

Why we should care about biodiversity conservation

The 51st annual meeting of the Association for Tropical Biology and Conservation (ATBC) was held in Cairns, Australia, from July 20 to 24. When the ATBC was founded as the Association for Tropical Biology in July 1962, it aimed to promote and foster the exchange of ideas among biologists working in tropical environments. The ATBC has also actively supported regular publications and academic symposia to build global networks of tropical biologists and conservationists.

This reflects the strong desire of the association to balance conservation and biological diversity with human welfare in the tropics. About 600 scientists from 47 countries with different backgrounds discussed and addressed various issues from climate change to molecular and evolutionary perspectives of biota species during the ATBC meeting, which was themed "The Future of Tropical Biology and Conservation". We also noted that scientists from various parts of the world were concerned about biodiversity conservation in Indonesia. First, during a session on bushmeat and the wildlife trade in Asia, half of the presenters talked about the bird trade in Sumatra. They underlined the need to find a recipe to combat the wildlife trade, particularly on that island.

Second, there was a discussion on forest ecology as a result of extractive industries, with various examples from Sumatra and Kalimantan. Forest conversion for logging, oil palm plantations and mining is the biggest threat to biodiversity worldwide, including Indonesia. In terms of an evolutionary viewpoint, the advance of molecular approaches has been confirmed in facilitating conservationists to establish a tree community across the Indonesian archipelago. A series of studies are currently being conducted to assist scientists with their forest restoration programs. Surprisingly, there was a special symposium focusing on a plan to design a conservation program for the Wallace region. Indonesian scientists stressed the potency of the Wallace region given its diversity in flora and fauna.

Foreign counterparts, on the other hand, provided evidence on the impact of development and extractive industries in designing priority strategies for the future of biodiversity conservation in the region. Most significantly, one of the keynote speakers in the meeting, Dr. Jatna Supriatna, addressed the urgency of a partnership between the public sector, scientists and the private sectors in supporting biodiversity and conservation in Indonesia. These all indicate how people elsewhere in the world are paying more attention to Indonesia's biodiversity and conservation. So, how about us? Dubbed one of the world's top-two mega centers for biodiversity alongside Brazil, Indonesia is also a country with enormous cultural diversity.

Its strategic location between the Indomalayan biodiversity of tropical Southeast Asia in the west and the Australasian species in the east, together with its species-rich forest environment, contributes to the high diversity of plants and animals in the area. It comes as no surprise that Norman Myers identified Indonesia as one of 25 biodiversity "hot spots" in the world. Regrettably, most of this biological wealth has not been sufficiently studied and, as a result, there remains insufficient knowledge of their biological importance and economic potency. We face a dilemma because we also contribute to the loss of tropical species. The overexploitation of fish and terrestrial fauna along with forest destruction and water pollution has been seen as the main cause of the extinction of tropical species.

In reality, Indonesia frequently reacts negatively to international criticism of the loss of tropical ecosystems. Despite our negative reaction, Indonesia could become a key player in the efforts to safeguard global species. We have more than 150 national laws and regulations to protect our wildlife species and areas. What we could do is establish an integrated system of law enforcement and build monitoring capacity. We could also play a leading role in developing international policies that support the conservation of tropical biological resources. We are among the countries that have ratified international conventions on biodiversity conservation, such as the Convention on International Trade for Endangered Species of Wild Fauna and Flora (CITES) through Presidential Decree No. 43/1978 and the Convention on Biological Diversity through Law No. 5/1994. Promoting the sustainable use of biodiversity may also have a direct effect on the utilization of natural resources by, for example, suppressing illegal hunting and the trade in wild flora and fauna.

This strategic position, if well-played, may result in enormous benefits for Indonesia precisely because we are the refuge for a large proportion of the plants and animals that inhabit the Earth. The successful conservation of biodiversity in Indonesia would make a significant contribution to combating the extinction of precious global species. This is also the right time to develop biodiversity-friendly agricultural practices. Agricultural practices that could contribute to the improvement of biodiversity, such as agroforestry, should be first up. It has been proved that traditional agroforestry in Sumatra has played a pivotal role in the conservation of rainforest birds. Furthermore, the implementation of relevant regulations and the strengthening of law enforcement are needed to encourage better practices in the extractive industries, such as logging, mining and modern plantations. They have to show their ability to plan and manage both business and environmental risks effectively. Finally and most importantly, we place our hope in president-elect Joko Widodo and vice president-elect Jusuf Kalla to select the right person for their Cabinet to protect the future of tropical biology and conservation in Indonesia.

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