

The Economics of Biodiversity: The Dasgupta Review (2021)

Summary brief for business

On 2 February, the UK Government launched [The Economics of Biodiversity: The Dasgupta Review](#). This independent review was commissioned by the UK Treasury to shape the international response to biodiversity loss and inform global action from all stakeholders.

The Dasgupta Review sets out a new framework, grounded in ecology and Earth Sciences, yet applying principles from finance and economics to understand the sustainability of our interaction with nature and prioritize efforts to enhance nature and prosperity.

This business summary highlights the main points from the Dasgupta Review relevant to business and puts it in the context of other landmark reports, as well as global events and frameworks related to the nature and climate agendas.

The Dasgupta Review has the potential to be a key input into the Convention on Biological Diversity (UNCBD) COP15 and its technical meetings ahead of the COP. In addition, it could also input into the UN Framework Convention on Climate Change (UNFCCC) COP26 where nature and particularly Nature-based Solutions (NbS) will play a key role, as well as the UN Food Systems Summit (UN FSS) action track on boosting nature-positive agriculture.

Nature is an indispensable system on which we all depend, and which must thrive for us to effectively respond to challenges, such as those posed by emerging diseases including COVID-19 and climate change. The Dasgupta Review makes clear that conservation and restoration efforts are solutions to these critical challenges and provide many other benefits to the economy and society. Not only does the conservation and restoration of nature reduce serious risks to our economies, including business and financial institutions, but it also contributes towards the mitigation of, and adaptation to, the effects of climate change.

The Dasgupta Review describes the hidden costs of depleting natural capital as being a major constraint for long-term value creation.

It calls for action to increase the quantity and quality of our stock of nature and associated biodiversity and demonstrates that acting now will be significantly less costly than delaying further. We must start accounting fully for the impact of our interactions with nature and rebalancing our demand with nature's capacity to supply.

Part of the solution lies in changing our measures of economic success. Moving to inclusive wealth, which measures all capital assets (i.e. human capital, produced capital, and natural capital) as the aggregate

value of a country's economic success, is a necessary step towards returning the world to a path of sustainable prosperity instead of continuing to live beyond our planet's means.

WANT TO LEARN MORE?

You can find the Headlines Messages of the Dasgupta Review [here](#). The full report can be found [here](#).

There is now ample evidence that nature plays a key role in the COVID-19 pandemic's emergence and recovery. In December 2020, WBCSD released [COVID-19: A Dashboard to Rebuild with Nature](#), a white paper that proposes a dashboard based on the two core planetary boundaries of climate change and nature loss. The report concludes that a nature-positive food system is the most effective way to build resilience against future shocks, including new pandemics.

In December 2020, the Nature Action project launched the report [Accelerating business solutions for climate and nature](#), which aims to clarify definitions to support the alignment of Natural Climate Solutions (NCS) with Nature-based Solutions to accelerate investments at scale. In addition, the report helps business to navigate the nature and climate agenda by mapping the key initiatives, platforms and conventions for collective action.

Headlines you need to know from the report

We need to change how we think, act and measure success. The Dasgupta Review proposes three broad and interconnected transitions: 1) balance humanity's demand with nature's supply, and increase supply relative to its current level; 2) change our measures of economic success; and 3) transform our institutions and systems.

1. BALANCE HUMANITY'S DEMAND AND NATURE'S SUPPLY AND INCREASE SUPPLY RELATIVE TO ITS CURRENT LEVEL.

- **Nature is an asset, and we have failed to manage our natural capital in a manner that maintains resilience and productivity.** According to the Global Footprint Network, we need 1.6 Earths to be able to continue current living standards.
- **The quantity and quality of our stocks of natural assets need to increase significantly.** Conservation of our natural assets is easier and cheaper than restoration, as it avoids potential tipping points and the problems of reversing regime shifts, and maintains option values through conserving ecosystems and species.
- **Any reductions in demand for extraction due to increased efficiency have been neutralized** by the impact of increases in the main drivers of resource extraction: human population growth and affluence.
- **Increased extraction of provisioning services now comes at the expense of future provision of those same services,** as well as regulation and maintenance services. It is worthy of note that much of said extraction of provisioning services is subsidized.
- **Conservation and restoration of ecosystems can have a positive impact on job creation.** The International Labour Organization (ILO) estimates that 1.2 billion jobs rely on effective management and sustainability of ecosystems.

