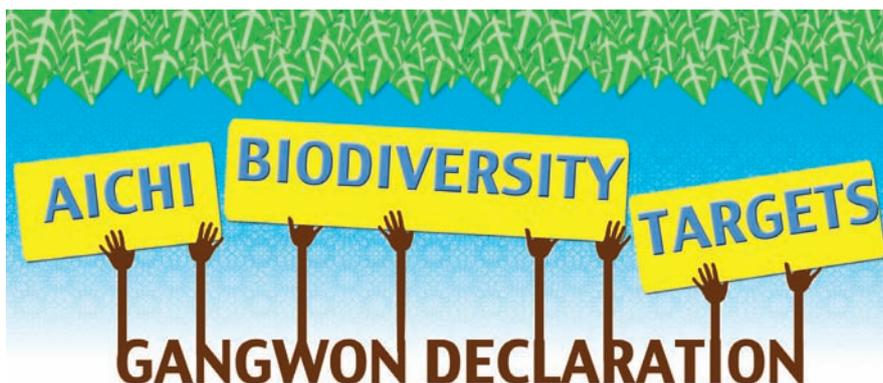
About the cover

In the recently concluded Conference of the Parties (COP 12) to the Convention on Biological Diversity (CBD) in Pyeongchang, South Korea, the importance of biodiversity in achieving sustainable development was highlighted. In his message, United Nations Assistant Secretary-General and Executive Secretary of the Convention on Biological Diversity, Bráulio Ferreira de Souza Dias emphasized that "biodiversity is a powerful engine that underpins the delivery of current and future sustainable development objectives." The image in the magazine cover resembles an eye - symbolizing the open and clear perspective of the Parties. Governments are integrating biodiversity conservation to their sustainable development agenda to address food and water security, climate change, land degradation and others.

Cover design by Eisen Bernardo

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COP12

REVIEWS PROGRESS IN MEETING 2020 TARGETS

Eight thousand environmentalists from governments and UN agencies; international, intergovernmental and non-governmental organizations; academia; and indigenous and local communities met in Pyeongchang, Gangwon Province, Republic of Korea on October 6-18, 2014 to discuss progress in meeting the global biodiversity targets for 2020.

COP 12 President Yoon Seongkyu, Minister of Environment, Republic of Korea, underlined that the findings of the Fourth Global Biodiversity Outlook (GBO-4) reveal insufficient progress towards the realization of many Aichi targets. He stressed the need to mainstream biodiversity and integrate it in the post-2015 development agenda.

Choi Moon-soon, Governor of Gangwon Province, expressed hope that the demilitarized zone becomes a symbol of peace and biodiversity preservation.





Twelfth meeting of the Conference of the Parties to the Convention on Biological Diversity (COP 12)

Seventh meeting of the Parties to the Cartagena Protocol on Biosafety (COP-MOP 7)

First meeting of the Parties to the Nagoya Protocol on Access and Benefit-Sharing (COP-MOP 1)

29 September to 17 October 2014 | Pyeongchang



World biodiversity leaders meet in South Korea to discuss conservation strategies to save the Earth's highly threatened biological resources and harness biodiversity for sustainable development.

Achim Steiner, Executive Director of the United Nations Environment Programme (UNEP), celebrated the rapid entry into force of the Nagoya Protocol, stressing the need to translate it into national policies and multi-stakeholder approaches. He underscored the tremendous efforts by developing countries, which, he said, should be reflected in decisions on finance. He called for a universal, integrated approach that seizes the opportunities present in the post-2015 development agenda, and shifts biodiversity to the heart of the economic discussion. He then announced the extension of the post of Convention on Biological Diversity (CBD) Executive Secretary Braulio Dias for another term.

Executive Secretary Dias commended Parties for the timely ratification of the Nagoya Protocol and the Government of the Republic of Korea for providing a model of modernization

without compromising environmental integrity.

The Twelfth Meeting of the Conference of the Parties (COP12) to the CBD considered a series of strategic, substantive, administrative and budgetary issues, including a mid-term review of progress towards the goals of the Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets. The CBD was adopted on May 22, 1992 and entered into force on December 29, 1993. There are currently 193 parties to the CBD, which aims to promote the conservation of biodiversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from the use of genetic resources.

COP12 also addressed issues related to biodiversity, which include sustainable development, marine and coastal biodiversity, climate change, biofuels, traditional knowledge, sustainable wild-

“ COP12 also addressed issues related to biodiversity, which include sustainable development, marine and coastal biodiversity, climate change, biofuels, traditional knowledge, sustainable wildlife management, invasive alien species, synthetic biology, and ecosystem conservation and restoration. ”

Decisions highlight biodiversity's contribution to sustainable development

The 12th Meeting of the Conference of the Parties (COP12) to the Convention on Biological Diversity (CBD) adopted a series of decisions, highlighting the contribution of biodiversity to sustainable development. The decisions include the 'Pyeongchang roadmap for the enhanced implementation of the Strategic Plan and achievement of the Aichi Biodiversity Targets,' addressing resource mobilization, capacity building, scientific and technical cooperation, linking biodiversity and poverty eradication, and monitoring implementation of the Strategic Plan for Biodiversity 2011-2020.

The results of COP 12 respond to the conclusions of the fourth edition of the Global Biodiversity Outlook, launched during the meeting, which indicate that, while progress is being made in conserving biodiversity, governments need to increase efforts if they are to end biodiversity loss. A key outcome of the meeting was the reaffirmation of the COP11 agreement to double total biodiversity-related international financial resource flows to developing countries by 2015 and at least maintain this level until 2020.

The meeting adopted decisions on health and biodiversity, seeking increased collaboration between the CBD and the World Health Organization; milestones for the elimination, phasing out or reform of incentives that are harmful to biodiversity, and the promotion of positive incentives; guidance on management of risks associated with the introduction of alien species as pets, aquarium and terrarium species, and as live bait and live food; and marine biodiversity, including on priority actions to achieve Aichi Target 10 for coral reefs, the review of regional workshops for describing ecologically or biologically significant marine areas, and key threats, including anthropogenic underwater noise and ocean acidification.

The meeting endorsed a plan of action on customary sustainable use of biodiversity; and decided to use the terminology "indigenous peoples and local communities" in future decisions and documents under the Convention. On synthetic biology, the meeting set out a comprehensive plan for further work under the Convention; and urged parties to have in place risk assessment procedures and regulatory systems with regard to the environmental release of organisms, components or products resulting from synthetic biology techniques, and to approve such organisms for field trials only after appropriate risk assessments have been carried out.

The meeting also agreed on ways to integrate the work under the Convention and its Protocols, namely the Cartagena Protocol on Biosafety and the Nagoya Protocol on Access and Benefit-sharing (ABS), including holding concurrent meetings of the Convention and its protocols; and established a Subsidiary Body on Implementation, to replace the Ad Hoc Open-ended Working Group on Review of Implementation and to serve all instruments under the Convention.

The meeting's High-Level Segment resulted in the adoption of the 'Gangwon Ministerial Declaration on Biodiversity for Sustainable Development,' which emphasizes the relevance and key contribution of the Strategic Plan for



Biodiversity and its Aichi targets to the post-2015 development agenda, and invites the UN General Assembly to integrate it effectively; calls on governments, international organizations and stakeholders to link the implementation of the post-2015 development agenda to other relevant processes such as the UN Development Assistance Framework process and the national biodiversity strategies and action plans; and recognizes the role of ABS in contributing to the conservation and sustainable use of biodiversity, poverty eradication and environmental sustainability.

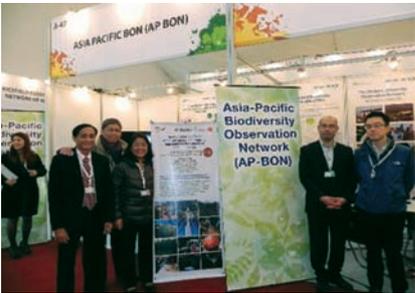
The outcomes of the meeting build on growing recognition of the critical role of biodiversity in the achievement of sustainable development goals (SDGs). Governments were encouraged to fully engage in discussions on the post-2015 United Nations development agenda and SDGs, with the goal of integrating and mainstreaming the objectives of the Convention and the Strategic Plan for Biodiversity 2011-2020 into relevant goals, targets and indicators. *CBD News*

life management, invasive alien species, synthetic biology, and ecosystem conservation and restoration.

Preceding the COP12 was the Seventh Meeting of the Parties (MOP7) to the Cartagena Protocol on Biosafety. The Protocol, adopted in January 2000, addresses the safe transfer, handling and use of living modified organisms (LMOs) that may have adverse effects on biodiversity, taking into account human health, with a specific focus on transboundary movements of LMOs. It introduces an advance informed agreement procedure for imports of LMOs for intentional introduction into the environment and incorporates the precautionary approach and mechanisms for risk assessment and risk management. The Protocol entered into force on September 11, 2003 and has 168 parties.

The MOP7 adopted 14 decisions on compliance; the Biosafety Clearing-house; financial mechanism and resources; cooperation with other organizations, conventions and initiatives; improving the efficiency of structures and processes; budget; handling, transport, packaging and identification of LMOs; the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress; risk assessment and risk management; socio-economic considerations; monitoring and reporting; assessment and review of the effectiveness of the Protocol; unintentional transboundary movements and emergency measures; and contained use of LMOs.

During the second week of COP12, October 13 - 17, the First Meeting of the Parties (MOP1) to the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) was held. The Nagoya Protocol promotes the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and appropriate transfer of relevant technologies. It takes into account all rights over those resources and technologies, and by appropriate funding, thereby contributing



Governments commit to funding increase to achieve Biodiversity Targets

The Convention on Biological Diversity (CBD) closed the 12th Meeting of the Conference of the Parties (COP12) with Governments committing to step up actions to achieve, by the end of the decade, the Aichi Biodiversity Targets agreed four years ago, and contribute to the sustainable development agenda.

A key outcome was the agreement by Governments on the financial resources to support achievement of the Strategic Plan. Responding to the call initiated at COP10 in Nagoya, governments reaffirmed their agreement made at COP11 in Hyderabad to double total biodiversity-related international financial resource flows to developing countries, in particular least developed countries and small island developing States, as well as countries with economies in transition by 2015, and at least maintain this level until 2020. The basis for calculating this is to use average annual biodiversity funding for the years 2006-2010 as a baseline. Governments also agreed to increase domestic financing for biodiversity and identified a set of actions to allow the increased mobilizations of financial resources from all sources.

“Parties have listened to the evidence, and have responded by committing themselves to redoubling their efforts in support of the vision of the Strategic Plan for Biodiversity, including the financial resources needed to make this a reality” said United Nations Assistant-Secretary-General and Executive Secretary of the CBD, Bráulio Ferreira de Souza Dias.

“Their commitments show the world that biodiversity is a solution to the challenges of sustainable development and will be a central part of any discussions for the post-2015 development agenda and its sustainable development goals” he said.

UN Under-Secretary-General and Executive Director of the UN Environment Programme Achim Steiner, said, “From food and water security to livelihoods and disasters risk reduction, biodiversity is a powerful engine that underpins the delivery of current and future sustainable development objectives. The cost of inaction to halt biodiversity decline would give rise to increasing and cumulative economic annual losses to the value of around US \$14 trillion by 2050.” *CBD News*

to the conservation of biodiversity and the sustainable use of its components. The Protocol applies to genetic resources covered by the CBD and to traditional knowledge associated with such genetic resources, including those held by indig-

enous and local communities; sets out obligations for Parties on access, benefit-sharing and compliance; and provides for the establishment of national focal points and competent national authorities, an ABS Clearing-house, and

implementation support through capacity building, technology transfer and financial provisions.

MOP1 of the Nagoya Protocol considered the status of the ratification and implementation of the Nagoya Protocol and addressed issues such as ABS Clearing-house and information sharing; monitoring and reporting; compliance; model contractual clauses and other voluntary instruments; capacity building; awareness raising; the need for and modalities of a global multilateral benefit sharing mechanism; and organizational, financial and budgetary matters.

On the margins of COP12, a series of parallel meetings and events were convened, which include the Communication, Education and Public Awareness Fair; the Rio Convention Pavilion; the COP12 high-level segment under the theme “biodiversity for sustainable development”; the Biodiversity Summit for Cities and Sub-national Governments; and several exhibitions and side events. *RAInciong*



NAGOYA PROTOCOL ON ACCESS AND BENEFIT-SHARING ENTERS INTO FORCE

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity (CBD) entered into force on October 12, 2014, coinciding with the first meeting of the Conference of the Parties serving as the Meeting of the Parties to the Protocol (Nagoya Protocol COP/MOP 1).





In marking the entry into force, Braulio Ferreira de Souza Dias, CBD Executive Secretary, said that “the implementation of the Nagoya Protocol represents a milestone not only for the CBD, but also in the history of global governance for sustainable development.” He underscored that the “the Protocol will give us the opportunity to develop an economy that is more sustainable and where the value of natural resources will be truly acknowledged.” Achim Steiner, Executive Director of the UN Environment Programme, said that the entry into force “offers a reminder that the Aichi Targets are within reach.”

The Nagoya Protocol offers a legal framework to ensure that the access and utilization of genetic resources coming from plants, animals, bacteria or other organisms for commercial, research or other purposes, occurs on the basis of ABS agreements, which require prior informed consent and mutually agreed terms between providers and users, according to the CBD.

During the COP/MOP1, governments agreed to a series of actions that will further bolster the Nagoya Protocol, facilitate its effective implementation, and ensure that countries have the necessary resources to take the next steps to implement the treaty.

Among the decisions are mechanisms to ensure compliance with the Protocol, measures to assist institutional capacities in developing countries, and a strategy to raise awareness of the international instrument.

Parties at the meeting emphasized the need to ensure that countries can implement the Protocol, and to this end they adopted a strategic framework for capacity building and development. They also adopted decisions on guidance to mobilize resources and ensure that developing countries including countries with economies in transition have sufficient resources to implement the Protocol.

In addition, countries agreed on procedures to establish a committee to pro-

mote compliance with the Protocol and address cases of non-compliance.

Countries also called for measures to guide them through the use of the Access Benefit-Sharing Clearing House – the online platform that will enhance transparency on the use of genetic resources – and ensure all available information is registered there.

The COP/MOP1 stressed the importance of raising awareness of the Protocol and adopted decisions to support activities to that end. It also called on the Global Environment Facility to increase funding for this objective.

The implementation of the Nagoya Protocol contributes to the achievement of Aichi Biodiversity Target 16, which provides that the Nagoya Protocol should enter into force and be operational by 2015. With the results of COP MOP1, this target is poised to become the first of the Aichi Biodiversity Targets to be fully implemented.

CBD News/IISD News

GLOBAL MEET FOCUSSES ON BIOSAFETY

The Seventh Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) serving as the Meeting of the Parties to the Cartagena Protocol on Biosafety (COP/MOP 7) adopted major decisions on critical concerns on biosafety. Biosafety refers to the need to protect biodiversity, as well as human and environmental health, from the potential adverse effects of the products of modern biotechnology. COP/MOP 7 was held from September 29 to 3 October, 2014 in Pyeongchang, Republic of Korea.





In 1992, the CBD identified biosafety as one of the critical issues that it should address. The importance placed on biosafety-related issues resulted in the adoption of the biosafety protocol to the CBD in 2000 in Montreal. The Cartagena Protocol provides a regulatory framework for biotechnology products, making it possible to generate maximum benefits from the potential that biotechnology has to offer, while minimizing the possible risks to human and environmental health. It addresses the safe transfer, handling and use of living modified organisms (LMOs) that may have adverse effects on biodiversity, taking into account human health, with a specific focus on transboundary movements of LMOs.

On handling, transporting, packaging and identifying LMOs, the Meeting requested Parties and urged other governments to continue to take measures to ensure the implementation of requirements in Paragraph 2 (a) of Article 18 of the Protocol, and cooperate with and support developing country Parties and Parties with economies in transition to build the capacity to implement the identification requirements.

On liability and redress, the Meeting called upon States that are Parties to the CBD but not Parties to the Cartagena Protocol to ratify, accept, approve or

accede to the Protocol, as appropriate, without further delay, so that they can also become Parties to the Supplementary Protocol. The Meeting invited Parties, other governments and relevant organizations and institutions to undertake or support further awareness-raising and capacity-building activities to promote understanding and implementation of the Supplementary Protocol, including, where appropriate, the development of policy and legislative instruments that provide for response measures for damage to the conservation and sustainable use of biological diversity resulting from LMOs that find their origin in a transboundary movement.

On risk assessment and management, the Meeting welcomed the results of the testing of the Guidance on Risk Assessment of LMOs and invited Parties, other governments and relevant organizations to test or use it, as appropriate, in actual cases of risk assessment and as a tool for capacity-building activities in risk assessment.

On socio-economic considerations, the Meeting recognized the role and contribution that indigenous and local communities may provide in the development of conceptual clarity on socio-economic considerations. The Meeting requested the CBD Executive Secretary to compile and disseminate information

on policies, laws, regulations and guidelines providing for definitions of socio-economic considerations; and practical applications of socio-economic considerations in decision-making on LMOs, including cases where positive and negative socio-economic impacts have been considered.

The Meeting also requested the CBD Executive Secretary to convene online discussion groups to facilitate the exchange of views, information and experiences on socio-economic considerations in the context of Protocol Article 26 (1), including international obligations that may be relevant to socio-economic considerations; socio-economic considerations and the value of biological diversity to ILCs; environment-related aspects of socio-economic considerations, as well as the relationship, if any, with risk assessment and human health-related issues.

On unintentional transboundary movements and emergency measures, the Meeting invited Parties and other governments to submit to the CBD Executive Secretary information on actual cases of unintentional transboundary movement and case studies related to their existing mechanisms for emergency measures, and to submit information, tools, guidance and practical experience regarding contained use of LMOs. The Meeting encouraged Parties and other governments to ensure that, for regulatory purposes, the information provided by a notifier includes all the information necessary to detect and identify the LMO, including information that allows for its unique identification and where reference materials may be obtained.

On the contained use of LMOs, the Meeting invited Parties and other governments to submit to the CBD Executive Secretary information, tools, practical experience and guidance related to their existing mechanisms and requirements relating to the contained use of LMOs, including any specific requirement relating to the type and level of containment. *SCBD*

COP12 ADOPTS GANGWON DECLARATION

The High-level Segment (HLS) of the 12th Meeting of the Conference of the Parties (COP12) to the Convention on Biological Diversity (CBD) adopted the 'Gangwon Declaration on Biodiversity for Sustainable Development.' The Declaration reaffirms commitments to fully implement the Strategic Plan for Biodiversity 2011-2020 and to achieve the Aichi Biodiversity Targets, and celebrates the entry into force of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the CBD.

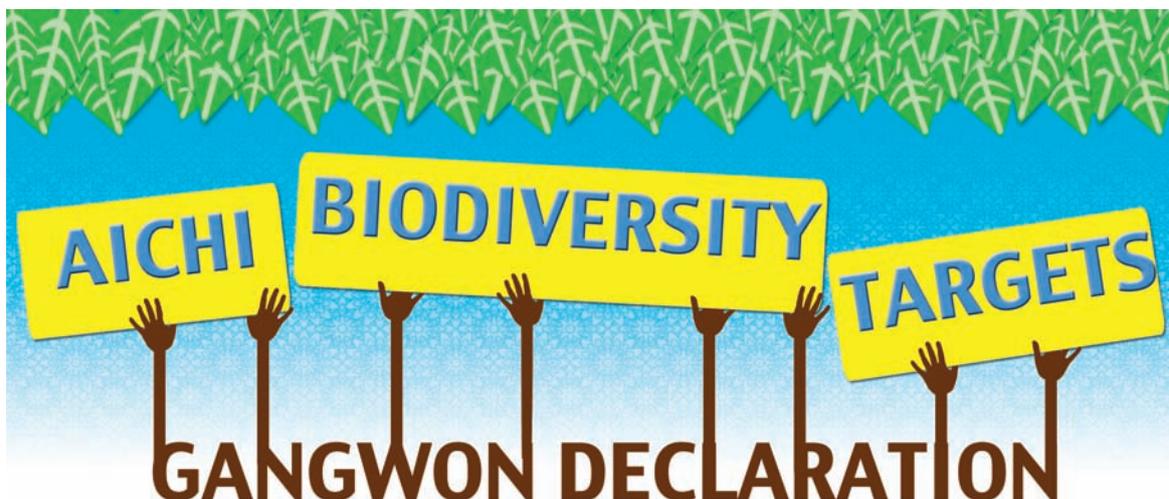
The HLS addressed, among others, nature-based solutions to global challenges; biodiversity, climate change and creative economy; integrating biodiversity into the Sustainable Development Goals (SDGs) and the post-2015 development agenda; and integrating national biodiversity strategies and action plans into national and local development and poverty eradication strategies and planning processes.

In his opening remarks, CBD Executive Secretary, Braulio Dias, drew attention to the gap between commitment to implementing the Aichi Targets and their implementation rate, underscoring that more needs to be done to address biodiversity loss.

Also speaking at the HLS, Global Environment Facility (GEF) Chief Executive Officer, Naoko Ishii, emphasized that biodiversity is the GEF's single largest focal area, with an allocation of US\$1.3 billion from the GEF-6 replenishment of US\$4.4 billion. She said the GEF's other focal areas also contribute to achieving the Aichi Targets.

UN Development Programme (UNDP) Administrator, Helen Clark, highlighted UNDP's Biodiversity Finance Initiative, which supports countries in addressing biodiversity finance gaps, including through working with Ministries of Finance and Planning to identify expenditure that negatively affects biodiversity. Clark said recognition that "maintaining biodiversity is related not only to direct conservation measures, but also to pursuing poverty reduction and human development in ways that are sustainable" is critical to the post-2015 development agenda's success.

The Gangwon Declaration notes that current progress is not sufficient to achieve the Aichi Targets, according to the fourth edition of the Global Biodiversity Outlook. It calls for further integration and mainstreaming of biodiversity in the post-2015 development agenda; emphasizes the contribution of the Strategic Plan for Biodiversity and the Aichi Targets to the post-2015 development agenda; and calls on Parties and others to link the post-2015 development agenda's implementation with processes such as the UN Development Assistance Framework process and national biodiversity strategy and action plans. The Declaration recognizes, among others, the need for enhanced scientific and technical cooperation among countries to implement CBD objectives; the crucial role of indigenous peoples and local communities in biodiversity conservation and sustainable use; and the role of ABS in biodiversity conservation, poverty eradication and environmental sustainability. *IISD News*

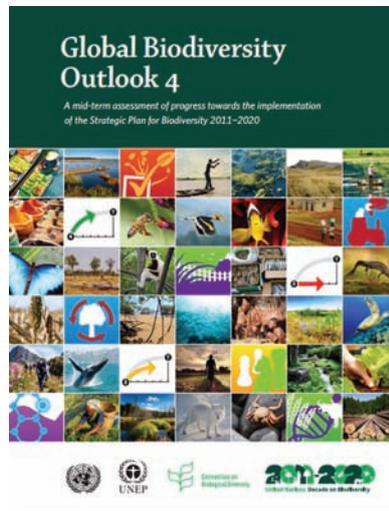


UN RELEASES GLOBAL BIODIVERSITY OUTLOOK 4

The UN Environment Programme (UNEP) and the Secretariat of the Convention on Biological Diversity (CBD) released on October 6, 2014 the fourth edition of the Global Biodiversity Outlook (GBO-4). The release coincided with the opening of the two-week Twelfth Meeting of the Conference of the Parties (COP 12) to the CBD in Pyongchang, Republic of Korea.

