

The Economics of Biodiversity

#LSEBiodiversity

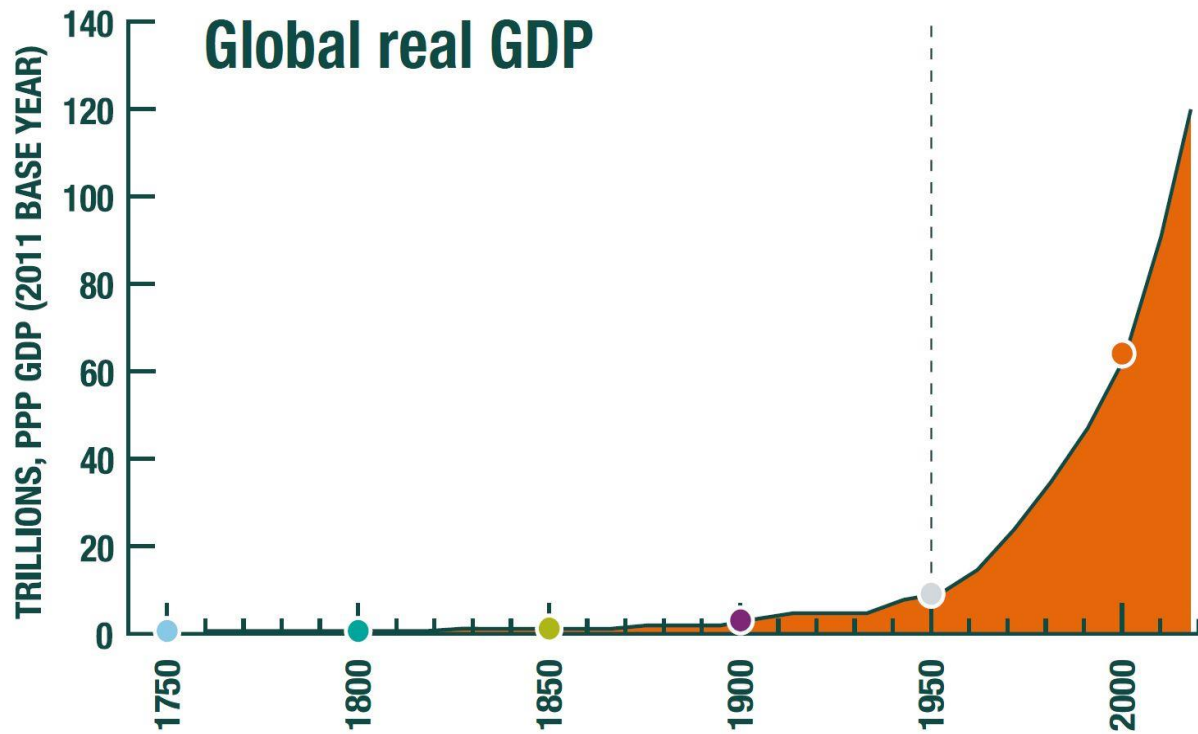
Professor Sir Partha Dasgupta

Frank Ramsey Emeritus Professor of Economics at the University of Cambridge and Chair of the Management Board of its Centre for the Study of Existential Risk.

