

IMPACT OF GLOBAL WARMING ON BIODIVERSITY

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Biological diversity is the variety of life on Earth, in all its forms as well as including all the things which come in environment, from genes and bacteria to entire ecosystems such as forests or coral reefs. The biodiversity we see today is the result of 4.5 billion years of evolution, increasingly influenced by humans.

Biodiversity forms the web of life that we depend on for so many things – food, water, medicine, a stable climate, economic growth, among others. Over half of global GDP is dependent on nature. More than 1 billion people rely on forest for their livelihoods. And land and the ocean absorb more than half of all carbon emissions.

But nature is in crisis. Up to one million species are threatened with extinction, many within decades. Irreplaceable ecosystems like parts of the Amazon Rainforest are turning from carbon sinks into carbon sources due to deforestation. And 85 per cent of wetlands, such as salt marshes and mangrove swamps which absorb large amounts of carbon, have disappeared.



How is climate change affecting biodiversity?

The main driver of biodiversity loss remains humans' use of lands – primarily for production. Human activity has already altered over 70 per cent of all ice-free land. When land is converted for agriculture, some animal and plant species may lose their habitat and face extinction.

But CLIMATE CHANGE is playing an increasingly important role in the decline of biodiversity. Climate change has altered marine, terrestrial, and freshwater ecosystems around the world. It has caused the loss of local species, increased diseases, and driven mass mortality of plants and animals, resulting in the first climate-driven extinctions.

On land, higher temperatures have forced animals and plants to move to higher elevations or higher latitudes, many moving towards the Earth's poles, with far-reaching consequences for ecosystems.

Overall, climate change affects the health of ecosystem, influencing shifts in the distribution of plants, viruses, animals, and even human settlements. This can create increased opportunities for animals to spread diseases and for viruses to spill over to humans. Human health can also be affected by reduced ecosystem services, such as the loss of food, medicine and livelihoods provided.

There is already evidence to suggest that reductions in water vapour in the atmosphere since the 1990s has resulted in 59% of vegetated areas showing pronounced browning and reduced growth rates worldwide.