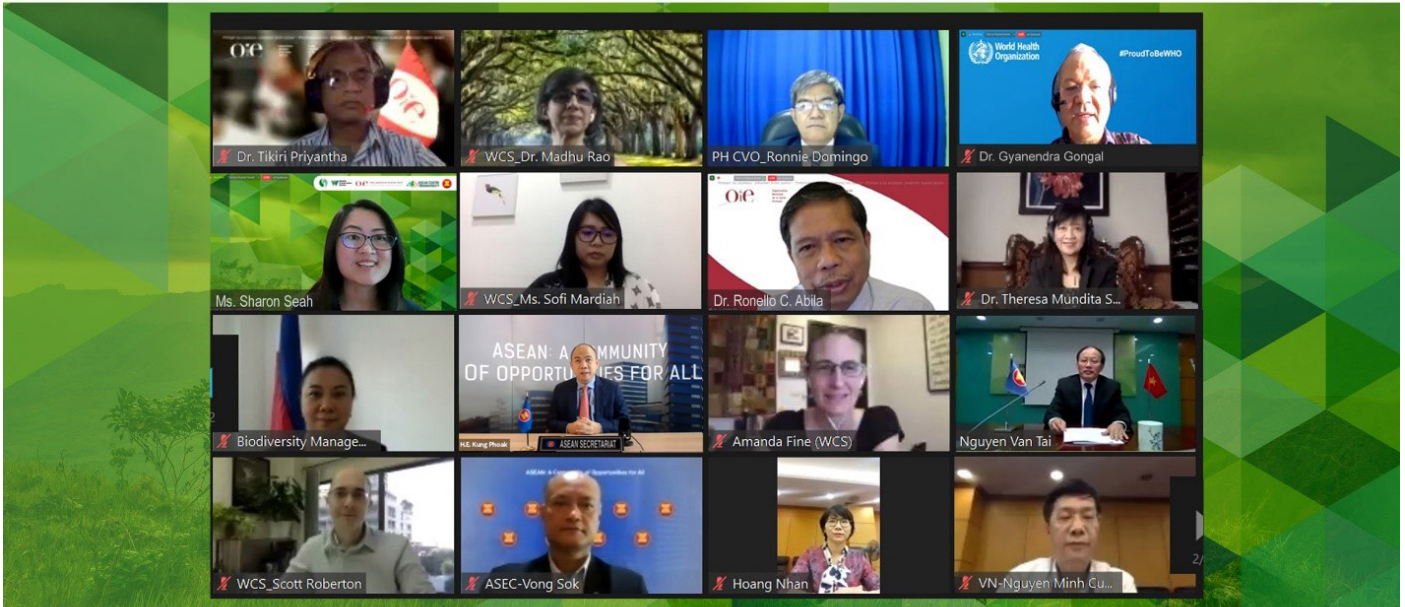


# ACBeats

The Official Newsletter of the ASEAN Centre for Biodiversity • OCTOBER–DECEMBER 2020

## WILDLIFE CONSERVATION AND ZONOTIC DISEASES: HALTING SPECIES LOSS AND TACKLING PUBLIC HEALTH IN THE ASEAN



19 NOVEMBER 2020 | 10:00 (GMT+8) | Via ZOOM



## ASEAN's One Health Approach: Cost of preventing pandemics is 2% of COVID-19 damage

“Preventing the emergence of diseases will only entail an estimated two per cent of the total damage incurred in responding to the COVID-19 pandemic”.

This is according to a recent study cited by the Regional Advisor of the World Health Organisation (WHO) Office in South-East Asia Dr. Gyanendra Gongal, during the *Wildlife Conservation and Zoonotic Diseases: Halting Species Loss and Tackling Public Health in the ASEAN* webinar.

Held on 19 November, the webinar was organised by the ASEAN Centre for Biodiversity (ACB), in collaboration with Viet Nam’s Ministry of Natural Resources and Environment, the ASEAN Secretariat, the World Organisation for Animal Health (OIE), and the Wildlife Conservation Society (WCS), and was attended by public health and biodiversity experts and representatives.

In his opening remarks, Deputy Secretary-General of ASEAN for ASEAN Socio-Cultural Community Kung Phoak highlighted that the COVID-19 pandemic and its recovery should be seen as an opportunity to explore ways and leverage existing partnership and initiatives towards a more collective and coordinated response to mitigate impacts.

Dr. Gongal shared that as of July 2020, the total damage resulting from the COVID-19 pandemic has amounted to USD 11.5 trillion. He highlighted that applying the One Health approach for disease prevention would only cost a mere fraction of the actual damage wrought by the global pandemic.

“Spending about USD 266 billion in 10 years would substantially reduce the risks of another pandemic,” Dr. ...continued on page 2

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## ASEAN's One Health Approach...continued from page 1

Gongal stressed, noting that this amount can be allocated to priority actions such as law enforcement, technical responses to early warning and surveillance systems, adequate funding, and policy advocacy efforts such as the One Health approach.

ASEAN, as a regional body, has taken steps to combat the pandemic such as the Declaration of the Special ASEAN Summit on COVID-19, the ASEAN Strategic Framework for Public Health Emergencies, and the ASEAN Comprehensive Recovery Framework and Implementation Plan to chart a path to recover and build back better.

“The COVID-19 pandemic catalysed an increased awareness of the need for nature-based solutions and cross-sectoral actions,” ACB Executive Director Theresa Mundita Lim said.

She further noted that as a regional hub for biodiversity conservation, the ACB has a significant role in the application of the One Health approach. “The ACB is able to contribute to ensuring public health and well-being by supporting biodiversity-related programmes in the ASEAN, which include the ASEAN Heritage Parks Programme, wildlife conservation and ecosystems restoration initiatives,

and the ASEAN Flyway Network. By protecting wildlife and their habitats, we reduce opportunities for viral spillovers,” Lim said.

Other experts in the panel acknowledged the significant potential of ASEAN policy frameworks and legislation on the management of the wildlife trade chain with the highest risk of zoonotic pathogen emergence to contribute to maintaining ecosystem integrity. Expanding, linking, and improving protected areas will strengthen natural protective barriers between humans and animals.

