BIODIVERSITY LOSS AND ITS EFFECTS ON EARTH

Human existence thrives on biodiversity. The food is provided by green plants. The biodegradation carried out by microorganisms. The production of oxygen. Without all these, humanity is on its way to extinction.

Understanding biodiversity is quite simple. The addition of all the activities listed above sums up what biodiversity is. In other words, biodiversity is the diversity and ecological interactions between different life forms. Life forms range from the greenest plants to the tiniest of microorganisms to the largest of mammals. The interaction of these life forms brings about biodiversity. The importance of these interactions includes:

• The stability and productivity of naturally occurring ecosystems

• Increase in the yielding power of crops, by crop genetic diversity

• Enhanced wood production by tree species diversity

• Fodder in grasslands: plant species diversity

• Recovering from climatic fluctuations, adapting, and reducing the impact of natural hazards

The importance of biodiversity has been greatly overlooked, which has led to anthropogenic activities destroying and disrupting the chain of ecological interactions. A simple example is shown here. The temperature in Nigeria has increased from 27.43°C in 2020 to 27.67°C in 2021. It has been estimated that climate change will make Nigeria too hot to live in by 2070. This is due to human activities such as burning fossil fuels, cutting down trees, and raising excessive livestock. These activities increase the earth's temperature and climate.

When biodiversity is tampered with. It yields drastic results that affect not only humanity but other lower life forms. The effects of biodiversity are adverse and detrimental to the

earth. Recovering from these effects could take thousands of years if certain activities are not cut down. These effects include:

• Biodiversity loss cuts down on the functioning of ecosystems. It reduces the rate at which ecosystems interact, which reduces the ability of nature to support a healthier environment. The recovery ability of nature to change is also affected, as this causes the climate to suffer changes that could become permanent.

• Increased extinctions of species have been experienced. This is due to anthropogenic activities causing climate change, overharvesting of species, pollution, and the introduction of invasive species.

• Zoonotic transmission of disease to humans:

Diseases like COVID-19, AIDS, Ebola, Lyme, and dengue fever are all results of disease transmission from animals to humans. Increased land clearance also creates a pathway for more transportation of diseases from rural and remote regions to densely populated urban areas.

• Increased conflict between humans and wildlife:

The negative interaction between humans and wild animals has caused damage to crops and property and physical injury, including the loss of human and animal life.

• Food insecurity and medicinal resources:

Unhealthy and unsustainable agricultural and farming practices lead to increased food insecurity. All forms of biodiversity are crucial for long-term, sustainable food production. Biodiversity loss also affects traditional medicines, pharmaceuticals, and drug innovations.

Biodiversity plays an important role in maintaining life and the environment. It is rather unfortunate that most professionals haven't come to terms with the fact that most declines in health and natural disasters are the result of biodiversity loss.

In-depth understanding and research are required to understand the patterns and chains of interactions in ecosystems to confer solutions and prevent biodiversity loss.

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