The report serves as a mid-term assessment of implementation of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, as well as the UN Decade on Biodiversity. The report highlights progress towards achieving targets on protected areas, access and benefit sharing, and national biodiversity strategy and action plans. However, GBO-4 concludes that significant additional effort is required to meet the objectives of the Strategic Plan and to achieve many of the Aichi Targets.

The report notes, for instance, that while efforts to reduce deforestation have slowed the rate of forest loss in some areas, the overall trend



indicates a further decline in natural areas by 2020 if additional action is not taken. The GBO-4 also lists the protection of coral reefs, conservation of species facing high risks of extinction, reduction of pollution, and the restoration of degraded ecosystems as other areas requiring greater national attention. Meeting related targets will, according to the report, require close collaboration with the agriculture sector, which it points out is the most

significant driver of projected biodiversity loss.

Speaking on the report, UN Secretary-General Ban Ki-moon urged “Member States and stakeholders everywhere to take GBO-4’s conclusions into account in their planning, recognize that biodiversity contributes to solving the sustainable development challenges we face, and redouble efforts to achieve our shared goals.”

At the opening of the COP 12, UNEP Executive Director Achim Steiner said, “Studies show that it will be difficult to reach the full set of the Aichi targets if we remain within the current trajectory, due to accumulated and increased pressures on the natural world.”

GBO-4 concludes that, moving forward, it will be important to coordinate actions to address the Aichi Targets, which it says cannot be met in isolation. The report highlights that meeting the Targets will also contribute to broader development, food security, health and sustainability goals and suggests that biodiversity be mainstreamed in the Sustainable Development Goals. *SCBD/IISD*

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.



SUSTAINABLE WILDLIFE MANAGEMENT ESSENTIAL FOR PROTECTING BIODIVERSITY

Recognizing that wildlife is an important renewable natural resource, with economic, cultural, nutritional and recreational value to humans, Parties at the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) held in Pyeongchang, Republic of Korea, have passed a landmark decision on the sustainable use of biodiversity with regards to bushmeat and sustainable wildlife management.





The decision provides a clear mandate for sustainable wildlife management and will be carried out in tandem with the Collaborative Partnership on Sustainable Wildlife Management (CPW), a voluntary partnership of international organizations with substantive mandates and programmes for the sustainable use and conservation of wildlife resources.

“Sustainable management of wildlife is a key issue in the good governance of biodiversity,” said Bráulio Ferreira de Souza Dias, Executive Secretary of the CBD, speaking at the fourth meeting of the Collaborative Partnership on Sus-

tainable Wildlife Management, held in the margins of COP 12.

The decision encourages Parties to revise their regulatory systems and to strengthen the capacity of indigenous peoples and local communities for sustainable wildlife management as well as to reform incentives that might encourage unsustainable consumption.

The need to address biodiversity as a key element of sustainable development in the post-2015 period has been widely recognized. Sustainable wildlife management provide continuous ecosystem services and income, and contributes to the reduction of poverty. It

is the sound management of wildlife species to sustain their populations and habitats over time, taking into account the socioeconomic needs of human populations.

The Collaborative Partnership on Sustainable Wildlife Management comprises 14 international organizations, with a Secretariat hosted by the Food and Agriculture Organization of the United Nations. The CPW’s work plan on substantive mandates and programmes includes improving wildlife management through raising awareness and advocating sustainable practices for wildlife for food security and livelihoods, human wildlife conflict and illegal/un-sustainable hunting.

At its fourth meeting, CPW partners updated their work plan. One key activity is the development of a Bushmeat Sourcebook. This publication, prepared primarily by the Center for International Forestry Research (CIFOR), provides a better understanding of how bushmeat relates to broader socio-economic and conservation issues.

A COP12 side event hosted by the CPW, “Wildlife Management in a Landscape Perspective: enhancing biodiversity conservation and supporting livelihoods,” held on October 13, 2014, highlighted practical work carried out by CPW members – including the launch of its first joint product and a fact sheet on Sustainable Wildlife Management and Biodiversity. The fact sheet describes key components of wildlife management that can provide incentives to conserve biodiversity.

As part of its next phase of activities, the CPW is developing a project proposal, to be co-funded by the Global Environment Facility, titled “Criteria and Indicators for sustainable wildlife management: a key step towards a global certification system.” Geared towards improving the social, economic, and environmental benefits derived from sustainable wildlife management, countries interested in being a pilot country to test the framework are welcome to contact the Secretariat. *CBD News*

EBOLA OUTBREAK HIGHLIGHT LINKS BETWEEN BIODIVERSITY AND HUMAN HEALTH

“**T**he world is currently facing a devastating crisis with the outbreak of the Ebola disease. Yet the wider world is probably not aware of the ways in which the underlying drivers of disease are linked to development and biodiversity loss; the connections are rarely made.” This was stressed by Dr. Jane Smart, Global Director of IUCN’s Biodiversity Conservation Group, in a statement delivered at the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP12) held in the Republic of Korea.



“Ebola outbreaks have occurred from hunting and consumption of infected wildlife, which in turn poses a pressure on wild populations. The cause of the initial ‘spill over event’ is not clearly known for this outbreak but landscape change in the affected area is significant in recent years.”

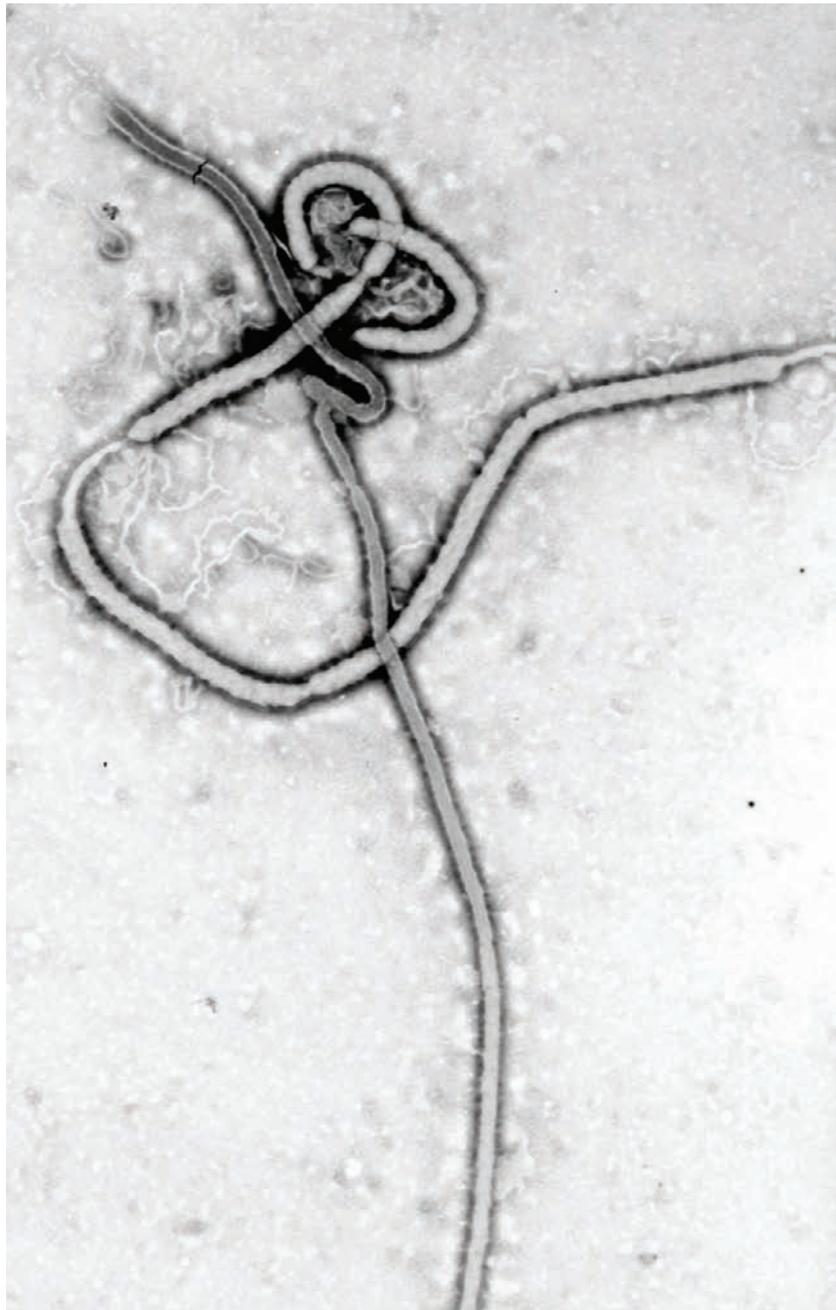
“However the links are there and IUCN is of the view that the CBD needs to show leadership on this issue and draw attention to the fact that it is crucial to demonstrate how habitat change and associated biodiversity loss and human health are connected. It is of fundamental importance to explain clearly how an ‘upstream’ approach to protect both human health and biodiversity is absolutely essential.

For example, it is not widely appreciated, even among biodiversity experts, that land use change through deforestation is the leading driver of disease emergence in humans.

“Of course, habitat change also threatens food security and deprives human populations of access to traditional medicines, as well as fundamentally changing ecosystem functioning.

“In the specific case of Ebola, the virus is highly devastating to both human and Great Ape populations, representing both human health and biodiversity threat. Ebola outbreaks have occurred from hunting and consumption of infected wildlife, which in turn poses a pressure on wild populations. The cause of the initial ‘spill over event’ is not clearly known for this outbreak but landscape change in the affected area is significant in recent years.

“The conservation and health community can work together to address



drivers of disease and biodiversity loss in a coordinated fashion to promote a ‘One Health’ approach. Towards this goal, further discussion on health and biodiversity planned for the IUCN World Parks Congress next month will be extremely timely.

“The Wildlife Health Specialist Group of IUCN’s Species Survival Commission and IUCN Member organization Eco-Health Alliance are urgently working on the scientific connections between humans, animals and environmental

health. IUCN now strongly encourages the CBD to work with these groups and other partners to optimize the networks dedicated to investigating and taking action on strong health and biodiversity synergies. IUCN stands ready to support this work.

“IUCN proposes that CBD develops a mechanism to facilitate scientific input from the biodiversity and health communities to support actions related to the health of the people of this planet.”

IUCN News

The ASEAN at COP12

ASEAN reiterates commitment to biodiversity conservation

(Pyongyang, South Korea, October 17) - The Environment Ministers of the 10 ASEAN Member States reiterated their countries' commitment to biodiversity conservation in a statement read at the Twelfth Meeting of the Conference of the Parties (COP12) to the Convention on Biological Diversity (CBD). The statement was read by Dr. Thet Thet Zin, Deputy Union Minister, Ministry of Environmental Conservation and Forestry, Republic of the Union of Myanmar.

In reiterating ASEAN's commitment to biodiversity conservation, the Ministers recognized the important role of ASEAN's rich biological diversity in enhancing the region's economic, political and socio-cultural well-being; recalled that Parties to the CBD have committed to the implementation of the CBD Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets; and noted the essential role of biodiversity for sustainable development in the development of Sustainable Development Goals. They reaffirmed the significant role of the ASEAN Centre for Biodiversity in facilitating cooperation and coordination among the members of ASEAN, and with relevant national governments, regional and international organizations to implement the three objectives of the CBD in the ASEAN region.

The Ministers also reaffirmed the importance of adequate and timely sustainable financial resources including the ASEAN Biodiversity Fund to implement biodiversity conservation programmes of ASEAN Member States; and noted that the entry into force of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization will provide greater legal certainty and transparency for both providers and users of genetic resources. They also noted the importance of capacity building and participation of indigenous and local communities in the implementation of the Nagoya Protocol; and recognized that one of the key challenges in halting biodiversity loss is the greater involvement of a broader stakeholder base beyond environment and conservation practitioners.

The Ministers reiterated that climate change is one of the most pressing challenges of the present generation that affects biodiversity and economy at the global, regional and national levels; and that the ASEAN region is vulnerable to changes in climate and the aggravation of natural disasters. They recognized that inclusive green growth strategies would promote

sustainable management practices of industries and reduce the threats to biodiversity; and noted the significant progress of ASEAN Member States in establishing protected areas including ASEAN Heritage Parks as a contribution to the CBD Programme of Work on Protected Areas and Aichi Target 11.

The Ministers highlighted the negative impacts of invasive alien species introduced as pets, aquarium and terrarium species, and as live bait and live food, on biodiversity, and the risk of escape and release. They recognized that biodiversity thrives in cities and urban areas, and enhances the quality of life of urban dwellers and that city and urban dwellers have a significant role in biodiversity conservation. They acknowledged the Singapore Index on Cities' Biodiversity as an important tool to evaluate such efforts; and welcomed the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) which provides a mechanism to synthesize, review, assess and critically evaluate relevant information and knowledge on biodiversity, ecosystems and essential services for use by all member countries of the United Nations. They also recognized the complementary role of IPBES to the CBD's Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) in undertaking scientific assessments and in promoting the effective use of science in decision making processes.

The Ministers emphasized the need to sustain the momentum gained through major regional programmes including the ASEAN Heritage Parks, the ASEAN Wildlife Enforcement Network, the Coral Triangle Initiative, the Greater Mekong Sub-region, the Heart of Borneo, Sulu Sulawesi Seascape, and other key initiatives; and noted the development of the Pyeongyang Roadmap which covers relevant COP decisions to ensure that Parties will achieve the Aichi Targets by 2020.

The Ministers said their countries will endeavor to intensify efforts aimed at conserving and sustainably managing the rich biodiversity of the ASEAN region towards ensuring the economic, political and socio-cultural well-being of its populace. They will enhance national communication, education and public awareness (CEPA) strategies in support of the Aichi Targets, in particular Target 1, which calls for people to be aware of biodiversity and the steps that they can take to conserve it sustainably, and focus CEPA efforts on key groups such as business, media, women, local governments and youth.



The Ministers said they will endeavor to support the valuation of biodiversity and ecosystem services to underscore potential economic gains from conserving biodiversity through sustainable and environment-friendly investments and the implementation of incentive schemes such as payments for ecosystem services. They will support the work of the IPBES as it contributes to the work of the CBD's SBSTTA and the implementation of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets.

The Ministers said they will endeavor to strengthen international cooperation towards adoption of ecosystem-approach that has been advocated under the CBD; and the regional and transboundary biodiversity conservation initiatives with support of other national governments, international organizations, and non-governmental organizations. They will encourage South-South Cooperation on biodiversity and promote the integration of policies on biodiversity conservation and climate change adaptation to improve ecosystem resilience. They will strengthen the programmes on protected areas in the ASEAN region and ASEAN Heritage Parks as exemplary networks for effective protected area management.

The Ministers urged all Parties to continue effective implementation of the CBD Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets, and document lessons learned from such efforts. They urged donors and partners to continue supporting capacity building activities and the participation of indigenous and local communities in the effective implementation of the Nagoya Protocol.

The Ministers encouraged donors and partners to support the implementation of ASEAN Member States' biodiversity programmes, including region-wide initiatives that contribute to the achievement of the Aichi Targets. They also encouraged all Parties to adopt a low carbon development framework so as to assist in reducing pressures on the environment; all Parties to incorporate Invasive Alien Species management and control measures into the National Biodiversity Strategies and Action Plans, and develop and support the implementation of National Invasive Species Strategies and Action Plans; and all subnational governments, cities and other local authorities to scale up their contribution to biodiversity conservation, review local policies and laws to support biodiversity conservation, and apply the Singapore Index on Cities' Biodiversity. □



The ACB at COP12

ACB hosts, participates in COP12 side events

Aside from attending general sessions and observing the negotiation processes, the ASEAN Centre for Biodiversity (ACB) participated in a number of side events during the 12th Meeting of the Conference of the Parties (COP12) to the Convention on Biological Diversity (CBD) held in October 2014 at Pyongchang, Republic of Korea.



With ACB as one of the newest members of the East Asian Australasian Flyway Partnership (EAAFP), ACB staff participated in EAAFP events including the signing of the Memorandum of Understanding between EAAFP and the CBD Secretariat. The EAAFP side events discussed the communication, education and public awareness (CEPA) challenges, indiscriminate hunting, habitat loss, reclamation and subsistence trapping, interests in migratory waterbird conservation, and the necessary establishment of transboundary initiatives.



On October 7, ACB facilitated a meeting of the ASEAN Member States in order to review and finalize the draft COP12 ASEAN Statement. Thanks to the facilitation of the ASEAN Secretariat

and the positive interventions from Singapore, the group finalized the statement which was delivered by Myanmar at the eve of the High Level Segment of COP12.



On October 8, ACB, in collaboration with the GIZ-Biodiversity and Climate Change Project (BCCP) and the CBD Secretariat, organized a side event on “The ASEAN Heritage Parks (AHP): Effectively Managing Ecologically Representative Protected Areas in Southeast Asia”.

The welcome messages were delivered by Dr. Christian Glass, Head of the BMZ Division for Environment and Sustainable Use of Natural Resources, Marine Conservation and Biodiversity; and Atty. Roberto V. Oliva, ACB Executive Director. Resource persons included Dr. Dicky Simorangkir, Senior Advisor, GIZ-BCCP; Dr. Songtam Suksawang, Director, National Parks and Protected Areas Innovation Institute and Research Division, Department of National Parks, Wildlife and Plant Conservation, Ministry of Natural Resource and Environment; Thailand; and Ms. Linda Goh, Deputy Director, Biodiversity Information and Policy, National Parks Board, Singapore.

The side event promoted the AHP Programme among COP12 participants, provided an overview about ACB and the AHP Programme, and shared the experiences and lessons learned from the management of two AHPs: Khao Yai National Park in Thailand (for terrestrial landscape) and Sungei Buloh Wetland Reserve in Singapore (for aquatic landscape). Over 40 participants joined the side event.



On October 9 - 12, Dr. Sheila Vergara, director, biodiversity information management, and Dr. Filiberto Pollisco, Jr, policy research specialist, attended the APBON side event. During the event, Dr. Vergara presented ACB's mandates, including its work on biodiversity information management. She reported that ACB has organized interoperable databases, and populated these with data from reliable global resources and contributions from national reports. She informed the participants that ACB is building partnerships to improve the regional capacity for data management, increase data contributions, and ensure interoperability.

The side event was followed by the two-day 6th APBON meeting. The meeting discussed the vast potential of APBON to contribute to global knowledge through IPBES. At the meeting, Dr. Pollisco presented some accomplishments under the ESABII and the Japan-ASEAN Integration Fund in the areas of taxonomic capacity building database, mapping of taxonomic information, and the internship programme.

On October 13, ACB and PEMSEA convened the Lifeweb Partners Roundtable on Achieving the Aichi Targets through Integrated Coastal Management". *See details of this event in a separate news.*

On October 13-15, ACB attended the International Workshop on Forest Seed and Plant Conservation organized by



AKECOP and Korea Forest Service held at Greenpia Condominium. Mr. Anthony Foronda presented regional initiatives and opportunities towards forest seed and plant conservation in the context of access and benefit sharing (ABS) in light of the First Meeting of Parties of the Nagoya Protocol on ABS. ACB stressed that collaboration with Korea through AKECOP should build the capacity of ASEAN Member States in conservation of biodiversity and establish ABS in activities related to research and development of genetic resources and its derivatives by Korea.

On October 16, ACB attended the "Sharing Knowledge and Experience among the South East Asian Countries and China in the Implementation of the Biodiversity Strategic Plan 2011-2020 and Aichi Targets." Ms. Clarissa Arida, director, programme development and implementation, presented the regional overview of NBSAP development prior to country presentations of NBSAPs in Cambodia, Lao PDR, and Myanmar.

In other side events participated by ACB, Rolando Inciong, head, communication and public affairs, facilitated the Business and Biodiversity Forum organized by the Government of Thailand, PTT and CP Foods; served as resource speaker at the Business and Biodiversity Forum organized by the Japan Business Initiative for Biodiversity; and organized an ACB exhibit at the COP12 CEPA Fair. □





The ACB at COP12

ACB and PEMSEA hold COP12 side event on LifeWeb

Sixty participants from Southeast and East Asian countries, as well as representatives from various regional and international and donor organizations, attended the Round Table on LifeWeb organized by the ASEAN Centre for Biodiversity (ACB) and the Partnerships in Environmental Management of the Seas of East Asia (PEMSEA) at the side of the 12th Meeting of the Conference of the Parties (COP12) to the Convention on Biological Diversity (CBD) in the Republic of Korea.

Held on October 13, 2004 at the Alpensia Convention Center in Pyongchang, the round table discussion focused on the LifeWeb project of the CBD which promotes the use of integrated coastal management (ICM) as a tool to achieve the Aichi Targets. The event was addressed by Mr. Bráulio Ferreira de Souza Dias, Executive Secretary of the CBD Secretariat; Mr. Lim Song Hack, Acting Director General of the Marine Environment Policy Office of the Ministry of Oceans and Fisheries (MOF) of the Republic of Korea; Ambassador Mary Seet-Cheng, EAS Partnership Council Chair of PEMSEA; and Atty. Roberto Oliva, Executive Director of ACB.

Mr. Lim Song Hack welcomed the participants and emphasized the value of the Lifeweb Roundtable and the joint project by ACB, PEMSEA and CBD as an important platform for collaboration by various partners, donors and participating countries. He reiterated his country's continued commitment to be an active partner for sustainable development in the seas of East Asia.

Mr. Bráulio Ferreira de Souza Dias highlighted the importance of the oceans in overall development and as one of the main goals in the Sustainable Development Goals that are now being developed. He underscored the value of Lifeweb as a broker or matchmaker between countries and funding/donor agencies to implement projects of national and regional priority.

Ambassador Mary Seet-Cheng highlighted PEMSEA's ICM approach in addressing the challenges in coastal and marine areas in the East Asian Seas and emphasized the value of ICM in

addressing the implementation of national biodiversity strategies and action plans.

Atty. Roberto Oliva stressed that LifeWeb will take into consideration the needs of local stakeholders and ensure that management and identification of marine protected areas will be aligned with local plans and capacities.

The discussions were facilitated by Mr. Charles Besancon, CBD Secretariat, and Ms. Clarissa Arida, Director, Programme Development and Implementation, ACB.

The representative from Timor-Leste, Mr. Peter Pechacek, expressed the country's appreciation and full support to the joint initiative which provides a good link in the implementation of Timor-Leste's National Biodiversity Strategy and Action Plan (NBSAP). He emphasized that conserving ecosystem services and sustainable use of biodiversity, in particular the coastal areas, are at the top of Timor-Leste's agenda.

