



# TOWARDS POST-2020 EXPERTISE ON #12

## CAN WE HALT BIODIVERSITY LOSS UNDER THE ECONOMIC GROWTH PARADIGM?

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**Economic growth explicitly prevails in most policies although it implies large resource consumption and thus amplified pressures on biodiversity. Decoupling of economy and resource use has not taken place yet. New Shared Socioeconomic Pathways (SSPs) should examine low, zero, or negative economic growth and be considered for the post-2020 global biodiversity framework.**

It is well established knowledge and clearly stated in the IPBES Global Assessment<sup>1</sup> that humans currently extract more from the Earth than ever before, and that land and sea-use change and direct exploitation have been the direct drivers of biodiversity loss with the largest impacts on ecosystems in the last 50 years. Climate change, pollution and invasive alien species had a lower relative impact to date but are accelerating<sup>2</sup>. All these direct drivers are strongly related to economic activities and increasing evidence shows that an expanding economy degrades biodiversity.

When exploring the connections between economic growth and nature, correlations between gross domestic product (GDP), resource use and biodiversity loss are eye-catching. Several convincing arguments suggest that causality among these phenomena does exist<sup>3</sup>.

Rethinking our approach to the economy is needed to trigger truly transformative and cross-sectoral changes and halt biodiversity loss.



**“THE PRESENT GENERATIONS HAVE THE RESPONSIBILITY TO BEQUEATH TO FUTURE GENERATIONS A PLANET THAT IS NOT IRREVERSIBLY DAMAGED BY HUMAN ACTIVITY. OUR LOCAL, INDIGENOUS AND SCIENTIFIC KNOWLEDGE ARE PROVING THAT WE HAVE SOLUTIONS AND SO NO MORE EXCUSES: WE MUST LIVE ON EARTH DIFFERENTLY.”**

Audrey Azoulay, Director-General,  
United Nations Educational,  
Scientific and Cultural  
Organization (UNESCO)



# 1. DECOUPLING ECONOMIC GROWTH FROM RESOURCE USE: EVIDENCE FROM RESEARCH AND POLICIES

For many countries, health, food security, and poverty eradication are among the top socioeconomic challenges. Around the globe, economic growth is the main political priority to solve any kind of socioeconomic challenge, although economic parameters often lack appropriate consideration of natural capital and negative externalities. But is it feasible to reduce resource use and biodiversity impacts under an economic growth paradigm and is the growth paradigm appropriate for halting biodiversity loss?

**Absolute decoupling**<sup>4</sup> means that resource use or biodiversity impacts declines in absolute terms while GDP grows. This requires that resource efficiency grows faster than GDP. Absolute decoupling has not occurred so far at global scale, because under current socioecological conditions, economies with higher GDP tend to (i) consume more raw materials and energy, (ii) occupy more productive land, and/or (iii) use it more intensively. The few cases of absolute decoupling found in the scientific literature for the national level were related to increased import of material-intensive goods from the Global South, low GDP growth rates, or decarbonization policies. In the case of biodiversity, an absolute decoupling between economic growth and impacts occurred in Western Europe and North America following the financial crisis of 2007. It was caused by a reduction in consumption, but soon after the crisis, biodiversity impacts increased again.

In the relative decoupling model, GDP grows faster than resource use, which is still growing. It has been observed in the global aggregate as well as in many countries, for measures of aggregate use of resources and greenhouse gas (GHG) emissions during the last century: In the period 1910–2005, global GDP increased much faster than global human appropriation of net primary production (HANPP)<sup>5</sup>; between 1970–2005, a 1% growth in GDP per capita implied a 0.8% growth in material use per capita on average across 39 countries<sup>6</sup>. Global relative decoupling of materials stopped with the change of century as economic growth then occurred mainly in regions with resource-intensive productions. Regarding GHG emissions, an analysis of 189 countries for the period 1961–2010 found that a 1% increase in GDP was associated with a 0.5–0.8% increase in CO<sub>2</sub> emissions<sup>7</sup>. The period 2006–2016 shows declining absolute emissions for the United States and the EU28 despite continued economic growth indicating that for some GHG emissions absolute decoupling is possible with decarbonisation

policies, even if these declines are far slower than those needed to meet the 1.5°C Paris agreement target.

