Incorporating biodiversity into development trajectories

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Policy Brief

A tentative roadmap for developing and emerging economies

- In recent seminal studies for France and the Netherlands, biodiversity has been proven a significant source of financial vulnerability, both in terms of potential physical impacts, dependence to ecosystem services and in the face of future tighter protection policies.
- Applying similar methodologies for developing and emerging economies requires:
  - Collecting specific data and making it accessible
  - Incorporating ecosystemic analysis and scenarios into assessment models
  - Developing more comprehensive and adapted biodiversity metrics and taxonomy
- Widening the scope of ecological risks beyond financial variables to social and economic aspects.

Introduction

Biodiversity is the living fabric of our planet. However, human activities are causing a very rapid loss of biodiversity, and, with it, Earth's ability to support stable and complex life. The extinction rate of species is currently 100 to 1,000 times higher than the reference rate of the past million years, and population sizes of vertebrate species have declined by an average of 68% over the last five decades[1]. The risks posed by biodiversity loss to human societies, let alone to ecosystems for their intrinsic value, could be at least as high as the one posed by climate change. Both are also intricately related.

It is only recently that the financial community has started to pay attention to the economic and financial consequences of biodiversity loss. The Dasgupta Review on the Economics of Biodiversity[2] insists that the risks posed by biodiversity loss to the economic and financial systems could be catastrophic. A joint study[3] by Banque de France, Agence française de développement (AFD) and Office français de la biodiversité, among others, provided the first assessment for France of the potential financial risks related to biodiversity loss, derived from a methodology[4] first used in the case of Holland.

[1] https://ipbes.net/global-assessment

[2] https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review

[3] https://publications.banque-france.fr/en/silent-spring-financial-system-exploring-biodiversity-related-financial-risks-france

[4] https://www.dnb.nl/en/actueel/dnb/dnbulletin-2020/indebted-to-nature/

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ÉDITIONS AFD AGENCE FRANÇAISE DE DÉVELOPPEMENT

> **The objectives of the Paris Agreement and of the future Kunming Agreement require recognizing the necessary complementarities of monetary, fiscal, industrial and ecological policies.**

Risks are poorly assessed in the developing world so far. A recent study by the World Bank[5] shows that developing and emerging economies will face the bulk of the impacts with up to 10% of GDP losses in 2030 if ecosystem services start collapsing. In that study, risks are particularly high for Sub-Saharan Africa and South Asia as both regions rely on pollinated crops with limited ability to switch to other production and consumption options or to adapt to degraded surface and ground water. Long-run development strategies seem vulnerable to the current trend of biodiversity collapse.

The coming decade is a crucial window of opportunity to adjust our development trajectories. The Kunming conference (COP15) in 2022 (Conference of the Parties to the Convention on Biological Diversity) will certainly generate a similar movement as COP21 (Conference of the Parties to the Convention on Climate Change) in the financial sector, while COP26 of the United Nations Framework Convention on Climate Change will provide further momentum to the convergence of the climate and biodiversity agendas. Assessing the socio-economic and financial consequences of biodiversity losses and transition to ecologically sustainable societies will be the focus of the international development agenda in the years to come.

Recommendations

The emergence of a truly new regime of nature-friendly development trajectories requires overall coherence. First of all, it is a matter of recognizing the necessary complementarities of monetary, fiscal, industrial and ecological policies in order to achieve the objectives set out in the Paris Agreement and in the future Kunming Agreement. The concept of taxonomic definitions of green and brown activities on the one side, or the exposition of financial portfolios and socio-economic activities to these new ecological risks on the other side, are a first essential step towards recognizing the double ecological materiality of all development processes.

Beyond such an increased coordination and immediate action, there is a need for a better understanding of the complexities of biodiversity and climate dynamics to transform financial activities and broader development trajectories in a nature-friendly direction, particularly in developing and emerging economies. More specifically:

- There is a lack of data granularity on ecological impacts and ecosystem services dependence in developing and emerging economies as well as trajectory indicators integrating biodiversity and climate objectives. This can be generated through an interdisciplinary work between financial institutions and ecologists or environmental scientists. There is a need to fully apprehend ecological complexities with specialists in the field and to increase collection and access to biodiversity data through ambitious open data policies

- Adapting developed countries ecological risk assessment methodologies to the specificities of the financial sectors of developing and emerging economies to build stranded assets evaluations adapted to their context. The predominance of credit institutions as a source of finance makes these economies more subject to sudden stops and more constrained in general.

- Widening the scope of ecological risks beyond financial variables to incorporate impacts on social and economic aspects such as balance of payment constraints, social protection and employment, global value chains, etc.

> **Transforming development trajectories in a nature-friendly direction necessitate a better understanding of the complexities of biodiversity and climate dynamics**

[5] https://www.worldbank.org/en/topic/environment/publication/the-economic-case-for-nature

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