

Briefing · January 2025

# IPBES assessments: Economic and financial systems need to evolve to protect biodiversity and support transformative change

## Key points:

- The IPBES Nexus assessment – a first-of-its-kind scientific assessment from an intergovernmental body on the interlinkages between biodiversity, climate, health, water and food – has significant findings on the risks to the financial and economic systems that these connections pose.
- In parallel, the Transformative Change Assessment provides insights into the shifts in views, structures and practices needed for deliberate transformative change for a just and sustainable world.
- Financial and economic systems need nature to function. Around USD 58 trillion – or over half of the world’s GDP in 2023 – comes from sectors that are moderately or highly dependent on nature, meaning that the increasing degradation of natural resources is putting the way our economy functions at risk.
- The negative externalities – or uncompensated costs imposed onto the wider economy – arising from the fossil fuel, agriculture and fisheries sectors are estimated at USD 10 trillion–25 trillion annually, severely impacting biodiversity, water, food security, health and climate change.
- In contrast, investment in biodiversity conservation remains critically low, with only between USD 135 billion and USD 200 billion directed toward improving the status of nature annually from both public and private sources. To tackle the biodiversity funding gap, the financial needs are estimated in the range of USD 300 billion–1 trillion per year.
- To protect nature and biodiversity and address the risks posed by climate change, reforms in economic and financial systems are necessary. These will include increasing financial flows to biodiversity, addressing debt crises, fostering greater involvement of the private sector, pricing environmental degradation, reforming harmful subsidies and decreasing inequalities.

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The [Nexus Assessment](#), [released](#) by the [Intergovernmental Science–Policy Platform on Biodiversity and Ecosystem Services](#) (IPBES, sometimes called the [IPCC](#) for biodiversity) on December 17, 2024, is the most ambitious scientific assessment ever undertaken of the interlinkages between biodiversity loss, water availability and quality, food insecurity, health risks and climate change. At the same time, IPBES also [produced](#) the [Transformative Change Assessment](#), which provides insights into the underlying causes of biodiversity loss and the shifts needed to affect deliberate transformative change for a just and sustainable world. The release of both reports followed negotiations between IPBES’ 147 member states after [three years of work by experts and multiple consultations with Indigenous Peoples and practitioners](#).

The assessments make it clear that economies face substantial risk due to our high dependence on biodiversity and nature – which has largely been a blind spot in the global

finance system. Scientists agreed that over half of the world's GDP – USD 58 trillion in 2023 – is generated in sectors that are moderately to highly dependent on nature, exposing these economic activities to risks from biodiversity loss and ecosystem collapse.

One of the key elements in both reports is the role of economic and financial systems, particularly public and private spending, in supporting or hindering transformative change and the challenges and crises of biodiversity loss, water availability and quality, food insecurity, health risks and climate change (also referred to as the nexus elements). This briefing draws on the findings to summarise how economic and financial systems impact the interlinkages between the nexus elements, and highlights the role finance and economic policy decisions play in securing deliberate transformative change for a just and sustainable world.

## **The causes of the breakdown: how economic and financial systems contribute to erosion of biodiversity, water, food, health and climate**

The Nexus and Transformative Change reports make clear that economic and financial activity is actively contributing to the deterioration of biodiversity and nature, with the Nexus Assessment stating that: “Dominant economic systems can result in unsustainable and inequitable economic growth”.

Current policies and international agreements fail to address the substantial negative externalities and can contribute to harming nature. Societal, economic and policy decisions that focus on short-term financial returns without accounting for the broader costs to nature and other nexus elements lead to unequal outcomes for human well-being. For example, the Transformative Change Assessment points out that current market growth-driven paradigms, embodied by metrics such as Gross Domestic Product, limit our definition of development, ignoring other economic, social (including cultural) and environmental dimensions.

More than half of the global population lives in areas facing significant pressure on one or more nexus elements. These impacts are felt disproportionately by those living in low-income countries and small island developing states, as well as by marginalised groups and Indigenous Peoples. While different countries experience the economic impacts of biodiversity loss to varying degrees, developing countries face higher relative impacts due to financial barriers such as high debt burdens that make it more difficult for them to mobilise financial flows.