The representative from Thailand, Ms. Patama Domrongphol, expressed full support from Thailand's CBD Focal Point and PEMSEA's National Focal Point. Thailand's formal endorsement, however, has to go through the approval of the Cabinet.

The representative from Singapore, Dr. Lena Chan, emphasized the value of the initiative to Singapore as a country with rich coastal and marine resources despite having one of the busiest ports in the world. In line with the implementation of Singapore's NBSAP, the country will develop a state of the coast report, undertake comprehensive marine biodiversity survey, and seagrass monitoring, among others. Dr. Chan expressed Singapore's full support to the application of ICM as an effective approach to strengthening management effectiveness of marine protected areas and to the proposed project.

The Indonesian representative, Mr. Heru Waluyo, informed the meeting that Indonesia has submitted its formal endorsement of the proposed initiative. Indonesia recognized that these efforts are crucial to addressing the continuing degradation of coastal and marine areas and resources. Mr. Waluyo em-



phasized that with ICM, financial and human resources can be optimized to improve efforts on sustainable development.

The Philippine representative, Dr. Mundita Lim, confirmed the full support of the Philippines to the joint initiative. She emphasized that the initiative is very much consistent with the country's NBSAP. She informed the meeting of the efforts of implementing and scaling up ICM in various local governments all over the country as well as efforts in strengthening marine protected areas.

The representative from China, Mr. Feng Jun, underscored the value of ICM in China. He cited the environmental and eco-

nomical achievements in Xiamen associated with the implementation of ICM demonstration site. Mr. Feng informed the meeting that in the recently concluded APEC Ocean-related Ministerial Meeting in Xiamen, China, ICM was recognized in the Xiamen Declaration, the APEC Ministerial outcome document, as an effective approach contributing to sustainable development on the ground.

Dr. Berthold Siebert, project lead representing the GIZ Cooperation with ACB, emphasized the recognition by the German Government of the efforts undertaken by ACB which is evident in the continuing funding support to ACB. He described the joint initiative of ACB and PEMSEA as apolitical and science-based. Dr. Siebert expressed confidence on the initiative and committed to add more value to it.

Dr. Delfin Ganapin Jr., head of the GEF/UNDP Small Grants Programme, recalled how he has been involved in the ACB and PEMSEA in their initial phases. He highlighted SGP's partnership with PEMSEA through funding of community-based programmes under ICM and mentioned that his interest was caught by the mention of 'stakeholder empowerment' as one of the project's strategies for stakeholder engagement. With SGP's commitment to stakeholder empowerment, he expressed the GEF/UNDP SGP's full support to the joint initiative by ACB and PEMSEA.

Ms. Nicole Glineur, GEF, underscored the strong bond between GEF and PEMSEA over the last two decades. PEMSEA was a GEF flagship programme in the East Asian region. Ms. Glineur expressed GEF's continuing support to PEMSEA's objectives as it has transformed into an independent international organization. The joint initiative between ACB and PEMSEA provides a good link with the GEF biodiversity strategy and a platform for cooperation, wherein various partners including the private sector may play a crucial role. She stated that the GEF welcomes the joint initiative and is fully supportive of the project.

Mr. Doley Tsering of the UNDP Asia Pacific Regional Hub emphasized the linkage of the proposed joint initiative with the UNDAF objectives in the East Asian region and that the proposed joint initiative was developed in close cooperation with the GEF/UNDP/PEMSEA Project on Scaling up the Implementation of the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA). UNDP continues to be a strong partner of PEMSEA.

Ms. Laura Whitford of The Nature Conservancy and Coral Triangle Initiative believes that the joint project between ACB and PEMSEA provides a good venue for cooperation and will be beneficial to the region.

In their closing messages, Mr. Stephen Adrian Ross, PRF Executive Director and Atty. Roberto Oliva, ACB Executive Director, expressed their sincere appreciation to all the participants. With the strong support expressed by partner countries and collaborators to the ACB-PEMSEA joint initiative, Mr. Ross and Mr. Oliva expressed confidence on the successful implementation of the project. □

Anything Grows – A Sustainable Sponge

By Philipp Gassner

A little brain teaser: sea roses are reproducing quickly and cover the pond behind your house. The covered area doubles every day. In 48 days the whole pond is covered. How long does it take to cover half the pond? If your answer is, instead of 24, only one day to cover the entire half of the pond, then you might guess the power exponential growth. This type of growth happens on many different occasions. Just take your kitchen sponge. It smells a bit funny? That is exponential growth at work. A few initial individuals colonize the sponge, feed on the food residues on it and reproduce, reproduce, reproduce. 2, 4, 8, 16, 32, 64, 128, and within no time you end up with myriads of bacteria. After a while though they will reach the limits of the sponge and its food residue resources, and the

bacteria start to die, contributing to the nasty smell.

The Power of Growth

What works for bacteria also does for other species, like cockroaches, rabbits, and humans. The latter with a particular success: within a couple of centuries, the initial few million humans on our own little kitchen sponge grew mind-blowingly fast. In the last 20 years more than 1.6 billion people joined us, now 7.25 billion humans. But how is that even possible?

The buzzword is growth rate. As a rule of thumb, divide 70 by the growth rate and you receive the doubling time of a population. Take the Philippines as an example: its growth rate of about two percent is among the highest in South-

east Asia, and the world. The 50 million Filipinos from the mid-1980s doubled 35 years later (70 divided by 2), to now 100 million. In contrast, with a rate of about 0.6 percent, Thailand only grew from 55 to 70 million inhabitants.

These growth rates are influenced by a number of factors. Especially the last 100 years have seen a rapid increase in population due to medical advances and massive increase in agricultural productivity, made possible by the Green Revolution. Also political and social factors, such as religion, matter. The comparison between Buddhist Thailand and Catholic Philippines gives a good example.

But not only social factors distinguish us from bacteria. Besides our population, also a thing we invented grows exponentially – our money. Not on your bank account? Well, worldwide



Green growth in the true sense of the word.

Photo Courtesy of Wilfredo L. Leonardo

the economy grows exponentially. Take some of the aspiring nations of Asia as examples, with previous growth rates of up to 10 percent. Their economy doubles in – 70 divided by 10 – seven years. Much faster than population does. That's great news, however only if you equate economic growth – growth in GDP – with development. Yet, we start to realize the intrinsic flaw in this equation: GDP measures 'utility', not welfare. For the GDP, a car accident is as beneficial as a hospital bill.

The Ability to Sustain

These three factors – population and economic growth, and our political, social and technological influence on it – leave us humans with the same problems as the bacteria on the sponge. We reached the limits of our resources. Currently we would need one and a half Earths to maintain our population. That's one and a half times our warming atmosphere to cope with the CO₂ we emit; one and a half times Southeast Asia's 100,000 km² of coral reefs providing livelihood for millions; and, one and a half times the region's 50 mangrove species protecting the islands' shores. With no backup sponge, let alone an extra Earth in our kitchen cupboard.

The only difference from the bacteria is that, hopefully, we are a bit smarter to escape our destiny. We have the ability to sustain our presence on the sponge, before dying off.

Rings a bell? The ability to sustain. Sustain-ability. Sustainability is not only the motto of the ASEAN Centre for Biodiversity (ACB). Together with the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), ACB works for the conservation of Southeast Asia's biodiversity, and its sustainable use.

Sustainability is as old as methuselah, with its 301st birthday this year. It was first formulated, fittingly by the German Carl von Carlowitz in 1713, as the sustained yield of a forest. No more timber could be cut than would regrow.

In essence, do not spend more than you earn. Sounds like motherhood and apple pie? Nevertheless, it took another 300 years for this unpalatable truth to trickle down. These days, sustainability has a meteoric career, being mentioned in at least 4,000 article titles in academic journals, every year. What is more, sustainability left the realm of science. Just take the brand new 'Barbie BCause', 'for eco-conscious girls who believe that being sustainable is the right thing to do'.

Agreeing with Barbie

The world community agrees with Barbie. During the ultimate sustainability conference in 2012, dubbed Rio+20, member states decided to come up with a brand new compilation of the right things to do – the Sustainable Development Goals (SDGs). The SDGs are the successors of the Millennium Development Goals (MDGs), which had mixed results, to be euphemistic. Undeniably, there have been successes in health, access to infrastructure, and increased income. However, the environment is left by the wayside – billions remain poor, the global climate machine is broken, ecological productivity is lost, and equality is in the ropes.

The latter issue seems crucial: making available enough food for the billion hungry people would mean producing only one percent more food. Giving electricity to the 1.4 billion who currently have none would raise global carbon emissions by just one percent. In other words, it is not primarily the needs of the majority of the world's growing population that threaten the Earth, like the bacteria's sponge. It is much rather the significantly faster economic growth and the overconsumption of a few. It seems that the creators of the Development Goals were just not talking about sustainable development. We spend more, than we earn, contradicting good old Carlowitz. Chin up, the MDGs are about to terminate anyway, and next year we can come up with new goals.

There are two options for these goals and the destiny on our sponge. Both revolve around growth. Green Growth is a path of economic growth that uses natural resources in a sustainable manner. How this is supposed to work was discussed during the Green Growth and Sustainable Development Forum 2014; the Organization for Economic Co-operation and Development (OECD) comes together to 'address the social implications of green growth'. Will inclusive green growth be a solution in an increasingly unequal world, as the one percent from above show? Or is growth itself the problem rather than a solution? Is growth – measured in GDP – really desirable, even if caused by car accidents or pollution? And wasn't growth in overconsumption the reason for the nasty smell in the first place?

If overconsumption lies at the root of long term environmental issues and social inequalities, what is the alternative to growth then? De-growth. Sounds obvious? At least according to thinkers and activists who argue that reducing consumption does not require individual martyring and a decrease in well-being. Much the opposite, degrowthists want to maximize happiness and well-being through economic and social models that are independent of growth. The world's largest de-growth conference, in the German city of Leipzig last September, showed concrete steps towards a society beyond the imperative of growth, be it Free Money Day, Transition Towns or Degrowth Downunder.

It seems there is no one-fits-all solution, no magic formula. However, sustainability is far from being an empty formula. It is much more: a framework for orientation, a platform for a committed discourse about a common good, an acceptance of complexity, it is a global, long-term, non-fatalist perspective, it is a vision. We cannot miss the chance to capture and apply this vision in the new Sustainable Development Goals. A vision for sustain-ability on our little kitchen sponge – without leaving a nasty smell.

Sharing ASEAN good practices in biodiversity and ecotourism

By Sahlee Bugna Barrer

As nature areas designed to conserve pristine land and seascapes and the amazing wealth of wildlife and ecosystems within, protected areas have all the necessary elements to promote ecotourism. Sustaining ecotourism, however, with facilities and infrastructure; financing and benefit sharing mechanisms; support from the government, private sector, indigenous and local communities, and other stakeholders; information and education materials and campaigns; and conservation and management programs are also necessary to ensure that visitors are encouraged to visit and therefore support protected areas with tourism currency.

While having knowledge on biodiversity, cultural, and historical values to drive ecotourism, many protected area managers still need support and insight into successful ecotourism ventures. For this purpose, Malaysia provides success stories on ecotourism.

Taking a cue from Malaysian ecotourism

In March 2014, thirty-two staff members of the Philippines' Department of

Environment and Natural Resources (DENR) participated in the *Experiential Learning Package on Protected Area Management and Ecotourism in Taman Negara National Park, Pahang, Malaysia*. The learning package was organized by the ASEAN Centre for Biodiversity (ACB) in collaboration with the DENR and the Department of Wildlife and National Parks of the Ministry of Natural Resources and Environment of Malaysia.

The experiential learning package provided participants with an understanding of the elements and principles of ecotourism, as well as the policies and standards of ecotourism in Malaysia; an opportunity to share experiences and lessons learned in recreation and ecotourism; and a means to develop a re-entry plan for an ecotourism project in an ASEAN Heritage Park or protected area.

The experience of a lifetime

The learning experience included a five-day field visit to Taman Negara National Park, one of three ASEAN Heritage Parks in Malaysia, as well

as Paya Indah Wetlands, National Elephant Conservation Center, and Batu Caves. Aside from experiencing how ecotourism is conducted and managed in these areas, the participants also had the opportunity to build stronger networks of cooperation with their Malaysian counterparts. Since the experience was vastly different from the Philippines, many agreed that the learning package was truly an experience of a lifetime.

In Taman Negara, the participants experienced the towering forests, wide rivers, indigenous culture, and luxurious but unobtrusive chalets, enabling them to feel nature and see the indigenous ways of life up close. The Paya Indah Wetland Reserve provided lessons on transforming degraded areas into ecotourism sites. The National Elephant Conservation Center merged both conservation of elephants and reduction of human-elephant conflict, with the sheer joy of seeing and touching the gentle giants. The Batu Caves provided insights on cave management and preservation, while earning from and managing visitors to the site.

Designed with conservation and comfort in mind

As one of the oldest rainforests in the world, Taman Negara National Park has been able to maintain the integrity of its wildlife and ecosystems because of its relative isolation. The park is noted for its rich biodiversity, magnificent forests and expansive rivers, and rich culture, particularly with the presence of the local Baki tribe. These elements provide the foundation for the park's ecotourism, which are complemented with canopy walkways, forest trails, boat rides, fish sanctuaries, and a wide range of accommodations to satisfy every budget, restaurants, and other amenities that facilitate visitor traffic to the park. These also support various activities such as bird watching and photography, hiking, night treks, boat tours and others.





Many of the facilities in the park are carefully designed to protect and ensure that they blend in with the environment. A wide river separates the park from the rest of the world, and from the entrance one can only see the signage of the park, the jetty where the boats dock, steps to the entrance, as well as the trolley that carries baggage and the park's supplies. This was intentionally designed to give visitors an intact view of the forest, with practically no break in the greenery in sight.

Inside Taman Negara National Park, visitors can see the park center, restaurant, signage to the different attractions and facilities, and the various accommodations, ranging from basic guesthouses to vastly comfortable chalets. Most of the structures are painted in earth colors to blend into the forest. While made of wood, the structures are built on cement foundations and elevated from the ground to prevent damage from termites. The buildings have no eaves to capture rainwater or forest debris, so that leaves, branches and twigs can just fall to the ground. This prevents damage to the roofs and reduces maintenance costs.

Boardwalks are made of fiberglass composites. These are unpalatable to termites, lengthen the lifespan of the boardwalks and again, reduce maintenance costs of the park.

The canopy walkway uses ropes to hold the plank walkways. No nails or other sharp objects are used in the rope anchors, since any break in the epidermis of the tree would serve as an entry point for fungal or bacterial infection and thus weaken the trees in the long term.

Deep in the forest, designing conservation with the comfort of the park's guests is also a priority for park management. The range of facilities can accommodate guests with varying budgets. The chalets provide luxurious comfort that one can expect in a hotel, but not necessarily in a protected area, such as big comfortable beds and cable television. Internet service and mobile phone signals are also available.

Everybody chips in, and everybody benefits

Public-private partnership marks the management of Taman Negara National Park. Facilities were built with private sector support, and the Mutiara Hotel and Restaurant, a private organization, manages the chalets, restaurant, and offers tour packages in the park. Mutiara remits a percentage of its income to the government, which allows the park management to focus on natural resource management, wildlife protection, law enforcement, and visitor management through ranger guides and search and rescue personnel.

Members of park management staff are local residents and are trained as rangers, guides, law enforcers, and search and rescue personnel. Local community members who are not part of the workforce of the park derive income from park activities through boat rentals for tours, and the operation of eateries and souvenir shops.

The indigenous community is also recognized as a stakeholder in the park. Visitors get to understand the local culture with a visit to the Baki tribal village, where members of the indigenous group show how they make fire using twigs and rocks, and how they capture game with blowguns. They also make small handicrafts as souvenirs.

Staff attitude makes a difference

One of the most notable impressions was the courtesy and kindness showed by staff members to the participants. This makes a difference as visitors will always remember, aside from the many memorable sights and experiences inside the ecotourism destination, the treatment they received from local staff. Good experiences will ensure return visits, as well as recommendations to others to see the protected area.

High hopes for PH ecotourism

With lessons learned from the experience, there are high hopes for ecotourism in Philippine protected areas as the country certainly has the necessary ingredients to increase travel to nature-based sites. There is increasing global appreciation for Philippine beaches and mountain landscapes, and this provides an opportunity for park managers to benefit from and continue to conserve the country's natural capital. This will require generating partnerships with the private sector, the development of infrastructure and facilities to support and sustain ecotourism, and ensuring benefits to all stakeholders, including the local and indigenous community. □

The Wolf Whisperer - Steward of the Garden of Eden

By Philipp Gassner

'There was a wolf, terrifying and ferocious, who devoured men as well as animals.' Naturally, the townsfolk of Gubbio were frightened and didn't dare to leave their houses after nightfall. Only one brave champion was prepared to help. He had compassion upon the residents, and went up into the hills to find the wolf. Before long, all his companions had fled, petrified by the thought of the wolf. But he carried on. When he finally happened upon the beast, he made the sign of the cross and ordered: 'Brother Wolf, you do much harm in these parts and you have done great evil'. Marvelously, the wolf lay down and was tamed. The people learned to feed the wolf regularly and in return, the wolf would no longer hunt them. When the townspeople asked the hero for his name, he simply answered 'Francis'.

No, it wasn't Pope Francis. But indeed, Cardinal Jorge Mario Bergoglio of Argentina, upon his election as Pope on March 2013, chose Francis as his papal name in honor of our hero, St. Francis of Assisi. As legends like this one have it, the saint had a great love for animals and the environment. For this reason, in 1979, Pope John Paul II declared St. Francis to be the Patron of Ecology. In his honor, on October 4, Catholics celebrate the feast day of St. Francis, who preached the duty of the people to protect and enjoy nature as the stewards of God's creation.

Worthy of Your Respect

But doesn't Genesis 1:28 state: 'God blessed them and said to them, 'Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground'? Some have understood



Photo by Wikimedia Commons

Legend of St. Francis, Sermon to the Birds. The current location of the painting is the Basilique Assise. Wikimedia Commons

this key bible quote as the separation of man and nature, giving people the right to exploit the environment. St. Francis would strongly disagree. And for good reason: just look at Noah's Ark which was not only for humans but for all creatures. Also Adam, stemming from the Hebrew word 'adamah', means ground or earth, implying the connection between human beings and the earth. Not surprisingly, a broad range of Christian institutions are engaged in the environmental movement.

To dispel doubts, let's look at another religion that looks for advice in the Old Testament. Rabbi Daniel B. Fink clarifies

that humans, in the Jewish interpretation, 'are the stewards of the Garden of Eden, but vitally, they are looking after it for God, not for themselves.'

Next to Judaism with some 14 million and Christianity with 2.1 billion followers, there is a third Abrahamic religion. With 1.6 billion, Islam is the second largest world religion, and has a word to say about the environment, too: 'Devote thyself single-mindedly to the Faith, and thus follow the nature designed by Allah, the nature according to which He has fashioned mankind. There is no altering the creation of Allah'. Surah 30:30 in the Qur'an, leaves no doubt. Just like in the

Jewish and Christian faiths, Muslims are instructed to look after the environment and mustn't destroy it. Coherent with Judaism, humans are only managers of the earth and not proprietors.

Also, one billion Hindus don't disagree. 'For, so sustained by sacrifice, the gods will give you the food of your desire. Who so enjoys their gift, yet gives nothing, is a thief, no more nor less'. In this way, Bhagavad Gita 3:12, part of the Hindu epic Mahabharata, teaches people that they should use the world selflessly to maintain the natural balance. Thus, they can repay God for the gifts he has given. By living a simple life, humans learn to enjoy spiritual happiness instead of a material one, which exhausts natural resources. The Mahabharata knows: 'If there is but one tree of flowers and fruit within a village, that place is worthy of your respect.'

Preaching Water but Drinking Wine?

What respect is for Hindus, is 'loving-kindness' for about 375 million Buddhists. All beings deserve equal levels of empathy, no matter if elephant, fruit fly or human. Buddha himself explained why: 'Because the cause was there, the consequences followed; because the cause is there, the effects will follow'. At its core, Buddhism is about the interrelationship between karma – the cause – and its effects. Humans are intertwined with natural systems and if they damage the Planet, they damage themselves. Peculiarly, in the Buddhist story of Creation, the thriving Garden of Eden is destroyed by greedy humans.

Sadly, this sounds all too familiar. If we imagined the Earth was 46 years old, the current damage – be it biodiversity loss or climate change – has been done in the last 60 seconds of the Earth's life, with the spreading out of humans.

What had happened then? Are we all preaching water but drinking wine? Are the critics of Christian beliefs right that the dualism of man and nature gives an excuse for exploitation? And doesn't the

yearly pilgrimage of 200 million people itself leave a huge carbon footprint?

There is no short answer, but whether we are actively religious or not, religion influences our everyday lives. From our legal systems to our constitution and governments and logically to how we think about the environment: are we an equal part of a greater unity? Or is this unity only there to serve the human race? Modern science speaks up for the former, highlighting the dependence of humans on ecosystem services, such as fresh air and water. As do many religious movements and authorities, be it the Dalai Lama, stressing environmental protection in Tibet, or the Green Pilgrimage Network. The latter recognizes the environmental impact of the millions of spiritual journeys and wants to make them more environmentally friendly. Likewise, Indonesia's fatwa from January 2014 shows that religion can support sustainable behavior. As the first Islamic edict addressing ecosystem conservation, the fatwa instructs Muslims to stop the illegal trafficking of wildlife. The responsible council put it in plain words: 'People can escape government regulation, but they cannot escape the word of God.' This is good news for the ASEAN Centre for Biodiversity (ACB) which coordinates the conservation of Southeast Asia's biodiversity, with support from the Deutsche Gesellschaft für internationale Zusammenarbeit (GIZ) Biodiversity and Climate Change Project (BCCP).

Know Your Peace

Also beyond Southeast Asia, the important link between religion and conservation has been recognized. In 1986, HRH Prince Philip invited five leaders of five of the world religions – to speak out how their faith gives good reason to care for nature. As there are more than five world religions, by 1995 Baha'i, Daoism, Jainism and Sikhism had joined the declaration. What other name could the statement receive, but Assisi Declarations on Nature, paying tribute to our

“ The world, the earth, two planets, one of nature, one of man, two worlds in collision, soon we will need to choose, in which world, we shall live, look into your senses, and follow them to their end, and there you will find your place, the world is a hunger, so is the earth, the world is glamor, the earth is love, make your choice, know your peace. ”

wolf whisperer and hero of the environment, St. Francis of Assisi.

In the spirit of St. Francis, also more than 200 million people worship nature. While indigenous religions, for their vast diversity, do not constitute a world religion, they have much in common. Most indigenous traditions have a deep awareness of the 'lifeway', the integral relationship of symbolic and material life. A web of human behaviors within the powerful spiritual world of the local bioregion is described and passed on by indigenous peoples in narrative stories. These stories are the base for traditional environmental knowledge. Christopher Hansard, part of the Canadian First Nations Environmental Network, shares one: 'The world, the earth, two planets, one of nature, one of man, two worlds in collision, soon we will need to choose, in which world, we shall live, look into your senses, and follow them to their end, and there you will find your place, the world is a hunger, so is the earth, the world is glamor, the earth is love, make your choice, know your peace.'

