

Editorial Note on Biodiversity – Ecosystems

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Editorial

The variety of living species on Earth, including plants, animals, microbes, and fungi, is referred to as biodiversity. While the Earth's biodiversity is so diverse that many species have yet to be discovered, many species are facing extinction as a result of human actions, jeopardising the planet's wonderful variety. We are currently experiencing a continuous loss of biodiversity, which has far-reaching implications for both the natural world and human well-being. Changes to natural ecosystems as a result of intense agricultural production systems, construction, quarrying, overexploitation of forests, oceans, rivers, lakes, and soils, invasive alien species, pollution, and, increasingly, global climate change are the main drivers of this loss. The critical role that biodiversity plays in the long-term viability of our planet and our existence makes its continued extinction all the more concerning.

Biodiversity is a phrase that refers to the tremendous diversity of life on the planet. It can also be used to refer to all of the species in a certain location or environment. Every living thing, including plants, microorganisms, animals, and humans, is referred to as biodiversity. According to scientists, there are around 8.7 million plant and animal species on the planet. However, only about 1.2 million species, the most of which are insects, have been recognised and described thus far. This indicates that the existence of millions of other creatures is unknown.

Provisioning (such as food and water), regulatory (such as flood control), cultural (such as recreation), and supportive characteristics characterise these ecosystem services (like nutrient cycles). Cities cannot function well without healthy ecosystems and a diverse biodiversity, or the diversity of living organisms and ecosystems. Ecosystem services not only supply food and clean water to city dwellers, but they also play a vital part in a city's quality of life by regulating the climate, filtering pollution, and protecting the city from flooding. Despite the necessity of maintaining a healthy environment, nothing is done to offset the negative effects of over-exploitation, climate change, land use change, urban development, traffic, air pollution, and invasive species.

Given that there is still so much biodiversity to find, scientists are interested in how much biodiversity exists on a global basis. They also look at the number of species in a single environment, such as a forest, grassland, tundra, or lake. From beetles to snakes to antelopes, single grassland can support a diverse spectrum of animals. The warm and humid climate of tropical regions, for example, provides optimum environmental conditions for plant growth in ecosystems that contain the most biodiversity. Ecosystems can also house species that are too small to notice with the human eye. Looking at samples of

soil or water through a microscope reveals a whole world of bacteria and other tiny organisms.

Humans and human cultural variation are considered part of biodiversity by the Center for Biodiversity and Conservation. The term "biocultural" is used to characterise the dynamic, ever-changing, and interdependent nature of people and places, as well as the idea that social and biological components are inextricably linked. This notion acknowledges that human behaviour, knowledge, and beliefs influence, and are influenced by, the natural systems in which human groups exist. Because of this connection, all biodiversity, including species, land and seascapes, and cultural ties to the places where we live—whether right here or in other lands—is vital to our well-being.

Biodiversity is essential in almost every element of our life. We value biodiversity for a variety of reasons, some of which are utilitarian and others which are intrinsic. This means that we appreciate biodiversity both for the benefits it gives to us and for its intrinsic value. The numerous essential necessities humans acquire from biodiversity, such as food, fuel, shelter, and medicine, are utilitarian benefits. Ecosystems also perform important functions such as pollination, seed distribution, climate regulation, water purification, nutrient cycling, and pest control. Biodiversity also has value in terms of undiscovered advantages, such as new medications and other unknown services [1-5].

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