The two reports put a value on the impact of economic and financial systems on biodiversity and other nexus elements:<sup>1</sup>

- The Nexus Assessment calculates that USD 7 trillion per year is invested in economic activities that damage biodiversity. Of this, private sector financial flows directly harmful to biodiversity total about USD 5.3 trillion per year and public flows are around USD 1.7 trillion.
- The Transformative Change Assessment collates global public explicit subsidies to sectors driving nature's decline, finding they stood between USD 1.4 trillion and USD

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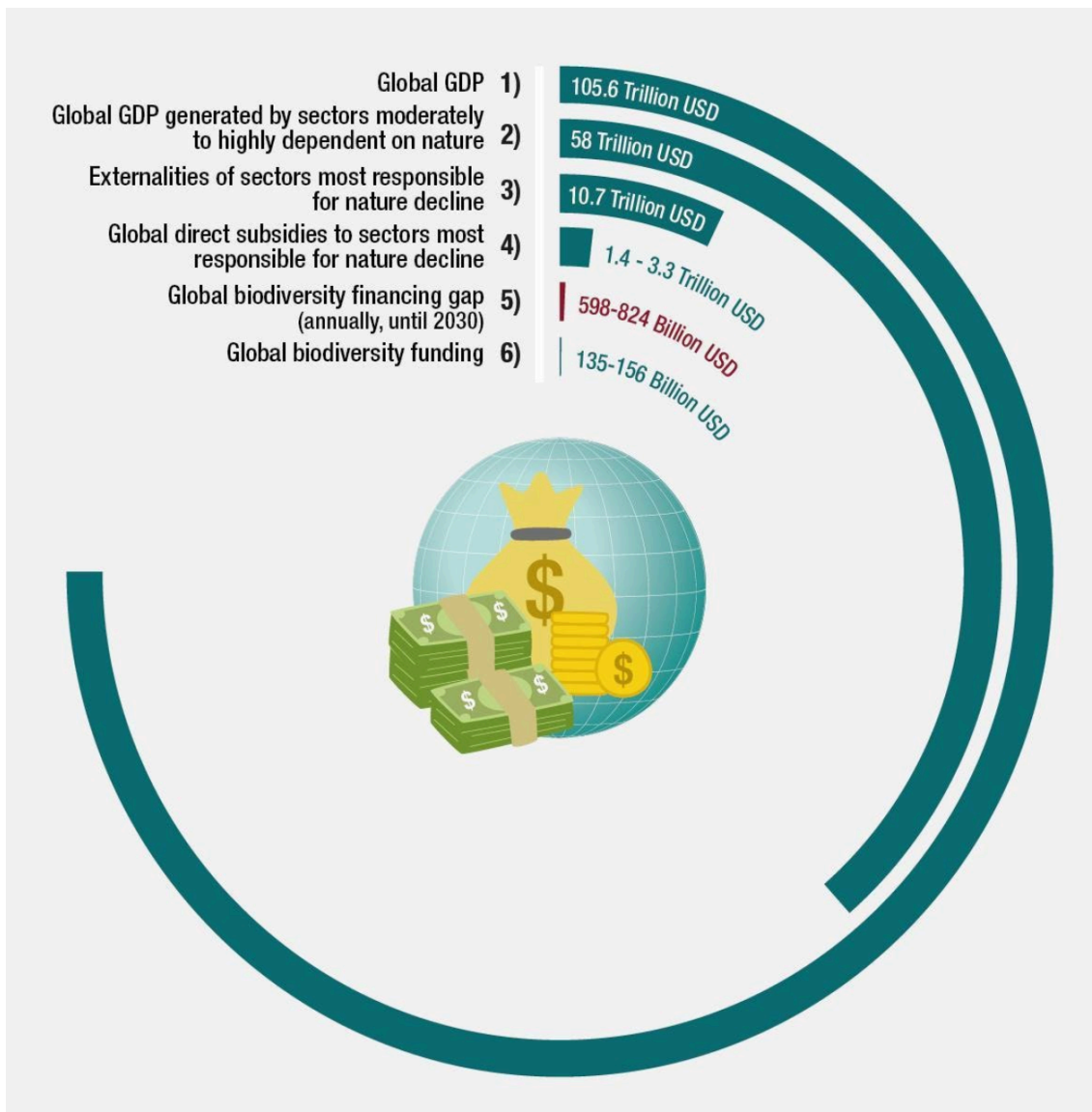
<sup>1</sup> Some figures from the Nexus Assessment and the Transformative Change Assessment vary slightly due to different calculation methodologies and definitions in the underlying literature upon which they are based. Multiple analyses coming to similar results supports the validity of the conclusions.

3.3 trillion in 2023. Agriculture received USD 520 billion–851 billion and fossil fuels received USD 440 billion–1.26 trillion.

- The negative externalities arising from the fossil fuel, agriculture and fisheries sectors are estimated at around USD 10 trillion–25 trillion annually, according to figures in both reports, illustrating how severely consumption and production in these sectors affect biodiversity, water, food, health and climate change.
- Illegal resource extraction globally, including in the wildlife, timber and fish trades, is valued at USD 100 billion–300 billion or more each year, per Nexus Assessment figures.

In contrast to the trillions of dollars invested in or subsidizing harm to the nexus elements, funding for biodiversity sits between USD 135 billion and USD 200 billion according to the Transformative Change Assessment and the Nexus Assessment (see Figure 1).