**Advocacy of economic growth in the environmental arena** is unequivocal in some of the most influential policy documents on sustainability and biodiversity. The first major international declaration concerning sustainable development, the 1987 Brundtland report, called for “internationally expansionary policies of growth” in industrial countries and for “more rapid economic growth in both industrial and developing countries”. This commitment has since been reiterated in all subsequent major sustainability declarations and agreements, including The Declaration of the UN Conference on Environment and Development held in Rio de Janeiro in 1992, the 2011 UN Environment Programme (UNEP) report on the green economy, the UN Sustainable Development Goals, and the declaration of the Cancun CBD COP 12 (2016). While advocating economic growth, these policies acknowledge the relevance of drivers of biodiversity loss that are strongly related to economic growth, thus having mostly ambiguous positions. At the same time, many of these policies pay insufficient attention to how economic growth can be decoupled from biodiversity loss. Other key biodiversity policies do not acknowledge the problematic nature of economic growth at all. This is the case of the CBD’s Aichi Targets, which aimed at containing “the impacts of use of natural resources well within safe ecological limits” without addressing the systemic relationships between economic growth and critical drivers of biodiversity loss.

**“COVID-19 HAS CAUSED HUMANITY’S ECOLOGICAL FOOTPRINT TO CONTRACT, PUSHING THE DATE OF EARTH OVERSHOOT DAY BACK MORE THAN THREE WEEKS COMPARED TO LAST YEAR. THE CHALLENGE OF RELAUNCHING OUR ECONOMIES PRESENTS COUNTRIES WITH A UNIQUE CHANCE TO ACT ON THE FUTURE WE WANT.”** From *Earth Overshoot Day*<sup>8</sup>

## 2. STEPS TO INTEGRATE BIODIVERSITY IN POLICIES BEYOND ECONOMIC GROWTH

**Biodiversity policies need to address the impact of economic growth:** Several biodiversity targets may be unachievable unless clear progress is made in explicitly addressing the impacts of economic growth. Current biodiversity policies reflect the shared assumption that economic growth is needed to alleviate poverty and achieve prosperity. Only few policy documents explicitly mention that reducing the

<sup>1</sup> IPBES (2019), Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz, and H. T. Ngo (editors). IPBES secretariat, Bonn, Germany.

<sup>2</sup> Maxwell et al. (2016). Biodiversity: The ravages of guns, nets and bulldozers. *Nature News*, 536, 143.

<sup>3</sup> The present publication is based on the review by Otero et al. (2020) Biodiversity Policy beyond Economic Growth. *Conservation Letters* 13(4), e12713, <https://cutt.ly/hfZ8gmQ> (see there for further reading).

<sup>4</sup> Decoupling means that increases in the efficiency of resource use could enable economic growth while reducing environmental and biodiversity impacts.

<sup>5</sup> GDP 17-fold versus HANPP twofold. . See Krausmann et al. (2013). Global human appropriation of net primary production doubled in the 20th century. *Proceedings of the National Academy of Sciences*, 110(25), 10324–10329.

<sup>6</sup> 39 developed and developing countries from Europe, Asia, North America, South America and Oceania (plus Algeria as single African country). See Steinberger et al. (2013) Development and dematerialization: An international study. *Plos One* 8, e70385.

<sup>7</sup> Burke et al. (2015) Carbon dioxide emissions in the short run: The rate and sources of economic growth matter. *Global Environmental Change* 33(C), 109–121.

<sup>8</sup> <https://cutt.ly/9gMqxZK>

pressures of a growing economy on biodiversity is challenging. This is the case, for example, of the CBD Global Biodiversity Outlook 4, which recognizes that absolute decoupling is unlikely given current patterns of consumption.

As economic growth and related unsustainable resource use are considered as one of the most relevant drivers of biodiversity loss, we can assume that an unreflected growth emphasis in environment and sustainability policies as described above hinders the safeguarding of biodiversity in the same way as a wrong or incomplete diagnosis hinders a proper medical treatment.