ASEAN Member States such as Viet Nam and the Philippines are currently initiating One Health efforts as a response to emerging diseases like COVID-19.

Vu Thi Phuong, senior officer of Viet Nam's International Cooperation Department under the Ministry of Agriculture and Rural Development, shared the country's efforts under the One Health approach, particularly the establishment of the “Vietnam One Health Partnership for Zoonoses.”

Meanwhile, in the Philippines, key programmes on joint wildlife surveillance; education and public awareness campaigns, and inter-

agency coordination are among the responses of the government according to Dr. Ronnie Domingo, director of the Bureau of Animal Industry of the Philippines Department of Agriculture.

The webinar encouraged lively discussions and insightful comments from the participants and viewers. A recommendation of continuing the conversation to help further unpack the concept of One Health and to tighten cross-sectoral and cross-pillar collaboration was positively received during the webinar.

Dr. Nguyen Van Tai, chairperson of ASEAN Senior Officials on the Environment and Director General of Viet Nam's Environment Administration of the Ministry of Natural Resources and Environment opened the virtual event while Dr. Ronello C. Abila, OIE Sub-Regional Representative for South-East Asia provided the conclusion and closing remarks.

The webinar was moderated by Sharon Seah, coordinator of the ASEAN Studies Centre, ISEAS – Yusof Ishak Institute, Singapore. The full recording of the webinar may be accessed through this link: <https://bit.ly/2HofLRe>



Photo by Arturo B. De Vera Jr.



Esteemed panel of speakers of the second virtual session of the Third ASEAN Conference on Biodiversity or ACB 2020 held via Zoom on 27 October

## ACB 2020 webinar: What does mainstreaming of biodiversity across sectors mean for ASEAN?

The second virtual session of the Third ASEAN Conference on Biodiversity (ACB 2020), held on 27 October, drew over a hundred representatives from government, private sector, academia, and non-government agencies from the ASEAN. The attending experts weighed in with their experiences and views on biodiversity mainstreaming relevant to the region's context.

Held through Zoom and broadcasted live on Facebook, the virtual session focused on mainstreaming of biodiversity, or the process of embedding biodiversity considerations into policies and practices of sectors that rely and have an impact on it.

Keynoted by Oliver Hillel, programme officer of the Secretariat of the Convention on Biological Diversity (CBD), the programme is part of a series of virtual sessions being organised by the ASEAN Centre for Biodiversity (ACB) and the Ministry of Energy and Natural Resources (KeTSA) of Malaysia in the run-up to the physical conference planned to be held in Kuala Lumpur, Malaysia in 2021.

In the face of pressing global challenges such as the ongoing health crisis, the task of integrating biodiversity considerations into

development plans and processes become even more critical and urgent not just for ASEAN but for the rest of the world. "The COVID-19 crisis served as a catalyst for change. It made people perceive how important it is to integrate nature in development and are now coming up with nature-based solutions," Hillel said.

Hillel also presented the action areas identified in the action plan for the long-term approach on biodiversity mainstreaming, which was released by the Informal Advisory Group on Mainstreaming composed of experts nominated by parties to the CBD.

One of these action areas stressed the need for assessment, valuation, and accounting tools and methodologies to inform decision-making at all levels of governance. Another action area, Hillel said, highlights the issue of financial resources, particularly incentives and subsidies.

"Biodiversity today is threatened, mainly due to human actions stemming from perverse incentives and subsidies to nature. We need to bend that curve and prohibit and refrain from harmful incentives and develop green safeguards and promote nature-friendly innovation tools," he said.

Hillel likewise emphasised that multistakeholder participation, connecting national and sectoral processes, and upscaling of existing tools are important in biodiversity mainstreaming.

Other reactors in the panel were Clarissa Arida, director of the ACB's Programme Development and Implementation Unit; Dr. Glenn Gregorio, director of Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA); Dr. Nappy Navarra of the International Federation of Landscape Architects, and Dr. Khairul Naim Adham, undersecretary of the Biodiversity Management Division of KeTSA.

The webinar was moderated by Dato' Dr. Marzalina Mansor, deputy-director general of the Forest Research Institute Malaysia.

Speaking on behalf of ACB Executive Director Theresa Mundita Lim, Arida said many initiatives in the ASEAN contribute to facilitating long-term approaches to mainstreaming biodiversity.

"The ASEAN Member States (AMS) are implementing mainstreaming of biodiversity through their National Biodiversity Strategies and Action Plans," said Arida, citing good practices of the AMS.

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## ACB 2020 webinar: What does mainstreaming of biodiversity across sectors mean for ASEAN?

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Singapore, for example, has been engaging financial institutions to consider environmental, social, and governance criteria in decision-making processes, as well as in developing the green bond market. In the Philippines, the government has partnered with a renewable energy company for the conservation of priority threatened species. Thailand incorporated biodiversity awareness into its education curriculum.

In Malaysia's case, Dr. Naim pointed out that biodiversity considerations have been embedded into the country's land use plan through the National Physical Plan, which includes initiatives and strategies related to biodiversity conservation. Other initiatives aligned with biodiversity conservation in Malaysia are the mandatory implementation of the national certification scheme for palm oil growers, the establishment of the Palm Oil Wildlife Conservation Fund, and the adoption of integrated river basin management approach for the protection of key water resources.

Dr. Lena Chan, senior director of the International Biodiversity Conservation of Singapore's National Parks, said it is imperative to implement biodiversity mainstreaming as governments need to adopt an integrated approach to sustainable development. "We must proceed at top speed to mainstream biodiversity especially heading our way to COP 15 and beyond," added Chan.

Dr. Gregorio, on the other hand, underlined the importance of accelerating the transformation of the agriculture sector and applying agrobiodiversity innovations. He said SEARCA has embedded innovative and transformative approaches into their current five-year plan. "We saw the need to rethink how we view agriculture, our food and food production. Biodiversity is at the core of all this," he said.

Meanwhile, Dr. Navarra discussed how architects mainstream biodiversity into sustainable urban development by promoting innovative approaches in urban spaces, reintroducing natural areas in cities, and promoting the use of

native vegetation and blue-green corridors and habitat restoration.