Decline of biodiversity happens 30% less in areas that are managed by indigenous people.

- **Nature-based solutions are estimated to have around 10 times the job creation rate of investments in fossil fuels according to the ILO.** Bringing nature and ecosystem services into spatial planning is essential to ensure that conservation and restoration are as effective as possible in an increasingly crowded world.
 - **Commodity production is the leading driver of biodiversity loss and there is a growing share of global agricultural land that is used to grow crops other than food,** such as biofuels and fiber for textiles.
 - **Transparency in supply chains will be a key part of the solution.** This will enable actors to identify where they can reduce their environmental impacts, and to monitor actions taken to achieve sustainability commitments and thereby improve accountability.
- ### 2. CHANGE MEASURES OF ECONOMIC SUCCESS TO GUIDE US ON A MORE SUSTAINABLE PATH.
- **The Dasgupta Review develops the economics of biodiversity on the understanding that we- and our economies- are 'embedded' within nature, not external to it.** As nature is only capable of producing a finite flow of goods and services (upon which we rely), the economic model of growth is bounded. If capital markets are to function more effectively, we must account fully for the impact of our interactions with nature and rebalance our demand on its capacity to supply.
 - **Nature's worth to society** (goods and services provided) **is not reflected in current market prices** because it is open to all, without any cost. But this is not simply a market failure: it is a broader institutional failure, too. Many institutions

have proved unfit to manage the externalities. As such, we need to recalibrate financial, business and economic models to better understand the [true value of people and nature](#) and integrate it into all levels of decision-making.

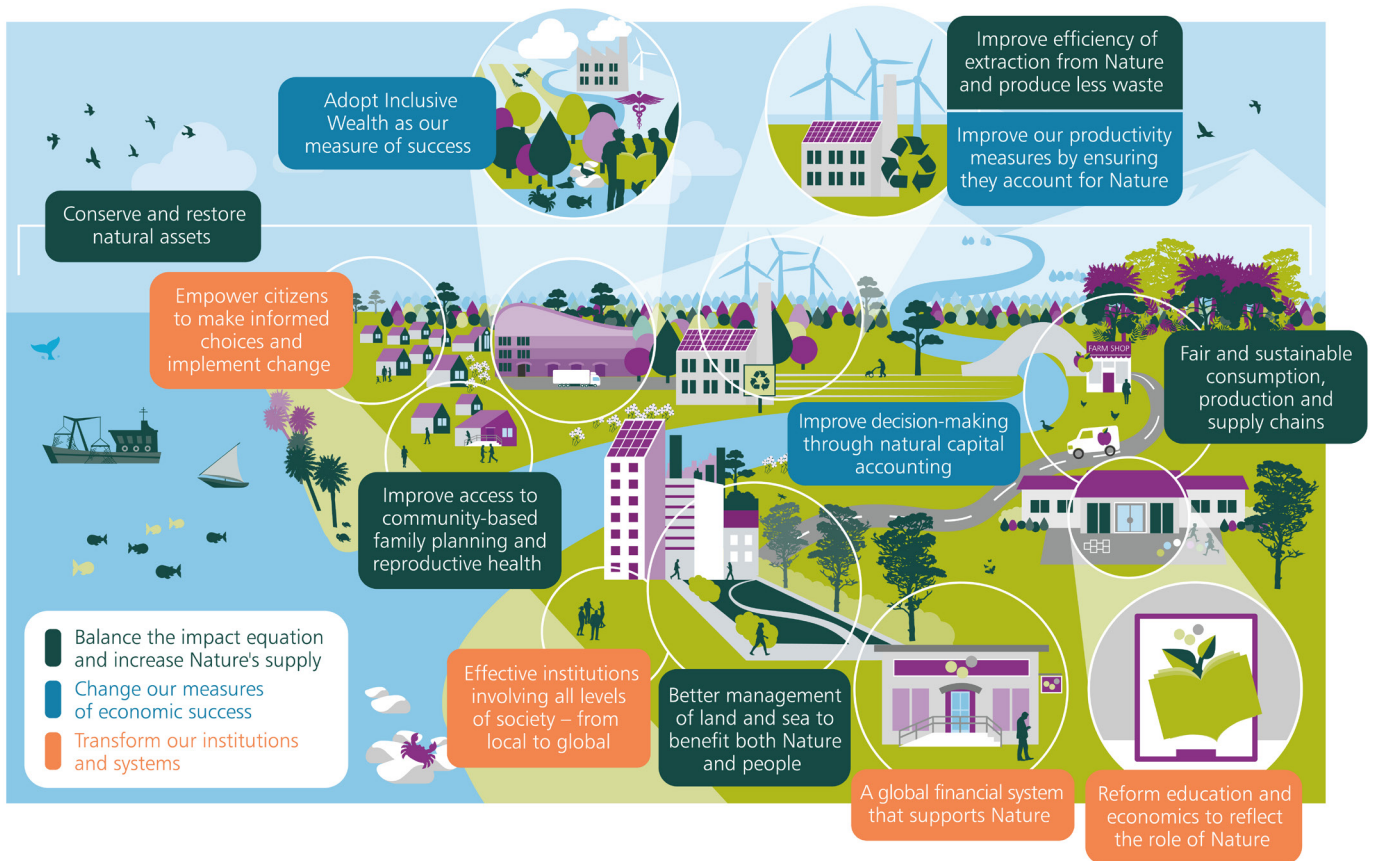
- **An inclusive measure of wealth is needed to rebalance the risks and rewards for business interactions with nature.** Introducing human capital and natural capital into national accounting systems would inform and improve decision-making at scale globally. Increased investment in physical accounts, standardisation of data and modelling approaches, and technical support would facilitate these shifts.
- ### 3. TRANSFORM OUR INSTITUTIONS AND SYSTEMS TO ENABLE AND SUSTAIN CHANGE.
- **We must transform our financial and educational systems to enable these changes and sustain them:**
 - What is required is a set of global standards underpinned by credible data that businesses and financial institutions can use to fully integrate nature-related considerations into their decision-making, and assess and disclose their use of nature.
 - Establishing the natural world in education policy is essential to empower citizens to make informed choices and demand the change that is needed.
 - **Management and mitigation of nature-related financial risks can lead to increased resilience of balance sheets for financial institutions.** The Dasgupta Review uses the analogy of biological diversity playing a similar role to the diversity of an investment portfolio in mitigating the risk of betting heavily on a narrow spread of options. Biodiversity-related risks arise from changes in either the stock or condition (or combination of both) of natural capital from