Surely, St. Francis knew his peace. One day he was travelling with his companions. They arrived at a place full of trees bursting with birds. The birds surrounded Francis, captivated by the power of his voice, and not one of them took to the air. Francis said to his companions: 'Wait for me while I go to preach to my sisters the birds'. □

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.





PHILIPPINES

TUBBATAHA REEFS

Natural Park



One of the ultimate diving destinations in the country has to be Tubbataha Reefs Natural Park (TRNP). Its isolation has ensured that the rich marine resources of the park has remained relatively intact, and thus provides the dream diving experience for those lucky enough to visit the park.

Located 181 kilometers southeast of Puerto Princesa City, Palawan, Tubbataha Reefs Natural Park is found at the very center of the Sulu Sea. It lies along the Cagayan Ridge, which traverses the Sulu Sea from the northeast, from the Sultana Shoal in Cagayancillo, to the southwest, to the San Miguel Islands of Tawi-Tawi.





Region: Region IVB
Province: Palawan
City/Municipality: Municipality of Cagayancillo
Area: 97,030 hectares with a buffer zone of 10 nautical miles from the boundaries of the park
Year/Date of Establishment: 1988; 2010
Legal Instrument: Proc. No. 306 (11 August 1988); Proc. No. 1126 (23 August 2006); RA 10067 (6 April 2010)

The park is uninhabited and is composed of the South and North Atolls and Jessie Beazley Reef. The boundaries of TRNP are located three nautical miles from the edge of these marine formations.

Because of the exceptional biodiversity of the park, TRNP has been declared a Key Biodiversity Area of the country, and recognized as a UNESCO World Heritage Site on 11 December 1993, and as a RAMSAR Site on 19 November 1999. It has also most recently been declared an ASEAN Heritage Park, one of seven in the Philippines.

Diverse coral reef system

The North and South Reef are two atolls that are separated by an eight-kilometer wide channel. The most prominent feature of the North Reef is the North Islet, which is a coralline sandy cay of about 300 square meters, which serves as a nesting site for birds and marine turtles. Steep and often perpendicular walls extending to a depth of 40-50 meters characterize the seaward

Biodiversity richness of Tubbataha Reefs Natural Park

- 615 species of fish
- 369 species of corals
- 12 species of sharks
- 12 species of dolphins and whales
- 7 species of seagrass
- 79 species of algae
- At least 2 species of marine turtles
- 11 species of marine mammals
- Over 100 species of birds

face of the reef. The site constitutes a near pristine coral reef with a 100-meter perpendicular wall, an almost undisturbed reef crest and reef edge, extensive lagoon with seagrass beds and coral beds, and two coral islands. It is the most biologically diverse coral reef system in the Philippines and is of great importance for the sustenance of fisheries.

The South Reef is a small, triangular shaped reef of about one to two kilometers wide. Like the North Reef, it consists of a shallow platform enclosing a sandy lagoon. On the southern tip of the reef is a coralline sandy cay of approximately 800 square meters, which is an important rookery site for birds and marine turtles.

Jessie Beazley Reef, which lies 13 nautical miles from the South

and North Reefs, has an area of 45 hectares with a small islet made of marlstone (calcium carbonate or lime-rich mud), that is exposed during low tide.

Wondrous marine biodiversity

Tubbataha Reefs Natural Park is home to amazing diversity of marine life; at least half of all coral species in the world and almost 80 percent of all coral species in the Philippines; green sea and hawksbill turtles, and various whales such as the sperm whale. Rays and sharks are common in the reefs. Pelagics such as tuna, mackerel, jacks, and barracudas are observed in schools near the reef crests.

Over 100 species of birds are found nesting and feeding in the



Mackerels



Barracudas



Park. North Reef and South Reef have mixed colonies of boobies and terns, and are breeding and rookery grounds for migratory and resident seabirds. North Reef, in particular, is the breeding ground of seabird species, including the endemic subspecies of black noddy, brown booby, red-footed booby, brown noddy, sooty tern, great crested tern, and important rookery of the critically endangered Christmas Island frigate. Threatened species such as the Chinese egret are also found within the Tubbataha Reefs Natural Park.

The park contains roughly 10,000 hectares of coral reef and more than 86,000 hectares of surrounding waters, lying at the heart of the Coral Triangle which is the center of global marine biodiversity. In 2007, the University of the Philippines in the Visayas conducted a study on the distribution and dispersal of fish larvae in the Sulu Sea. The study revealed that Tubbataha Reefs, Jessie Beazley, and Cagayancillo are major sources of coral and fish larvae, seeding the greater Sulu Sea. This is

very significant, since the Philippines, the second largest archipelago in the world, relies heavily on its marine resources for the livelihood and food of the local communities.

Opportunities for scientific research and recreation

Tubbataha Reefs is managed under a strict ‘no-take’ policy. The only activities allowed are research and tourism. Various studies have been conducted on the park to determine management effectiveness and provide inputs for decision-making and efficient park management. Various institutions contribute technical, manpower or financial support in the conduct of research activities.

Extensive surveys of the Tubbataha Reefs were carried out in 1982 by the Marine Parks Survey Team with researchers from the Natural Resources Management Center, Bureau of Fisheries and Aquatic Resources, and UP Marine Science Center. This resulted in

How to get there

The park is accessible by boat transport either from Manila or Puerto Princesa, Palawan. Boat travel from Puerto Princesa, Palawan is approximately 12 hours.

a report with a comprehensive description of ten transect stations and visual observations of the reefs features and inner lagoon habitats. In 2006, World Wide Fund for Nature-Philippines published a case study entitled “Tubbataha Reefs: A Marine Protected Area that Works”. The case study was the third one conducted by the NGO, which analyzes how Tubbataha is able to exist as a protected area.

Tubbataha Reefs Natural Park is considered as one of the top scuba diving destinations in the world. Although the reefs are not easily accessible, they are visited by many local and foreign divers usually between March and June. Snorkeling is possible in all shallow portions of the reef. □



PHILIPPINES

MT. HAMIGUITAN RANGE

Wildlife Sanctuary



Covering 6,834 hectares, Mt. Hamiguitan Range Wildlife Sanctuary (MHRWS) is shared by seven barangays namely, Macambol and Cabuaya of Mati; La Union, Maputi and Talisay of San Isidro; and Osmena Sr. and Tandang Sora of Governor Generoso, all in the province of Davao Oriental. Declared a protected area under Republic Act 9303 on 30 July 2004, MHRWS is managed by a Protected Area Management Board and the Biodiversity Management Bureau of the Department of Environment and Natural Resources of the Philippines.

Photo courtesy of www.sanisidro.gov.ph





Region: Region XI
Province: Davao Oriental
City/Municipality: Municipalities of Mati, Gov. Generoso, and San Isidro
Area: 6,834 hectares
Year/date of establishment: 30 July 2004
Legal instrument: RA 9303 or Mt. Hamiguitan Range Wildlife Sanctuary Act of 2004

The highest point in the sanctuary is Mt. Hamiguitan, which stands at 5,345 feet above sea level. Mt. Hamiguitan is distinguished by a bonsai field or 'pygmy' forest of 100-year-old trees on ultramafic soil. Noted for its rich biodiversity, the protected area has also been identified as one of the Key Biodiversity Areas in the country.

Mossy forests yield rich biodiversity

Major forest types in the sanctuary include cultivated forests with brushland and grassland at the lower portions of the park; secondary growth forest; and mossy forest in the highlands. Trees within the mossy-pygmy forest have an average height of only 1.4 meters with a diameter of eight centimeters. One of the dominant species that can only be found in this forest type is *tinikaran* or red fig tree and *Wendlandia nervosa*. Other rare plant species found on Mt. Hamiguitan include the slipper orchid, nepenthes, staghorn fern, rhododendrons, and Philippine hardwoods such as *yakal* and *tangile*.

Recorded fauna species in MHRWS include endemic mammals such as the golden-crown flying fox, Philippine tarsier, Philippine warty

Recorded wildlife in MHRWS

- 957 species of plants
- 423 species of animals
- 16 species of mammals
- 53 species of birds



Sleeper orchid



Golden-crown flying fox



Philippine cockatoo



Photo courtesy of www.wayph.com

Tinagong Dagat

pig, Philippine brown deer, Philippine mossy-pygmy fruit bat, Philippine monkey, Philippine palm civet, Philippine tree squirrel, Philippine common field rat, and Mindanao wild pig.

The Philippine eagle has been recorded in the park, as well as endemic bird species including the Philippine glossy starling, Philippine flowerpecker, Philippine turtle dove, Philippine coucal, Philippine hawk-eagle, Mindanao bleeding-heart, Philippine cockatoo, and the Philippine dwarf kingfisher.

In 2006, a yellow-brown rodent was discovered in the pygmy forests of Mt. Hamiguitan and identified as a new species. The discovery of the Hamiguitan hairy tailed rat reinforces the rich biodiversity of the wildlife sanctuary and strengthens the need for its effective conservation.

Recreational opportunities

Visitors can enjoy a number of recreational pursuits in Mt. Hamiguitan. Some of the local attractions include the Tinagong Dagat or Hidden Lake, which has an area of about five hectares.

The bonsai field or pygmy forest is located southeast from Mt. Hamiguitan and covers an estimated area of 1,234.56 hectares. The area looks like a ricefield from a distance. Plant species found in the pygmy forest include *almaciga*, *cedar*, *lokinai*, *yakal*, *dapdap* and *bitanghol*. On the southern portion of the bonsai field are springs, which run into two creeks.

Visitors can also visit Licub Falls and several other waterfalls on the headwaters of the Dumagooc River. The more adventurous tourists can opt to climb Mt. Hamiguitan. There are tremendous opportunities for bird watching, trekking and camping in the wildlife sanctuary.

Various routes to the peak

The protected area is accessible on the western side in three routes. The first route, which is frequently used, is via Sitio Mahayag of Barangay La Union, the starting point of the travel, which is accessible by land transportation and is about 25 kilometers from San Isidro Proper. From Sitio Mahayag, it would take a day hike to reach

How to get there

Regular flights are available from Manila to Davao City. From Davao City, ride a bus to the Municipality of San Isidro which will take around 2 ½ hours. Buses are also available from Davao City to Mati, with a travel time of 4 hours.

the dipterocarp forest and another six hours hiking the following day to reach the bonsai field or pygmy forest, and another two hours hike to reach Tinagong Dagat. Another day hike is reserved to reach the peak of Mt. Hamiguitan.

Another route is via Purok 8 of Barangay Sergio Osmeña River upstream from Purok 4, the starting point of the hike. Purok 4 is accessible by any land transport and is about seven kilometers from the town proper of Governor Generoso.

The third route, which is via Sitio Magum of Macambol, is not frequently used due to its difficult terrain. Sitio Magum is about 45 minutes by pump boat (motorized banca) from Macambaol, which is also about 45 minutes by pump boat from the port of Mati. □

ACB NEWS

ASEAN honors Champions of Biodiversity

THREE youth leaders from Indonesia and a business newspaper from the Philippines were honored as the 2014 ASEAN Champions of Biodiversity for their outstanding work in biodiversity conservation and advocacy. The awarding ceremony was held on 26 November 2014 at the Legend Villas in Mandaluyong City, Metro Manila, Philippines.

The winners in the Youth Category are Indonesia’s Adeline Suwana of the Sahabat Alam youth organization, and twins Giovanna and Gabriella Thohir of The Bekantan Twins Project. The Philippines’ BusinessMirror was recognized as the Media Champion of Biodiversity.

The awarding ceremony was addressed by Secretary Ramon J.P. Paje of the Philippines’ Department of Environment and Natural Resources (DENR) ; Dr. Braulio Ferreira de Souza Dias, Executive Secretary of the UN Convention on Biological Diversity (CBD); Atty. Roberto Oliva, Executive Director of ACB; and Dr. Berthold Seibert, Project Director of the BCCP.

Adeline Suwana founded Sahabat Alam, an internationally known youth environmental organization with thousands of members all over Indonesia. Adeline and Sahabat Alam generate awareness of biodiversity conservation through school seminars, events, talk shows, films, and various activities to encourage young people to do something for the environment. In a span of five years, Adeline has blossomed from a 12-year-old girl who organized a small mangrove planting trip with her classmates to a 17-year-old advocate who is recognized as a credible voice of the youth in Indonesia’s environmental movement.

Twin sisters Gabriella and Giovanna Thohir and The Bekantan Twins Project are championing biodiversity by inspiring fellow youth and the public in Indonesia to conserve the endangered bekantans (proboscis monkeys). Gabriella and Giovanna have taken a crucial step in keeping the bekantans alive. With the overflowing support from partners, colleagues, friends, communities, and the media, their supporters say that their dream will soon become a reality.

BusinessMirror, one of the leading newspapers in the Philippines, prioritizes biodiversity reportage by devoting a full section to biodiversity-related stories each week. Living up to its commitment of providing a ‘broader look at today’s business,’ the BusinessMirror is promoting biodiversity conservation through its day-to-day reportage and special reports, as well as its evaluation and presentation of stories across all sections. The newspaper continues to promote biodiversity as no less than the business of living.

In his keynote message read by Undersecretary Jonas R. Leones, Secretary Paje said the ASEAN Champions of Biodiversity shows that the region is not only home to biologically significant



species and ecosystems, but also to globally significant and worthy individuals and groups who can champion the cause of conservation. “I urge our fellow Filipinos and our friends from the other ASEAN Member States to join us in our efforts to conserve biodiversity. Fighting biodiversity loss and its impacts is a shared responsibility among all of us who stand to lose so much – our planet and its natural treasures that sustain our very existence.”

In his video message, Executive Secretary Dias of the CBD said the ASEAN Champions of Biodiversity contributes to the attainment of Aichi Target No. 1 which states that by 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

“You have selected biodiversity champions from the youth and business sectors – key participants that we need to mobilize if we are going to ensure sustainable consumption and production. It is proof that biodiversity conservation and advocacy is not the sole turf of the environment sector. People and organizations from all walks of life have their stories to tell on how they are conserving our web of life,” Mr. Dias said.

ACB Director Oliva said, “This year’s winners are modern-day heroes who bring biodiversity closer to everyone, and inspire people to take action and conserve biodiversity. The ASEAN Champions of Biodiversity seeks to become a force multiplier by identifying and engaging leaders among various sectors who will spread awareness for the urgent need to conserve biodiversity.”

“Congratulations to the 2014 ASEAN Champions of Biodiversity. I hope that your achievements will generate more champions in the future and inspire all of us to play our roles in ensuring a sustainable biodiversity in the ASEAN region,” Dr. Seibert of the BCCP said.

Organized by the ASEAN Centre for Biodiversity (ACB) and the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) of Germany through the Biodiversity and Climate Change Project (BCCP), the ASEAN Champions of Biodiversity is a recognition program for outstanding initiatives on conserving and advocating biodiversity in Southeast Asia.

Indonesians boost ASEAN cooperation on biodiversity conservation

ENVIRONMENTAL workers from the Indonesian Government have boosted ASEAN cooperation on biodiversity conservation by sharing their knowledge and experiences through the ASEAN Centre for Biodiversity's (ACB) Secondment Programme, supported by Germany's GIZ through the ACB-GIZ Biodiversity and Climate Change Project. The two Indonesians are Mr. Nofi Sugiyanto, Superintendent of Nature Lovers and Conservation Cadres, Ministry of Forestry; and Mr. Ridwan Fauzi Hut, Forest Extension Specialist, Kelimutu National Park Office, Ende-Flores, East Nusa Tenggara.

Through the Secondment Programme, the Indonesians had an opportunity to learn and exchange experiences with ACB's biodiversity experts from October to December, 2014. The programme earlier received seconded officers from Lao PDR, Thailand and Viet Nam.

"I had an in-depth knowledge on the mandates of ACB through this Secondment Programme. I was able to enhance my knowledge on ASEAN Heritage Parks and its sustainable management," said Mr. Sugiyanto.

Mr. Fauzi said, "One important reason why I applied for the Secondment Programme is to better promote the conservation and sustainable use of the biological resources of Kelimutu National Park through the knowledge that I will gain from this learning experience."

The ACB Secondment Programme is a capacity building initiative that promotes and facilitates the direct participation of government officers and staff from the ASEAN Member States in carrying out selected functions of ACB through short-term assignments. The programme aims to foster shared understanding and appreciation of ACB mandates and the capacity building needs of the ASEAN Member States; familiarize the ASEAN Member States on the institutional setup and work processes of ACB and vice versa; bolster mutual learning through exchange of information, expertise and lessons learnt; and enhance coordination and interaction processes between ACB and the ASEAN Member States.

"The direct involvement of the ASEAN Member States in ACB operations through the participation of their nationals is a pro-active approach to capacity building. Learning experience is maximized by face-to-face interactions and hands-on application, making the programme effective," said Atty. Roberto V. Oliva, Executive Director of ACB.

Mr. Norman Ramirez, coordinator of the Secondment Programme, said the initiative contributes to capacity building of ASEAN Member States and their ownership of the ACB. "The programme provides an alternative approach to complementing usual ACB work processes. Cooperation between ACB and the ASEAN Member States will also be strengthened. Country-specific inputs will enable ACB to work in a more targeted, demand-oriented and efficient manner."



During their secondment with ACB, the Indonesian environmental workers accomplished the following: assisted in the implementation of programmes and projects of ACB, including the ACB-KfW Small Grants Programme and/or the ACB-GIZ Biodiversity and Climate Change Project; developed a flyer for selected ASEAN Heritage Parks in Indonesia; illustrated governance structure or protected areas in Indonesia; conducted field visits to AHPs/protected areas; and assisted ACB in meetings and workshops.

ACB continues to strengthen taxonomic skills in ASEAN

"HOW can you protect what you do not know?" This has always been a major question in biodiversity conservation and a driving force to strengthen capacities in taxonomy. The lack of trained human resources and skills in taxonomy, or the field of science that encompasses the description, identification, nomenclature, and classification of organisms, has been stressed as one of the obstacles in effective biodiversity conservation, and is thus among the priority programmes in ASEAN and of the ASEAN Centre for Biodiversity (ACB).

Biodiversity resources in Southeast Asia and the rest of the world are being lost at an unprecedented rate and governments and conservation organizations are in a race to reverse this trend. Taxonomy is a crucial tool in conservation as it provides a basic understanding of the components of biodiversity, which is necessary for effective decision-making about conservation and sustainable use of fast dwindling biological resources.



As part of efforts to implement the Global Taxonomy Initiative (GTI) of the Convention on Biological Diversity (CBD), the ASEAN Centre for Biodiversity has developed a project on *Taxonomic Capacity Building on Bryophytes, Pteridophytes and their Allies*, which is supported by the Japan-ASEAN Integration Fund (JAIF). The project conducted a workshop on the *Extended Taxonomic Capacity Building for Sustainable Use of Biodiversity: Bryophytes, Pteridophytes and Economically-Important Insects (Predators and Parasitoids)* on 1-5 September 2014 at the Queen Sirikit Botanic Garden in Chiang Mai, Thailand.

Dr. Filiberto Pollisco Jr., policy and research specialist at the ACB, explained that “Bryophyte refers to all embryophytes or land plants that do not have true vascular tissue and are therefore called non-vascular plants”. It is a collective term for mosses, hornworts, and liverworts, and is derived from the Greek bryon (tree-moss, oyster-green) and phyton (plant). He added that pteridophytes are vascular plants that reproduce and disperse via spores. This group includes ferns, horsetails, clubmosses, spikemosses, and quillworts.

The training workshop strengthened the ASEAN Member States’ capacity in taxonomy, particularly on the terrestrial insects group on predators and parasitoids. It introduced the participants to the taxonomy and general biology of predatory and parasitoid insects; upgraded their skills on methods of morphological observation, and sample collection, processing and managing specimens; and provided participants with hands-on experience in sample collection.

The training workshop also provided the foundation for plans to establish insect museums in ASEAN Heritage Parks. This will add to the body of knowledge of biodiversity in ASEAN’s protected areas, create conservation interest for overlooked but equally important organisms, and stimulate local ecotourism.



ASEAN strengthens biodiversity heritage parks

TWENTY-FIVE protected area management experts from the 10 ASEAN Member States met on 4-6 November 2014 in Petchaburi, Thailand to discuss ways to further strengthen the network of ASEAN Heritage Parks – protected areas that are home to some of the world’s most enigmatic species and harbor a globally significant wealth of biodiversity. Organized by the ASEAN Centre for Biodiversity (ACB) and hosted by the Department of National Parks, Wildlife and Plant Conservation (DNP) of Thailand, the Workshop on the ASEAN Heritage Parks (AHP) Programme was supported by Germany, through the ACB-GIZ Biodiversity and Climate Change Project (BCCP).

The participants reported on the status of AHPs in their respective countries; discussed the institutional setup of the AHP Programme; reviewed the criteria for nomination of new AHPs; determined the capacity building and funding needs of AHPs; scrutinized the monitoring and evaluation system and the AHP regional action plan 2014-2020; and recommend ways forward for the AHP Programme. After the workshop, the participants visited Kaeng Krachan National Park, one of Thailand’s four AHPs.

At the opening ceremony, Ms. Clarissa Arida, director for programme development and implementation, ACB, said that although the AHPs are rich in biodiversity, the biodiversity resources in these parks are threatened with various drivers of biodiversity loss which include, among others, habitat destruction and fragmentation, climate change, introduction of alien invasive species, unsustainable use and over-exploitation, and pollution. She emphasized the urgent need to effectively manage the AHPs to ensure biodiversity conservation.

The opening ceremony was also addressed by Ms. Suneek Sukseva, representative of Director General Niphon Chotibal,

DNP; Ms. Mardiah Hayati, technical officer, socio-cultural community department, ASEAN Secretariat; and Dr. Berthold Seibert, project director, BCCP.

Resource speakers included Dr. Dicky Simorangkir, BCCP Senior Advisor; Dr. Monina Uriarte, BCCP consultant; Dr. Filiberto Pollisco, Jr., ACB policy and research specialist; and Mr. Norman Ramirez, ACB capacity development specialist. Facilitator was Dr. Rahimatsah Ahmat, chief executive officer, Sabah Environmental Trust.

ASEAN to heighten public awareness of biodiversity

GOVERNMENT communication officers and biodiversity experts from the ten ASEAN Member States met in the Philippines for a three-day workshop on heightening public awareness of biodiversity issues and concerns. The ASEAN Biodiversity Communication, Education and Public Awareness (CEPA) Workshop was conducted from 24 to 26 November at the Legend Villas in Mandaluyong City. The opening programme was addressed by Dr. Theresa Mundita Lim, executive director of the Biodiversity Management Bureau of the Department of Environment and Natural Resources; Atty. Roberto Oliva, executive director of the ASEAN Centre for Biodiversity (ACB); and Dr. Bertholt Seibert, project director of the ACB-GIZ Biodiversity and Climate Change Project (BCCP).

