

## 1 Million Species Face Extinction: How It Impacts Human Health

How is the health of humans dependent on species like insects or coral reefs?

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The threat of extinct looms over 1 million species of animals and plants because of human activities, announced a recent UN report. Many of these are looking at only a few decades of life left.

Now, here's the irony. The mess that humans have created doesn't just endanger these 1 million species. The extinction of these species and the change in our environment can have a massive impact on humans, their health and their survival.

How is the health of humans dependent on species like insects or coral reefs? The answers have big red warning signs for us.

## How Is Change in Nature Leading to Loss of Species?

To gauge the impact on human health, we need to first understand how the change in environment is killing these extinction-threatened species.

The species at this deadly risk include more than 40 percent of amphibians, 33 percent of coral reefs and over a third of all marine mammals.

The report points out five main reasons for this loss of species.

- **Change in land and sea use:** Humans have altered land and sea environments. This leads to loss of habitats for many plants and animals, leaving them homeless and making it hard for them to survive.
- **Overfishing:** This direct exploitation of marine life has left them facing extinction.
- **Climate change:** Global warming has hit almost half of land mammals and one-fourth of birds. The increasing temperatures have made it too hot, wet or dry for these species to survive in their native habitats.
- **Pollution:** Marine pollution - plastic, toxic metals and chemicals - has increased tenfold since 1980, endangering the life there drastically.
- **Invasive species:** The spread of invasive species (due to the above factors), which are alien to an area and not native, causes harm to the native species there, along with harming the environment and human health.

## How Does All of This Impact Human Health?

Studies and experts suggest there are several direct and indirect ways in which loss of such species can affect human health and survival.

If you remember basic biology lessons, you'd recall that the interactions between animals, plants, humans and the environment make up a complex web. Any disturbance to this can have far-reaching effects.

This could endanger food security, water security, oxygen supply, and exacerbate disease outbreaks for humans.

For instance, humans need food to survive. More than three-quarters of the world's food crops rely, at least in part, on the activities of bees, wasps, butterflies and other pollinators, according to the Food and Agriculture Organization of the United Nations. The new UN report found that 10 percent of insect species are under threat. Coral reefs are also under threat. They're the perfect example of how hotter temperatures are eliminating certain species. If the world warms another 0.5 degrees Celsius, which other reports say is likely, coral reefs will probably dwindle by 70 percent to 90 percent, the report said.

How is this of importance for humans?

We need oxygen to survive, a lot of which comes from the ocean. And reefs are crucial for a healthy ocean.

A World Economic Forum article quotes an expert's explanation on this:

You like to breathe? Estimates are that up to 80 percent of the oxygen you are breathing in comes from the ocean. It doesn't come from the land. In order for you to continue to breathe, you have to have a healthy ocean. And that's dependent on reefs.

Here's another scary example of how this affects us.

Invasive species. For humans, one of the most dangerous effects of invasive alien species is that they can be a carrier of disease. These species are in habitats that they shouldn't naturally be. This also brings them closer to human contact.

Let's understand it with an example closer to home.

When the Nipah virus outbreak hit southern India, specifically Kerala, there were reports suggesting that a possible reason for this unusual spread was the loss of habitat of bats.

According to a World Health Organization (WHO) fact sheet, "there is strong evidence that emergence of bat-related viral infection communicable to humans and animals has been attributed to the loss of natural habitats of bats."

Speaking to FIT, Prof Ramanan Laxminarayan of Centre for Disease Dynamics, Economics and Policy (CDDEP) had said:

We forget that we are all interlinked. Most diseases first emerge in animals. It is only after they've gone through them that they travel to humans. Ebola first emerged in

Gorillas. Unless we learn from our mistakes, we stop destroying their habitat, these viruses will keep emerging.

There could be many other ways in which this disastrous change in environment and loss of species affects humans, some documented, some being researched and some waiting in the wings to ambush us.

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