societal responses to changes in the state or quality of natural capital. This includes climate change-related risks or other environmental financial risks. By channeling credit and investments toward projects that enhance, rather than degrade, natural capital and ecosystem services, financial institutions are exposed to investments with relatively lower risk and greater certainty around yields.

- **Trade plays a major role in the nature agenda.** Trade expansion over recent decades has allowed higher-income countries to off-shore the adverse impacts of their consumption on ecosystems and biodiversity through increased trade in commodities, goods and services with lower-income countries, which

are often home to the world's most biodiverse regions, yet tend to have less stringent environmental standards. More than 50% of the biodiversity loss associated with consumption in developed economies is estimated to occur outside their territorial boundaries.

Figure 1: Summary of Options for Change



What can business do?

The Dasgupta Review, as with other milestone reports, calls for urgent action from the business community to halt nature loss. It emphasizes the necessity of changing how we think, act, and measure success. **Businesses have an important role to play in limiting the impact of their activities on the biosphere.** That means accounting for these impacts and their dependence on nature by obtaining reliable and verifiable information all along their supply chains, as well as holding actors to account. Private financial actors need to reduce harmful financial flows that degrade natural assets and encourage unsustainable activities; and scale-up positive flows into conservation, restoration and sustainable economic activities. This requires a greater understanding and management of their dependencies, impacts, and nature-related financial risks and uncertainty.

The role of trade

Increased economic activity resulting from trade expansion increases human demands on the biosphere and thus depletes natural capital. While trade liberalization can facilitate the adoption of technologies and more efficient production practices, which may reduce demands on the biosphere, it may also encourage specialization by certain countries in extractive or pollution-intensive sectors, and thus off-shore damage to natural capital by others. This is particularly apparent when there is marked variation between environmental policies between countries.

The Dasgupta Review considers several trade practices and policies that would mitigate these impacts, such as less trade in certain goods, border adjustment taxes (which would need

to vary by ecosystem and over time), taxes imposed equally on imports and domestically produced products. In addition, more frictionless trade could reduce costs and waste, especially in the case of the global food trade. Fundamentally, the ability to monitor and regulate supply chains in a more transparent manner is highlighted, as well as increased development assistance. The latter would improve outcomes of trade for biodiversity by helping countries overcome barriers to enter sustainable markets via certification schemes, or strengthen capacity building on how to ensure that developing countries can protect their natural assets, among others.

