

The benefits to biodiversity of a strong circular economy

Tobias Nielsen

European Environment Agency (EEA)

[EEA Briefing](#) and [ETC technical report](#)

Agenda

- Key drivers of biodiversity loss
- The role of circular economy in reducing biodiversity loss
- How to promote a more biodiversity-inclusive circular economy

Key drivers of biodiversity loss



Habitat loss impacts biodiversity by reducing or fragmenting the space and provisions ecosystems need to thrive. This is a leading cause of species extinction.

Example: The area of European wetlands have declined by 50% since 1970 (IPBES, 2018).



Overexploitation impacts biodiversity by removing more wild plants and species than ecosystems can replenish, e.g. overfishing, drainage of peat land, overuse of water.

Example: The amount of renewable water resources per capita has decreased by 24% across Europe since the 1970s (EEA, 2020).



Climate change impacts biodiversity by affecting species' ability to survive. This happens through a series of complex interactions both among species, and between species and their habitats.

Example: In recent years, we have witnessed devastating levels of droughts, wildfires and floods across Europe. The five warmest years on record for Europe have all occurred since 2014 (Copernicus, 2022).



Pollution in various forms impact biodiversity, causing loss of species and ecosystem disfunction, e.g. leaching of fertilisers leading to the eutrophication of water courses.

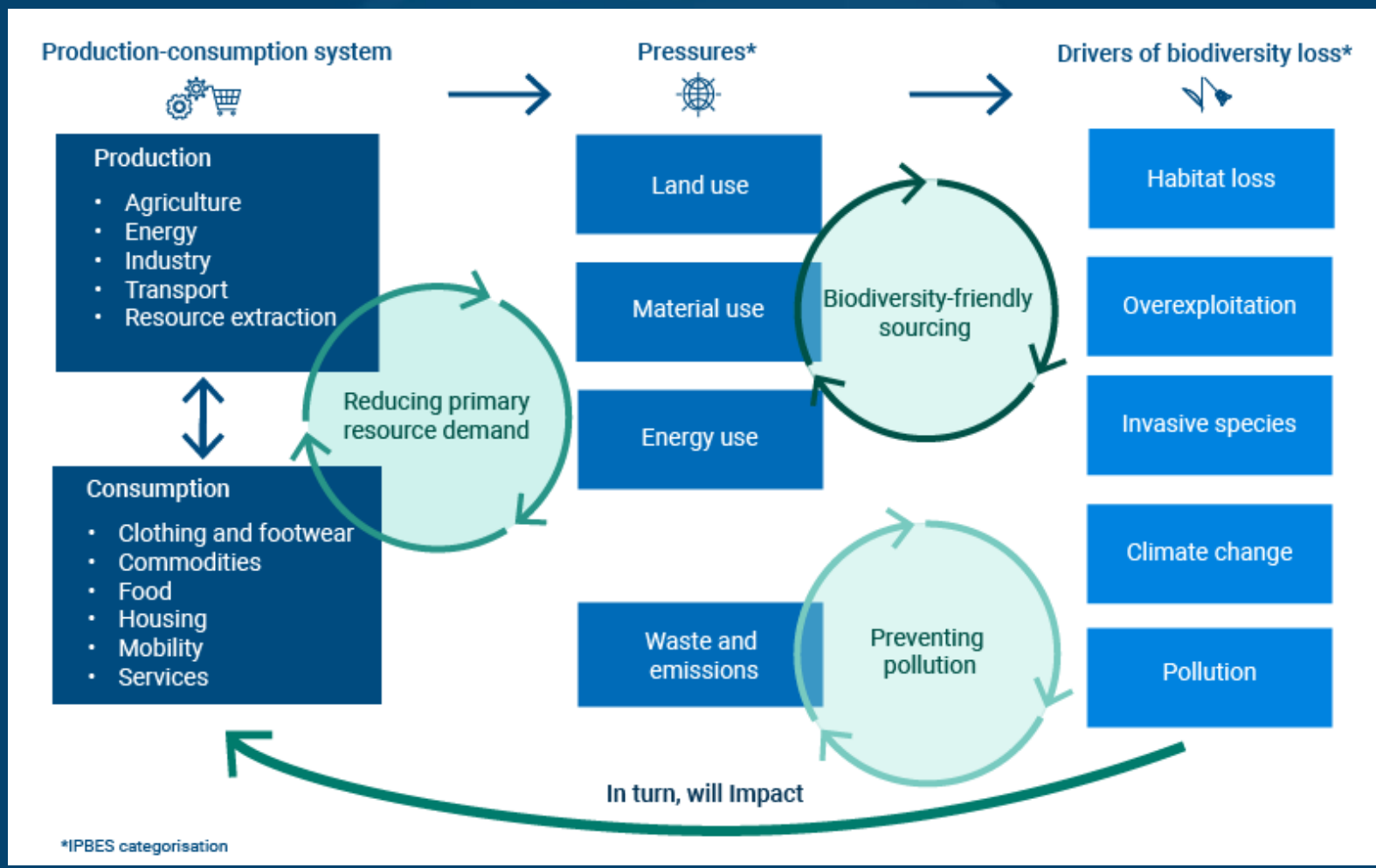
Example: In 2020, nitrogen deposition exceeded the critical load for eutrophication of water in approximately 75% of the total EU-27 ecosystem area (EEA, 2022c).



Invasive alien species impact biodiversity by threatening native species through, e.g. food competition, eating them, spreading diseases and by disrupting their food chain and physical environment.

Example: The EU has identified 88 invasive alien species (47 of Union concern), a problem that costs over EUR 12 billion every year (EC, 2016).

The role of circular economy in reducing biodiversity loss



How to promote a more biodiversity-inclusive circular economy

- Strengthen existing circular economy provisions that support biodiversity
- Focus more on biodiversity-friendly sourcing
 - Less harm to nature → regenerative practices
- **Stakeholders**
 - Policy makers: integrated approaches to circular economy and biodiversity.
 - Business: circular business strategies + considerations of material and resources used.
 - Citizens: change consumer behaviour including sufficiency.