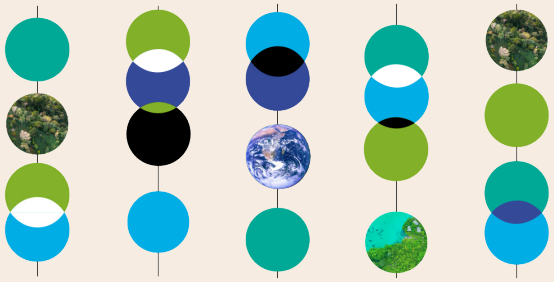
The Economic Case for Nature



The *Economic Case for Nature* presents a first-of-its-kind global integrated ecosystem–economy modeling exercise to assess economic policy responses to the global biodiversity crisis. Modeling the interaction between economic activity and select ecosystem services to 2030, the report points to a set of policy scenarios available to improve economic and ecological outcomes. This modeling framework represents an important stepping-stone towards 'nature-smart' decision-making, as it seeks to support policymakers who face complex tradeoffs involving the management of natural capital, and hence achieving growth that is resilient and inclusive The report provides valuable insight to the Parties of the Convention on Biological Diversity in the design of an ambitious post-2020 global biodiversity framework to be adopted during the 15th Conference of the Parties in the coming months.

The World Bank supports operations that invest in biodiversity as it sees the global decline of biodiversity and ecosystem services as a development issue. Economies are embedded in nature and depend profoundly on the flow of goods and services it generates, such as food and raw materials, pollination, water filtration, and climate regulation. Nature supports all 17 Sustainable Development Goals (SDGs) and provides cost-effective mitigation options to the climate crisis. Yet, most indicators of the extent and health of natural ecosystems are sounding the alarm. According to the 2019 IPBES Global Assessment Report, 14 of the 18 assessed categories of ecosystem services already show decline since 1970. These trends threaten the well-being and development prospects of economies, including those that need this natural capital the most—whether to grow out of poverty or remain resilient to natural and economic shocks.

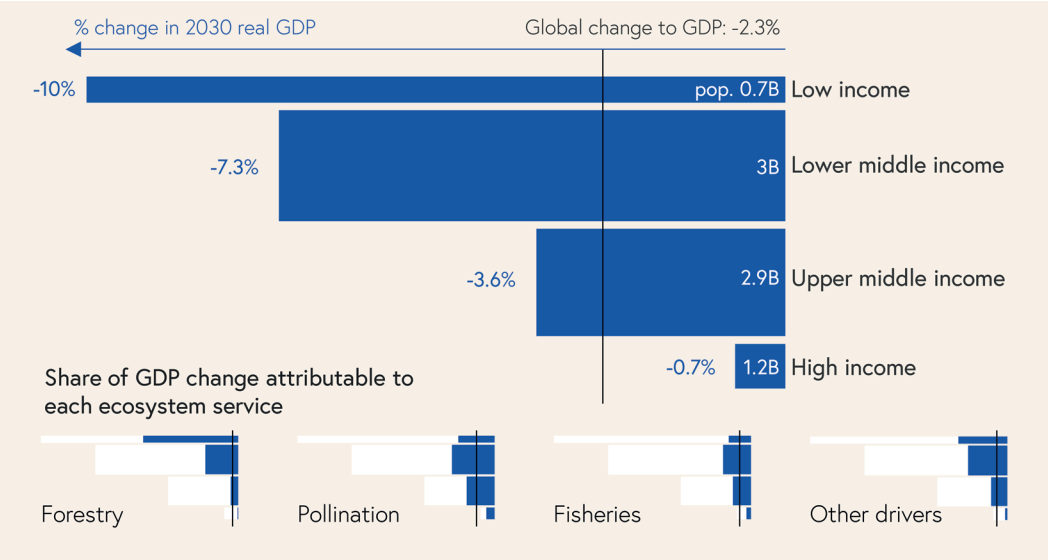
Key findings of the report

Not acting is not an option: there are nearly no winners under business-as-usual. Conventional economic models do not account for the declining trends in ecosystem services and thus provide overly optimistic scenarios of economic growth. When the loss of ecosystem services is included in the model, projections of growth in global GDP drop. If no action is taken, 46 million hectares of natural land may be converted by 2030. There are implications for agricultural yields, the fisheries sector, and the output of industries dependent on timber, leading to a drop in Gross Domestic Product (GDP) of up to $225 billion.

The world cannot afford the collapse of ecosystem services, even a partial collapse would cost 2.3 percent of global GDP ($2.7 trillion) in 2030 and some of the poorest countries would be hit hardest. Continued environmental degradation can push an ecosystem to a "tipping point" beyond which it will shift to a new state or collapse, leading to an abrupt decline in ecosystem services. The report analyses a scenario where three services - wild pollination, provision of food from marine fisheries and timber from native forests – collapse. The model shows a drop of $2.7 trillion (2.3% annually) in global real GDP in 2030, compared to the baseline scenario. Relative impacts are most pronounced in low-income and lower middle-income countries, where drops in 2030 GDP may reach 10 percent (Figure 1).

Figure 1.

Change in 2030 Real GDP, Under Partial Ecosystem Collapse Scenario Compared with No-Tipping-Point Scenario, by Income Group



Nature-smart policies can reduce the risk of ecosystem collapse and are 'win-win' policies in terms of biodiversity and economic outcomes. Since economies are embedded in nature, policies beneficial to nature have the potential to promote economic development. This report adds to the evidence that a combination of carefully crafted and coordinated policies, particularly those supporting innovation in agriculture, can simultaneously benefit biodiversity and development. The combination of policies considered in this report—decoupling of subsidies to farmers, global and local forest carbon payment schemes, and public investment in research and development (R&D)—can avoid up to 50 percent of conversion of natural land and result in an increase in global real GDP in 2030 in the order of $50-150 billion. Investment in agricultural technology substantially improves environmental outcomes, particularly in developing countries. Coordinated action at the global level is key to success of such policy reforms.

Ambitious targets, such as protecting 30 percent of land and oceans by 2030 (the '30x30' goal), are within reach. The model shows that achieving the 30x30 goal results in a 0.1 percent decline of global GDP in 2030, compared to business-as-usual. The global loss is even smaller, that is, 0.01 percent when GDP is adjusted for the climate change mitigation benefits of extra conservation of natural areas. From a global perspective, the economic loss caused by restrictions to land use is almost entirely offset by economic gains resulting from improved provision of ecosystem services. Political economy, both between and within countries, poses the biggest challenge going forward, however, and will require appropriate policies in support of a transition that is inclusive and equitable.

The coming months provide an important window of opportunity to put planetary and human health on the same course. The post-2020 global biodiversity framework will provide a unique opportunity to mobilize a diverse set of stakeholders—economic, financial, and private—and commit them to decisive action to reverse nature loss through conservation, sustainable use, and equitable sharing of the benefits of biodiversity. COP-26 of the United Nations Framework Convention on Climate Change can provide further momentum because healthy ecosystems support climate change mitigation and increase the resilience of society to the increased frequency and intensity of extreme weather and climate events. Domestic and internationally coordinated policy action on both climate and biodiversity would make global conservation targets even more achievable.