

26th Global Economy Lecture

Partha Dasgupta on “Viewing the future from the population-consumption-environment nexus”

Compiled by *Andreas Breitenfellner and Maria Silgoner*¹

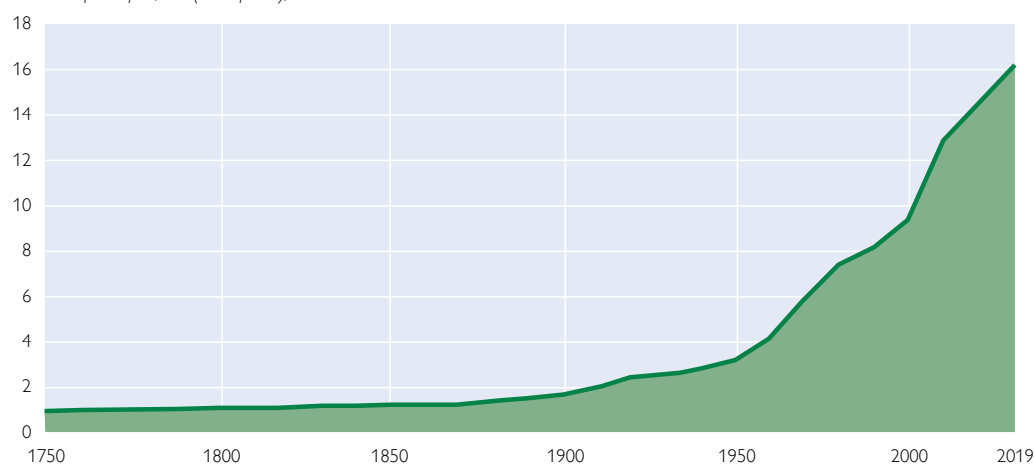
On November 3, 2021, the Oesterreichische Nationalbank (OeNB) and The Vienna Institute for International Economic Studies (wiiw) hosted the 26th Global Economy Lecture², which was delivered by *Partha Dasgupta*, Emeritus Professor of Economics at the University of Cambridge. Professor Dasgupta has published 25 books and over 300 articles in the fields of development and environmental economics. He recently completed “The Economics of Biodiversity: The Dasgupta Review,” an independent global report on the economics of biodiversity commissioned in 2019 by the UK Treasury, which investigates the links between population growth, consumption and the environment.

In his introductory remarks, OeNB Governor *Robert Holzmann* discussed to what extent central banks – and more broadly macroeconomic policies – can effectively contribute to maintaining biodiversity. The Eurosystem is committed to considering the impact of climate change in its monetary policy framework, supervisory activities and reserve portfolios. In terms of preserving biodiversity, the responsibility for carrying out appropriate structural reforms lies with government authorities, according to the OeNB governor. This notwithstanding, central bankers have started to analyze the potential economic and financial impacts of biodiversity loss. Moreover, both financial markets and their regulation may play a key role in

Chart 1

Global real GDP per capita, 1750–2019

Real GDP per capita, PPP (2011 prices), thousands



Source: *The Dasgupta Review* (p. 103).

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² The Global Economy Lecture is an annual event organized jointly by the OeNB and The Vienna Institute for International Economic Studies (wiiw).

pricing in nature. Governor Holzmann emphasized the need to accelerate the demographic transition toward population stabilization – particularly in sub-Saharan Africa – to secure economic well-being while reducing pressures on nature.

Professor Dasgupta started out by asking how we can account for nature in economic science and policy. So far, economic studies have focused exclusively on produced capital and human capital. Yet, it is a profound error to bypass nature – our home and most precious resource. Chart 1, taken from “The Dasgupta Review,” identifies the post-World War II period as a takeoff point when global GDP started to increase sharply. Global real GDP per capita has quintupled since 1950. At around the same time, population growth started to shoot up as well, given longer life expectancy, while fertility rates only began to go down later on.

Such figures would suggest that we live in the best of all times. What they do hide, though, is that we have accumulated produced and human capital by exploiting and dismantling the ecosystem. While produced capital has doubled since 1992, natural capital, defined as renewable and nonrenewable natural resources, has been shrinking at an alarming rate. The COVID-19 pandemic is just the visible tip of the iceberg of damage humankind has inflicted on nature.

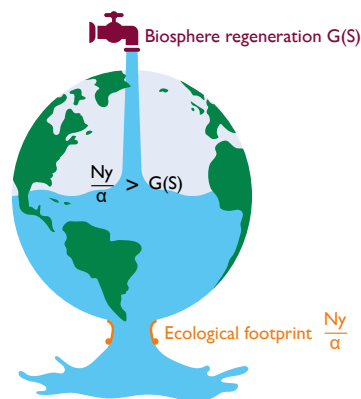
Professor Dasgupta emphasized the gap between what we demand of nature and what nature is able to supply on a sustainable basis. Currently we are faced with a widening of the imbalance between the ecological footprint – determined crucially by GDP growth y – and the regeneration rate of the biosphere $G(S)$, as indicated by figure 1. As a result of this, we are continuously drawing down natural capital S .

The left-hand side of the inequality crucially depends on the factor α , an index of efficiency. If α goes up, e.g. because of a move to clean energy, the left-hand side declines. Since services of nature are complementary, the reduction of one factor of nature (such as fossil fuels) may have similar impacts on other factors.

Professor Dasgupta put special emphasis on the factor N on the left-hand side of the inequality, which stands for population growth. While the fertility transition has been broadly completed in most regions around the world, UN projections show that the population in sub-Saharan Africa might double until the middle of

Figure 1

Impact inequality



Source: *The Dasgupta Review* (p. 118).

the century. Since the region’s GDP is small (less than 5% of global GDP), population dynamics are currently not on the political agenda. However, the region may matter more in the future as the countries exploit nature in an attempt to improve living standards. As long as the exploitation of nature is not priced in, the export of primary products represents a transfer of wealth from poor to rich countries. To slow down population growth, Professor Dasgupta saw scope for changing social norms and culture. He stressed the importance of empowering women, especially through education. While referring to several

success stories, he, at the same time, also dampened expectations, pointing to the high costs and challenges associated with educational attainments.

The discussion following the Global Economy Lecture revolved inter alia around the limits to material (per capita) growth and the crucial role of adequately pricing the services of nature. Aspects of biodiversity will only become an integral part of our lives if we start to feel the price of dismantling the ecosystem. Therefore, Dasgupta envisages new international institutions that may create markets for many services of nature, including sea transport. Moreover, he suggested assisting poor countries in coping with climate change and allowing them to improve living standards without drawing on natural resources. By managing risks appropriately within their own portfolios, central banks can have considerable signaling power for financial markets and thus have a material impact on halting the degradation of natural resources. Professor Dasgupta concluded by underlining the uncertainty about future developments and how little we know about how humankind will adapt to new circumstances.