

- [BIODIVERSITY](#)

## Urban biodiversity keeps cities green, sustainable and livable

International Day for Biological Diversity 2021

 **BYJONATHAN L. MAYUGA**

MAY 30, 2021



The Arroceros Forest Park in Manila and the Ninoy Aquino Parks and Wildlife Center in Quezon City are home to a variety of plants and animals.

2

The rapidly increasing population and urbanization of our cities are pushing green spaces whether these are public parks or gardens where people can commune with nature to the brink.

In defending the environment, Mayor Francisco “Isko Moreno” Domagoso’s first act as Manila’s chief executive was to save what is considered the “last lung” of the capital city, the Arroceros Forest Park on Antonio Villegas Street in Ermita.



Among Manila’s remaining green spaces, the 2.2-hectare riverside park is home to over 3,000 trees belonging to 61 different species, 8,000 ornamental plants and various birds, bees, and butterflies that keep the now “permanent forest park” alive.

Highlighting the country’s celebration of the International Day for Biological Diversity 2021 on May 22, the Department of Environment and Natural Resources (DENR) held its virtual event a day before the global celebration of urban biodiversity, particularly its many benefits and linkage to the cities and urbanization.

DENR’s Biodiversity Management Bureau (BMB) organized the event.

## **Protecting our rich biodiversity**

In his message at the event, Environment Secretary Roy A. Cimatu underscored the need to protect the country’s rich biodiversity, citing its important functions in air purification, food and water security, livelihood source, nature recreation and risk reduction from emerging infectious diseases.

Guided by the theme, “We are part of the Solution,” following last year’s “Our solutions are in nature,” Cimatú said that biodiversity will be the foundation on which the Philippines can build back after the pandemic.

For his part, Undersecretary for Special Concerns Edilberto D. Leonardo appealed for public help and support to protect and conserve the country’s rich biodiversity.

Leonardo, the concurrent officer in charge of the DENR-BMB, cited the illegal wildlife trade as one of the major drivers of biodiversity loss.

He added that under his watch, the DENR-BMB will focus on strengthening the protection of the country’s Protected Areas and National Parks that serve as important ecosystems and home to the country’s endemic and endangered plant and animal species, he told the BusinessMirror on May 20.

## **Urban biodiversity program**

Part of the bureau’s urban biodiversity program is “Trees in the City,” which is being implemented through its partnership with national government agencies and local government units.

More trees, he said, are needed in cities because these help in carbon sequestration and provide home to diverse wildlife species, including birds and bats identified by scientists as keystone species that need to be saved for other species to survive.

Urban biodiversity is defined as the variety and richness of living organisms, including genetic variation and habitat diversity, found in and on the edge of human settlements, according to DENR-BMB’s

Argean Guiaya, a licensed environmental planner and green building professional, in an online lecture on May 21.

She cited Thomas Elmqvist's definition of urban biodiversity: At the landscape and habitat level, urban biodiversity includes remnants of natural landscapes like leftovers of primeval forests, traditional agricultural landscapes like meadows, areas of arable land, urban-industrial landscapes like city centers, residential areas, industrial parks, railway areas, formal parks and gardens, brown fields.

## **Economic opportunities, ecosystem services**

Guiaya pointed out the enormous economic opportunities as among the many benefits in protecting and conserving the country's rich biodiversity.

"The Philippines has about 70 to 80 percent of the world's biodiversity resources, [which] presents potential for biodiversity-friendly businesses that can support economic development," she said.

While the Philippines is rich in biological diversity, it is also one of the world's biodiversity hotspots due to the rapid rate of biodiversity loss, according to Guiaya.

The five major drivers of biodiversity loss include invasive alien species, habitat loss, climate change, pollution and overexploitation.

This also leads to a loss of important ecosystem services they provide such as food, medicine, energy, water filtration, climate regulation, disease control, nutrient and water cycling and cultural services.

## **Growing cities, high impacts**

“Globally, urban areas are expected to double between 2000 and 2030, drawing heavily on natural resources and with expected high impacts on biodiversity and ecosystem services,” Guiaya explained.

She said that based on the Asean 2017-2018 report, an estimated additional 90 million people moving to cities in the Asean by 2030 will increase urban dwellers from around 36 percent in 2015 to 45 percent by 2030.

“[A growing] city requires more land and resources to support its growth, and this leads to the change of land use, causing more environmental problems, especially when the land use development is not properly planned,” Guiaya said.

She cited three major trends in urbanization: first, the increase in urban area is faster than the increase in population; second, urbanization rates are highest in poorly capacitated urban governance arrangements; and third, urban expansion will heavily draw on resources, putting at risk ecosystem goods and services.

## **Biodiversity and urbanization**

“Urbanization is a major driver of environmental change and is closely linked to the future of biodiversity,” Guiaya said.

She stressed that urban growth and the densification of many cities in the world challenge the existence of ecosystems of conservation concern in and around urban regions, and the survival of species within cities.

Some urban environments, however, host a high richness of plants and animals including endangered species so rich biodiversity can still exist in cities despite the challenges of rapid urbanization.

“Within cities are areas that harbor or affect critical ecosystems, such as wetlands, or may even provide links to centers of endemism,” she said.

Most cities, she noted, are built on sites of high ecological diversity and productivity.

Urban ecosystem services and biodiversity can help contribute to climate change mitigation and adaptation, and increasing the biodiversity of urban food systems can enhance food nutrition and security.

“Cities offer unique opportunities for learning and education about resilient and sustainable future,” she said.

## **Developing biodiversity-friendly cities**

Guiaya pointed out that developing biodiversity-friendly cities is cross-linked to sustainable urban development and wellbeing, and that building sustainable cities that address critical needs while conserving nature is an important approach for achieving sustainability.

“[When] we conceptualize biodiversity conservations strategies, we need to incorporate the people’s perspective and values because if the people have a better understanding of the state of biodiversity and their role in conservation, there’s a higher chance that management intervention for conservation of urban biodiversity will succeed,” she said.

A biodiversity-friendly urban development needs to use biodiversity and ecosystem services in the overall adaptation and mitigation strategies, promote the maintenance of natural areas, mainstream biodiversity into development sector and plans, develop green and blue spaces, apply and promote green infrastructure and enhance habitat and restore urban ecosystems, according to Guiaya.

All these require behavioral change in people because “the government cannot do it alone in making our cities livable.”

“No how good the biodiversity conservation programs and policies are, if the people’s understanding of the importance of biodiversity isn’t there, then all will be for naught,” she said.

Image courtesy of Alma E. Nacua and DENR -BMB

<https://businessmirror.com.ph/2021/05/30/urban-biodiversity-keeps-cities-green-sustainable-and-livable/>