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# ‘Understand, protect, share benefits of biodiversity’

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‘Many species in our country were already extinct before I was born,’ lamented Sophea Chhin, a young biodiversity information specialist from Cambodia. Nevertheless, he said, there’s always new species waiting to be discovered—protected and conserved.

Chhin, who was among the 10 recognized as Asean Biodiversity Heroes, said governments play a very important role in biodiversity conservation, citing his country’s experience, wherein the protected areas (PAs) coverage doubled—from 3 million hectares in 2016 to 7 million hectares to date.

Along with the other Asean Biodiversity Heroes, Chhin spoke on the topic “The Role of Governments in Promoting Biodiversity Conservation” during the Asean Biodiversity Heroes Ceremony and Forum held in a hotel in Malate, Manila, on August 7.

According to Chhin, after suffering from the Pol Pot regime in 1970s, biodiversity conservation in Cambodia eventually started from scratch. He said there was no scientist in Cambodia nor there was not much biodiversity left to protect to start with because of the war.

## **War and biodiversity**

“Many people died during that time. After the war, many land mines remain in our country,” he said.

After the Pol Pot regime, which he described as the worst in Cambodia’s history, poverty was felt across the country and biodiversity conservation was not a popular idea.

Poverty took its toll on Cambodia's forest as the demand from forest resources grew, he said. From 1973 to 2014 Cambodia lost about 20 percent of its forest cover, he said.

Yet, growing up even as a young student, Chhin said he saw it as an opportunity to get involved in environment conservation despite the danger that lurks in the forests not from wild animals—but because of land mines.

“When I was young, I saw a lot of people who used sling shot to shoot birds for food. I started thinking, when they grow up, they would steal. I thought [it's better] to use camera instead to promote biodiversity. I started to get involved [in biodiversity conservation] in 2007. At that time, I don't know anything about conservation. My family and friends were asking me why get involved in conservation?” he narrated.

### **A dangerous work**

Chhin said biodiversity conservation was a very dangerous endeavor in his country.

“Sometimes people died in the forest. Many died before they could get to the hospital due to accident,” he said.

That is why to be a conservation advocate, he said, “we need to have commitment.”

Chhin, who popularized wild-bird photography, bird watching, blogging and information sharing of Cambodia's unique bird species, was credited for increasing the level of awareness on biodiversity among Cambodia's young generation today.

Because he had no money to bring students to the forests, he started to take photographs to show them the wide variety of bird species in Cambodia's wildlife.

Many students were afraid to go to forests and even parents would caution their children from going on adventurous trips to forests.

“They don't want their children to go to the forests because they are afraid. The forest is dangerous because of landmines,” he recalled.

## **Passion, commitment**

According to Chhin, the credit on biodiversity conservation in Cambodia should also go to the current government.

He said Cambodia is lucky to have a young, passionate environment and biodiversity advocate as Cambodia's environment minister.

“We have a young minister. The minister of environment is very committed to biodiversity. He is not just a politician. He is also a scientist. He involves himself in conservation,” Chhin said.

Before 2016, he said Cambodia only have 23 PAs covering about 3 million hectares. Today, Cambodia has a total of 45 PAs covering almost 7 million hectares.

“That is the commitment of the government in conserving the biodiversity [in Cambodia] because we know that protecting the habitat is the only way to protect the animals, as well.”

## **Clear policy**

Eyad Samhan, the Asean Biodiversity Hero from Brunei Darussalam who presented the role of his government in biodiversity conservation, underscored the importance of having a clear-cut policy in protecting the country's ecosystems.

Brunei, he said, has a policy against cutting of trees and ban on exporting forest products—particularly wood products.

With a total area of 5,765 square kilometers, and a population of only a little over 400,000, environmental protection is not much of a problem in Brunei.

The government also bans plastic bags, and promotes reforestation in communities.

Environmental protection and biodiversity conservation, he said, is reinforced by the initiative to educate Brunei's younger generation by integrating it in the school curricula.

To be a biodiversity advocate, he said, people need to appreciate nature. Interaction with nature, especially the forest, he said, is a very important aspect in appreciating its beauty and importance to life.