The workshop strengthened the capacity of ASEAN Member States in promoting public awareness of the values of biodiversity to help reduce the rate of biodiversity loss. “The workshop is a contribution of the ASEAN Member States and ACB in realizing Target No. 1 of the global biodiversity Aichi Targets. Target No. 1 states that by 2020, at the latest, people are aware of the

values of biodiversity and the steps they can take to conserve and use it sustainably,” ACB Executive Director Roberto Oliva said.

Organized by ACB and supported by the Government of Germany through the BCCP, the workshop assisted ASEAN Member States in strengthening their CEPA strategies to enable them to meet their commitments as Parties to the Convention on Biological Diversity; shared good CEPA practices from the ASEAN region and other parts of the world; identified challenges and discussed actions to strengthen ASEAN Member States’ capacity to communicate biodiversity; enhanced the participants’ skills in preparing national CEPA strategies; drafted an outline of the ASEAN Regional CEPA Strategy; and established a network of communicators who will take the lead in promoting biodiversity conservation in the ASEAN Member States.

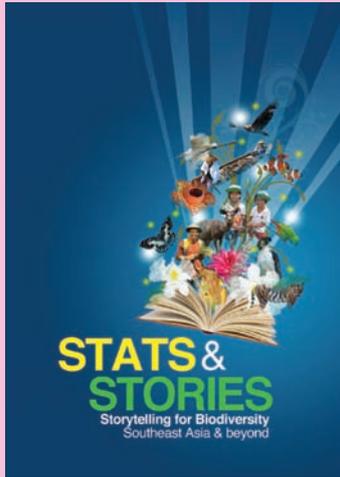
The Commission on Education and Communication (CEC) of the International Union for Conservation of Nature (IUCN) supported the workshop by assigning Dr. Jinie Dela from Sri Lanka, Director, Probe for Nature (Pvt) Limited, as key resource speaker. Dr. Dela is a member of the CEC. Joining her as resource speakers were Ms. Durudee Sirichanya, Head of Public Outreach and Civil Society Division, ASEAN Secretariat; and Rolando Inciong, Director for Communication and Public Affairs, ACB.

Director Inciong said having Dr. Dela as a resource speaker was an opportunity to promote the CEPA Toolkit developed by IUCN for the Convention on Biological Diversity. He thanked the Chairperson of CEC-IUCN Dr. Juliane Zeidler for approving the participation of Dr. Dela in the workshop. He also cited the inputs made by Wendy Goldstein and Frits Hesselink in the lecture materials shared by Dr. Dela.



Storytelling for biodiversity

WHAT is biodiversity? Unlike other environmental concerns such as pollution, climate change, and deforestation which can easily be defined, biodiversity is a strange term for many people. For easy public understanding of biodiversity and its importance to human development and survival, the ASEAN Centre for Biodiversity (ACB) and



the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH of Germany, through the ACB-GIZ Biodiversity and Climate Change Project (BCCP), launched a book that features simple stories explaining biodiversity issues and concerns.

Stats & Stories – Storytelling for Biodiversity Southeast Asia & Beyond, a book compilation of feature stories on biodiversity written by Philipp Gassner, was launched on 26 November 2014 at the Legend Villas Hotel in Mandaluyong City.

Gassner, a native of Germany, is an interface expert, with a passion for knowledge, people and the environment. Dedicated to the strategic communication of sustainability, Gassner combines content owed to his strong academic pedigree as cross-disciplinary environmental scientist with method from his seven-year international track record in science communication, project management, and consultancy. Currently, Gassner is taking up graduate studies in Environmental Governance and is working as a consultant for the BCCP.

Stats & Stories is a unique attempt to tell stories about biodiversity. It hopes to contribute to the promotion of biodiversity conservation using simple and clear language. People always love a good story. Be it the ones told at the bonfires or by Hollywood movies. So why not also tell stories of biodiversity? If we want people to understand biodiversity and to create real behavior change, we must turn data into drama, numbers into narrative, and stats into stories,” Gassner explained.

“Stories grab us because they add emotion, characters and detail to bare facts. Stories are as old as language and our brains are built to learn from stories, as we have done over thousands of generations. Stories capture our attention and create empathy as well as help us understand and remember messages,” Gassner added.

The biodiversity storybook takes the reader on a journey along the Strategic Goals of the UN Convention on Biological Diversity. Focusing on Southeast Asia, home to four of the world’s biodiversity hotspots, *Stats & Stories* is a resource material for ordinary people.

In his foreword for *Stats & Stories*, Executive Director Braulio Ferreira de Souza Dias of the UN Convention on Biological Diversity said the book contributes to the attainment of the global biodiversity Aichi Target No. 1 which states that: “By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably”.

Dr. Berthold Seibert, BCCP Project Director, said storytelling provides entertainment and at the same time brings complex issues such as biodiversity closer to the reader.

Atty. Roberto Oliva, ACB executive director, said *Stats & Stories* are tailored to the growing number of middle class educated populace in Southeast Asia, being interested in issues of sustainable development. They are also written for facilitators, communicators, educators in the region, and their strategic communication.

2014 Science Film Fest highlights future technologies

NEW technologies that will shape our future are the focus of the 2014 Science Film Festival (SFF) which opened on 4 November 2014 at the Mind Museum in Taguig City, Philippines. The SFF is organized by the Goethe Institut (GI) and other partners, including the ASEAN Centre for Biodiversity (ACB).

The SFF has been serving as an alternative way for students to learn more about science and technology and its relevance to the society. This film festival is held annually across Southeast Asia and in the Middle East.

For this year, the featured films tackle future technologies like genterch, nanotech, synthetic biology, graphene, algae fuel, and quantum computers, as well as the developments in other fields of contemporary science.

The opening program featured the films *Nine-And-A-Half: Life Without Plastic* and *Annedroids - New Pals*. *Life without Plastic* is a documentary where a boy experimented to live without plastic for 24 hours. *Annedroids* is a science-based action-adventure that tells a story of genius kid-scientist Anne, her kid assistants Nick and Shania, and her android creations.





As part of the SFF, teachers, students, and other participants witnessed a number of science experiments including making of homemade ointments and Do-It-Yourself robots.

As one of the venue partners, ACB hosted a series of screenings from 12 November to 6 December 2014 for schools based in Los Baños, Laguna.

As a side event, an on-the-spot poster-making contest was conducted every after film screening at the participating schools. The competing artworks illustrated “How students can help conserve biodiversity.” Each artwork will be evaluated according to message and relevance to the theme, artistry and creativity, and mastery of the medium.

ACB selected the top 10 finalists and will award the winners in January 2015 at the ACB Conference room. The winners will receive cash prizes and medals.

ASEAN to strengthen AHP Programme

MANAGERS of ASEAN Heritage Parks (AHP) and members of the AHP Committee met in Petchaburi, Thailand on 4-6 November 2014 to discuss ways in strengthening the ASEAN Heritage Parks Programme.

The AHPs are home to very rare and endangered species and all have outstanding wilderness and other important val-



ues. There are 35 AHPs in Southeast Asia, providing habitats for some of the world's most enigmatic species and harboring a globally significant wealth of biodiversity. However, these AHPs and the biodiversity resources in them are threatened with various drivers of biodiversity loss which include, among others, habitat destruction and fragmentation, climate change, introduction of alien invasive species, unsustainable use and over-exploitation, and pollution.

Organized by the ASEAN Centre for Biodiversity (ACB), in partnership with the ACB-GIZ Biodiversity and Climate Change Project (BCCP) and the Department of National Parks and Wildlife Conservation of Thailand, the workshop provided a venue for AHP managers, AHP Committee Members, and the AHP Secretariat to discuss the following issues related to the management of AHPs: institutional set up of AHP programme and management, criteria for nomination of AHPs, trainings and other capacity-building needs of the AHPs, fund mobilization/generation, monitoring and evaluation system, and assessment of management effectiveness of AHPs.

Outputs of the workshop include a proposals on institutional setup of AHP programme and management, criteria for nomination of new AHPs, priority trainings and other capacity building needs of AHPs, fund generation schemes for AHPs, monitoring and evaluation system for AHPs, to include among others, management effectiveness assessment, and the Regional Action Plan for AHPs for 2014-2020. These outputs will be presented and discussed at the meetings of the ASEAN Working Group on Nature Conservation, ASEAN Working Group on Coastal and Marine Environment, and the ACB Governing Board. If agreed by these bodies, the outputs will be recommended for approval by the ASEAN Ministers.

Germany and ASEAN boost cooperation on biodiversity conservation

GERMANY and the Association of Southeast Asian Nations (ASEAN) raised the bar on their cooperation on biodiversity conservation when Mr. Hans-Joachim Fuchtel, German Parliamentary State Secretary to the Federal Ministry for Economic Cooperation and Development (BMZ), visited the headquarters of the ASEAN Centre for Biodiversity (ACB) at the foot of Mt. Makiling in Los Baños, Philippines.

In his message, Secretary Fuchtel praised the ASEAN and ACB for their work in conserving the region's biodiversity. He emphasized that his mission was to familiarize himself with German-funded initiatives and how German taxpayers are being invested in protecting the environment. "This will contribute to the understanding by the German people of the ASEAN-Germany cooperation process so that we can further strengthen our ties with this region," Mr. Fuchtel said.

The German State Secretary's delegation included Mr. Michael Hasper, Chargé d'Affaires of the German Embassy in



Hans-Joachim Fuchtel, German Parliamentary State Secretary to the Federal Ministry for Economic Cooperation and Development (BMZ), plants a tree in Mt. Makiling during his visit to the headquarters of the ASEAN Centre for Biodiversity in the Philippines.

Manila; Mr. Hubertus Graf vonPlettenberg, Head of Corporate Management of the Deutsche Investitions-und Entwicklungsgesellschaft (DEG); Ms. Anna de Guzman from the Economic Cooperation and Humanitarian Aid and Ms. Caroline Sperling from the Economic Cooperation Division, German Embassy; Ms. Olga Caday-Asana from GIZ Philippines; Mr. Benjamin Hecker, Private Secretary of the State Secretary; and Ms. Anja Niemann, the English translator of the State Secretary.

The high-level German official was briefed by Atty. Roberto Oliva, ACB Executive Director, who explained his organization's mandate in promoting cooperation on biodiversity conservation and sustainable management among the ten ASEAN Member States and international partners, including Germany. Joining Director Oliva in welcoming the German visitors were other ACB officials: Dr. Sheila Vergara, director, Biodiversity Information Management; Rolando Inciong, director, Communication and Public Affairs; Lauro Punzalan, protocol officer; Dr. Filiberto Pollisco, Jr., policy research specialist; and Norman Ramirez, programme officer.

The meeting was also attended by consultants with German-funded ACB initiatives: Dr. Berthold Seibert and Dr. Dicky Simorangkir of the ACB-GIZ Biodiversity and Climate Change Project and Mr. Gunther Meyer of the ACB-KfW Small Grants Programme.

After the meeting and despite the rains over Mt. Makiling, one of the 33 ASEAN Heritage Parks, Mr. Fuchtel and his party planted trees at the Makiling Botanic Gardens. "Biodiversity is a vital global issue for the future so I make it a point to plant a tree whenever I travel to different countries. It is my official and personal advocacy," Mr. Fuchtel said after the tree planting with officials from the Makiling Center for Mountain Ecosystems led by Dr. Nel Bantayan and Dr. Manny Castillo.

A major ASEAN-Germany cooperation initiative on the environment is the Biodiversity and Climate Change Project being implemented by ACB and funded by GIZ. The project is strength-

ening the capacity of ACB and the ASEAN Member States in mitigating climate change through biodiversity conservation. This year, ACB is launching a four-year Small Grants Programme funded by KfW (German Development Bank). To be implemented initially in Indonesia and Myanmar, the programme aims to contribute to biodiversity protection and management and improvement of livelihood of people in the ASEAN Heritage Parks areas. Another German-funded initiative that will soon be launched by ACB is the project on Biodiversity-based Products as an Economic Source for the Improvement of Livelihoods and Biodiversity Protection.

ASEAN Member States discuss control of invasive alien species

ENVIRONMENTAL workers involved in controlling and managing invasive alien species (IAS) met on 24-26 September 2014 in Kuala Lumpur, Malaysia for a Workshop on *Classical Biological Control of Invasive Alien Species and Action Planning*. The workshop, with 33 participants and resource speakers from nine ASEAN Member States, was co-organized by CABI Southeast Asia's Forest Invasive Species (FORIS) and the ASEAN Centre for Biodiversity (ACB).

The workshop updated the ASEAN Member States on the global and regional IAS programmes; shared information on the classical and other management measures in the control of IAS, particularly in the forestry sector; provided a platform



for sharing of country programmes in the control and management of IAS; 4) came up with a regional action plan for the control and management of IAS, especially in forests; and established an informal network of IAS managers in Southeast Asia.

During the opening programme, Dr. Filiberto Pollisco, Policy and Research Specialist of ACB, welcomed the participants and emphasized the timeliness of the workshop, "as there is still some confusion in the region regarding defining invasive alien species. We know what IAS is, but among experts, there may be differing opinions regarding the subject."

Dr. Loke Wai Hong, Regional Director of CABI Southeast Asia, introduced the speaker for the plenary presentation. Mr. Arne Witt, Technical Adviser of the FORIS project, presented an overview and global situation of IAS, including current management and control methods. He highlighted CABI's initiatives on classical biological control and integrated pest management.

The workshop had five sessions: regional scenarios; country scenarios; experiences with IAS; risks, methodologies, experiences and potential projects on classical biological control, and next steps and actions after the workshop.

Other speakers included Mr. Max Zieren from the United Nations Environment Programme (UNEP) and Task Manager, FORIS project; Dr. A. Sivapragasam, International Project Coordinator, FORIS project; Mr. Christian Elloran, Database Specialist, ACB; Ms. Erica Villavelez, Senior Research Associate, ACB; Dr. Thomas Jaekel, GIZ; Dr. Carol Ellison, CABI; and Dr. Michael Day, Queensland Government, Australia. Representatives of participating ASEAN Member States presented the status of IAS in their countries, including the management and control methods and national policies in place to address the invasive alien species.

CABI is an international not-for-profit organization that improves people's lives by providing information and applying scientific expertise to solve problems in agriculture and the environment. Through knowledge sharing and science, CABI helps address issues of global concern, such as safeguarding the environment and improving global food security. CABI helps farmers grow more and lose less of what they produce, combating threats to agriculture and the environment from pests and diseases, protecting biodiversity from invasive species, and improving access to agricultural and environmental scientific knowledge. It has 48 member countries guiding and influencing its core areas of work. These include development and research projects, scientific publishing and microbial services.

The FORIS project is a regional project funded under the Global Environment Facility (GEF) through the UNEP, which aims to manage Southeast Asian forests and biodiversity sustainably by reducing negative environmental, economic and human health consequences of invasive alien species.



ASEAN and China strengthen implementation of NBSAPs

REPRESENTATIVES from ASEAN Member States and China, together with partner international organizations, gathered on 4-5 December 2014 in Bangkok, Thailand for a workshop to enhance their capacity for biodiversity conservation, through the implementation of their National Biodiversity Strategy and Action Plans (NBSAPs) to achieve the Aichi Targets under the Convention of Biological Diversity (CBD).

The workshop was co-convened by the United Nations Environment Programme (UNEP), ASEAN Centre for Biodiversity (ACB) and China-ASEAN Environmental Cooperation Center (CAEC), in order to showcase and disseminate the outcomes of the activities implemented under the project on “Strengthening the Capacity of South East Asian Countries for the Implementation of the Biodiversity Strategic Plan 2011-2020 and Aichi Targets”, which was launched in 2013 to promote the sharing of knowledge and experience among ASEAN countries and China.

The workshop provided opportunities for ASEAN Member States, China and partner organizations to discuss the priority areas for follow-up project activities, given the fact that substantive additional efforts are required to ensure the successful implementation of revised NBSAPs. As highlighted under the Strategic Plan for Biodiversity 2011-2020, such efforts should fully integrate the obligations of multiple biodiversity-related Conventions.

The workshop shared the outcomes of the activities implemented under the project, particularly in Cambodia, Lao PDR and Myanmar; promoted sharing of knowledge and experiences among ASEAN Member States and China in implementing the Strategic Plan for Biodiversity 2011-2020 and Aichi Targets, including the revision and implementation of NBSAPs; presented a draft project report on “Policy Tools and Instruments for

Biodiversity Conservation and Sustainable Use: Good Practices in ASEAN and China”, and received feedback from ASEAN Member States and China; discussed and identified remaining challenges and the next steps for the synergistic implementation of revised NBSAPs, and other aspects of biodiversity conservation and sustainable use; and provided a platform for dialogues on further promoting the cooperation between ASEAN and China in the synergistic implementation of NBSAPs and their mainstreaming into development planning processes.

Resource speakers and facilitators included Margaret Oduk, Programme Officer, UNEP-Division of Environmental Law and Conventions; Isabelle Louis, Deputy Regional Director, UNEP Regional Office for Asia and the Pacific (UNEP-ROAP); Clarissa Arida, Director, Programme Development and Implementation, ACB; Peng Bin, Director, Division for China-ASEAN Cooperation, CAEC; Makiko Yashiro, Programme Officer, UNEP-ROAP; Ms. Wang Yuyi, Section Chief, Division for China-ASEAN Cooperation, CAEC; Lijie Cai, Programme Officer, CBD Secretariat; Ms. Somaly Chan, Director of International Convention and Biodiversity, Ministry of Environment, Cambodia; Inthavy Akkharath, Assistant to the Minister, Ministry of Natural Resources and Environment, Lao PDR; Pyi Soe Aung, Range Officer, Nature and Wildlife Conservation Division, Forest Department, Ministry of Environmental Conservation and Forestry, Myanmar; Xue Dayuan, Professor, College of Life and Environmental Science, Minzu University of China; Filiberto Pollisco, Jr, Policy and Research Specialist, ACB; Lew Young, Senior Regional Advisor for Asia and Oceania, Ramsar Convention Secretariat; Jonathan C. Gilman, Programme Officer, UNEP-ROAP; Scott Perkin, Head, Natural Resources Group, Asia Regional Office, IUCN; Anthony Charles Thomas M. Foronda, Project Coordinator, ACB; Rolando Inciong, Head, Communication and Public Affairs, ACB; Wang Yuyi, CAEC; Zhang Yuanyuan, Researcher, Minzu University of China; and Sumit Pokrel, Deputy Technical Program Head, GMS Environment Operations Center, ADB.

ASEAN and German to provide small grants to AHPs in Myanmar

THE ASEAN Centre for Biodiversity (ACB) and Germany's KfW, in cooperation with the Government of Myanmar and selected non-governmental organizations (NGOs), have launched a Small Grants Programme (SGP) that will support biodiversity conservation and livelihood development in selected ASEAN Heritage Parks (AHPs) in Myanmar.

The launch was highlighted by an inception workshop for stakeholders. The workshop was opened by Dr. Win Nang Thaw, Chairman of the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNBCB) and Director of the Nature and Wildlife Conservation Division, Forest Department, Ministry of Forestry, Myanmar.

Dr. Thaw read the opening message of the Director General of the Forest Department, Myanmar. The Director General emphasized that the SGP is a "great opportunity to strengthen conservation efforts and engage local communities in conservation through livelihood initiatives. The Director General said that Myanmar's National Biodiversity and Action Plan consists of action plan for promoting local communities' participation in biodiversity conservation and considering benefits of local people in management to increase the positive perceptions and attitudes towards protected areas and biodiversity conservation.

Mr. Guenther Meyer, International Chief Technical Adviser of the SGP, delivered the welcome message on behalf of the technical team. Atty. Roberto V. Oliva, Executive Director of ACB, thanked the Government of Myanmar for hosting the workshop, the SGP/Gitec technical team for the workshop preparations, and the participants from the government and NGOs of Myanmar. He emphasized that the SGP will empower local communities, NGOs and government ministries to ensure efficient management of the AHPs for the benefit of the people living in and around the AHPs.

The inception workshop solicited feedback from the stakeholders on the draft programme implementation manual and discussed a variety of concerns and suggestions to ensure successful implementation.



ACB conducts advanced course on taxonomy for terrestrial plants

AN advanced training course on taxonomy for terrestrial plants (bryophytes and pteridophytes) was conducted by the ASEAN Centre for Biodiversity (ACB) on 25 November – 2 December 2014 in Bali, Indonesia to develop and enhance the capabilities of potential ASEAN and ESABII network scientists.

Held in cooperation with the Universitas Dhyana Pura and funded by the Japan-ASEAN Integration Fund, the course oriented the participants on the identification, description and nomenclature of ferns and mosses found in Southeast Asia. Taxonomic experts from the ASEAN region and Japan served as resource persons to help participants understand nomenclature and applications of taxonomic methods and principles.

The workshop was held back-to-back with an orientation on biodiversity data management for taxonomists. Held in collaboration with ACB-GIZ Biodiversity Climate Change Project, the orientation briefed the taxonomists on how to organize their biodiversity information using simple online and offline databases developed by ACB.

The orientation enhanced the capacity of taxonomists to organize and manage species data with the use of globally accepted formats (e.g., Darwin Core 2 for species data and WDPA for protected areas data), and acquire relevant information into relevant trends useful for analysis. The participants were oriented on data paper publication and other data publishing tools available to initiate publication of their species data and scientific researches.

ACB PHOTO NEWS



ACB-Myanmar Bilateral Meeting. A bilateral meeting between ACB and Myanmar was conducted on 10 December 2014 following the launch of the German-funded Small Grants Programme (SGP) for ASEAN Heritage Parks. Possible cooperation activities for 2015 were discussed including a bilateral capacity building programme, Myanmar secondment with ACB, celebration of the 10th anniversary of ACB-Myanmar cooperation, and the full implementation of the SGP in Myanmar.



ACB Yearend Assessment.

Officers and staff of the ASEAN Centre for Biodiversity held their annual yearend assessment meeting on 18 December 2014 in Baguio City, Philippines where they discussed the strengths and weaknesses of the organization, including ways to improve the Centre's performance to better service the needs of the ASEAN Member States.



