



Biodiversity Matters: Health and Economy of The World

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ABSTRACT:

“Biodiversity is the very backbone of life. It is the basic necessity to our needs for food security, medicines, fresh air, shelter, and a clean and healthy environment. The different benefits of living organisms in the various fields of society has been discussed in this paper. Conservation of biodiversity is becoming a major concern in the world. For human growth and development, and for survival of human beings, we need to initiate steps to conserve biodiversity at each and every level of our society.”

Key words: Biodiversity, health, ecosystem, sustainability, food security.

Introduction:

“On the global arena, biodiversity has become an important issue. As a vital concern on the local, national and international levels, the importance of biodiversity is increasingly being recognized day by day.”

What is biodiversity?

It is “all the different kinds of life that we may find in an area – the variety of animals, plants, fungi, bacteria, virus and all other living organisms which are a part of our natural ecosystem. But it is not only the various types of plants, animals, and micro-organisms and their ecosystems, but they work together in ecosystems to maintain ecological balance and supports life. Biodiversity is the very backbone of life. According to Convention on Biological Diversity (CBD, 1992), biodiversity is the basic necessity to our need for food security, medicines, fresh air, shelter, and a clean and healthy environment.”

Importance of biodiversity

Maintenance “of biodiversity is essential for the ecosystem-based services, such as the provision of water, food, land and fresh air for human, animal and plant life. It is critically important to our health, our livelihood, our business and our safety on the earth.”

1. Biodiversity ensures food security.

Biodiversity “supply the global nutrition and food security. Agricultural biodiversity, in particular, can improve productivity and nutrition, enhance livelihoods, respond to environmental challenges, and deliver food security. The productivity of agricultural ecosystems depends on numerous species, such as soil micro-organisms, pollinators and genetically diverse crops. Agricultural ecosystems also provide habitats for many wild plant and animal species.”

Millions of “species work together to provide us with a huge variety of vegetables, fruits, and many other essential products to a balanced and healthy diet, but they are increasingly under threat.”

2. Biodiversity provides livelihoods –

Poor “rural people depend on natural resources for their livelihoods, relying on a range of natural assets from their ecosystems and biodiversity for food, fuel and much else. The protected areas and buffer zones of agricultural ecosystems help maintain biodiversity, many are also essential for maintaining the livelihoods of local people.”

3. Biodiversity for traditional medicines and health research

More varieties in “biodiversity can be linked to an increase in human health. In earlier days, the cultivation of wild varieties have provided more micronutrients to people and help them to maintain their health, and improve immunity to fight against diseases. But, the simplification of diets, processed food, and poor access to food have led to poor quality diets. As a consequence, one third of the world suffers from micronutrient deficiency.”

The “availability of plant resources is essential for medicines. Most of the drugs used in modern era of medicine are derived directly or indirectly from the plant resources. It means that every time a species goes extinct, we miss out on a potential new medicine.”

The “protection of natural areas and their biodiversity has been linked to fewer episodes of diseases. As human activities encroach upon the natural world, through deforestation and urbanisation, we reduce the size and number of ecosystems. As a result, animals live in closer quarters with one another and with humans, creating ideal conditions for the spread of zoonotic diseases. The exact origin of the virus causing COVID-19 is still unknown, and most of the emerging infectious diseases like malaria, dengue, HIV- aids, originate from animals and from wildlife.”

4. Biodiversity provides infrastructure to business

The “world’s GDP depends upon the existence of biodiversity. The world of sweetness directly depends upon the healthy supply of sugarcane. The emerging pharmaceutical world is based on the maintenance of biodiversity of many native and indigenous varieties of plants, animals and other microbes. Similarly, the coral reefs and fishes are essential for tourism industry. The global needs of energy are fulfilled by wheat, rice, millets, potato. However, the importance of tea, coffee and alcohol can never be ignored from the beverage industry.”

5. Biodiversity protects build up environment.

Biodiversity “is the key to our survival. Functioning ecosystems support life, and if we do not pay attention to preserving the world’s biodiversity, “there” is nothing “sustainable” about the development. The world’s total human population represents just 0.01% of all living things by weight, but humanity has caused the loss of 83% of all wild mammals and half of our plants. Biodiversity loss and ecosystem collapse is one of the top five risks in the World Economic Forum’s 2020 Global Risks Report.”

6. Threats to biodiversity.

Biodiversity “conservation is therefore central to achieving recent global commitments for sustainable” development under “Agenda 2030”, adopted “by the United Nations in 2015. When we make an effort to conserve biodiversity, we are helping to maintain critical global biological resources to meet our needs today as well as those of future generations. The International Fund for Agricultural Development (IFAD) recognizes that losing biodiversity means losing opportunities for coping with future challenges, such as those posed by climate change and food insecurity. Loss of biodiversity threatens smallholder livelihoods in the local areas. The challenge is how to find practical and workable ways to increase biological diversity. Obviously action needs to be taken on the governmental level. However there are also ways that individuals, and groups of individuals can begin to act on their own right and help create ecological change and increase biodiversity. As per the provisions of Biological Diversity Act, 2002, Haryana State Biodiversity Board (HSBB) was established by the government in 2018 to protect and preserve the biodiversity of forests, flora and fauna in the state, specially in the biodiversity hotspots of Shivalik and Aravali hills that are under threat. The rewilding stick can increase biodiversity, by encouraging mass planting of a wide variety of seeds of different types of plants (trees, grasses, flowers, etc.) and thereby also helping with restoration of animal habitats. This offers a revolutionary way to increase the rate of planting which is more akin to what nature it self does: plant seeds in situ in sufficient numbers to offset damage and consumption by local animal species. This supports the health and diversity of plant species as well as the health and diversity of animal species.”

Conclusion-

Maintenance “of biodiversity is the basis of sustainability of life on earth. For human growth and development, and for survival of human beings, we need to initiate steps to conserve biodiversity at each and every level of our society.”

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