

Biodiversity loss: time to protect forests, oceans and change diets

IPBES report an urgent call to action

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The global assessment report on biodiversity and ecosystem services from the **Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES)** has warned of mass species loss due to human impacts. In response, Greenpeace is calling for urgent action to protect the world's forests and oceans and sweeping change in agriculture and food production and consumption.

The report was published on May 6 after the summary for policymakers (SPM) was finalised and approved by governments during a meeting at UNESCO headquarters in Paris. It is the first of its kind since the Millennium Ecosystem Assessment from 2005 and also draws upon 4 different Global Biodiversity Outlooks published in the years 2001, 2006, 2010 and 2014 by the Secretariat of the Convention on Biological Diversity (CBD).

The report's key takeaways

Species and biodiversity loss

The report gives a comprehensive overview on the status of nature, its services provided for people and trends over the last 50 years (A). The report highlights the rate of global change and the deterioration of biodiversity with its ecosystems, plant and animal species - warning that 1 million species are at risk of extinction, more than at any time in human history (A5) - while also warning for the loss of genetic diversity (A6). It also gives a gloomy future outlook, warning that the world stands to miss most of the global 2020 targets for the protection of nature outlined in the Strategic Plan for Biodiversity (Aichi biodiversity targets) (C1), undermining 80 % of the assessed targets of goals related to poverty, hunger, health, water, cities, climate, oceans and land of the assessed Sustainable Development Goals (SDGs) if current trends continue (C2).

Indigenous Peoples

The report also reveals the crucial role of Indigenous and local people who live most directly in and from nature with their traditional knowledge and livelihoods as stewards of much the world's lands and biodiversity. They live with official tenure rights over 35% of terrestrial protected areas and over 35% of ecologically intact landscapes. However, their rights and territories are threatened by impacts from the expansion of infrastructure, extractive industries, industrial agriculture and other interests. Biodiversity there is also under growing pressure, but generally declining less rapidly than elsewhere (B6).

Drivers of change

The report lists key drivers for the loss of biodiversity and changes to ecosystem services, both to terrestrial ecosystems and oceans. Land-use change, especially through agriculture expansion, is the most destructive driver for the loss of the natural world on land, followed by the extraction and overexploitation of species like timber harvests and hunting. For the world's oceans, the overexploitation of marine species is the biggest threat followed by sea-use change (B1).

Climate Change acts as an exacerbating driving force through the increasing frequency of extreme weather events and changes in climate linked biomes - causing widespread impacts to species distribution, population dynamics and ecosystem functions (B2).

The report also lists key drivers of the underlying causes of change - the indirect drivers such as the growing human population, global economy and trade driving demand for energy and materials (B4) and the wrong economic incentives with insufficient recognition of the values of ecosystem functions (B5), all of which are driving an unprecedented rate of global change in nature.

The need for bold decisions

The report stresses the importance of biodiversity for the SDGs (C2). It also stresses that nature based climate change mitigation activities like reforestation and forest restoration (Nature Based Solutions) can be cost-effective and support conservation goals, but warns that large scale bioenergy plantations and afforestation of non-forest ecosystems with tree monocultures (D8) risk biodiversity, food, water security and local livelihoods even further. The report mentions options, policies and measures to improve the conservation of nature (D) as well as the need for bold decisions, multi-sectoral planning, transformative change (D1 and D2) and a global sustainable economy (D10). It also lists key governance interventions (D2), leverage points (D3), recognises the importance of Indigenous and local people's rights, knowledge, participation and consent (D5).

Greenpeace's response and the importance of forests

Greenpeace Germany forests and climate campaigner Dr Christoph Thies said:

"This is a devastating reality check. Governments must start putting people and planet ahead of corporate interests and greed and act with the urgency this report demands. Leaders must adopt strong targets and implementation plans to protect biodiversity with the participation and consent of Indigenous Peoples and local communities at the global nature summit in China next year (COP15). Profiteering has pushed nature to the brink, placing our own survival in peril due to overexploitation of the natural world and worsening climate change.

"Forests, peatlands and coastal marine ecosystems must be protected or restored. Combining biodiversity conservation and natural climate solutions with CO2 emission cuts and increased carbon storage in nature can contribute significantly to limiting global warming to 1.5C, especially if they are jointly implemented and financed on the national level through Nationally Determined Contributions (NDCs) and National Biodiversity Strategies and Action Plans (NBSAPs). These are the essential, immediate actions that can help bring us back from the brink."