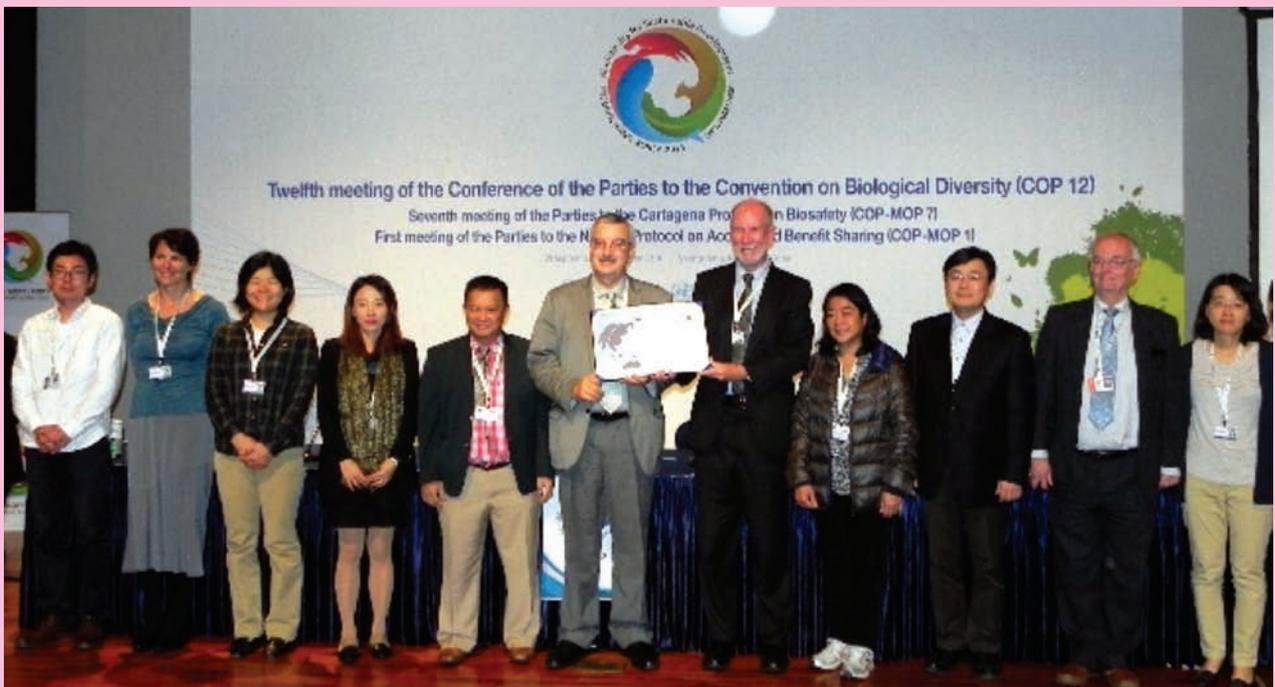
New EU Support.

Representatives of ASEAN Member States, ASEAN Secretariat, ASEAN Centre for Biodiversity, and the European Union (EU) met on 15 December 2014 in Los Baños, Philippines to discuss details of the new EU support to ASEAN in the areas of biodiversity conservation, climate change and protected area management. It will be recalled that EU was the major supporter of ACB until 2010. The new EU support demonstrates the strong cooperation between EU and the ASEAN.



JAIF Project Inception Workshop.

The ACB Internal Inception Meeting on the Japan-ASEAN Integration Fund (JAIF) Project on ASEAN Heritage Parks (AHPs) Development through Capacity Enhancement and Information Management was conducted on 17 December 2014 in Baguio City, Philippines. The project will enhance the capacity of AHP staff in ASEAN Member States to effectively manage and develop their parks. Preference will be given to AHPs which are not yet in advanced stages of development. There will be two project activities: training and capacity enhancement, and communication, education and public awareness.



ACB becomes the 33rd Partner of EAAFP. On 21 August 2014, the East Asian-Australasian Flyway Partnership (EAAFP) welcomed the ASEAN Centre for Biodiversity (ACB) as its 33rd Partner. The ACB supports the ASEAN Member States in conserving the globally important biodiversity of Southeast Asia, a very important region for migratory waterbirds and their habitats. Becoming an EAAFP Partner will build on existing cooperation between EAAFP and ACB, raise the profile of migratory waterbirds and their habitats among ASEAN Member States, and encourage conservation initiatives. In photo: ACB joins EAAFP in its memorandum of agreement signing ceremony with the Secretariat of the Convention on Biological Diversity in Pyongchang, Republic of Korea.

GLOBAL NEWS



Photo courtesy of UNEP GRID Arendal/Peter Prokosch

The Green-crowned Brilliant in Costa Rica

UN says benefits of investing in biodiversity protection outweigh financial costs

IMPLEMENTING measures that promote the sustainable use of biodiversity is a worthwhile investment that will bring multiple economic and environmental benefits to countries, according to a United Nations-backed report released on 17 October 2014.

The report, released at the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity in Pyeongchang, Republic of Korea, found that there is a gap across all countries and regions between investments needed to meet the 20 Global Biodiversity Goals known as the Aichi Targets, and the resources currently allocated to this endeavor.

“Even though political commitment is there, we don’t have a good financial investment plan behind it,” said Carlos Manuel Rodriguez, Chair of the High-Level Panel on Global Assessment of Resources for Implementing the Strategic Plan for Biodiversity 2011-2020, which authored the report.

“The report will help Parties to the CBD understand how we can develop these financial investment plans.”

The report also highlights benefits in areas such as health and well-being and food security that would benefit from higher investments in biodiversity initiatives.

Mr. Rodriguez, who is also the Vice President for Conservation Policy at Conservation International, stressed that countries should not simply think of higher expenditures, but they need to look for innovative ways in which development investments also take into account biodiversity.

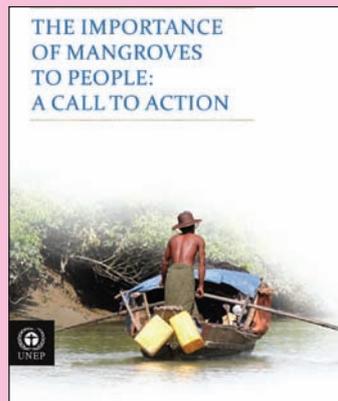
“Political coherence is urgently needed at the country level,” Mr. Rodriguez said. “If we see how governments behave, it’s quite contradictory. On the one hand, we see agencies promoting development with a high environmental cost, and on the other hand we see environmental agencies trying to repair the damage that development agencies have created. We need governments who are able to break down this kind of silo effect.”

Recommendations in the report include diversifying sources of finance for biodiversity; investing in protecting marine and land ecosystems with the view that this will tackle not just biodiversity issues but also wider development issues such as climate change; and strengthening dialogue between governments, the private sector and civil society on biodiversity initiatives.

“We hope that this report will allow parties to move forward actions at the national level as well as the Convention level that are consistent with the political commitment of the Aichi targets,” Mr. Rodriguez added. *UNEP*

UNEP calls for action on mangroves

ON the occasion of the 16th Global Meeting of the Regional Seas Conventions and Action Plans, the UN Environment Programme (UNEP) issued a report, titled 'The Importance of Mangroves to People: A Call to Action.' The report details the economic and environmental importance of mangroves, as well as tools and policy measures available for protecting them.



The publication aims to relay the economic benefits and ecosystem services provided by mangrove forests with a view to bolstering their conservation. It contains chapters on tropical mangrove ecosystems, mangrove ecosystem services, threats and drivers of change, conservation and management, and data and knowledge gaps.

The report underscores that "in spite of the mounting evidence in support of the multitude of benefits derived from mangroves, they remain one of the most threatened ecosystems on the planet, being lost at a rate greater than coral reefs and tropical rainforests." It notes that the destruction of mangroves results in some US\$6-\$42 billion in economic losses every year. The report projects that, from 2000 to 2050, Southeast Asia alone will lose 35 percent of its mangroves, which will threat-

en the continued provision of mangrove ecosystem services including carbon sequestration, fisheries and protection from extreme weather events.

The publication further delineates the economic value of mangrove-related ecosystem services, noting that 30 percent of the total fisheries catch in Southeast Asia is mangrove-dependent; mangroves provide coastal protection saving an estimated US\$7.3 million a year in dike maintenance costs in Viet Nam; and, in Brazil, mangroves capture heavy metal sediments that would otherwise cost US\$13 million to treat.

With regard to conservation, the report suggests the adoption of protocols under the Regional Seas Conventions for the protection and sustainable use of mangroves. It also recommends the establishment of a Global Mangrove Fund, the inclusion of mangroves in REDD+, the development of payments for ecosystem services mechanisms, and the inclusion of mangroves in marine spatial planning and related policies.

UNEP News/IISD News

Wildlife trafficking addressed on margins of UNGA General Debate

HEADS of States and Government and Ministers from countries affected by poaching and wildlife trafficking, as well as UN agency representatives and other stakeholders, discussed how to combat wildlife trafficking and curb poaching at a luncheon on "Poaching and Illicit Wildlife Trafficking: Towards Joint Action by the International Community." Germany and Gabon hosted the event on the margins of the UN General Assembly (UNGA) General Debate 2014, which took stock of progress on addressing the issues and raising awareness on illegal wildlife and poaching.





In 2013, around 20,000 African elephants were killed and South Africa lost 1,004 rhinos, according to UN Development Programme (UNDP) figures. In addition, trafficking has threatened Asian snow leopard and tiger populations as well as the Asiatic cheetah.

Speaking at the event, UNDP Administrator Helen Clark described poaching and illicit wildlife tracking as a human development issue, noting poaching affects rural communities, results in loss of life by rangers who confront poachers, and hurts tourism, which in turn negatively impacts community livelihoods. She said UNDP employs a three-pronged approach at national and local levels to addressing poaching: creating sustainable livelihoods; strengthening governance and law enforcement; and reducing demand for illegal wildlife products.

Clark called for continuing the fight against wildlife trafficking through the Convention on International Trade in Endangered Species of Wild Flora and Fauna and the UN Convention on Transnational Organized Crime. She highlighted several high-level meetings and discussions that have taken place on poaching and wildlife trafficking, including events in Chad, China, Gabon, and the US.

At the UNGA General Debate, Gabon reiterated its commitments to the London Declaration, which Botswana, Chad, China, Ethiopia, Gabon, Indonesia, Tanzania, and Viet Nam signed at an event in London, UK, in February 2014. The Declaration aims to eradicate demand for wildlife products, support sustainable development for communities affected by wildlife crime, and strengthen law enforcement. Gabon also stressed its commitment to fight against poaching and a maintain moratorium on trade in ivory. *IISD News*

CBD reviews progress on Plant Conservation Strategy

THE Convention on Biological Diversity (CBD) Secretariat has released CBD Technical Series No. 81, titled "Plant Conservation Report 2014: A Review of Progress towards the Global Strategy for Plant Conservation 2011-2020." The report was prepared to contribute to the mid-term review of the CBD's Strategic Plan for Biodiversity 2011-2020 and the associated Aichi Biodiver-

sity Targets, as well as the fourth edition of the Global Biodiversity Outlook.

The Global Strategy for Plant Conservation (GSPC) provides a framework for plant conservation at the global and national levels, and includes 16 targets covering all aspects of plant conservation and sustainable use. The report reviews progress made towards achieving the GSPC's targets, and finds that progress is not being made quickly enough to achieve them by 2020.

While the GSPC has been successful, conservation efforts have been inhibited by a lack of information on the distribution and conservation status of plants; and a decrease in botanical capacity and funding for plant conservation, in many places. The report thus urges governments to further engage with partners to best use the available expertise and resources, as well as fully involve indigenous and local communities and other stakeholders, to enhance plant conservation and ensure full implementation of the GSPC.

The report recalls that the first consolidated list of the world's plants (The Plant List) was completed in 2010, and now includes over 350,000 plant names, and the development of a World Flora Online is expected by 2020. Many plant species are restricted in range with a significant number being single country endemics, and islands being home to 35 percent of the world's endemic plants. The combined effects of habitat loss, pollution, invasive species and climate change are threatening plant diversity worldwide. However, the problem's scale remains unclear, as no list of globally threatened plants exists, but estimates suggest that at least one in five of plant species are threatened by extinction. *IISD News*



Korea launches forest initiative

TO assist countries in achieving the globally-agreed Aichi Biodiversity Targets, the Korea Forest Service launched the Forest Ecosystem



Restoration Initiative (FERI) on 14 October 2014, on the margins of the 12th Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD), held in Pyeongchang, Republic of Korea, in October 2014.

The Forest Ecosystem Restoration Initiative will provide support to Parties towards achieving Aichi Biodiversity Targets 5, 11, 14 and 15 by maximizing restoration efforts through knowledge-sharing and implementation and technical support.

"I commend the Republic of Korea for its impressive large-scale forest ecosystem restoration success, which incorporated a social campaign to mobilize communities in the effort," said Braulio Ferreira de Souza Dias, Executive Secretary of the CBD. "Through the FERI, this expertise can be shared at the global level to help other countries to achieve Aichi Biodiversity Target 15 and related targets."

The Republic of Korea, which plans to contribute USD6 million through the FERI to support restoration efforts, and will further its contribution depending on an assessment of project implementation, has substantial practical experience in forest restoration. Much of its territory was restored, with international support, from near-devastation 40 years ago to today's remarkable 64 percent forest cover. The FERI can therefore be thought of as a collaborative partnership which shares this experience in forest ecosystem restoration, recalling the support that the Republic of Korea received. The FERI draws upon the complementary strengths and advantages of each of its partners.

Envisaged to be a six-year initiative, the FERI would be a mechanism for assisting Parties to assess the potential costs and benefits of restoration; identify and assess areas with ecosystem and forest degradation; identify areas with high potential for forest and ecosystem restoration; implement appropriate restoration activities; and, manage the complex dynamics inherent in forest and ecosystem restoration.

The FERI would directly support developing country Parties as they operationalize national targets and plans for ecosystem conservation and restoration within the framework of Aichi Biodiversity Targets 5, 11 and 15. These targets should emanate from or be integrated into updated National Biodiversity Strategies and Action Plans and mainstreamed into broader national policies, plans and programmes. *CBD News*

Global appetite for resources pushing new species to the brink

FISHING, logging, mining, agriculture and other activities to satisfy our growing appetite for resources are threatening the survival of the Pacific Bluefin Tuna, Chinese Pufferfish, American Eel and Chinese Cobra, while the destruction of habitat has caused the extinction of a Malaysian mollusc and the world's largest known earwig, and threatens the survival of many other species – according to the latest update of the IUCN Red List of Threatened Species™ released at the IUCN World Parks Congress held in Sydney, Australia in November 2014.

The IUCN Red List, which celebrates its 50th anniversary this year, now includes 76,199 assessed species, of which 22,413 are threatened with extinction. As nearly half of the newly assessed species occur within protected areas, IUCN calls for better management of these places to stop further biodiversity decline.

"Each update of the IUCN Red List makes us realize that our planet is constantly losing its incredible diversity of life, largely due to our destructive actions to satisfy our growing appetite for resources," says IUCN Director General Julia Marton-Lefèvre. "But we have scientific evidence that protected areas can play a central role in reversing this trend. Experts warn that threatened species poorly represented in protected areas are declining twice as fast as those which are well represented. Our responsibility is to increase the number of protected areas and ensure that they are effectively managed so that they can contribute to saving our planet's biodiversity."

With the update, the Pacific Bluefin Tuna (*Thunnus orientalis*) has moved from the Least Concern category to Vulnerable, which means that it is now threatened with extinction. The species is extensively targeted by the fishing industry for the sushi and sashimi markets predominantly in Asia. Most of the fish caught are juveniles which have not yet had a chance to reproduce and the population is estimated to have declined by 19 to 33 percent over the past 22 years.

Existing marine protected areas do not provide sufficient protection for the species. The expansion of marine protected areas, within 200 miles of the coast and incorporating breeding areas, could help conserve the species, according to IUCN experts.

"The Pacific Bluefin Tuna market value continues to rise," says Bruce Collette, Chair, IUCN Species Survival Commission Tuna and Billfish Specialist Group. "Unless fisheries implement the conservation and management measures developed for the Western and Central Pacific Ocean, including a reduction in the catches of juvenile fish, we cannot expect its status to improve in the short term."

The Chinese Pufferfish (*Takifugu chinensis*) has entered the IUCN Red List as Critically Endangered. Its global population is estimated to have declined by 99.99 percent over the past 40 years due to overexploitation. A popular food fish in Japan, it is among the top four fugu species consumed as sashimi. One

of the world's most poisonous fishes, fugu needs to be expertly prepared before consumption. The Chinese Pufferfish occurs in several marine protected areas throughout the coastal waters of China. Conservation measures, such as the creation of marine protected areas which are annually closed to trawling, have been implemented. However, harvest still needs to be urgently controlled to prevent the species' extinction, say IUCN experts.

The American Eel (*Anguilla rostrata*), listed as Endangered, is threatened by barriers to migration, climate change, parasites, pollution, habitat loss, and commercial harvest. Due to the decline of the Japanese Eel (*Anguilla japonica*), also listed as Endangered, the intensive eel farming industry in East Asia is seeking to replenish seed stock with other species, such as the American Eel. This has led to increased reports of poaching of the American Eel in the United States. While the combination of these threats is placing pressure on the species, positive conservation action could result in an improvement in its status.

The Chinese Cobra (*Naja atra*) has been newly assessed as Vulnerable. Its population has declined by 30 to 50 percent over the past 20 years. Chinese Cobras are found in south-eastern China, Taiwan, northern Viet Nam, and Lao PDR, and are among the top animal species exported from mainland China to Hong Kong for the food market. Chinese Cobras are found in protected areas such as Ailaoshan Nature Reserve, Daweishan Nature Reserve (Yunnan), and Kenting National Park (Taiwan). Although international trade in the species is regulated, there is an urgent need to strengthen national conservation initiatives to ensure its survival.

"The growing food market is putting unsustainable pressure on these and other species," says Jane Smart, Global Director of

IUCN's Biodiversity Group. "We urgently need to impose strict limits on harvesting and take appropriate measures to protect habitats."

The Red List update also highlights several species that have been impacted by habitat destruction, including all 66 threatened chameleon species, despite some of these species occurring within protected areas. The Giant East Usambara Blade-horned Chameleon, (*Kinyongia matschiei*), endemic to the East Usambara mountains of Tanzania, has been listed as Endangered. Like many other chameleons, this species uses color for communication. It also darkens when stressed and wraps its tail around branches to remain secure. Found in the Amani Nature Reserve, a protected area, this reptile is threatened by the clearance of forests for agriculture, charcoal production and extraction of timber.

The Black Grass-dart Butterfly (*Ocybadistes knightorum*) has entered the IUCN Red List as Endangered. Found only in the northern New South Wales coastal region of Australia, the species is threatened primarily due to the invasion of introduced weeds and coastal development destroying its habitat. A significant proportion of its habitat exists in protected areas such as Bongil Bongil National Park and Gaagal Wonggan (South Beach) National Park, and the effective management of these areas could play an important role in securing the species' future. The threat from weed invasion is being managed in some reserves where key habitat patches have responded well to weeding, resulting in successful habitat rehabilitation.

Two species have been declared Extinct due to habitat destruction. *Plectostoma sciaphilum*, a snail known from a single limestone hill in Peninsular Malaysia, is now listed as Extinct as a result of the hill being entirely destroyed by limestone quarrying by a large company. The future of several other species in the region is uncertain for similar reasons. While some mining companies are starting to take the necessary steps to reduce impact, IUCN is urging stronger commitment to prevent further extinctions.

The St. Helena Giant Earwig (*Labidura herculeana*) – the world's largest known earwig attaining a length of up to 80 mm – has also gone extinct. Previously found in Horse Point Plain, a protected area on St. Helena Island, the last confirmed live adult of this insect was seen in May 1967. Since the early 1960s, its habitat has been degraded by the removal of nearly all shelter-providing surface stones for construction purposes. Increased predator pressures from mice, rats and invasive predatory invertebrates also contributed to the earwig's extinction.

"These recent extinctions could have been avoided through better habitat protection," says Simon Stuart, Chair of the IUCN Species Survival Commission. "The update also highlights two amphibian species which have improved in status thanks to successful management of Colombia's Ranita Dorada Reserve, where they occur. We need to take more responsibility for our actions to see many more successes like this one, and to have a positive impact on the health of our planet." *IUCN News*



REGIONAL NEWS



ASEAN environment ministers strengthen regional cooperation

ENVIRONMENT Ministers from the 10 ASEAN Member States discussed new initiatives to further promote regional environmental cooperation and reviewed regional cooperation on a number of environmental issues. At the 15th Informal ASEAN Ministerial Meeting on the Environment and 10th Meeting of the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution held on 29-31 October 2014 in Vientiane, Lao PDR, the Ministers reviewed the actions taken on environmental sustainability under the ASEAN Socio-Cultural Community Blueprint.

The Ministers noted the ASEAN Specialized Meteorological Centre's (ASMC) weather outlook where, among others, rainfall is expected to be slightly below average to average for most parts of the ASEAN region for the rest of the year. With the onset of Northeast Monsoon towards the end of the year, the northern ASEAN region will experience its traditional dry season and an escalation of hotspot activities can be expected. For the southern ASEAN region, wetter weather conditions during the traditional rainy season would help to subdue the hotspot activities. ASMC also updated that neutral conditions – neither El Niño nor La Niña – continues to prevail in the equatorial Pacific Ocean. There is a likelihood of a weak El Niño developing towards the end of

2014 and early 2015. The Ministers agreed that ASEAN Member States will continue to be vigilant and take additional preventive measures and immediate fire suppression in the event of any occurrence of transboundary haze in the coming months.

They congratulated Indonesia for ratifying the ASEAN Agreement on Transboundary Haze Pollution, culminating in full ratification of the Agreement which entered into force in 2003. The Ministers look forward to Indonesia's depositing the Instrument of Ratification with the Secretary-General of ASEAN.

The Ministers reviewed national, sub-regional and regional activities to address land and forest fires in the region and its associated transboundary haze pollution. They 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; and implementation of the ASEAN Peatland Management Strategy 2006-2020. They welcomed the adoption of the Terms of Reference of the ASEAN Task Force on Peatlands by the Committee under the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution.

The Ministers adopted the Alert Levels, Trigger Points and Actions on Fire Suppression to complement and enhance the existing Standard Operating Procedure for Monitoring, Assessment and Joint Emergency Response under the ASEAN Agreement on Transboundary Haze Pollution. They urged ASEAN Member

States to operationalize the Alert Levels and Trigger Points and Actions to prevent recurrence of transboundary haze pollution.

The Ministers welcomed and appreciated the initiative by Thailand to develop the Air4ASEAN application for smart phone and tablet. Air4ASEAN is an application to make air quality information available to the public, including pollution indices in the ASEAN region. The application will be launched this year.

They noted that several ASEAN Member States have contributed to the ASEAN Transboundary Haze Pollution Control Fund towards realizing the pledge of providing an initial seed contribution of US\$500,000 for the Fund and welcomed contributions from other partners to the Fund.

The Ministers commended the significant achievements made upon the completion of activities under the five-year ASEAN Peatland Forests Project (APFP) funded by Global Environment Facility 2009-2014, and the good progress made under the EU-supported SEApeat Project, which aims to promote the sustainable management of peatlands in ASEAN to sustain local livelihoods, reduce the risk of fires and associated haze, and contribute to global environmental management. They appreciated the positive development of the ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 which was endorsed by the 9th Meeting of the Conference of the Parties (COP9) to the ASEAN Agreement on Transboundary Haze Pollution in 2013.

The Ministers noted the initiatives by Sub-regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution countries to take the necessary actions in order to operationalize the ASEAN Sub-regional Haze Monitoring System. In the meantime, they encouraged MSC countries to share hotspot areas that cause transboundary haze on government-to-government basis.

They also noted the progress of implementation of the ASEAN Action Plan on Joint Response to Climate Change and looked forward to a successful outcome of the UNFCCC negotiation.