Dr. Navarra said architects, whose roles include being "stewards of the land," recognise that biodiversity conservation is a shared responsibility of the private and public sectors.

Similarly, Dr. Naim noted in his intervention that biodiversity mainstreaming requires a whole-of-nation approach. For this, he emphasised that as a regional body, the rich experience and success stories of the AMS will inspire others in the region and across the world to further their efforts in protecting biodiversity through mainstreaming.

The full recording of the second session of the virtual ACB 2020 may be accessed through this link: <https://fb.watch/1nD41lZqq2/>.

On 23 September 2020, the ACB 2020 kicked off through a virtual dialogue intended to enhance understanding of the post-2020 Global Biodiversity Framework (GBF) among the AMS with focus on several priority areas emphasised by the ASEAN: mainstreaming, resource mobilisation, and nature-based solutions.

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## ASEAN Youth weigh in on building back better in the region

# #ASEANYouth BUILDING BACK BETTER

**HOW CAN YOUTH BE PART OF SHAPING POST-COVID ASEAN SOCIO-CULTURAL COMMUNITY?**

**LAYERS**

- EXPERIENCE ASEAN'S WORK
- PLATFORM TO ENGAGE
- ACCESS TO LEADERS
- INSTITUTIONALIZE INVOLVEMENT IN POLICY-MAKING

**Resilient Sustainable**

STRONG LINK!

MORE COLLABORATION + COOPERATION ACROSS ASEAN + WITHIN SOCIETIES

**HOW CAN YOUTH GET MORE INVOLVED IN PROGRAMMES THAT BUILD THE ASCC?**

**Engage Empower**

**SHAKE THINGS UP!**

ENSURE YOUR OWN VOICES ARE HEARD

**INCLUSION**

RESPECT VIEWS OF YOUTH

MENTORS CAN PROVIDE GUIDANCE + DIRECTION

PROVIDE PROPER CHANNELS

**WE'RE STILL LEARNING TO WALK THE TALK!**

KEY POSITION IN POLICY-MAKING NOT JUST VOLUNTEER OR REPRESENTATION

NOT JUST FOR CREAM OF THE CROP (BUT FOR ALL!)

ENGAGE AS MUCH AS POSSIBLE

KEEP ON VOICING OUT!

SPREAD THE MESSAGE, MOBILIZE THE PEOPLE

ADAPTIVE + TRANSFORMATIVE MINDSETS

PROACTIVE, PREVENTIVE, INTEGRATIVE APPROACHES

“The youth of today are the leaders of tomorrow, so creating a mechanism allowing them to be engaged in ASEAN’s processes is important,” said John Derrick Ordoñez, one of the youth panelists of the fourth webinar on #ASEANYouth Building Back Better held on 30 November.

The ASEAN Secretariat, the ASEAN Foundation, the International Federation of Red Cross and Red Crescent Societies (IFRC), and the ASEAN Centre for Biodiversity’s (ACB) European Union-funded platform, the ASEAN Youth Biodiversity Programme (AYBP), co-organised the fourth episode of the interactive webinar series.

This final episode sought to increase understanding among youth on ASEAN’s action plans and youth engagement mechanisms. In addition, the webinar aimed to identify entry points and recommendations to strengthen the

youth’s role in ASEAN community building efforts.

Two dialogue sessions were held during the webinar. The first dialogue was an interface between youth representatives and ASEAN senior officials, while the second dialogue featured an exchange between youth speakers and high-level officials of ASEAN entities and partner organisations. Dr. Syafiqah Abdul Rahim and Regine Guevara of the Committee for ASEAN Youth Cooperation moderated the dialogues.

The dialogues addressed the most pressing issues and concerns identified by youth representatives during a pre-dialogue workshop held on 23 November.

In both dialogue sessions, the youth panellists urged ASEAN to provide more spaces and opportunities to promote youth skills development. In turn, the

high-level speakers called upon young people to contribute to ASEAN community building, working together with ASEAN entities and partner organisations.

His Excellency Kung Phoak, deputy secretary-general of ASEAN for ASEAN Socio-Cultural Community, stated that young people have a clear role in contributing to ASEAN’s policy and decision-making. “To make sure that young people have the necessary experience, we need to create more platforms for them to exchange views and be engaged in ASEAN’s programmes. In this way, young people can develop a better understanding of policymaking processes and eventually raise their concerns and solutions,” he said.

Panellists, in the first dialogue segment, also discussed how young people and women could play a more significant role in implementing

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## Experts encourage nature-based solutions to build climate resilience

A few days after the fifth anniversary of the Paris Agreement, the ASEAN Centre for Biodiversity (ACB) and the Climate Change Commission of the Philippines held the *Biodiversity and Building Resilience to the Impacts of Climate Change in the ASEAN* webinar on 15 December.

The event sought to highlight the need to incorporate nature-based solutions as part of the approach in addressing climate change. The webinar — supported by the Swedbio programme of the Stockholm Resilience Centre — gathered a diverse panel of experts who shared their perspectives and insights on biodiversity and nature’s role in building resilience against the climate crisis.

“Climate change is one of the main culprits that drive the loss of nature,” stated ACB Executive Director Theresa Mundita Lim, recalling the recent climate-related disasters that hit several ASEAN Member States (AMS). “However, the main paradox here is that biodiversity and its ecosystem services underpin our principal solutions and efforts to tackle climate change and its impacts. Without healthy biodiversity, our fight against climate change would be an impossible feat,” she concluded.

The discourse on nature-based solutions, as well as the ecosystem-based approaches to climate change adaptation, has been gaining more ground in light of the current ecological and health crises.

The panellists noted the discussion’s relevance as the global community is developing post-2020 biodiversity targets. The upcoming 15th Conference of Parties of the Convention on Biological Diversity and the 26<sup>th</sup> Conference of the Parties to the UN Framework Convention on Climate Change will take place in 2021.