“The forest is my home. We need to interact with the forest. You have to go out in the field to know more about biodiversity. There is a lot more to do. There is a lot more to find and to understand. There are a lot more species in Brunei,” he said.

According to Samhan, government officials should go out in the field, “to know more about what needs protection.”

As a policy, Brunei do not export much. “We don’t export. Mainly, we import. That is why we were able to protect our forests. There is no logging, no cutting of trees. We have cheaper price to import,” he pointed out.

### **People’s participation**

Alamul Huda Adnan of Brunei’s Department of Environment, Parks and Recreation of the Ministry of Development of Brunei Darussalam, added during the forum that the strength of Brunei’s environmental protection lies in the active participation of members of village legislative councils.

“Local communities are encouraged to conduct community assembly [to make the public] understand the significance of biodiversity,” he said.

Brunei, he said, also promotes the one-village, one-product policy so that villagers can benefit from its natural resources.

He said the communities in Brunei are also “teachers” in a sense. “When you go to the forest, you need to walk with the communities and learn,” he said.

### **One policy**

According to Adnan, the government of Brunei was able to get the communities on board in biodiversity conservation because in every project and every activity, the government makes it a point to invite them to take part.

In Brunei, he said, for whatever projects or activities various government agencies want to implement, it has to go to one person—the king.

“When he said yes, all government agencies must agree. All the ministers have to agree. There is no conflict, for example, like in tree cutting. You cut one, you plant four. No plastic bags, everybody would have to agree with that. [There is only] one policy. There is no intertwine,” Adnan said.

### **Understanding biodiversity**

Malaysia’s Asean Biodiversity hero, Prof. Zakri Abdul Hamid, the science advisor to the prime minister of Malaysia, meanwhile, underscored the need for better understanding of biodiversity, its sustainable use, the need for science diplomacy and the importance of access and benefit-sharing among Asean member-countries.

He said people in the urban areas have less appreciation of biodiversity than those living close to biodiversity-rich areas.

Lack of understanding of the importance of biodiversity, he said, often results in tragedy, like the death of a critically endangered species.

A scientist, educator and diplomat, Zakri is one of the Founding Fathers of Biodiversity Conservation and is credited for raising awareness in biodiversity among global leaders.

Hamid shared “horror stories” about lack of understanding of biodiversity and sustainable use of biodiversity.

“A policemen in Indonesia was caught shooting an Orangutan and cooking it. Of course, he was punished. A few years back, a Filipino farmer killed and cooked a Philippine Eagle, one of 800. He was also caught. In another instance, in China, a person was

caught eating a whale shark. He suspected that whale shark was a sea monster,” he lamented.

## **Science diplomacy**

Zakri said there’s a need for more science in negotiating for biodiversity conservation in a regional or global scale. He recalled how he, more than 20 years ago, attempted to ask the head of Malaysia’s delegation to a meeting in Kenya, but he went home instead because of his dismay.

“I could not understand the notion of diplomats then talking to negotiate about biodiversity,” he said.

He said there is hope for the younger people to stand up and be counted. “You must learn. You have a role to play. You must be taught of understanding and appreciating biodiversity. Diplomats need to train people. We need scientists to be involved in negotiations,” he said.

## **Conservation versus development**

Zakri, during his talk, said there’s a strong disjoint between conservation and sustainable use of biodiversity.

He said the interest in biodiversity was not originally initiated by the government, but by non-governmental organizations (NGOs) and civil society.

“In Asean, countries are mega-diverse. In Indonesia, Malaysia and the Philippines most of the original demand for biodiversity conservation did not originate from us [in government]. It was political. Countries like us in Asean, we appreciate the need to conserve but we also need to develop,” he stressed.

He said sometimes people criticize overfishing in the Philippines, but he explained that people need to eat and they need to support their families.

“When we mention about conservation, it should always be balanced by the right to development,” he said.

In Malaysia, he cited, the development of oil-palm plantations, which he said should be respected. However, he was quick to explain that there is an accompanying responsibility on the part of governments to avoid destroying land ecosystems.