Key takeaways on the role of oceans

Oceans are crucial life support systems

The report recognises our oceans, as well as land and atmosphere, as intimately interconnected with protecting us from climate change (A1). Along with forests, oceans protect us from climate change by absorbing over half of carbon emissions globally (A1).

Business as usual is damaging our oceans, including threatening iconic species

The report says 'nature across most of the globe has now been significantly altered by multiple human drivers' - 66 per cent of the ocean area is experiencing increasing cumulative impacts (A4), with only 3% free from human pressure (5), from coastal to deep sea ecosystems. The influence of human actions is significantly affecting life in our oceans; almost a third of sharks are threatened (6). Percentage coverage of live corals has halved since the 1870s (A4) and they are further threatened by climate change (C5). Business as usual, including fisheries and climate change would worsen the status of marine biodiversity (26) - but we can change this trajectory if we act, creating 'transformative change' (C). Degradation of the marine environment is reducing protection for coastal communities from storms and limiting the ability to 'provide sustainable livelihoods' (5).

Fishing pressures

In the ocean, fishing has had the largest impact on biodiversity in the past 50 years (12) and now covers at least 55% of the ocean (5). Declining fish stocks are a warning of nature's ongoing ability to support us with food - one of the critical roles nature plays. A third of fish populations are overfished with 60 per cent maximally sustainably fished and just 7 per cent underfished. 'Feeding humanity and enhancing the conservation and sustainable use of nature are complementary and closely interdependent goals' (D6) - reinforcing demands for the protection of areas like global coordination over the high seas (D7). Unsustainable fishing is increasing globally despite global targets to tackle this problem (21), and industrial fishing is "concentrated in a few countries and corporations" (12). Fish catches have only been sustained by moving into more and more remote and deeper areas (12).

Direct human exploitation at sea to blame

Direct exploitation of organisms is the largest driver of change in the oceans (B1) having 'large and widespread impact on the world's oceans' (B1). The report warns of increasing exploitation and drivers of environmental damage, such as the expansion of ocean mining and pollution (13).

Climate change makes things worse

Burning fossil fuels on land is adding to ocean stresses, with carbon dioxide one of the top marine pollutants (B3) - and climate change is an increasing threat with accelerating impacts on marine ecosystems (B2). Higher water temperatures and ocean acidification can be seen "interacting with and further exacerbating other drivers of loss", with stark warnings for coral reefs (5). By the end of the century, climate change will result in less fish biomass by up to quarter (26), and warming waters will see species move poleward, with 'local species extinctions' expected in tropics (28).

The need for a Global Ocean Treaty

The report highlights the need for policy action and multi-level coordination over the global oceans to sustain and conserve marine life, including the development of new legally binding treaties (D7), and explicitly refers to namechecks the Global Ocean Treaty being negotiated at the United Nations as a tool to help conserve biodiversity in the oceans (37).

A precautionary approach

The report also highlights the need to 'take pre-emptive and precautionary action' and work on 'strengthening environmental laws and policies and their implementation' two of the key levers for transformative change (D2).

Marine Protected Areas work, but need to be done properly and faster

The 'expansion and strengthening of ecologically representative and well-connected protected area networks' are 'effective policy measures' (D4) that are 'important for safeguarding biodiversity, particularly in the context of climate change' (34). MPAs 'have demonstrated success in both biodiversity conservation and improvement of local quality of life when managed effectively' (37) - 'and can be further expanded through larger or more interconnected protected areas or new protected areas in currently under-represented regions and key biodiversity areas' (37) - such as the global oceans beyond national waters.

The report specifically calls for the expansion of marine protected areas alongside better fisheries regulation, including the removal of subsidies (D7), recognising that current protection is 'not yet fully ecologically representative and effectively managed or equitably managed' and that the Aichi target on marine protected area coverage will likely be missed (C1). The benefits of marine protected areas can be enhanced by being ecologically representative and better connected (D4).