Tristan Tyrrell, programme officer of SwedBio at the Stockholm Resilience Centre, highlighted that recent reports are showing that “trends are going in the wrong way when it comes to climate change”, as the gaps between commitments and action to achieve the Paris targets of reducing greenhouse gases (GHG) emissions are widening.

“As devastating as the impacts of COVID-19 have been, some scenarios suggest that it will have a positive impact in terms of global GHG emissions,” Tyrrell said. “We could use this opportunity as what has been called, ‘the great reset’, to ramp up positive ecosystem-based actions in climate change adaptation and mitigation.”

Dr. Isabelle de Lovinfosse, head of Southeast Asia COP 26<sup>1</sup> Strategy of the British High Commission, mentioned that “as the world recovers from the coronavirus pandemic, we owe it to future generations to base our recovery on solid foundations,

including a greener, more resilient, and inclusive global economy.”

Appropriate and effective national policies and programmes on climate actions are central to building resilience. In a recorded presentation, Dr. Nagulendran Kangayatkarasu, deputy secretary general of Malaysia Ministry of Environment and Water, discussed how Malaysia has prioritised their Nationally Determined Contributions and how they are working towards them through supporting various adaptation measures.

In Indonesia, Krissusandi Gunui, executive director of Institut Dayakologi, shared that the knowledge and wisdom of indigenous peoples and local communities are significant in strengthening climate change adaptation and biodiversity conservation.

Deputy Secretary-General of the Cambodian National Council for Sustainable Development Sum Thy, ...continued on page 7

<sup>1</sup>26<sup>th</sup> UN Climate Change Conference of the Parties



## Experts encourage nature-based solutions...

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along with Dr. Robert Mather of the ASEAN-EU project *Biodiversity Conservation and Management of Protected Areas in ASEAN*, and Executive Director Adelina Kamal of the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management took part as reactors.

The reactors highlighted the need for collaboration across sectors. Deputy Secretary-General Sum Thy urged for closer coordination between the ASEAN Working Groups on Climate Change and Nature Conservation and Biodiversity. Stronger cooperation at such a level might be helpful in addressing the barriers to promoting and implementing nature-based solutions, which, noted by Dr. Mather, are interlinked.

ASEAN has since been pushing for more cross-sectoral and cross-pillar cooperation to advance biodiversity as response to climate change and in preventing future pandemics.

“As we recognise our common but differentiated responsibilities, ASEAN, through its sound leadership and structures such as the ASEAN Senior Officials on the Environment, and sectoral bodies, strives to promote robust cooperation and joint actions towards our commitments to biodiversity and in building resilience to climate change,” said Dr. Vong Sok, head of the Environment Division of the ASEAN Secretariat.

He also called on all biodiversity and climate change actors and partners

to create more synergies between biodiversity conservation and climate action so as to build back better for the future.

Chief, Policy Research and Development of the Philippines’ Climate Change Commission Jerome Ilagan moderated the webinar. UK Ambassador to ASEAN Jon Lambe, Philippines’ Department of Environment and Natural Resources Assistant Secretary Ricardo L. Calderon and participants from various AMS and sectors, including students and conservationists, attended the webinar.

The full recording of the webinar may be accessed at <https://fb.watch/2ptCr4mVWL/>.

## ASEAN Youth weigh in on building back better in the region

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the ASEAN Comprehensive Recovery Framework in the post-COVID-19 era. Indigenous youth representative of the Global Youth Biodiversity Network Josefa Tauli also drew attention to indigenous people and local communities’ potential contribution to this effort.

Director-General of International Relations, Cooperation Department of Lao Youth Union and Chairperson of the ASEAN Senior Officials Meeting on Youth Mr. Somkiao Kingsada, along with Deputy Director-General of the Environmental Conservation Department of the Myanmar Ministry of Natural Resources and Environmental Conservation Dr. San Oo also engaged with youth leaders during the first dialogue session.

During the second half of the webinar, discussions had four ASEAN youth leaders asking heads of ASEAN entities and partner organisations how young people can be more involved in programmes supporting ASEAN community building. The high-level

panel was composed of the Executive Director of the ASEAN Foundation Dr. Yang Mee Eng; Executive Director of the ACB Theresa Mundita Lim; and Jan Gelfand, Head of Country Cluster Support Team for Indonesia and Timor-Leste and Representative to IFRC.

Gelfand commented that “Young people need to say ‘I have a voice, I need to have a voice, I want to be involved in the decisions that affect my life.’” Likewise, Lim emphasised that “empowerment means the youth can speak for themselves, and they can assert their crucial role as stakeholders in all the activities they have.” She added that the youth’s inputs are welcome in the implementation of the AYBP, even as early as the conceptualisation stage.

Dr. Yang noted that the youth participants in the webinar are eager to contribute to society. She then highlighted the Foundation’s leadership programmes that simulate ASEAN meetings, which provide young people

with an opportunity to appreciate the region’s decision-making processes. Engagements such as these train young people in public speaking, negotiation, and how to engage diplomatically in policy discussions.

Estimates place ASEAN’s youth population at 213 million, translating to roughly 30 per cent of the region’s total population. These significant numbers of young people are at a crucial stage of their life development and are particularly vulnerable to the effects of the COVID-19 pandemic.

The four-part Interactive Webinar Series explored the role of the ASEAN youth in adapting to the challenges of COVID-19 and fostering intergenerational learning and exchange. The previous webinars in the series showcased the success stories of inspiring young leaders, frontliners, volunteers, entrepreneurs, and innovators who could transform challenges into opportunities.

**Two national parks in Thailand eyed for ASEAN Heritage Parks**



The emerald Chiew Lan reservoir and the evergreen rainforest of the Khao Sok National Park was described as one of the eight most beautiful national parks worldwide by Vogue magazine.

A mystical rainforest and a karst mountain with legendary history are among the national parks being evaluated for inclusion in the list of ASEAN Heritage Parks (AHP).

As part of the AHP nomination process, an evaluation team led by Dr. Robert Mather, technical assistance team leader of the Biodiversity Conservation and Management of Protected Areas in ASEAN (BCAMP) Project, together with two Thai evaluators Dr. Dachanee Emphandhu and Dr. Petch Manopawitr, visited Khao Sok and Tham Luang – Khun Nam Nang Non national parks with representatives from Thailand’s Department of National Parks (DNP). BCAMP is an ongoing ASEAN-EU cooperation project being implemented by the ASEAN Centre for Biodiversity (ACB).