The role of food production

Food production is referenced as one of the most significant drivers of nature loss. Coupled with technological innovation, producing sufficient food in a sustainable manner will be key to decreasing land-use change, and both halting and reversing nature loss. While the Dasgupta Review points out that technology alone will not balance humanity's demand with nature's supply, it also highlights that it can play an important role in producing food more efficiently, reducing damage to ecosystems and the environment. These range from genetically modified crops (including gene-editing), vertical farming, precision agriculture, meat analogues, among others. For instance, life cycle assessments have estimated the potential of a plant-based burger at around 90% less greenhouse gas emissions, 46% less energy, 99% less water and 93% less impact on land use.

The Review highlights analysis from the Waldron Report that we can feed the population as well as conserve more nature (30%) without major financial losses and gain considerable social benefits and small net gains financially. In the Dasgupta Review's framework, conservation *is* investment. Furthermore, conservation relies on finance, and also regulation and institutional support, to be effective. Community involvement is particularly important, as well. Moreover, agricultural systems have the potential to be net providers of ecosystem services, including regulating and maintenance services beyond food production (i.e. agroforestry), as well as acting as carbon sinks. An action area could be establishing agri-environment schemes that incentivize farmers to adopt practices that foster biodiversity and increase ecosystem services. Climate change is highlighted as a key driver of nature loss, and therefore business solutions should produce 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 while also supporting development of the Task Force on Nature-related Financial Disclosures (TNFD). In December 2020, the two projects launched their first joint report on [Accelerating Business Solutions for Climate and Nature](#), focused on mapping nature-based solutions and natural climate solutions.

Creating the enabling environment for change

2021 is set to be the super-year for the sustainability agenda, of which nature is a key component, with the Convention on Biological Diversity's (CBD) fifteenth meeting of the Conference of Parties (COP15) scheduled to happen this year. During the CBD COP15 countries are likely to adopt a new Global Framework for Biodiversity, which includes an update of the Aichi targets (none of which were achieved). This new agreement will set how the world will measure and tackle nature loss for the coming decade. In addition, we will also have the UNFCCC COP26 this year, which has been named the "Green COP" and will focus on how to deliver a "green recovery" based on the COVID-19 stimulus packages. On top of that, the first ever UN Food Systems Summit will be held in

September and includes an action track dedicated to boosting nature-positive agri-food production.

As long as risks emerging from the unsustainable use of the biosphere and opportunities to correct the overshoot are not reflected in market prices, there will be very few incentives for these risks to be incorporated in financial decisions. This will result in the continuation of financial flows to industries that are not sustainable, as they would remain profitable over the short-term. The Dasgupta Review states that corrections to market prices are urgently needed (such as taxes and subsidy reform) as well as a set of global standards underpinned by credible data which can help companies and financial institutions to fully integrate nature-related considerations in their decision-making.

There have been signs that policymakers and financial regulators will increasingly demand that financial institutions systematically assess both Nature-related financial risks and their own impacts on nature.

Central banks and financial regulators are starting to assess and manage nature-related risks, although to date they have been largely focused on climate change. The [Taskforce on Nature-related Financial Disclosures \(TNFD\)](#), for instance, will provide a framework for corporates and financial institutions to assess, manage and report on their dependencies and impacts on nature, aiding in the identification of nature-related risk and the redirection of global financial flows towards nature-positive outcomes.

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 [Nature Action](#) project, the [True Value of Food](#), the [Scaling Positive Agriculture \(SPA\)](#), [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](#).

We also participate in multi-stakeholder initiatives and business coalitions like [Business for Nature](#), [One Planet Business for Biodiversity \(OP2B\)](#), the [Natural Climate Solutions](#)

[Alliance](#), and multi-stakeholder initiatives like the [Food and Land Use Coalition \(FOLU\)](#) and the [Food System Dialogues](#).

Additional resources

In April 2020, the UK Government launched their Interim Report on the Economics of Biodiversity. This Interim Report provided the foundations for the final Dasgupta Review. Find WBCSD's business summary of the 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](#) 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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