The Ministers noted that the Joint Statement by the ASEAN Environment Ministers to the Twelfth Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD COP 12) was conveyed at the High-level Segment of CBD COP 12 on 15 October 2014 in Pyeongchang, Republic of Korea, to express their commitment to the implementation of the CBD Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets.

Highlight of the meeting was the approval of the nomination of Mt. Hamiguitan Range Wildlife Sanctuary and the Tubataha Reefs Natural Park in the Philippines as the 34th and 35th ASEAN Heritage Park (AHP). The AHP Programme serves as a regional network of national protected areas of high conservation importance preserving a complete spectrum of representative ecosystem to generate greater awareness, pride, appreciation, enjoyment, and conservation of ASEAN's rich natural heritage. The ASEAN Centre for Biodiversity in Los Baños, Philippines serves as the Secretariat of the AHP Programme.

The Ministers presented, for the third time, the ASEAN Environmentally Sustainable Cities (ESC) Award and, for the second time, the ASEAN Certificates of Recognition (ACR) for Clean Air, Clean Water, and Clean Land, to selected cities in ASEAN Member States as a way of recognizing exemplary initiatives to keep ASEAN cities clean, green, and liveable even as they continue to grow as centers of economic activities. The ESC awardees are Bandar Seri Begawan, Brunei Darussalam; Battambang, Cambodia; Balikpapan, Indonesia; Luang Prabang, Lao PDR; Melaka, Malaysia; San Carlos, Philippines; North West District, Singapore; Chiang Rai, Thailand; and Hue, Viet Nam. The ACR awardees are Tangerang, Indonesia, Clean Air for Big Cities; Da Lat, Viet Nam, Clean Air for Small Cities; Phnom Pehn, Cambodia, Clean Water for Big Cities; Nakhon Sawan, Thailand, Clean Water for Small Cities; Davao, Philippines, Clean Land for Big Cities; and Roi-et, Thailand, Clean Land for Small Cities.

The Ministers met their counterparts from the People's Republic of China, Japan and Republic of Korea at the 13th ASEAN Plus Three Environment Ministers Meeting on 31 October 2014 to review current activities and discuss future cooperation on areas such as biodiversity, climate change, environmental education, environmental science and technology, and environmentally sustainable cities.

They also met their counterparts at the 4th East Asia Summit Environment Ministers Meeting (EAS-EMM) on 31 October 2014 to review current activities focusing on environmentally sustainable cities and discuss future cooperation under the EAS EMM framework.

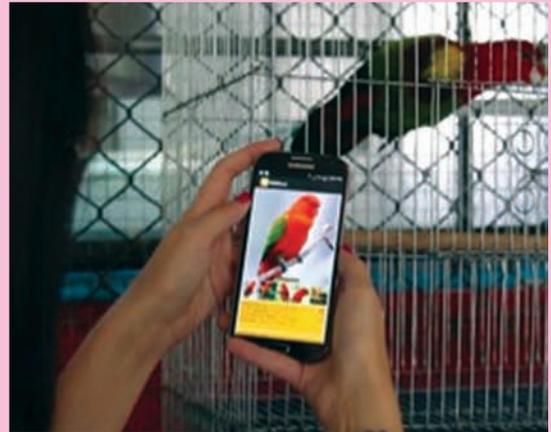
The Ministers responsible for the environment will meet again in Viet Nam in 2015 on the occasion of the 13th ASEAN Ministerial Meeting on the Environment and the 11th Meeting of the Conference of the Parties to the ASEAN Agreement on Transboundary Haze Pollution.

New mobile app vs illegal wildlife trade in Asia launched

WildScan, a new mobile application that identifies endangered species was recently launched by the Association of Southeast Asian Nations Wildlife Enforcement Network (ASEAN-WEN), USAID and Freeland Foundation. The new app was designed to help law enforcement officials in Asia to combat wildlife trafficking, which is valued at \$19 billion per year.

The WildScan mobile app features photos and information on more than 280 endangered species and illegal wildlife products commonly trafficked into and throughout Southeast Asia by organized criminal syndicates. The app enables users to input information such as the color and size of the animal to quickly identify the species. It includes basic animal care instructions and a simple reporting function.

During the launch held in Bangkok, US Ambassador to Thailand, Kristie A. Kenney, emphasized the strong committed of the US to work with partners in Asia to address the serious and



growing problem of wildlife trafficking, using mobile phone technology.

Academics, law enforcement officials, scientists and other wildlife specialists collaborated to develop WildScan with support from the USAID-funded Asia's Regional Response to Endangered Species Trafficking (ARREST) Program being implemented by Freeland Foundation. The ARREST Program plans to integrate WildScan into future law enforcement training courses. *Freeland*

PH has two new ASEAN heritage parks

THE globally important Mt. Hamiguitan Range Wildlife Sanctuary (MHRWS) and Tubbataha Reefs Natural Park (TRNP) in the Philippines have been added to the prestigious list of Southeast Asia's most treasured parks, the Philippines' Environment and Natural Resources Secretary Ramon J.P. Paje announced.

Paje said that environment ministers from the 10 member countries of the Association of Southeast Asian Nations (ASEAN) have approved the nomination of the MHRWS and the TRNP as the 34th and 35th ASEAN Heritage Parks (AHP), respectively, at the 15th Informal ASEAN Ministerial Meeting on the Environment held on October 29-31 in Vientiane, Lao PDR.

"The designation of TRNP and MHRWS as regional heri-

tage parks is long overdue, both having been named earlier as UNESCO World Heritage Sites," Paje said.

The environment chief said the country was delighted by the designation, which brings to seven the total number of AHPs from the Philippines.

"This latest recognition indicates that the natural characteristics of both TRNP and MHRWS are so exceptional they deserve to be protected for the benefit of everyone in Southeast Asia," Paje pointed out.

The nomination of the two parks was facilitated by Director Theresa Mundita Lim of the Biodiversity Management Bureau of the Department of Environment and Natural Resources.

Lawyer Roberto Oliva, executive director of the ASEAN Centre for Biodiversity, said the two nature parks are now part of the AHP Programme, a regional network of national protected areas of high conservation importance, preserving a complete spectrum of respective ecosystems to generate greater awareness, pride, appreciation, enjoyment and conservation of ASEAN's rich biodiversity.

The five other AHPs in the country are the Mt. Apo Natural Park, Mt. Kitanglad Range Natural Park, and Mt. Malindang Range Natural Park, all in Mindanao; the Mts. Iglit-Baco National Park in Occidental Mindoro; and the Mount Makiling Forest Reserve in Laguna.





BRUNEI DARUSSALAM

Brunei, US in talks for possible joint energy ventures. Brunei and the United States are looking to strike up a partnership on regional energy ventures, utilizing a US\$6 billion US-government fund under the "US-Asia Pacific Comprehensive Partnership for a Sustainable Energy Future." Brunei's Energy Department at the Prime Minister's Office will identify specific projects and the US may provide support through the supply of equipment, goods and services. Asia's growing demand for energy signals enormous potential for investment from the United States. It is estimated that the region will need around US\$9 trillion in investments in electricity by 2035. *The Brunei Times*

Wildlife trade endangering birds in Brunei. Wild bird trading, along with declining quality of habitat and environmental damage, has become a serious threat to the sustainability of birds. More than 95 percent of birds sold in the local market are catches from nature and not bred from captivity and about 60 percent of birds that are traded on the market are rare and protected by law. Birds have been openly sold for as high as hundreds of dollars at Jerudong Beach. According to the Tourism Development Department, Brunei is home to 622 species of birds - of which 49 are local only to Borneo - making Brunei rainforests one of the world's most species rich habitat. However, only 34 animal species are currently listed in the Wildlife Protection Act, which will be revised as it was last amended in 1984. *The Brunei Times*



Trees in Borneo among world's most productive in recycling carbon. A study examining the differences in wood production above ground level, published in the *Journal of Ecology* in May 2014, indicated that trees are taller per diameter in Southeast Asia compared with South America, allowing greater uptake of carbon. The study examined data from 26 hectares of forest and 12,000 trees monitored for more than 20 years and calculated the amount of biomass gained in the woody parts of a tree, which can be estimated from repeated measures of tree diameter and estimates of wood density and tree height. The data suggests that the most mature forests are absorbing an increasing amount of carbon as they are still growing. Dr. Lan Qie from Leeds University is conducting a project in Southeast Asia to similarly test and monitor the biomass. She is currently studying plots at the Kuala Belalong Field Study Centre and hopes to do more of the same research in East Kalimantan and Sabah.

Brunei Times

Teaching recycling to primary students. A study of 100 primary students conducted by five youths of the 5th Southeast Asia Youth Leadership Programme (SEAYLP) showed that students have knowledge about recycling but do not implement it in their daily lives. This and other results of the study were shared at the "Problems of Improper Disposal of Waste" programme at SEAYLP. Teachers who took part in the programme agreed that students should be educated on environmental issues at a young age so that they will carry their environmental advocacy into adulthood. *Brunei Times*



CAMBODIA

Korea, Cambodia team up to tackle deforestation. The Korea Forest Service signed a memorandum of understanding with Cambodia to prevent deforestation and degradation in the country. Under the MOU, the two countries will cooperate on United Nations-led REDD+ (Reducing

Emissions from Deforestation and Forest Degradation) programs that aim to cut greenhouse gas emissions by preventing forest degradation and deforestation in developing countries. The Korea Forest Service also inked an MOU with Myanmar on investing in afforestation and strengthening cooperation on climate change.

The Korea Herald

Environment minister asks for patience on Areng Valley Dam.

Environment Minister Say Sam Al asked environmental activists and opposition politicians to be patient as evaluations are carried out on the likely impacts of a controversial proposed dam in Koh Kong province's Areng Valley. Opposition lawmakers say that the dam will have impacts on culture, people's livelihoods, forests, and wildlife, and called for a specific law requiring environmental impact assessments (EIAs). Villagers around the Areng Valley worry the government will approve the dam regardless of the assessment's results.

The Cambodia Daily



Climate pact inked in Cambodia.

Representatives of coastal communities in eight provinces of Viet Nam, Cambodia, and Thailand endorsed the Preah Sihanouk Declaration, pledging to work more strategically to adapt to climate change. The agreement was made at the third and final Annual Coastal Forum held in Cambodia's Preah Sihanouk Province. The declaration centers on six thematic areas: coastal zone resilience, livelihood resilience, ecosystem resilience, diversity and equity, government and policy, and media and communications. The forum was held to review progress

related to the European Union-funded project *Building Resilience to Climate Change in Coastal Southeast Asia*. The project, which has helped to identify the risks of climate change in 30 pilot sites, has helped local residents in coastal provinces adapt to climate change and reduce risks during natural disasters. *Viet Nam News*

Communities band together to oppose Mekong dams. Networks of fishing communities from Cambodia and Thailand banded together to try to halt hydropower dam construction along the Mekong River. Community leaders and environmentalists warn disrupting the water flow and fish migration will impact millions of lives in the lower Mekong Region and they are now working together to try to convince governments to abandon the projects. Millions of people in Cambodia and Thailand directly depend on access to fish for food security. Up to 11 hydro-power dams are planned on the Lower Mekong. A study by the Mekong River Commission, which brings together Lao PDR, Thailand, Cambodia, and Viet Nam, has warned that damming the Lower Mekong could reduce fish stocks by up to 300,000 metric tons a year, hitting hard communities in Cambodia.

Voice of America Khmer



New pit viper discovered in Sumatra. A new pit viper was discovered by researchers working in Sumatra, Indonesia, and described in a new study in *Amphibian & Reptile Conservation*. The reptile was identified by a group of chemists and herpetologists comprised of Gernot Vogel, Patrick David, and Irvan Sidik. The viper, named *Trimeresurus gunaleni*, was identified

by the researchers while they were studying a group of *Trimeresurus sumanatrus*. *Trimeresurus gunaleni* is a large viper, very colorful, and inhabits forested areas between 1,500 and 2,000 meters (5,000 to 6,500 feet) in elevation. The difficulty in accessing these high mountain areas, as well as lack of economic interest in developing them, has preserved them from deforestation. The new species was named after Danny Gunalen, a breeder and photographer based in Jakarta, Indonesia. Gunalen conducts regular field trips to less accessible areas of the country to survey reptiles' conservation state and captured the first specimen after it was recognized as a distinct species. *Mongabay*



Yudhoyono receives award from UNEP. Former Indonesian president Susilo Bambang Yudhoyono was awarded the Champion of the Earth honor on policy leadership by the United Nations Environment Programme (UNEP). The UNEP believed that Yudhoyono, during his term as the Indonesian president from 2004 to 2009 and from 2009 to 2014, was successful in promoting sustainable economic developmental, emphasizing on the preservation of the environment. He was also the first leader from a developing country who voluntarily voiced his commitment to reduce gas emissions in Indonesia.

Antara News

Satellite detects 72 hotspots in Sumatra. According to the Regional Disaster Mitigation Agency, the National Oceanic and Atmospheric Administration 18 satellite, which operates in Singapore, detected 72 hotspots in Sumatra, of which 10 are located in Riau Province. Four of the 10 hotspots were located in Siak District. The emergence of the hotspots was attributed to recent scarcity of rainfall.

The regional government of Riau plan to have a fast reaction team to handle land and forest fires, which often take place in various areas in the province.

Antara News

Indonesia to verify ownership of 66M ha of disputed forest land. The Indonesian government has declared it will verify ownership of 66.3 million hectares of disputed forest land by the end of 2014. Through the development of a Recognition and Verification of Rights scheme (PPH), the Forestry Department will inventory and evaluate the status of all government land where indigenous people and other groups hold conflicting claims of ownership. Indonesia currently considers 122.2 million hectares of forested land—almost 64 percent of the country—to be state-owned. They hope to resolve all conflicting claims to the area by the end of 2015. Many indigenous groups believe that the forested areas they have customarily used—often for generations—rightfully belong to them. In 2013, the Constitutional Court ruled that traditional use forests were not to be considered part of the government's holdings. However, the Forestry Department effectively ignored that decision by stating the department would only consider claims backed by documents proving ownership, a nearly impossible requirement for many claimants. *Mongabay*



Fish migration, potential environmental impacts and transboundary effects took centre stage at MRC's regional public consultation on Don Sahong hydropower project. About 100 members of various stakeholder groups from the Lower Mekong Basin gathered in Pakse, Lao PDR for the Mekong River Commission's (MRC) regional public consultation on the proposed Don Sahong Hydropower Project. The meeting provided an additional opportunity for civil society, non-governmental and governmental organizations, regional and international organizations to

find out more about the project and to share their concerns. The developer, Mega First Corporation Berhad, explained some of the major features of the dam and the proposed measures to minimize and mitigate potential negative impacts, especially on water flows and fish passage and migration. The developer's fish passage experts also explained techniques for fisheries monitoring. Stakeholders expressed concerns related to flows control, the effect of turbines on fish migration, sediment management and the lack of studies or analyses on potential transboundary effects. They believe the project may have negative effects on the livelihoods of riverine communities downstream, especially in the Viet Nam Delta and Cambodia. Representatives from the developer and experts from the MRC Secretariat provided scientific information to address some of these concerns. *Mekong River Commission*

Three new FAO projects to strengthen agriculture. The Food and Agriculture Organization (FAO) has approved three new projects for sustainable development of the livestock sector and to build disaster resilience amongst rural farming communities. The three projects are: Institutionalizing Disaster Risk Reduction and Management in agriculture for enhanced resilience programming and integrated implementation across sectors; Consolidating Capacities for Disaster Risk Reduction in Agriculture in South East Asia; and Building Policy Capacity towards Sustainable Livestock Sector Development. The first two projects will support the implementation of the Plan of Action for Disaster Risk Reduction and Management in agriculture. The plan was developed by the Ministry of Agriculture and Forestry in 2014 to provide guidance and well-coordinated actions to mainstream risk reduction measures over three years and enhance farmers' resilience to the impacts of climate change. *Vientiane Times*

New study raises alarm over bear bile farming in Lao PDR. A study by independent researcher Emily Livingstone and TRAFFIC's

Chris R. Shepherd states that the number of bears in farms supplying the widespread and expanding bile extraction industry in Lao PDR has tripled in recent years. According to credible records, the number of captive bears in the farms increased from around 40 in 2008 to 122 animals by 2012. The study also documented an increase in the number of bear farms in Lao PDR, with the first appearing in 2000 and the number rising to 11 by 2012. The lack of bear breeding facilities, together with an absence of paperwork to show legal procurement of the bears, led to the conclusion that bear farms in Lao PDR are acquiring and keeping bears illegally. The hunting, capture and possession of wild bears and the removal and trade in their bile and other parts is illegal under national legislation, while international trade in wild bears and their parts for commercial purposes is prohibited under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The study recommends the closure of all illegal bile extraction facilities in Lao PDR and closer cooperation with the main bear bile consumer countries to halt smuggling. *TRAFFIC*



Safeguarding fishing livelihoods on the Mekong. When faced with threats to their environment and their primary source of nutrition, communities must conserve and diversify their resources. The WWF Siphandone Project is helping to ensure that 30 communities in Champassak province in southern Lao PDR can cope with the uncertain future of fishing on the Mekong, which is threatened by the construction of dams, overfishing, and climate change. Under the Siphandone Project, fishing committees are set up in each village, so the villagers are fully involved in ensuring the law is

applied appropriately to their needs. Each community involved in the Siphandone Project establishes a fish conservation zone (FCZ), which must not be exploited, and are managed and monitored by the community. They also ensure illegal fishing methods – which can pollute the river and wastefully kill fish – are not used anywhere on the river. The project also enforces the 2009 Fisheries Law in the community and raises awareness of the environment and the fish population.

WWF



MALAYSIA

Planted corals thriving. A three-year coral reef rehabilitation initiative at Terengganu's Redang Island is showing promising rejuvenation with corals of different colonies on the man-made reefs taking form and growing larger. Complex three dimensional structures have started covering most of the 110 planted since September 2012 and fish have also started using them as their nursery. The coral transplanting programme, an integral part of Fraser & Neave Holdings Bhd's Save our Seas (F&N SOS), a tripartite initiative spearheaded by F&N, Reef Check Malaysia and Marine Park Terengganu along with the food and beverage group's employees and business partners, has a proven survival rate of 53 percent to 75 percent at three nursery sites at Pulau Paku Kecil, Pulau Pinang and Terumbu Kili. Aside from reef rehabilitation, the F&N SOS team also engaged the local community, resort operators, tourists and schools through several outreach programmes to promote awareness about responsible behavior towards marine conservation, proper waste disposal and recycling. *The Star Online*



A Malaysian snail goes extinct; over 22,000 other species on the brink. A species of Malaysian microsnail *Plectostoma sciaphilum*, known only from a single limestone hill in Pahang, has been declared “extinct” in the latest Red List of Threatened Species released by the International Union for Conservation of Nature (IUCN). It has disappeared as the outcrop which it inhabited, Bukit Panching near Kuantan, was quarried by YTL Cement in 2007. The microsnail lived in leaf litter on the forest floor and was first described in 1952. Many *Plectostoma* species display high endemism, occurring only on a single hill and nowhere else. The tiny snails are unique, by having very irregularly coiled and ornamented shells. IUCN also lists a newly-discovered microsnail, *Charopa lafargei*, as critically endangered as its limestone refuge in Perak is earmarked for quarrying by Lafarge Malaysia. Described only in 2014, this species is restricted to Gunung Kanthan near Ipoh and is named after the mining company as its continued existence will depend in large part on the actions of the mining multinational.

The Star Online

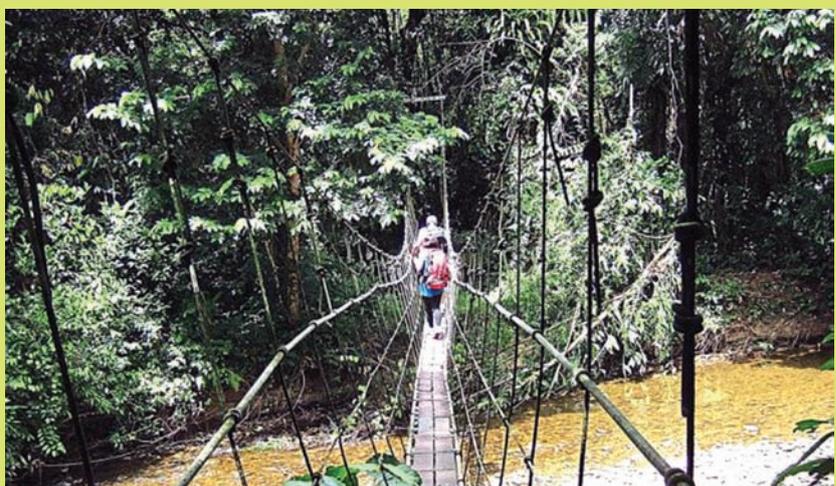


Thumbs up for more parks. Another 200,000 hectares of forests in Sarawak will be turned into national parks, taking the total acreage of national parks in Sarawak to the one million-ha mark. Currently, 800,000 ha of forests are protected as part of national parks in 37 locations throughout Sarawak. The goal is to have one million has of protected forests, which will be equal to about one-tenth of Sarawak. This will help protect natural resources from illegal logging and help conserve the country’s rich biodiversity.

The Star Online



Elephants pay the price for palm oil in Malaysian Borneo. Borneo elephants (*Elephas maximus borneensis*), also called Borneo pygmy elephants, are listed by the IUCN as Endangered, living almost entirely in Sabah (approximately 80 also live in northern Kalimantan). Best estimates put the number of pygmy elephants in Malaysian Borneo at approximately 2,200, but no one can be sure how many have lost their lives in recent years as palm plantations encroach further and further into the rainforest. According to the Global Forest Watch, Malaysia has lost more than 500,000 hectares of tree cover in 2012 alone. Sabah lost nearly 900,000 hectares between 2001 and 2013 – or about 15 percent of its tree cover. While some of this loss can be attributed to the harvesting of plantations, areas of intact forest have also been reduced. Constriction of habitat driven in large part by palm oil expansion is squeezing elephants out of forests and into areas inhabited by humans, leading to increasing rates of human-elephant conflicts and subsequent elephant killings. If the loss of their forest habitat continues to drive conflicts with humans at the rate it is now, Borneo elephants’ long-term survival may be in jeopardy. *Mongabay*



MYANMAR

Workshop develops policies for sustainable land use in Myanmar.