“The ACB welcomes the nomination of the two national parks, which are sources of Thailand’s pride. The evaluation conducted is part of the

rigorous selection process that nominees undergo to ensure that ASEAN Heritage Parks remain the region’s cream of the crop”, says ACB Executive Director Theresa Mundita Lim.

Protected areas classified as AHPs are those with high conservation importance encompassing a complete spectrum of representative ecosystems in the ASEAN region. These include natural or national parks, nature reserves, cultural sites, and pre-historic sites.

**Khao Sok National Park**

An emerald treasure hidden in the Thai jungle, and the oldest evergreen rainforest are among the tourist descriptions of the Khao Sok National Park. Visitors love the mystical peaks of limestone karst jutting out of the water, also colloquially known as the Guilin of Thailand, as they navigate the Chiew Lan reservoir by a longboat. The

park was once selected as one of the eight most beautiful national parks worldwide by Vogue magazine.

Beyond its beautiful landscape, Khao Sok National Park contains important high biodiversity ecosystems including moist evergreen forest, forest over limestone, freshwater swamp forest and cave ecosystems. Its verdant forest is home to at least seven critically endangered species and 14 endangered species of wildlife, as well as over 300 different bird species.

Khao Sok National Park is located in the upper Malayan Peninsula, in Southern Thailand. It receives rainfall from both the Northeast and Southwest Monsoons, ensuring that the park is mostly covered by moist evergreen forest, together with smaller areas of forest over limestone.

Lying at the centre of the larger Khao Sok-Klong Saeng forest complex,

Khao Sok is home to important populations of several large mammals such as elephants and tapir. It is the only known location in Thailand for the Storm’s stork (*Ciconia stormi*), the rarest of all storks, thought to number less than 500 individuals remaining in the wild. It is a major stronghold for helmeted hornbill (*Rhinoplax vigil*), which was recently re-classified as critically endangered on the IUCN Red List due to the impact of illegal wildlife trade. The park is also home to many endemic species of plants, including *Impatiens sirindhorniae*, a recently discovered type of touch-me-not.

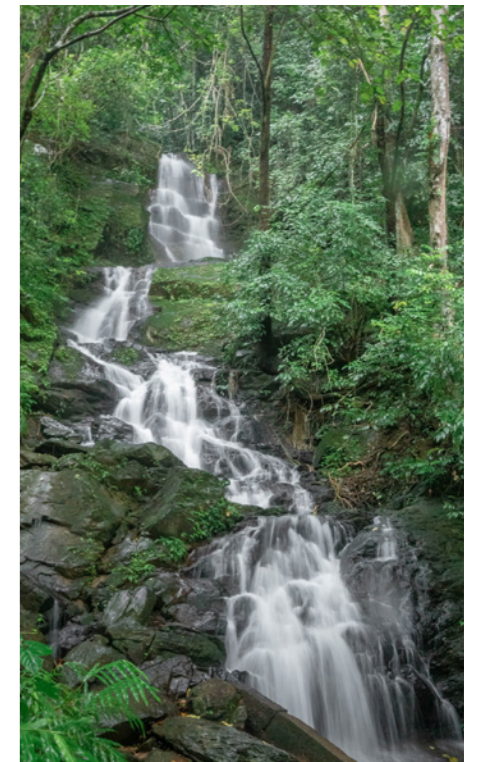
With only two per cent of the park area being used for tourism activities, Khao Sok National Park maintains a high level of naturalness. Revenues generated from recreation activities in the isolated forest include long and short distance hiking, birdwatching, nature observation, and visiting caves, as well as kayaking or rafting while wildlife watching in the reservoir support the livelihoods of communities around the park.

“The park provides a variety of ecosystem services to the people who live nearby. Khao Sok National Park’s inclusion as an AHP will boost its value and raise awareness among locals as well as administrative

agencies. This can strengthen support to ensure sustainable management of the area,” said Utharat Suksumake, BCAMP National Project Manager in Thailand.

Among the ecosystem services of Khao Sok National Park is its recreation value. The National Parks Research and Innovation Development Centre in Surat Thani Province in 2016 estimated the annual recreation value of the park at more than THB 1 billion (USD 34 million). In 2019, the park earned around USD 2.7 million directly from entrance fees. Many local people are employed in providing accommodation, food, boat transport, and guide services for visitors. One of the local guides, Mr. Sam who was originally from Chiew Lan village, said that “I have heard that Khao Sok is being considered for AHP status – I would be very happy if it is approved” adding that “I hope the COVID-19 situation improves so we will be able to welcome many tourists again – especially from our ASEAN neighbours.”

With an average of 177.03 tons carbon per hectare, the total carbon storage capacity of the park’s moist evergreen forest is 8.5 million tons. This excludes carbon storage capacity in the soil and water and the limestone forest,



with its underlying carbonate rock. Another major ecosystem service is, of course, the provision of water for the generation of electricity. Director Cholathorn Chamnankid of DNP mentioned that “In the future, I hope that through the new water law, we can develop a Payment for Ecosystem Services scheme, based on the amount of electricity generated using water from Khao Sok- that would help to provide sustainable financing for the National Park.”

**Thum Luang – Khun Nam Nang Non National Park**

The Thum Luang – Khun Nam Nang Non National Park is internationally known as the location of the critical rescue mission involving the trapped Thai junior football team and their coach back in 2018. A commemorative marker was inaugurated at the entrance of the cave where the football team members were rescued.

Tham Luang Khun Nam Nang Non is the fourth-longest cave in Thailand, ranging at 10,316 metres. The geology and hydrology of the mountain range study revealed that

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The total carbon storage capacity of the park’s evergreen forest is estimated at 8.5 million tons. This excludes carbon storage capacity in the soil, water, and the limestone forest, as well as its underlying carbonate rock.



