

A ‘Crossroads’ for Humanity: Earth’s Biodiversity Is Still Collapsing

Countries have made insufficient progress on international goals designed to halt a catastrophic slide, a new report found



Orangutans in Indonesia last year, when blazes from illegal land-clearing increased sharply. Ulet Ifansasti/Getty Images

By Catrin Einhorn

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The world is failing to address a catastrophic biodiversity collapse that not only threatens to wipe out beloved species and invaluable

genetic diversity, but endangers humanity's food supply, health and security, according to a [sweeping United Nations report](#) issued on Tuesday.

When governments act to protect and restore nature, the authors found, it works. But despite commitments made 10 years ago, nations have not come close to meeting the scale of the crisis, which continues to worsen because of unsustainable farming, overfishing, burning of fossil fuels and other activities.

“Humanity stands at a crossroads,” the report said.

It comes as the devastating consequences that can result from an unhealthy relationship with nature are on full display: A pandemic that very likely jumped from bats has upended life worldwide, and wildfires, worsened by climate change and land management policies, are ravaging the American West.

“These things are a sign of what is to come,” said David Cooper, an author of the report and the deputy executive secretary of the [United Nations Convention on Biological Diversity](#), the global treaty underlying the assessment. “These things will only get worse if we don't change course.”

The report looked at a decade of efforts by national governments. In 2010, after painstaking scientific work and arduous negotiation, almost every country in the world signed on to 20 goals under the convention to staunch the biodiversity hemorrhage.

At the time, the science was already clear: Human activity was decimating animals and plants across the planet, causing a wave of extinctions and throwing ecosystems so out of balance that the domino effects threatened humans themselves. The agreement,

with a deadline of 2020 for the new goals, was a hard-won diplomatic triumph.

The report, which assesses progress on the 20 goals, has found that the world is doing far too little.

“Some progress has been made, but it’s not good enough,” said Elizabeth Maruma Mrema, the leader of the U.N. convention.



A logging operation in Moraes Almeida, a town on the Trans-Amazonian Highway in Pará State, Brazil, last year. Nelson Almeida/Agence France-Presse — Getty Images

As with climate change, scientific alarms on biodiversity loss have gone largely unheeded as the problem intensifies.

Last year, [an exhaustive international report](#) concluded that humans had reshaped the natural world so drastically that one million species of animals and plants were at risk of extinction. This year, the World Economic Forum’s annual [global risk](#)

[report](#) identified biodiversity loss, in addition to climate change, as one of the most urgent threats, saying that “human-driven nature and biodiversity loss is threatening life on our planet.” Last week, a [respected index](#) of animal life showed that, on average, the populations of almost 4,400 monitored mammals, birds, reptiles, amphibians and fish had declined by 68 percent since 1970.

At the global level, only six of the biodiversity convention’s 20 targets were partially achieved and none were fully achieved.

The destruction of habitats such as forests, mangroves and grasslands was not cut in half. Overfishing did not decrease. Governments did not stop subsidizing fossil fuels, fertilizers and pesticides that are contributing to the biodiversity crisis.

Indeed, the report estimates that governments around the world spend \$500 billion per year on environmentally harmful initiatives, while total public and private financing for biodiversity came to a fraction of that: \$80 billion to \$90 billion.

“Many governments, within their ministry of environment, have a lot of ambition for biodiversity,” said Anne Larigauderie, an ecologist who attended the conference in 2010 that adopted the 20 targets. “But they don’t have enough power compared to the other ministries: agriculture, transportation, energy.”

Dr. Larigauderie manages the [Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services](#), an independent intergovernmental organization that provides science on biodiversity loss. Even national leaders who say they understand the crisis, she said, find it difficult to resist lobbies, short-term interests and their desire for re-election.

Of 196 countries, 167 submitted national reports on their efforts. The United States did not, because it was not a party to the treaty.

The biggest driver of biodiversity loss on land is habitat destruction and degradation, mainly because of farming. At sea, the biggest problem is overfishing. Climate change will play an increasing role as its effects intensify over the coming years. And the twin crises of climate change and biodiversity loss are inextricably linked. For example, since trees soak up and help store carbon, clearing forests intensifies climate change, while restoring them helps mitigate it.

“By investing in nature, not only can we reduce extinctions, we can help address the climate issue,” Mr. Cooper said. “We can also have healthier landscapes and healthier people.”



Najin, one of two northern white rhinos at the Ol Pejeta Conservancy in Kenya, in August before a procedure to harvest her eggs.

Ol Pejeta Conservancy, via Reuters

Despite the overall failure, the report highlights areas of progress around the world, bright spots showing that people have the power to protect and restore nature, not just destroy it. Conservation efforts have prevented an estimated 11 to 25 bird and mammal extinctions over the last decade; without these actions, researchers calculated, the number most likely would have been two to four times as high.

“If you put in place the policies, they do work,” Mr. Cooper said.

To praise and inspire, the report is peppered with success stories big and small. Working with scientists, 20 million Chinese farmers decreased the amount of nitrogen they used on crops like rice and wheat while simultaneously increasing yields. Indonesia, Liberia and Gambia cracked down on illegal foreign fishing vessels, improving their fish stocks to the benefit of local fisherman. Guatemala rewarded landowners who restored forests with native species.

But such actions must be scaled up significantly. The scale of the crisis and the sheer number of humans living on the planet mean that conservation alone will not be enough. Instead, the report said, societies will have to transform how they produce and consume food and other goods. One of the targets addressed this directly: Governments, businesses and stakeholders at all levels were to take steps, at least, to achieve plans for sustainable production and consumption. Three-quarters of the countries reported back on their progress; of those, only one-tenth are on track, the report found.

“Our economic and financing systems are all screwed up,” said Robert Watson, a former chairman of two high-profile panels, one on [climate change at the United Nations](#) and the other

on [biodiversity](#). “We use gross domestic product as a measure of economic growth. It completely ignores nature. It completely ignores human well being. And so it’s a very limited concept.”

Without transformational change, the report said, all humanity will be affected, with Indigenous people and the poor bearing the worst effects.

Scientists say food supplies are threatened by ecosystem collapse, climate change, the decline in pollinators and soil degradation from unsustainable farming. Conflict follows food and water scarcity.

The report calls for eight urgent transitions in the way we use lands and oceans, grow our food, eat, build our cities, manage our fresh water and more. For example, we must eat less meat and fish, bring nature into cities and quickly stop burning fossil fuels.

With these bold changes, it is not too late to slow and ultimately reverse this crisis, the report found.

“We still need this planet to live on,” Ms. Mrema said. “And we still need this planet for our children.”

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