### ALTERNATIVE ECONOMIC MODELS

An emerging literature explores whether and how it may be possible to find a “prosperous way down” by designing policies to control unsustainable economic expansion:

- + Steady-state economics proposes legal limits to the economy’s use of energy and materials throughput. This could allow the economy to develop qualitatively within such limits;
- + Degrowth scholars highlight the potential of grassroots movements to facilitate the transition to a new economy and consider a reduction of GDP inevitable if throughput is to decrease to sustainable levels;
- + The post-growth literature prefers to ignore GDP, which is deemed a bad indicator of welfare, and argues for proper environmental and well-being policies, regardless of their effects on GDP.

While this literature has its origins in the Global North, analogous values in other geographical settings – such as subsistence-living, balance between all living beings, and reciprocity – favour a joint exploration of alliances.

### CHALLENGES FOR TRANSFORMATIVE CHANGE

Measures stemming from these alternative economic models such as a reduction of working hours and national resource caps may benefit biodiversity. They also match an expanding ethics favourable to more personal time, a better environment and an improved health. Obstacles to implement these policies include:

- + Structural incentives to overwork;
- + Social and cultural barriers: simplicity and humility go against the societal mainstream of consumption and growth;
- + Corporate barriers: industries tend to endorse policy initiatives that secure growing access to resources from global markets, thus against the rationale of resource caps. Furthermore, revenue is a basic driver of corporate profit.
- + Political and legal barriers modern societies require material growth in order to preserve the socioeconomic and political status quo can hinder the process to go beyond economic growth in biodiversity policies ;
- + Path dependency.

However, the political confrontation between alternative socioeconomic models can be an opportunity to expand the solutions space in the fight against biodiversity loss. Whether alternative ideas will permeate national and international legal frameworks influencing the planet’s biodiversity will ultimately depend on the ability of political actors to forge new consensus beyond the one of economic growth.

### “A KEY COMPONENT OF SUSTAINABLE PATHWAYS IS THE EVOLUTION OF GLOBAL FINANCIAL AND ECONOMIC SYSTEMS TO BUILD A GLOBAL SUSTAINABLE ECONOMY, STEERING AWAY FROM THE CURRENT, LIMITED PARADIGM OF ECONOMIC GROWTH”.

IPBES global assessment, 2020, Summary for policy makers<sup>9</sup>

## 3. TOWARDS A TRANSITION TO REAL SUSTAINABILITY

Tools and solutions for a society in transition to real sustainability include those related to governance and to employment policies. Examples for governance options are the establishment of absolute caps on the amount of resources embedded in imported goods and services via multilevel governance, the development of specific moratoria on resource extraction in highly sensitive biodiverse regions (“resource sanctuaries”), and limitations to the expansion of large infrastructures.

Employment policies include those that redirect economic activities toward employment-rich sectors, such as health and caring services<sup>10</sup>, and those that provide incentives for sharing work by reducing working hours to increase the number of new jobs even if productivity and growth stall. Work-sharing schemes could be applied in combination with taxation linked to resource use and environmental and biodiversity impacts. Thus, increase of unemployment is not a necessary outcome of an economic slowdown<sup>11</sup>. At the same time, redistributive policies such as taxes on high-income brackets, specified ratios for the spread between minimum and maximum salaries, and capital or inheritance taxes can reduce poverty and inequality. The presence of quality health and education systems in middle-income countries suggests that it is possible to secure good public services at much lower levels of GDP than those of today’s richest countries.

Relocalizing the economy is an important principle for biodiversity conservation and sustainable use, even if local production does not always mean lower environmental impacts. Supporting local and regional agro-ecological management practices that enhance the diversity and services of ecosystems while



Fishing boat at sea during sunset, South Korea.

<sup>9</sup> IPBES (2019), The global assessment report on Biodiversity and ecosystem services, <https://cutt.ly/qfZ2RR6> (Chapter D; page 20)

<sup>10</sup> Read Expertise on Biotrade (#17)

<sup>11</sup> Ballet al. (2013). Okun’s law: Fit at fifty? National Bureau of Economic Research, Working Paper no. 18668.