## Two national parks in Thailand...

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Thum Luang’s large semi-dry karst cave was formed during the Carboniferous-Permian geologic period at approximately 270–320 million years ago.

More than 98 per cent of the park is classified as a primitive zone based on the park management plan. Thum Luang (Great Cave) and Khun Nam Nang Non (Sleeping Lady shaped Mountain) are the primary attractions. Before the rescue of the football team that led to its international prominence, locals attribute spiritual and mystic value to the park due to the folklore that the mountain range is the silhouette of a beautiful princess who died in the area. The folklore describes Doi Jong (Waiting Mountain) as the head of the princess who died waiting for her husband who was killed by the king’s soldiers chasing them. It was these folk beliefs that prevented people from going inside the cave. The ethnobiological significance is high for local communities who believe that Thum Luang-Khun Nam Nang Non is a holy place.

The mythical story of the limestone range and the legendary rescue of the 12 members of the football team and their assistant coach trapped by monsoon flooding led to the rapid increase of visitors. In 2019, the park had more than 1.5 million visitors.

Thus, on 29 August 2019, the park was declared as a protected area.

The inclusion of Thum Luang – Khun Nam Nang Non National Park as one of the AHPs would enhance capacity in monitoring, patrolling, and developing the physical-biological resources database from intensive nature resource inventory.



Thum Luang’s large semi-dry karst cave was formed during the Carboniferous-Permian geologic period at approximately 270–320 million years ago



## More than a buzzword: how transformative change must be done to conserve biodiversity

Reversing biodiversity loss can only be achieved through transformative change, according to experts and policymakers. But what is transformative change, and how should we do it?

The third virtual session of the Third ASEAN Conference on Biodiversity (ACB 2020) titled *Transformative Change and Innovations in Biodiversity Conservation* held on 26 November gathered a panel of experts to discuss what transformative change towards biodiversity conservation means from their perspective, as well as the science and policy interface it may entail. The virtual session, hosted by the ASEAN Centre for Biodiversity (ACB) and the Ministry of Energy and Natural Resources (KeTSA) Malaysia is part of a series of virtual sessions that serve as a platform for the exchange of perspectives on addressing biodiversity issues in the region.

The updated draft of the post-2020 global biodiversity framework circulated in August 2020 is yet to articulate more specifically what transformative change is and what action it will require. Through this webinar, the ASEAN Member States (AMS) are presented guiding examples of the concrete steps they may need to take in order to realise the 2050 vision of living in harmony with nature.

“Transformative change risks becoming an empty mantra without substantive change and action,” ACB Executive Director Theresa Mundita Lim said in her message delivered by ACB External Relations and Policy Specialist Mary Kristerie Baleva. We need to have “a broader and deeper understanding of how transformative change can induce concrete actions in the Region and innovate to put biodiversity front and centre in our regional initiatives.”

The integrity of ecosystems is continually threatened and biodiversity is declining alarmingly. With around one million species threatened with extinction, biodiversity loss drivers such as massive land-use change and climate change are accelerating at unprecedented levels in the past 50 years, according to the recent global assessment released by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).

The said assessment asserts that despite this decline, there is still time to make a difference if transformative change is taken up now at every level from local to global, nature can still be conserved, restored, and used sustainably.

“Transformative change is not a standard recipe or a long list of actions to check — it depends on each territory’s dynamics, from the local to the global,” IPBES Chair Ana Maria Hernandez-Salgar said. “Decision-makers together with the society, based on the best scientific knowledge, will have to recognise what has to be changed, what are the successful examples to follow and what are the new patterns that lead to a sustainable future,” she said.

### Innovation for biodiversity

Innovations help jumpstart the long-term process of transformative change.

In Indonesia, scientists and researchers are actively involved in establishing the Essential Ecosystem Areas (EEAs), an innovation of the country’s conservation scheme. Dr. Ruliyana Susanti, a researcher from the Research Center for Biology, Indonesian Institute of Sciences, described EEAs as important ecosystems, such as biodiversity corridors, wetlands and biodiversity

parks that are outside of protected areas, mostly in occupied or privately-owned locations.

“Data and information generation for scientific-based policy supports various processes, from planning and establishment, decision or designation and management,” Dr. Susanti said.

Among the innovations that Indonesia has employed, according to Dr. Susanti, is the social media application Monmang, which analyses and interprets data based on selected parameters. The app, which is currently being improved, can be utilised by students and other members of the academe for observation, and thereby increasing the participation of other stakeholders.

Dr. Susanti said “transformative change requires the involvement of scientists, not only biodiversity scientists but also social scientists and citizen scientists.”

The support coming from the Indonesian government and its legal instruments back research and the EEAs’ inclusion to the Indonesian Biodiversity Strategies and Action Plan to make it an important national target and priority.

### Government support

Government support to prioritise biodiversity conservation was likewise instrumental in the innovation shared by Professor Ma Keping, deputy director general and secretary general, Biodiversity Committee of Chinese Academy of Sciences.

Professor Ma shared that as China prepares for its hosting of the 15<sup>th</sup> Conference of Parties to the Convention of Biological Diversity, “there is a clear political signal and guidance through various mandates

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## More than a buzzword: how transformative change must be done...

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and legal instruments that promote biodiversity mainstreaming efforts and green development.”

He emphasised that China adheres to the Ecological Civilization philosophy, a framework that promotes a whole-of-society approach and involves various stakeholders from the national to the local level. In line with this, China also implements the Ecological Conservation Redlining (ECR) project, which sets clear baselines for environmental protection. The ECR approach takes into consideration the different functions of biodiversity areas and their susceptibilities to challenges such as desertification and soil salinisation. Through the ECR delimitation process, scientific assessment is used to balance conservation and development.

“The ECR approach can be maximised to conserve more threatened species or ecosystems,” said Professor Ma.

China’s ECR approach and Indonesia’s EEA conservation scheme are two examples of transformative change translated into concrete national actions that take stock and recognise multi-stakeholder contributions to biodiversity conservation.

Dr. Zaw Naing, coordinating board member of the ASEAN Institute for Green Economy lauded these initiatives during the virtual session and encouraged the AMS to share similar policy instruments and vision and to look into potential collaboration with China and IPBES for conservation innovations.

