

2020 Dasgupta Independent Review on the Economics of Biodiversity Interim Report

Summary brief for business

On 30 April, the UK Treasury launched their interim report of the [Dasgupta Independent Review on the Economics of Biodiversity](#) (the Review). The Review was commissioned by the British government with the aim to shape the international response to biodiversity loss, including the successors to the Aichi Biodiversity Targets, and inform global action to deliver the UN Sustainable Development Goals (SDGs). This interim Review sets out the economic and scientific concepts which will underpin the final Review, which will be published later in the year. The final Review will assess the economic benefits of biodiversity, and the economic costs of biodiversity loss; and identify actions

which can protect and enhance both biodiversity and economic prosperity.

This business summary highlights the main points from the interim Review relevant to business and puts this in the context of other landmark reports, such as the [World Economic Forum New Nature Economy report](#) series and the [Global Assessment report](#) on Biodiversity and Ecosystem Services published in August 2019 by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). The interim Review emphasizes that investing in nature yields a more positive result than currently is accounted for due to mismanagement of the world's

natural capital. Biodiversity should be seen as a way to leverage risk, just as a diverse financial portfolio decreases risks. Urgent action is needed to adjust for this as we are currently unsustainably relying on nature to supply the resource needs for business operations and economic flows. The global COVID-19 pandemic will have deep human and economic impacts, and science is more strongly demonstrating the important role the health of our planet plays in the emergence and spread of infectious diseases. Nature is an integral system on which we all depend, and which must thrive in order for us to sustainably respond to the challenges posed by COVID-19.

Headlines you need to know from the report

- The Dasgupta Review is unique in the sense that it looks at humanity as an integral part of the biosphere, not just as being external and dipping into the biosphere for goods and services.
- The Review highlights the complex interlinkages of systems, calling this review 'the economics of the biosphere'. Key concepts include:
 - **Biodiversity** is the variety of life, in all its forms; including the abundance of living organisms, the genes they contain, and the ecosystems in which they live. **The biosphere** is the part of Earth that is occupied by living organisms.
 - The biosphere's regenerative rate is called **net primary productivity (NPP)**. The demand on the biosphere is sustainable long-term only if it is less than or equal to the biosphere's regenerative rate.
 - **Ecosystems** combine the abiotic environment (non-living chemical and physical aspects) with biological communities (of plants, animals, fungi, microorganisms) that form self-organizing, regenerative functional units.
 - The ability for nature to regenerate is negatively affected when ecosystems are under unusual pressure from external drivers, for instance due to human activity.
- **Nature is an asset** which we are not managing efficiently because human demand on the goods and services that nature provides outstrips its ability to supply those goods and services on a sustainable basis; we therefore have an asset management problem, and we must manage our overall stock of all capital assets more efficiently.
- **There has been an institutional failure to account for the externalities nature provides.** Our use of nature's services is perceived to be "free" and open to all which limits any incentives to

reduce demand. The foundation for the economics of biodiversity is the own rate of return on assets, in other words, the growth in value of a natural asset over time. **As with any portfolio investment, the gains or losses of the asset value provided by nature must be accounted for.**

There has been a 60% decline since 1970 in the populations of mammals, birds, fish, reptiles, and amphibians, mostly in the tropics. Critical ecosystems like the Amazon, which has already lost 20% of its original extent, are reaching tipping points. The prime driver of these transformations has been the conversion of natural habitats for the production of provisioning services, industrial activity, and human habitation.

Increased income, global rise in life expectancy and birth rate have put increased pressure on the biosphere. The Review sets out four reasons showing how the biosphere is degrading:

- 1. Biodiversity and Ecosystem Service Losses:** The IPBES global assessment reported a decline in 14 of 18 categories of nature's contributions to people since 1970.
- 2. Biochemical signature:** evidence found in soil nitrogen, phosphorous and other markers, in sediments and ice over the past 11,000 years.

3. Planetary boundaries: As biodiversity, nitrogen and phosphorous cycles, land use change and climate change have exceeded their boundaries, science shows that we have entered an 'unsafe' space, way beyond several planetary boundaries' 'tipping points', which has never been experienced by humans for the past 10,000 years.

4. Global Natural Capital Accounts: globally produced capital per head doubled and human capital per head increased by about 13%, showing a great amount of general production growth, but the natural capital stock declined by nearly 40%.

Ecosystems are assets (natural capital), which are durable but depreciate, meaning that they decline in quantity or quality over time. In today's economy, we do not run down the stock of produced capital to the point of depletion because it would reduce the economy's productive capabilities. Yet we are continually depleting natural capital like forests, mangroves, wetlands etc. Governments exacerbate the problem by perverse subsidies to agriculture, water, fossil fuels and fisheries.

Because there is no monetary charge for biosphere services, i.e. nature's worth to society, the value of nature is not reflected in market prices. Institutional failures such as not accounting for externalities is an underlying reason. **The Review is calling for the need to view nature as an asset,** just as production and human capital are assets, and acknowledge that we are failing to manage our assets effectively.

The Review argues that we must manage our natural asset portfolios better from two perspectives:

1. manage our overall stock of all capital assets more efficiently by reversing the recent depletion of natural capital, and
2. maintain biodiversity as an integral part of our portfolio of natural capital.

Biodiversity plays a similar role in the natural world as diversification in financial portfolios: it reduces variability and uncertainty in yield. The variability of species in the system and the genetic variation within those species enables the ecosystem to respond to change, acting as a form of insurance. The Review's evidence shows that it is more cost-effective to maintain an ecosystem than it is to degrade and then restore it: **conservation trumps restoration.**

Creating the enabling environment for change

2020 was meant to be the super-year for the sustainability agenda, of which nature was a key component with the Convention of Biological Diversity's (CBD) fifteenth meeting of the Conference of Parties (COP15) scheduled to happen in October this year. During the CBD COP15 countries were likely to adopt a new Global Framework for Biodiversity, which included an update of the AICHI targets. However, due to the global COVID19 pandemic this meeting has been delayed until sometime in 2021. Yet action in 2020 is still urgently needed.