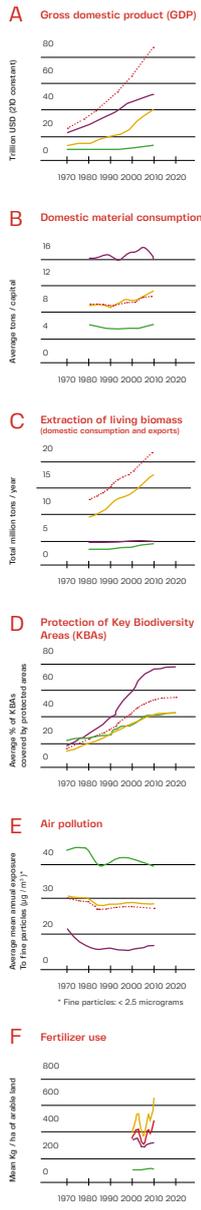
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<sup>12</sup> [Read Expertise on Mainstreaming \(soon available\)](#)

<sup>13</sup> [Read Expertise on Biodiversity Footprint \(#11\)](#)

<sup>14</sup> [Read Expertise on Biotrade \(#17\)](#)

<sup>15</sup> see Otero et al. (2020), Biodiversity Policy beyond Economic Growth. Conservation Letters 13(4), e12713, <https://cutt.ly/hfz8gmQ> (see there for further reading).



Developed — Developing  
Least developed — World

Figure 1. Development pathways since 1970 for selected key indicators of human-environment interaction, which show a large increase in the scale of global economic growth and its impacts on nature, with strong contrasts across developed, developing and least developed countries (after IPBES, 2019).

ensuring food sovereignty could reduce biodiversity pressures from food systems <sup>12</sup>. While small-scale farming systems may be less productive in GDP terms, they are employment-rich and often provide higher social value for local communities.

**Labelling based on a product's full biodiversity footprint** <sup>13</sup> along international trade routes has the potential to mitigate the impacts of consumption. Together with increased governmental control of advertisement and the use of public media to provide information on the impacts of products, it could contribute to more biodiversity-friendly consumption.

**Differences in dependence on biodiversity among CBD parties.** The consequences of the loss of biodiversity and ecosystem services are even more problematic for least developed countries where humans depend more directly on them. The current trade of goods and services <sup>14</sup> creates many ecological debts in the Global South and especially in emerging countries without compensation systems, internalization of externalities in the prices or markets, and with low levels of ecosystem restoration plans. Tools and solutions could incorporate:  
+ Different caps for national resource use to be applied to different countries depending on their

past consumption and ecological or carbon debts;  
+ Approaches related to the concepts of balance between all living beings and reciprocity;  
+ The CBD mechanism of Access and Benefit-Sharing (ABS).

## 4. THE ROLE OF SCENARIOS FOR A TRANSFORMATIVE POST-2020 GLOBAL BIODIVERSITY FRAMEWORK

Many of the proposed tools and solutions have not yet been widely applied nor analysed, so the investigation of their prospects constitutes fertile ground for future research and trials in the real policy-making world. Probably, the recovery from the CoV19-related economic crises will induce a moment to assess societal and environmental responses to reduced production and consumption activities. It is crucial to derive sturdy conclusions and design appropriate policies from this building back period, in order to clear a path towards progress in true sustainability within the CBD post-2020 global biodiversity framework.

Scenario development can play a critical role in shifting away from the current development model, whereby positive visions of a shared future are collectively designed. In particular, new Shared Socioeconomic Pathways (SSP) could examine low, zero, or negative growth approaches, compatible with ambitious biodiversity and well-being targets.

Such a new SSP0 <sup>15</sup> within biodiversity-related Multilateral Environmental Agreements and scientific fora has the potential to open up the range of policy options beyond mere projections of the status quo.

The discussion on crucial aspects of the post-2020 framework – new targets and indicators, mainstreaming of biodiversity across all economic sectors and transformative change – can benefit from both the evidence and the alternative scenarios presented, especially on the need to go beyond the economic growth paradigm.

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