“Transformative change means doing things differently that will ultimately alter the norms,” Dr. Khairul Naim Adham, undersecretary of the Biodiversity Management Division, Ministry of Energy and Natural Resources Malaysia said during his intervention. “It should be strategic, although we could start with small

initiatives.” For Malaysia, a number of initiatives that could help bring about transformative change include concrete legislative frameworks and policies such as incentivising biodiversity protection, strengthening law enforcement with a multi-stakeholder approach, and fortifying transboundary cooperation.

The virtual session was moderated by Dr. Titiek Setyawati, senior researcher, from the Forestry and Environmental Research Development and Innovation Agency, Ministry of Environment and Forestry, Indonesia.

The webinar was participated by more than 180 AMS representatives, students, members of the academe, and representatives from the indigenous peoples and local communities among others. The full recording of this virtual session may be accessed at <https://bit.ly/ABC2020VS3>.



The panel of speakers, moderator, and the organisers of the third virtual session of the ACB 2020.

# Healthy biodiversity ensures businesses' long-term success



As the loss of biodiversity and its dire economic consequences prompt the private sector to urgently consider nature into their business practices and models, the ASEAN Centre for Biodiversity and the Ministry of Energy and Natural Resources of Malaysia held the fourth and final virtual session of the Third ASEAN Conference on Biodiversity (ACB 2020) on 22 December.

Over a hundred representatives from the government, enterprises, academia, and non-government agencies participated in the event which took place on Zoom and live-streamed via Facebook.

In his remarks, Malaysia's Minister of Energy and Natural Resources Dato Shamsul Anuar bin Hj Nasarah said that "ensuring projects' minimal impacts on existing ecosystems require carrying

capacity assessment on biodiversity-based business ventures."

"If in the past, most businesses had contributed to environmental degradation, today, let us shift our horizons to support our environment through sustainable and environmentally friendly businesses," the Malaysian minister said. He also urged the business community in the ASEAN region to support biodiversity conservation efforts and ensure fair and equitable sharing of its benefits.

Executive Director of the ACB Theresa Mundita Lim underscored the dependence of businesses on biological resources for raw materials, stressing that the sustainable use and management of resources, including investing in conservation projects and

programmes, make good long-term business sense.

"The business sector is an important ally. Mainstreaming biodiversity not only into the strategies and programmes but in the way businesses operate and utilise natural capital, can help reduce and prevent severe impacts on the environment and on the people," she said.

Deputy Secretary-General for ASEAN Socio-Cultural Community Kung Phoak called for increased business accountability for nature and encouraged all stakeholders of conservation to connect more businesses with the post-2020 global biodiversity framework. He also highlighted the need to reconfigure the business roles and responsibilities as well as

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their investment to reverse the biodiversity loss and future risks in the region.

The unprecedented rate at which nature is destroyed puts economies at risk. Approximately USD 44 trillion, or more than half of the world's combined gross domestic product, is dependent on ecosystem services, said Bianca Brasil, programme manager of the Convention of Biological Diversity, citing data from the World Economic Forum.

Representatives from the business sector shared their best practices and business models that put a premium on biodiversity and nature.

Allan Barcena, assistant vice president and head of Corporate Social Responsibility and Public Relations of the Philippines'

Energy Development Corporation, said biodiversity conservation is not just part of their corporate social responsibility, but it is also strategic to the corporation's business operations.

Juthamard Jitchuen, sustainable development consultant of Thailand's Siam Cement Group Holdings, shared that the company practices biodiversity mitigation hierarchy, which limits projects' impacts on biodiversity.

Dr. Teguh Triono, chairman of the board of Indonesia's Jentera Garda Futura (JGF) shared how community-based innovation can positively contribute to environmental protection. A start-up micro business in South Sumatra in Indonesia, JGF incorporates design, technology, social, and environmental aspects

by producing biodegradable food containers made of betel nut leaves, which are previously considered agricultural waste.

Dr. Khairul Naim Adham, undersecretary of the Biodiversity Management Division of Malaysia's Ministry of Energy and Natural Resources said during his intervention that business should go beyond profit. Malaysia, in its various initiatives, supports the Malaysian Platform for Business and Biodiversity for a stronger collaboration between private sectors at the national and global levels.

The two-hour webinar was moderated by Tania Golingi, head of the Ecology and Environment Department at DHI Water & Environment Malaysia. It can be accessed at <https://bit.ly/3oFbY1M>.

## ACB chief: Concerted efforts needed towards future-ready, green cities

In the global observance of the World Cities Day, which is celebrated every 31 October, the head of ASEAN Centre for Biodiversity (ACB) underlined the need for greater partnership among the private and public sectors, as well as communities. This call to further develop future-ready and sustainable cities is made in light of climate change and emerging infectious zoonotic diseases.

"The conservation of the remaining natural areas and biodiversity in the cities, and developing green spaces are of paramount priority. Mainstreaming and integrating biodiversity into urban planning must be done, and it will entail the collaboration of various sectors and stakeholders," said ACB Executive Director Theresa Mundita Lim in her press statement.

Designated by the United Nations in 2014, the celebration of World

Cities Day seeks to promote global interest in urban development and engender international cooperation to address the challenges of urbanisation, thereby contributing to sustainable development.

As urbanisation becomes inevitable, the development of cities must take into consideration present and future needs, and their long-term impacts on nature and biodiversity.

"In the ASEAN and the rest of the world, the expansion and development of urban areas have brought economic development right at the fringes of forests or marine coastal areas, resulting in the alarming decline of vast natural resources and biological diversity," Lim said. She cited the estimates of the 2018 ASEAN Sustainable Urbanisation Strategy report that more than half of the region's populations are concentrated in the cities, and this

number will increase by more than 70 million by 2025.

Given these challenges, Lim noted regional, national, and local actions in conserving and enriching biodiversity and ecosystems in urban areas, sharing that the ASEAN region has been making headway in developing green and sustainable cities.