**Figure 1: Financial flows harming biodiversity vastly outweigh funding to improve it**



Source: Transformative Change Assessment Figure SPM. 7

## Transforming economic and financial systems to preserve nature

Both reports lay out the importance of taking action to transform economic and financial systems to conserve and restore nature. Taking action now could have a business opportunity value of over USD 10 trillion and support 395 million jobs by 2030, according to a recent study cited in the Transformative Change Assessment. The reports outline a number of such actions, several of which are described below.

### Increase financial flows to biodiversity, particularly to Indigenous Peoples and local communities

The current economic system fails to comprehensively capture biodiversity's full value and relies on incentives that only consider how nature benefits humans directly, for example through food and water provision. Despite nature's role in underpinning economic activity, investment in biodiversity conservation remains low. **Only around USD 153 billion–200 billion in annual expenditure is directed toward biodiversity improvement efforts, according to both reports.**

This funding is significantly lower than financial flows that cause direct harm to nature. **According to the Nexus Assessment, bridging this gap requires additional resources estimated in the range of USD 300 billion–1 trillion per year,<sup>2</sup> with at least USD 4 trillion needed to meet the Sustainable Development Goals most connected to water, food, health and climate.** Promising mechanisms such as green bonds or blue bonds remain underutilised, and other options such as payments for ecosystem services mobilise only USD 42 billion per year from both public and private sources, according to the Nexus Assessment. Likewise, establishing sustainability as a central tax principle and reducing tax avoidance can help generate funds for biodiversity.

Indigenous Peoples frequently experience degraded biodiversity, water, food, health and climate, have difficulty accessing financing and are excluded from decision-making processes. Despite this, Indigenous Peoples and local communities make successful contributions to biodiversity conservation and the sustainable management of resources, highlighting the importance of recognising their rights and roles in decision-making processes. Recognising and supporting Indigenous-led conservation activities and food system management leads to significant benefits across the nexus elements. Successful conservation projects must involve Indigenous Peoples and local communities in all steps of the process, including co-decision and governance. Yet, only a small fraction of biodiversity finance is spent in developing countries, and Indigenous Peoples face challenges accessing funding and finance.

### Reform debt to enable highly indebted biodiverse countries to protect nature

Low- and middle-income countries are most likely to feel the economic effects of biodiversity loss and the degradation of water, climate, food, and health. Developing countries also face significant barriers in accessing finance to protect nature and address climate change. Reforms to the financial system, including addressing debt crises, taking into account the need to enable just and equitable transitions and tackling the cost of finance connected to perceived investment risks, could help these countries access adequate and affordable financing.

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<sup>2</sup> The Transformative Change Assessment puts the financing gap at USD 598 billion to 824 billion, showing that these estimates are highly consensual if not exactly identical.

## **Foster greater involvement from the private sector**

Private finance for biodiversity is lacking, with the private sector accounting for only 17% of investments in nature-based solutions, according to the Transformative Change Assessment. Additionally, what private finance there is gets skewed towards developed countries, with just 5% allocated to least-developed and other low-income countries, according to the Nexus Assessment.

One option to incentivise private investment in biodiversity is to make nature a key financial factor for companies. Furthermore, coalitions with multiple actors, including the private sector, are more effective at creating transformative change in general, showing that they have a role to play beyond simply providing finance.

## **Put an accurate price on environmental degradation**

The current economic and financial systems fail to account for negative externalities from the most polluting sectors, with environmental impacts costing trillions of dollars per year, according to figures from both reports. Different ways to internalise these costs – to ensure they are included in the cost of doing business and reflected in the final price of products and services – could be employed more widely. Examples include water pricing and natural capital accounting, which helps identify and value natural assets, and the application of taxes or fines on environmentally harmful activities.

## **Eliminate, phase out or reform subsidies to move towards more sustainable practices**

**Governments spend USD 1.7 trillion a year on subsidies that incentivise biodiversity-damaging activities**, according to the Nexus Assessment, and these subsidies have increased by 55% since 2021, according to the Transformative Change Assessment. By eliminating, phasing out or reforming public subsidies that damage biodiversity, water, food, health or climate, business models could be moved towards sustainable practices, taking into account the differing needs of developing countries. For example, some agricultural subsidies support unsustainable food production practices and undermine the livelihoods of small-scale producers. These subsidies could be eliminated, phased out or reformed to better support the consumption and production of sustainable food.

## **Decrease inequalities to address underlying causes of biodiversity loss**

The concentration of wealth and power is an underlying cause of biodiversity loss. These differences in wealth and power exist between countries and also within countries, with the wealthiest segment of the global population consuming and using more resources. Because of these unsustainable practices, the rich drive biodiversity loss both locally and globally. Current power dynamics create structural inequalities within economic and financial systems that act to increase distributional inequity and make justice more difficult. In response to these challenges, the Transformative Change Assessment points to revising multilateral cooperation agreements and trade policies to help overcome global inequalities and create coherent governance for just and sustainable development.