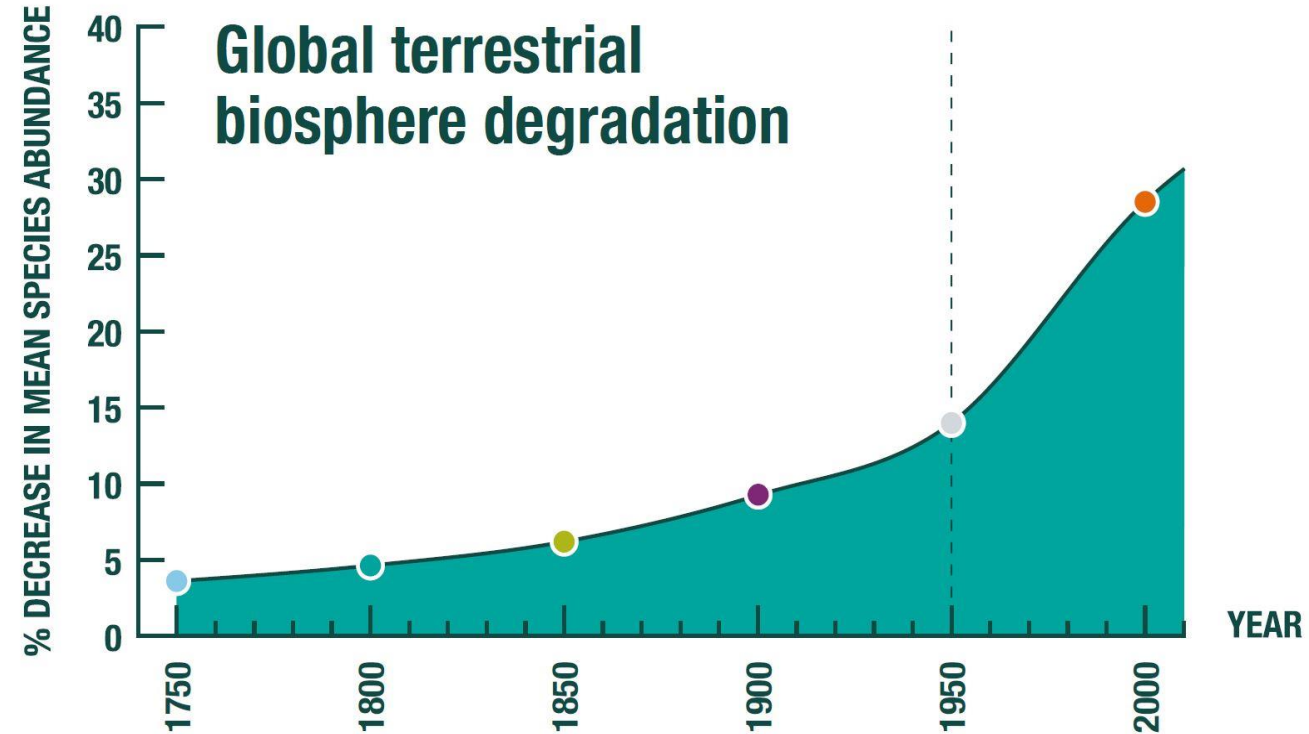
Chair: Minouche Shafik

Director of the London School of Economics and Political Science.

Hosted by the Grantham Research Institute on Climate Change and the Environment



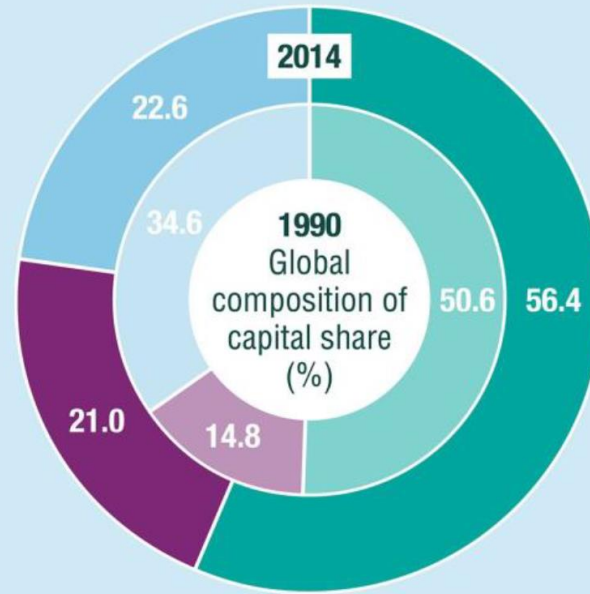
Source: Our World in Data based on World Bank and Maddison (2017), Maddison Project Database, version 2018. Bolt, Jutta, Robert Inklaar, Herman de Jong and Jan Luiten van Zanden (2018), "Rebasing 'Maddison': new income comparisons and the shape of long-run economic development", Maddison Project Working paper 10.



Source: Steffen, W. et al. (2011) 'The anthropocene: Conceptual and historical perspectives', *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 369(1938), pp. 842–867.

We have underinvested in natural capital...

- Natural capital
- Produced capital
- Human capital



...despite its relatively higher own rate of return

- Long-run average proxy for produced capital
- Own rate of return of natural capital



Source: Data from C.B. Field et al., 1998; Managi and Kumar, 2018; Yinon M Bar-On, Phillips and Milo, 2018; Jorda et al., 2019.

Supply: $G(S)$

G Rate at which the biosphere regenerates

S Stock of the biosphere

Demand: $\frac{Ny}{\alpha}$

N Human population

y Human economic activity per capita

α Efficiency with which the biosphere's goods and services are converted into GDP and the extent to which the biosphere is transformed by our waste products

Unsustainable use of the biosphere