United Nations University-Institute for Advanced Study of Sustainability (UNU-IAS) co-organized the International Workshop on REDD+ and Sustainable Land-Use Management in Myanmar in Nay Pyi Taw on 16–18 December 2014, together with Myanmar’s Ministry of Environmental Conservation and Forestry, the International Tropical Timber Organization (ITTO), and other partners. The workshop provided valuable inputs to the establishment of sound land-use planning and management policies to support long-term sustainable land management in Myanmar, which is currently drafting its national land-use policy. These inputs included the use of REDD+ (Reducing Emissions from Deforestation and Forest Degradation) activities and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks — to develop local institutions for land management and co-management of natural resources. Myanmar is undergoing rapid economic development and policy changes with vast implications for land use. *UNU-IAS*

Workshop highlights dangers to Myeik. A plan to establish marine protected areas in Myeik Archipelago in southernmost Myanmar was backed by officials from several ministries at a workshop held in the Tanintharyi Region. The archipelago, a uniquely

biodiverse area of 800 islands and coral reefs, is known to harbor 287 species of coral and 365 reef fish species, as well as reefs rich in crustaceans, molluscs and sponges. However, it is under serious threat from reckless fishing techniques that employ dynamite, mono-filament fishing nets, poisons and bottom trawlers. The workshop also sought to promote sustainable fishing in the area and develop locally managed marine areas (LMMAs). LMMAs are designed to urge local communities to actively conserve coral reefs, just as some local communities help conserve forest areas located near their villages. *Myanmar Times*



Inle Lake is next tourism target. Myanmar's Ministry of Hotels and Tourism is planning to develop tourism around Inle Lake to boost tourism to the region. The ministry has joined hands with the Institute for International Development and International Centre for Integrated Mountain Development and tourism organizations in and around Inle Lake. This is part of the master plan for the tourism sector that includes 12 regions – Yangon, Bagan, Mandalay, Kyaikhteeyoe, Ngapali, Ngwesaung, Putao, Myeik, Naga, Natmawk Mountain, Loikaw and Inle. The ministry assured stakeholders that tourism developments will protect the integrity of Inle Lake. Inle Lake is a freshwater lake located in the Nyaungshwe Township of Taunggyi District of Shan State, part of Shan Hills in Myanmar and is the second largest lake in Myanmar. Inle Lake Wildlife Sanctuary is one of seven ASEAN Heritage Parks in Myanmar. *TR Weekly*

Irrawaddy dolphin numbers drop. According to the Mandalay fisheries department, electric-shock fishing and the use of small-mesh nets has killed off many Irrawaddy dolphins, reducing numbers from 75 recorded in 2005 to only 63 in 2014. The fisheries department responsible for the dolphins' care offers seminars and delivers pamphlets to villages along the Ayeyarwady River to raise conservation awareness. The dolphin is currently listed as vulnerable on the International Union for Conservation of Nature's red list of threatened species. If numbers continue to fall, the dolphin will have to be designated as endangered. *Myanmar Times*



PHILIPPINES

PH initiatives to protect Sulu-Sulawesi Seascape gets boost from Germany. Germany has pledged financial support to the Philippines' conservation initiatives within the Sulu-Sulawesi Marine Ecoregion (SSME). A memorandum of understanding was signed between the Department of Environment and Natural Resources (DENR) and the Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ), on behalf of Germany's Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, in connection with the grant. The German government, through the GIZ, has put up a seven million-euro special fund to support the implementation of protection and conservation initiatives within the SSME. The grant will help sustain conservation projects that aim to protect threatened species and habitats within the SSME, as well as the livelihoods of people who depend on them. The funding support will also reinforce the country's capacity to implement the SSME Comprehensive Action Plan, a five-year blueprint, which implementation started in 2012 to ensure the sustainability of fisheries production and marine conservation efforts within the protected seascape. *DENR*

DENR, birdwatchers team up to conserve wild birds. The DENR has

joined forces with the Wild Bird Club of the Philippines (WBCP) to help save and protect native bird populations. Through the "DENR-Biodiversity Management Bureau (DENR-BMB) and WBCP Partnership Program for the Protection and Conservation of Philippine Wild Birds and Their Habitats," the partners agreed to jointly undertake a number of activities to help replenish or reestablish the wild population of native bird species. Activities include mobilization to support the annual celebration of the WBCP-organized Philippine Bird Festivals; identification of appropriate sites for release into the wild of rehabilitated birds; BMB support for the operation of a WBCP-run rehabilitation facility for rescued wild birds; and sharing of monitoring reports, including cases of poaching and illegal trading of birds, among others. *DENR*

DENR wants bigger role for LGUs in biodiversity conservation. The DENR hosted the National Conference on Local Conservation Areas (LCAs) to prepare local government units (LGUs) for a much bigger role in biodiversity conservation. The DENR's Biodiversity Management Bureau (BMB) brought together representatives from LGUs and key conservation groups in a bid to develop more effective operative models for the establishment of LCAs and critical habitats. With the theme *Diversifying and Strengthening Participatory Governance in Biodiversity Conservation*, the conference provided an opportunity to learn from case studies on the challenges and opportunities in the conservation of key biodiversity areas and current and future initiatives in LCAs, as well as wide-ranging discussions on issues such as tourism, incentives for LGUs to take proactive roles in biodiversity conservation, and biodiversity-friendly practices in agriculture and fisheries. LCAs are areas that are not within protected areas pursuant to the National Integrated Protected Areas System (NIPAS) Act of 1992, but have been set aside for conservation purposes through ordinances, with the local government taking the lead in implementing conservation and protection activities. *DENR*

DENR to strengthen coastal, marine biodiversity conservation program.

The DENR has vowed to strengthen the management regimes for the 32 Marine Protected Areas (MPAs) under the NIPAS law and Verde Island Passage, finally giving marine biodiversity conservation its much-deserved attention. The MPAs and Verde Island Passage have been identified as priority areas for coral reef mapping and associated marine habitat assessments. The Coastal and Marine Management Office, a new division under the DENR-BMB will oversee marine biodiversity conservation and will work with the Bureau of Fisheries and Aquatic Resources, and other concerned agencies and organizations. The country's coastal and marine program is anchored on the plan of action of the Coral Triangle Initiative. These include the designation of priority seascapes; ecosystem approach to fisheries management, and effective management of marine protected areas, achieving climate-change adaptation measures, and threatened species conservation. *Business Mirror*



SINGAPORE

Wildlife Reserves Singapore (WRS) to adopt new elephant management system. WRS will be phasing in the protected contact elephant management system for all elephants in Night Safari and Singapore Zoo over the next few years. When fully in place, all staff training and interaction with elephants under the protected contact system will be conducted through a physical safety barrier. The protected contact management system is based on positive reinforcement where animals are motivated by rewards such as food. The two parks will be among the first zoological institutions in Asia to implement the protected contact management system for all elephants in its collection. This method is currently deemed to be the safest way to manage elephants while ensuring proper animal care and welfare. The complete implementation of the protected contact system will take three to five years as it will involve major redesign and construction of the elephant

exhibits, back-of-house facilities as well as re-training of elephants and elephant keepers. *Wildlife Press*

Pre-school programme "I'm an Eco-Knight!" to instill good environmental practices.

The National Environment Agency (NEA) and Central Singapore Development Council (CS CDC) launched "I'm an Eco-Knight!" a new environmental outreach programme that aims to instill good environmental practices among pre-schoolers and encourage them to take ownership in protecting the environment. The programme will bring pre-schoolers on a learning journey covering various topics such as personal hygiene, anti-littering, recycling, dengue prevention, and energy efficiency. Each pre-schooler will be provided with an educational package where they will be exposed to tasks of varying difficulties that challenge them to learn beyond the classroom and utilize the content in the booklet. Thereafter, any pre-schooler who manages to complete the required tasks provided in the activity cards and accumulate sufficient credits may be awarded a badge by his teacher. *NEA*

Winners of Energy Efficiency National Partnership Awards announced.

Ten companies, three individuals, three schools, and a public agency were recognized for their outstanding commitment and achievements toward energy efficiency at the Energy Efficiency National Partnership (EENP) Awards 2014. The winners include Abbott Manufacturing Singapore Pte Ltd, City Developments Limited, Shell Eastern Petroleum Pte Ltd and HSL Constructor Pte Ltd. The recipients were selected based on their excellence in driving industrial

energy efficiency and leveraging best practices, while achieving significant energy savings. The EENP Awards serve as a platform to build new knowledge and promote sharing of best practices in energy efficiency and Energy Market Authority, aim to foster a culture of sustained energy efficiency improvements in the industry and public sectors.

National Environment Agency

Thousands of migrant birds fly into Singapore to escape winter.

The avian migratory season has begun and birds are appearing by the thousands, choosing Singapore as their stopover, delighting both birdwatchers and nature enthusiasts. Each year, approximately 2,000 migratory birds arrive in Sungei Buloh Nature Reserve in August and September. They make their way to Singapore from as far away as Russia, Mongolia, China, and Japan. Some fly off again, heading to Australia and Indonesia. Others stay on in Sungei Buloh and surrounding areas to feed and roost until following March or April. Sungei Buloh Nature Reserve is one of two ASEAN Heritage Parks in Singapore. *Straits Times*





THAILAND

PM encourages waste-to-energy practice in Thailand. The Prime Minister of Thailand has reiterated the use of garbage as alternative source of electricity to Thailand, reducing energy import demand. The volume of garbage and dangerous waste in Thailand is rising due to the lack of good management. Therefore, the government is looking to add value to these waste products with a waste management system in communities nationwide, starting from waste separation within domestic households. The Ministry of Natural Resources and Environment and the Ministry of Interior have been tasked to promote an understanding to the public on the rationale behind the construction project of the new waste management facilities. Proper waste management will reduce the general amount of pollution generated and could prevent severity of excess garbage volume, as Thailand currently does not take full advantage from the waste products, such as sorting, treatment procedures, and using them as alternative energy sources. Thailand needs the facilities that can generate energy from the waste product in all areas as the energy situation is still unstable. Waste-to-energy facilities will reduce Thailand's energy costs and savings can be spent on developments and investments.

National News Bureau of Thailand

Thailand's solar power company gets UN award. With funding from the World Bank Group's International Finance Corporation, the Solar Power Company Group (SPCG) has built around 250MW of solar capacity and was recognized by the United Nations' Climate Change (UNFCCC) secretariat with the prestigious Momentum for Change – Women for Results award. The award is part of the UNFCCC's Lighthouse Activities honoring projects from around the world that address climate change as well as wider economic, social, and environmental challenges. The journey to UN recognition required forward thinking and determination,

as well as realization by the Thai government that it needed a more diversified, climate-friendly energy supply. Thailand now aims to generate at least 20 percent of energy from renewable sources by 2022. The financial success of the early solar projects has helped drive private investment in Thailand's clean energy sector, prompting industry analysts to pick the Thai solar market as one of the most attractive among the world's emerging economies.

Thailand Business News

A healthy forest for a healthy Bangkok. The protection of Bang Kachao, described as the *Green Lungs of Bangkok* because of the oxygen it provides to the city, highlights the importance of local communities in environmental protection. Various organizations, including the International Union for Conservation of Nature (IUCN), Marriott, and others, have been conducting tree planting activities in the area, but local community members and organizations are considered the guardians of Bang Kachao. The local community has been preserving this green area from development and aim to keep a balance between development and conservation. Priority activities include garbage collection and wastewater treatment, and working with schools to cultivate the next generation of environmental stewards. *IUCN Thailand*



VIET NAM

World's largest cave in Viet Nam threatened by cable car. Plans for a 10.6 km cable car route in Viet Nam's UNESCO-listed Phong Nha-Ke Bang national park would open up the world's largest cave, Son Doong Cave, to mass tourism. But Vietnamese are protesting the project, and experts warn the environmental impact could be devastating. The planned \$212m cable car system would carry 1,000 visitors per hour through the national park. Researchers fear that building the towers needed to support the cable car could damage the fragile network of caves in the area. Construction on top of Son Doong would put pressure on the already weak ceiling, potentially triggering collapse, according to geomorphologist Vu Le Phuong, who has been studying the cave since the first expedition in 2009.

The Guardian





Viper bites up as forests disappear. Deforestation and habitat loss as well as climate change impacts explain the increased appearance of viper bite victims in emergency rooms in central Viet Nam. Dozens of people bitten by the poisonous snake have been rushed to hospitals in Quang Ngai, Quang Nam and Da Nang. Most were bitten while working on farms, gardens, and forested areas in Duc Pho, Mo Duc, Nghia Hanh and Tu Nghia districts. Storms and floods in the rainy season combined with warmer weather have made the central region ideal for breeding the reptile. The destruction of forests has also led to the scarcity of the snake diet of frogs, toads and rats, forcing the viper to seek new prey.
Vietnam News Service

Rhino horn demand in Viet Nam drops by more than 33 percent in one year. After a year-long public

information campaign in Viet Nam, a poll conducted by Nielsen for the Humane Society International (HSI) and the Vietnam Convention on International Trade in Endangered Species of Wild Fauna and Flora found that only 2.6 percent of people in the Asian country now continue to buy and use rhino horn, a decrease of 38 percent. Importantly, there has been a 25 percent decrease in the number of people who think rhino horn, which is made of the same material as fingernails and hair, has medicinal value. However, 38 percent of Vietnamese still think it can treat diseases such as cancer and rheumatism. Viet Nam is a key market for the trade of rhino horn, which prompted the awareness campaign to try to deter people from buying and consuming it. Demand for rhino horn, primarily in China and Southeast Asia, is putting severe pressure on rhino

numbers in Africa. In 2013, a record 1,004 rhinos were illegally poached in South Africa, which has more rhinos than any other country. Another 821 have been killed in 2014. The public information campaign has focused on dispelling the myth that rhino horn has medicinal value. The campaign has been centered on Hanoi, Vietnam's capital, through business, university, school and women's groups. Advertisements have appeared on buses and billboards, and an HSI book called *I'm a Little Rhino* has been distributed in schools.
The Guardian



Minimization of investment of coastal projects. The government has required the provinces to review the planning of coastal projects and to propose timely solutions to guarantee that community needs and demands for long-term utilization of marine and coastal resources are met. The Ministry of Natural Resources and Environment in collaboration with Ministry of Construction and other relevant agencies have been asked to propose solutions to minimization investments of coastal projects as well as streamline planning management, construction investment, and land management. The Ministry of Investment and Planning in collaboration with other relevant agencies and seven coastal provinces, specifically Da Nang, Quang Nam, Khanh Hoa, Ninh Thuan, Binh Thuan, Kien Giang and Ba Ria-Vung Tau, has been required to provide strictly and timely solutions in the management of ineffectively implemented projects to better provide services in utilization and management of coastal and marine resources.
Vietnam Environment Administration





Photo courtesy of www.arkive.org

Jungle Cat (*Felis chaus*)

The jungle cat (*Felis chaus*) is a large, slender wild cat, with long legs and long, close-set, rounded ears which have characteristic small black tufts of hair on the tips. It has a long, slim face with a white muzzle and distinctive white markings above and below the eyes, as well as dark spots in front of the eyes, near the nose. The reddish, sandy-brown or tawny-grey coat of the jungle cat is usually plain, without any spots or patterns. However, the ends of the black guard hairs give this species a somewhat speckled appearance along its back.

The jungle cat may also have several stripes on its legs. The throat is pale cream, with occasional dark or light stripes, and the stomach is lighter than the rest of the body. There are a number of narrow black rings near the tip of the tail. The tail of a jungle cat is smaller than that of a domestic cat, measuring about a third of its head and body length.

Despite its common name, the jungle cat actually occurs in wetland and riparian habitats where there is dense reed vegetation, hence the alternative names

of 'swamp cat' or 'reed cat.' It cat may be found in a wide variety of other habitats types, including deserts, where it occurs along riverbeds and near oases, and in grassland, woodland and dry deciduous forests. The jungle cat is most abundant in India, Pakistan and Bangladesh. It occurs in Africa, where it is found only in Egypt, and across southwest Asia, Central Asia and Southeast Asia, where its range extends as far as southern China.

The jungle cat is not nocturnal and does much of its hunting during the early morning and late afternoon. It stalks and ambushes its prey on the ground, primarily eating small rodents such as rats, mice and gerbils. The jungle cat may sometimes jump to catch birds, such as pheasants, ducks and sparrows. Other prey species are hunted more opportunistically, including fish, snakes, hares, lizards and amphibians, and occasionally scavenge the scraps of lion kills.

Reference:

ARKive (<http://www.arkive.org/jungle-cat/felis-chaus/>)



Photo courtesy of www.arkive.org

Borneo Bay Cat (*Pardofelis badia*)

The Borneo bay cat is around the size of a large house cat, but with a relatively long body and tail, and short, rounded ears low on the sides of the head. It occurs in two color types, grey-black or red-brown, although the red-brown form seems to be more common. The coloration of this species is relatively uniform across its back and flanks, but is usually paler on the underparts, with the belly being golden-brown and the underside of the chin being white. Two faint brown stripes can be seen on the Borneo bay cat's cheeks, while the back, belly, and limbs may be covered with pale black specks and spots. The hair on the nape, sides of the crown, cheek, and front of the throat grows forwards rather than backwards in the Borneo bay cat.

The Borneo bay cat has very particular facial markings, including pale brown patches at the sides of the mouth, and pale marks at the inside edge of the upper eyelids. The species has a dark brown 'M' shaped marking on the back of its head, and the top of the head is dark greyish-brown. The ears of the Borneo bay cat are black-brown on the outside, but paler on the inside, and the distinctive long tail becomes narrower at the tip and has a white

stripe on the underside, running from about halfway down to the tail tip.

Fewer than 25 Borneo bay cats have ever been recorded, making it one of the rarest and least-studied cats in the world. Little is known about the Borneo bay cat's preferred habitats, but it has been observed in dense forest and along watercourses. Despite numerous camera traps, it has not been possible to observe them in their natural habitat. Captive Borneo bay cats have either not survived long enough to confirm their biology. And although nothing is known about the Borneo bay cat's natural diet, the species has been reported to attack poultry.

The Borneo bay cat is found exclusively on the island of Borneo, mostly on the northern half of the island. It has only been recorded in two out of the three countries that make up the island of Borneo, having been seen in Malaysia and Indonesia, but not in Brunei Darussalam. The species is classified as endangered on the International Union for Conservation of Nature (IUCN) Red List.

Reference:

ARKive (<http://www.arkive.org/borneo-bay-cat/pardofelis-badia/>)



Fishing Cat

(Prionailurus viverrinus)

As its name implies, the fishing cat (*Prionailurus viverrinus*) frequently enters the water to prey on fish. The cat has webbed feet but these are not particularly adapted for swimming, as the partial membrane between the toes is no more developed than in other wild or domestic cats. The fishing cat has a long stocky body and relatively short legs, a short thick tail, a broad head and elongated muzzle. The pelt is olive-grey with black bars running along the neck and face, dark brown spots in rows on the body, and a series of incomplete rings circle the tail. Females are markedly smaller than males.

Largely active at night, they are good swimmers and have been observed diving for fish, as well as scooping them out of the water with their paws. These cats will also prey on frogs, crustaceans, snakes, birds, calves, goats, and dogs, and will scavenge on carcasses of larger animals.

Fishing cats typically inhabit areas of wetland,

including swamps and marshy areas, oxbow lakes, reed beds, tidal creeks and mangrove areas, up to an altitude of 1,500 meters. They are discontinuously distributed throughout southern and southeast Asia, found in northeastern India, the foot of the Himalayas in Nepal and India, and a few scattered areas in the rest of India, Bangladesh, Indus Valley Pakistan, Sri Lanka, and in the Indonesian Islands of Sumatra and Java.

The primary threat the fishing cat faces is wetland destruction as a result of human settlement, drainage for agriculture, pollution, excessive hunting, and wood-cutting. Destructive fishing practices have also greatly reduced the fishing cat's main prey base. As such the fishing cat is classified as endangered on the IUCN Red List.

Reference:

ARKive (<http://www.arkive.org/fishing-cat/prionailurus-viverrinus/>)



Flat-headed Cat (*Prionailurus planiceps*)

The distinctly elongated, flattened head and small, rounded ears of the flat-headed cat provide a strong resemblance to the civets, which are not cats, but members of the Viverridae family. The flat-headed cat is about the size of a domestic cat, and has a long body, short legs and a short, thickly-furred tail.

Like the fishing cat, it appears remarkably adapted to a semi-aquatic, fish-eating lifestyle. Partial webbing between the toes help the animal to move through water, and the long, narrow jaws and pointed, backward-facing teeth aid the catching and holding of slippery prey such as fish and frogs. The thick, soft coat is reddish-brown on the top of the head and dark brown on the body, finely speckled with grey and buff on the tips. The belly is mottled white, spotted and splashed with brown, and the insides of the limbs are reddish-brown, fading towards the feet. The muzzle, chin and cheeks are white, with two dark streaks on each cheek and prominent white stripes between and below the large brown eyes.

Almost all information on the biology and ecology of this cat comes from a handful of animals in captivity and fewer than 20 specimens collected from the wild.

Anecdotal reports suggest the species is nocturnal, but activity patterns in captivity show that they are more active during twilight. The diet is thought to contain fish, frogs and crustaceans, but it has also been suggested that individuals can survive in oil-palm plantations by hunting rodents. The species is probably solitary, maintaining its territory by scent-marking.

Very little is known about this species in the wild, but most individuals are known to come from tropical forest or scrub on or near riverbanks, swampy areas, oxbow lakes and riverine forests, below 700 meters above sea level. Formerly recorded from southern Thailand, Malaysia, Sumatra (Indonesia), and Borneo, the flat-headed cat was declared extinct in 1985, until it was sighted again in Malaysia, and also later on the Merang River in southeast Sumatra in 1995. The species is classified as endangered in the IUCN Red List.

Reference\:

ARKive (<http://www.arkive.org/flat-headed-cat/prionailurus-planiceps/>)

The Strategic Plan for Biodiversity 2011-2020 is a ten-year framework for action by all countries and stakeholders to save biodiversity and enhance its benefits for people.

The Strategic Plan is comprised of a shared vision, a mission, strategic goals and 20 ambitious yet achievable targets, collectively known as the Aichi Targets.

VISION: "By 2020, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people."

MISSION: "Take effective and urgent action to halt the loss of biodiversity in order 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. To ensure this, pressures on biodiversity are reduced, ecosystems are restored, biological resources are sustainably used and benefits arising out of utilization of genetic resources are shared in a fair and equitable manner; adequate financial resources are provided, capacities are enhanced, biodiversity issues and values mainstreamed, appropriate policies are effectively implemented, and decision-making is based on sound science and the precautionary approach."

THE AICHI BIODIVERSITY TARGETS

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society



PUBLIC AWARENESS

By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.



MAINSTREAMING BIODIVERSITY VALUES

By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.



ELIMINATION OF INCENTIVES HARMFUL TO BIODIVERSITY

By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.



SUSTAINABLE PRODUCTION AND CONSUMPTION

By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use



HABITAT LOSS

By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.



FISHERY RESOURCES

By 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.



AGRO-BIODIVERSITY

By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.



POLLUTION

By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.



INVASIVE ALIEN SPECIES

By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.



CLIMATE CHANGE AND MARINE ECOSYSTEMS

By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity



PROTECTED AREAS

By 2020, at least 17 percent of terrestrial and inland water, and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.



SPECIES EXTINCTION

By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.



GENETIC EROSION OF AGROBIODIVERSITY

By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services



ECOSYSTEM SERVICES

By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.



ECOSYSTEM RESTORATION AND CARBON STOCKS

By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 percent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.



ACCESS AND BENEFIT SHARING

By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building



NATIONAL BIODIVERSITY STRATEGIES AND ACTION PLANS

By 2015, each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.



TRADITIONAL KNOWLEDGE

By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.



SCIENCE-BASED KNOWLEDGE

By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.



RESOURCE MOBILIZATION

By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.