Under the Bio-Bridge Initiative of the Convention on Biological Diversity, the National Parks Board of Singapore and the Ministry of Natural Resources and Environment of Thailand are leading the development of an ASEAN Work Programme on green infrastructure. This breakthrough initiative is aimed at integrating green infrastructure and urban biodiversity and incorporating ecosystem-based adaptation solutions into the member states' planning and development. The draft of this work

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## PH kids learn about migratory birds, endemic duck in a new children's book



Children enjoyed getting to know about migratory birds and why they should be conserved. Photos by Dess Camitan, Aaron Lecciones, Bebot Sabangan Jr., Jose Carlo Quintos

Learning about nature may be challenging under COVID-19 stay-at-home restrictions, but the Society for the Conservation of Philippine Wetlands (SCPW), in partnership with the ASEAN Centre for Biodiversity (ACB), found fun ways to do it while cultivating the children's sense of adventure.

Through a combination of technology and old-school story-telling, grade-schoolers were introduced to some of the migratory birds, their connection to human and environmental health, and the reason for their conservation, during the celebration of the World Migratory Bird Day (WMBD) on 10 October.

The SCPW and the ACB launched a children's book on migratory birds titled, *Si Papan at ang mga Dayong Ibon* during the webinar entitled *Click it, Sketch It: An Adventure with Migratory Birds*.

The book narrates the adventures of *Papan*, a Philippine duck in the

Candaba marshlands, and the migratory birds *Takyad*, a Black-winged stilt and *Kalay*, a Far eastern curlew. *Takyad* flew from Alaska, where the changing climate caused their late winter migration to the south. Meanwhile, *Kalay* faced a number of difficulties during its group's migration from Siberia to Australia, including being hunted by humans, facing pollution in their feeding areas, and the declining number and deteriorating staging sites. In the story, the migratory birds and the endemic duck lamented their dwindling population despite the important roles they play in maintaining ecological balance.

"The survival of migratory birds is intricately connected with ours," said ACB Executive Director Theresa Mundita Lim, underlining the WMBD theme, *Birds Connect Our World*. "Tangible benefits can be derived from their protection such as ensuring genetic diversity and gene flow as well as preventing spillovers

of zoonotic diseases such as COVID-19 by keeping viruses within their natural hosts, to name a few."

Drivers of biodiversity loss such as human encroachment, land-use conversion, and hunting and poaching continue to persist, contributing to the decline in numbers of these ecologically valuable birds, she said.

Global data sources show that in the ASEAN region, 70 migratory species from a total of 510 have been listed as critically endangered, endangered, vulnerable, and near threatened.

The ASEAN region, being one of the important flyway sites along the East Asian-Australasian Flyway, is rich with wetlands and is home to 60 per cent of tropical peatlands and 42 per cent of mangrove forests in the world. All these ecosystems serve as habitats for local birds and migration sites for migratory species. Conserving these ecosystems is therefore crucial in

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## PH kids learn about migratory birds...

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keeping these birds safe and their population thriving.

According to the ACB, the ASEAN Member States remain hopeful and continue to look for creative and efficient ways to achieve the region's biodiversity conservation targets. The number of Ramsar sites — or wetlands of international importance — has grown with 25 new designated sites over the past decade. At present, the region has a total of 56 Ramsar sites, covering an estimated area of 2.6 million hectares.

“These favourable circumstances offer an optimistic glimpse of the conservation of migratory birds and the protection of ecosystems,” Lim said.

Other efforts are being done in the region, including facilitating cooperation and research through the ASEAN Flyway Network; protected areas and ecosystems conservation through the ASEAN Heritage Parks (AHPs) Programme; and mainstreaming of biodiversity across diverse sectors and segments of society, including the youth.

Lim emphasised the importance of the youth's participation in biodiversity conservation. One of the ACB's programmes, called the ASEAN Youth Biodiversity Programme (AYBP), builds capacity and relationships for young leaders in biodiversity conservation through experiential learning.

Under the AYBP, the ACB likewise served as an adviser to this year's Flyway Youth Forum, the first-ever international youth event on migratory waterbirds and wetland conservation in the East Asian-Australasian Flyway.

“With this book, we hope to ignite the children's appreciation for birds and biodiversity,” Lim said. “It is never too early to start developing the love for nature. It is from this appreciation that we can foster a deeper understanding of its value and vital connection to our lives.”

Based on a story developed by the SCPW Executive Director Amy Lecciones, Darryl Shel Estorba and Dana Rose Salomon collaborated on writing and illustrating the storybook on migratory birds.

“The SCPW hopes to continue collaborating with ACB in communicating the importance of wetlands and biodiversity through various media and catering to

various audiences,” said Lecciones. “This children's storybook is part of our efforts to come up with communication materials that will appeal to our young audience and have an even broader reach if it will be translated into other ASEAN languages.”

The virtual launch of the publication was attended by young audiences from all over the country, including youth from the New Faith Children's Home Foundation. Performances from the children, a colouring activity, and a screening of a localised version of a video on migratory birds produced by the East-Asian Australasian Flyway added flavour to the book launch.



## ACB chief: Concerted efforts needed... continued from page 14

programme is currently under review by the ASEAN Member States.

The ACB head likewise acknowledged the continued actions to conserve the last lungs of some cities in the region.

She mentioned the declaration of the Arroceros Forest Park in Manila, Philippines, as a “permanent forest park,” just early this year. The conservation of the 2.2-hectare park, which hosts more than 3,000 trees of 61 varieties and 8,000

ornamental plants and is home to 10 bird species, will help build resilience against siltation and flooding, apart from contributing to the physical and mental wellness of the city residents.

Meanwhile, the Ninoy Aquino Parks and Wildlife Center, a 23.85-hectare protected area in the heart of Quezon City, Philippines, continues to serve as a haven for 73 bird species freely flying in the area and a place of recreation for tourists and locals.

In Thailand, on the other hand, green spaces in the megacity of Bangkok are being integrated into urban structures that can also be used for agricultural production.

“Without a doubt, urban biodiversity contributes by and large to the overall capacity of cities and communities to function well and become more resilient,” said Lim, stressing that urban development and biodiversity need not be at opposing ends.