Asean is rich in biodiversity, Zakri said. “[It is rich in plants, animals and marine organisms. We only scratched the surface. The gentlemen from Brunei talked about discovery of more species. There are an estimated 15 million to 30 million species in the world. Those discovered by science is, at best, below 2 million. The point here is, beside those number, biodiversity in our part of the world, is still undiscovered,” he said.

### **Access and benefit sharing**

There is a lot of potential in biodiversity, whether plants or microorganisms, Zakri said.

“We already know about local knowledge and the Philippines is very advanced in that. There is a lot of potential for industrial use and pharmaceutical products. We must work together,” he said.

He added donor countries should also be rewarded for their contributions.

“Despite our being mega-diverse, the third objective of the Convention [on Biological Diversity] has not been fulfilled. There is very little development. We need to access and share benefits,” he said.

For that to happen, he said Asean needs to enhance knowledge, underscoring the need for the region’s people to be educated, trained and engage more in research and development.

“That is the future. Asean must not be forever a recipient of technology or funding. We should upgrade our skill. We should improve our scientific knowledge, including our academic, legal and social [know-how] so we can be equal partners in the quest for conservation and sustainable use of biodiversity,” he said.

The Malaysian biodiversity added: “Science diplomacy needs more involvement from the youth. Knowledge is very important.”

## **Human survival**

Philippine National Scientist Angel C. Alcala, the Philippine’s biodiversity hero, underscored the importance of biodiversity to human survival.

“We look at biodiversity for our benefits but we should harness them sustainably,” he said.

“We need to learn how to make biodiversity sustainable,” he added.

A former secretary of the Department of Environment and Natural Resources (DENR), Alcala said every species has a role to play to complete the so-called cycle of life. A marine biologist, Alcala established some of the first no-take marine reserves in the Philippines.

Humans, he said, needs biodiversity to survive.

## **Protected areas**

In the forum, Alcala cited the successful establishment of several marine protected areas (MPAs) in partnership with various stakeholders. The Philippines has one of the largest marine species in the world.

In the 1940s he said the country’s forest and coastal areas are teeming with life. Overexploitation, he said, eventually led to resource depletion in the 1960s.

“Humans need biodiversity. But we must learn to harness our resources. We need to learn how to manage them sustainably,” he said.

According to Alcala, every organism, every species, is important as part of the food chain.



He cited the dreaded crocodiles, which are beneficial to the ecosystem. He said crocodiles fertilizes soil and water, and helps plankton grow. In turn, small fish feed on plankton and become prey to bigger fish.

“Where there are crocodiles, there are plenty of fish,” he said.

In coastal and marine ecosystems, he also cited the importance of giant clams to ensure a healthy marine ecosystem.

Alcala said every species is important in biodiversity conservation. While saying that people have to rely on biodiversity for food, conservation is key to harvesting them sustainably.

“We have to conserve them, harness them and use them sustainably. We have to make biodiversity sustainable for humans,” he said.

According to Alcala, local government units (LGUs) have a very important role to play in biodiversity conservation, citing his experience in establishing MPAs in the Philippines.

Along with coastal communities, LGUs can establish locally managed MPAs, making fishing sustainable.

Alcala said the National Integrated Protected Areas System Act is an important piece of legislation, which strengthened the protection of PAs in the Philippines, thereby boosting the country’s ecotourism sector.

“We have 5 million tourists every year because we are protecting some of our areas,” he said.

According to Alcala, the establishment of more PAs is one way of ensuring sustainable fisheries.

In the Philippines, he said, only around 5 percent of the coastal and marine waters are protected or covered by no-take policy.

On the other hand, around 70 percent to 80 percent of the Philippine oceans, he said, are targeted for fishing. He said it takes decades for marine ecosystems to recover from devastation caused by destructive fishing methods.

Based on scientific studies, on Sumilon Island, in Cebu, after establishing a no-take zone, it took 20 years for the area to become productive again, as the fish catch around the area have started to increase dramatically. On Apo Island, a similar study revealed that it takes a lot longer.

“That is why protection is very important in biodiversity conservation,” Alcala said.

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