

# Top UN panel paints bleak picture of world's ecosystems

*Scientists call on intergovernmental biodiversity body to boost influence and shift focus to policy development.*

**Natasha Gilbert**



Land degradation, like that caused by illegal gold mining in Tambopata Natural Reserve in Peru, threatens the livelihoods of 3.2 billion people. Credit: Sebastian Liste/NOOR/eyevine

Biodiversity is vanishing at an alarming rate across most of the world, find the most comprehensive assessments of global ecosystem health to be done in decades.

The [five reports](#), published in the past week, are the culmination of three years' work by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) — a global science body [set up under the United Nations in 2012 to track the planet's ecological health](#). The assessments examined biodiversity loss in Africa, the Americas, Europe and Central Asia and the Asia-Pacific region.

“We are losing species 1,000 times faster than the natural rate of extinction. We will see mass extinctions that undermine human well-being,” says Robert Watson, chairman of IPBES, headquartered in Bonn, Germany.

The assessments, written by over 500 scientists in 100 countries, come as IPBES approaches the end of its first programme of work, from 2014–18. Conservation scientists and IPBES are now reflecting on the body's performance so far, and some researchers are sceptical that the group is achieving its goals to influence policy and drive global change.

The group's latest reviews, which were launched at a meeting of the platform's 129 member states in Medellín, Colombia, on 18–24 March, paint a stark picture. IPBES reports that, of the species it assessed in Europe and Central Asia, 28% are threatened with extinction. Among the groups most at risk are mosses, liverworts and freshwater fish. Climate change is set to cause the loss of more than half of Africa's bird and mammal species by 2100.

## **Land loss**

Meanwhile, land degradation, such as the loss of healthy soils, has now reached critical levels and threatens the livelihoods of 3.2 billion people, according to one IPBES assessment. Ecosystem destruction will limit the products and services, such as food and medicines, that people can draw

from the environment in future. Wetland ecosystems are among the most harmed, with nearly 50% lost since 1900. Global crop yields are expected to fall by 10% on average over the next 30 years as a result of land degradation and climate change.

In many regions, greedy agricultural and aquaculture practices are largely to blame, says Watson. If current trends continue, the Asia-Pacific region will have gobbled up all its exploitable fish stocks by 2048. Europe's excessive use of pesticides and fertilizers are promoted by subsidies that encourage farmers to overproduce food, adds Watson.

The IPBES reports suggest that many nations will miss the lion's share of their UN targets to stem the loss of species by 2020 and to move towards sustainable growth by 2030.

The assessments did find some progress. For example, in the Asia-Pacific region between 2004 and 2017, terrestrial protected areas grew by 0.3% and marine protected areas by 13.8%. But simply establishing protected areas is insufficient, says Watson. Biodiversity issues must be incorporated into the development of policies in areas such as agriculture and transport, he says.

### **Policy promotion**

Thomas Brooks, head of science and knowledge at the International Union for Conservation of Nature in Gland, Switzerland, says that IPBES is too focused on scientific assessments. He suggests that it spend more time addressing its other functions, such as supporting policy development and building local knowledge, a point echoed by a recent internal review. In 2016 and 2017, IPBES spent US\$4.3 million on assessments and just \$1.9 million on those other jobs. "Simply generating a great big pile of reports is not enough to push the world on track towards sustainability," says Brooks.

Watson says that these issues will be considered by an independent external review of IPBES due to begin next year. In the meantime, the plenary agreed to move forward with three new planned assessments, including one on the sustainable use of wild species.

IPBES hopes to bring political attention to biodiversity in the same way that the Intergovernmental Panel on Climate Change (IPCC) has done for climate science. Biodiversity urgently needed a body such as IPBES, says James Mayers, a natural-resources scientist at the International Institute for Environment and Development (IIED) in London. But he doesn't yet think it has the clout of its sister organization. "It's not taken as seriously yet. There is hope, but it's unrealized," he says.

Watson agrees that the organization is still finding its footing, but also says that the body has attracted more member governments in its first five years than the IPCC did over the same time frame.

When challenges arise, they are tackled head on, Watson says. For instance, after researchers complained that [few social scientists had been nominated to work on assessments](#), the panel's experts helped governments to find some. "We are moving in the right direction," he says.