What can business do?

The Review, as with other milestone reports, calls for urgent action from the business community to halt biodiversity loss. Actions include the need to preserve versus restore is preferential, and that investments in nature can be positive both for business as well as society at large. Climate change is highlighted as a key driver of biodiversity loss, and therefore business solutions should address beneficial outcomes for both climate and nature. Investing in nature-based solutions will become

imperative to advancing both the climate agenda and the nature agenda. WBCSD members interested in this area can join the new Nature Action project, which aims to help clarify for business the role of Nature-based solutions in delivering nature and biodiversity benefits, as well as climate (together with the Natural Climate Solutions project), health and other societal value, and how these can contribute towards an apex goal for nature and Science-based targets.

Science-based target network

Leading conservation, science and business organizations, co-convened by WWF and WBCSD, have proposed an apex nature target of "[Zero net loss of nature from 2020, net positive by 2030, and full recovery by 2050](#)" which constitutes an ambitious response to the challenges set by this IPBES report. Efforts are underway through the Global Commons Alliance (GCA) and other initiatives to establish science-based targets to protect, conserve and restore nature for companies and cities. The GCA's Science-Based Target Network recently designed a prototype of "science-based targets (SBTs) for nature", guided by a target-setting framework for nature. The SBTs

for nature can encompass all aspects of nature including terrestrial, freshwater and ocean systems. The framework contains four key components:

1. Avoid: zero loss of biodiversity in areas of key biodiversity value;
2. Reduce: reduce an actor's impacts in line with science in key impact-sheds;
3. Restore/regenerate: compensate at least for residual impacts through regenerative actions (that rebuild function and services) and restoration (that rebuilds ecosystems/species populations);
4. Transform: align business model/city plan with transformative change (on an equitable basis).

This prototype also envisages several potential approaches for allocating responsibility to companies and cities in terms of the amount of restoration or regeneration required within the above framework. The models of allocation share the common element of first mapping the company/city impact. The allocation framework can be applied to terrestrial, marine and freshwater biodiversity. Proxy guidance will be developed by mid-year 2020 for both transformation (considering change within companies and cities and the ways that each can stimulate greater change through activities such as education, culture, political engagement), and regenerative and/or restorative actions.

WANT TO LEARN MORE?

WBCSD and our members are responding to the COVID-19 crisis through three new projects: Vital Supply Chains Resilience, Return-to-"New Normal" Scenarios and Long-Term Impacts. Please visit [our website](#) for more information.

Join WBCSD's new Nature Action project to directly engage in, and act on the fast-moving nature agenda.

Work will focus on three areas: providing guidance and opportunities for members to engage on the development of science-based targets

for nature and methodologies for nature-based solutions; building alignment, solutions and collective action in three big systems: food, land and ocean use, infrastructure and built environment, and energy and extractives; and finance innovation to shift investment decision-making. For more information, please contact [Maria Ana Campos](#).

[Business for Nature](#) in collaboration with WBCSD, the World Economic Forum, the International Chamber of

Commerce, the UN Global Compact and the International Union for Conservation of Nature is organizing a virtual event on 15 June: Building Business Resilience: How collective leadership will reverse nature loss. This global, high-level, interactive online forum will explore how business can strengthen the resilience of our systems and support collective action to accelerate progress towards a more sustainable future.

Please register through this [link](#).

Working together to deliver solutions

WBCSD is working with members on solution areas to create and mobilize a collective voice of business and create solutions to deliver against these challenges through , the [Climate & Energy Program](#) and the [Food & Nature Program](#), which includes the new Nature Action project, the [True Value of Food](#), the [Climate Smart Agriculture](#), [FReSH](#), [Natural Climate Solutions](#) (in partnership with the Climate & Energy Program), the sector

projects [Forest Solutions Group](#) and [Global Agribusiness Alliance](#), and the [We Value Nature training](#) in partnership with the [Redefining Value Program](#).

Participate in multi-stakeholder initiatives and business coalitions like [Business for Nature](#), [the Natural Climate Solutions Alliance](#), and multi-stakeholder initiatives like the [Food and Land Use Coalition \(FOLU\)](#) and the [Food System Dialogues](#).

Additional resources

Download Dasgupta Independent Review on the Economics of Biodiversity Interim Report [here](#)

WBCSD has published business summaries of other important reports over the last year. Please see the UN's [IPCC special report on Land](#), with the business summary [here](#); the [EAT-Lancet Commission on Food, Planet, Health](#) with the business summary [here](#); The WEF New Nature Economy Series Chapter 1 with the business summary [here](#); and the IPBES Global Assessment report with the business summary [here](#).

About the World Business Council for Sustainable Development (WBCSD)

WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world. We help make our member companies more successful and sustainable by focusing on the maximum positive impact for shareholders, the environment and societies.

Our member companies come from all business sectors and all major economies, representing a combined revenue of more than USD \$8.5 trillion and 19 million employees. Our global network of almost 70 national business councils gives our members unparalleled reach across the globe. Since 1995, WBCSD has been uniquely positioned to work with member companies along and across value chains to deliver impactful business solutions to the most challenging sustainability issues.

Together, we are the leading voice of business for sustainability: united by our vision of a world where more than 9 billion people are all living well and within the boundaries of our planet, by 2050.

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