The problem of plastics

Reduction of consumption and production and changing the throwaway culture of is the priority to tackle plastics pollution. The report states that ... the harm from the inputs of plastics, persistent organic pollutants, metals and ocean acidification (...), is felt worldwide, making this a transboundary issue appropriate for international legislation. It also recognises correctly that production and consumption choices and patterns on land matter and interventions should include lowering total consumption and waste, supporting the understanding that waste management and recycling cannot resolve the issue. Reduction in the production and dependence on single-use plastic products is needed. The report specifically recommends under national actions managing marine micro- and macro-plastics pollution through effective waste management and extended producer responsibility, in other words the responsibility of companies producing plastics is key. Plastics are entering ocean food web, pointing to, still unknown, possible health risks and need for precautionary action.

Greenpeace response on the role of oceans

Louisa Casson of Greenpeace's Protect the Oceans campaign said:

"The report makes the case clearer than ever before that oceans are crucial life support systems and that humanity depends on healthy oceans. Business as usual, such as overfishing, increased pollution and poor management of our oceans is already having major impacts on wildlife and the communities that depend on them, and climate change threatens to make this worse. Only 13% of the world's oceans can still be considered wilderness due to human activity and we have a duty to protect at least 30% by 2030 by quickly creating more numerous, larger, inter-connected and better managed marine protected areas which are recommended by this report as a vital tool in protecting and restoring ocean biodiversity.

"It is clear that the existing management bodies such as those governing fisheries are failing in their mandate to ensure fish stocks remain healthy for future generations, and these governance flaws and gaps are acknowledged by the report in its mention of the need for a Global Ocean Treaty which could accelerate action."

Key takeaways on the role of food and agriculture

The IPBES report SPM makes frequent references to agriculture (16 times), food system (7 times), diet (6 times), livestock (5 times), food waste (4 times) and protein (1 time) as part of the drivers for biodiversity loss. It also points out how agriculture, food waste and changing diet are essential parts of the solutions.

It provides a systemic approach beyond 'biodiversity' *per se* and shows the linkages (causes and solutions) with climate change and the UN Sustainable Development Goals (including meeting peoples food needs). The second systemic level is the food system. Section 36 is devoted to 'sustainable food system' specifically ranging from more ecological agriculture practices to the need to change diet:

'Feeding the world in a sustainable manner, especially in the context of climate change and population growth, entails food systems that ensure adaptive capacity, minimize environmental impacts, eliminate hunger, and contribute to human health and animal welfare. Pathways to sustainable food systems entail land use planning and sustainable management of both the supply/producer and the demand/consumer sides of food systems.'

'Scenarios that include substantial shifts towards sustainable management of resource exploitation and land use, market reform, globally equitable and moderate animal protein consumption and reduction of food waste and losses result in low loss or even recovery of biodiversity'.

Greenpeace response on the role of agriculture and food consumption

Greenpeace International food and agriculture campaigner Eric Darier said:

“We welcome the call for urgent action on dietary changes toward more plant-based food to reduce meat and dairy consumption which has well documented negative impacts on biodiversity, climate change and human health. Any increase in agricultural space required for animal feed for industrial livestock is a key driver of land-use change through deforestation and habitat destruction. Tackling meat and dairy consumption must become a priority for policymakers across the world at all levels of governments.”

“Shifting toward a more plant-based diet would also make it easier to achieve the SDG of feeding everyone with nutritious, diverse and healthy food. We must reduce meat consumption and production globally by 50% by 2050. If left unchecked, agriculture is projected to produce 52% of global greenhouse gas emissions in the coming decades, 70% of which will come from meat and dairy.”

“Meat consumption in many wealthier countries is significantly higher than the global average and addressing this imbalance is a key component of food justice. Current meat consumption in Western Europe is 85 kg per capita per year, far above Greenpeace’s call for a global target average of 16 kg by 2050.”

“We also welcome the report’s focus on the urgency of reducing the scandalous food waste (ranging from 30 to 50% globally) and the need to enhance agricultural biodiversity and agro-ecology away from destructive industrial agricultural practices. Empowering Indigenous Peoples and local communities (small-holder farmers) must also be at the core of these solutions.”

“Finally, Greenpeace calls on everybody to change their diet by shifting toward a plant-based diet, challenge food waste, support local food production and make sure food providers, canteens and schools also walk the talk. We cannot waste any more time.”

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