



ALIGNING BIODIVERSITY, CLIMATE [AND FOOD] POLICIES

*POLICIES THAT MINIMIZE TRADE-OFFS AND MAXIMIZE CO-BENEFITS
BETWEEN CLIMATE MITIGATION AND SDGS*

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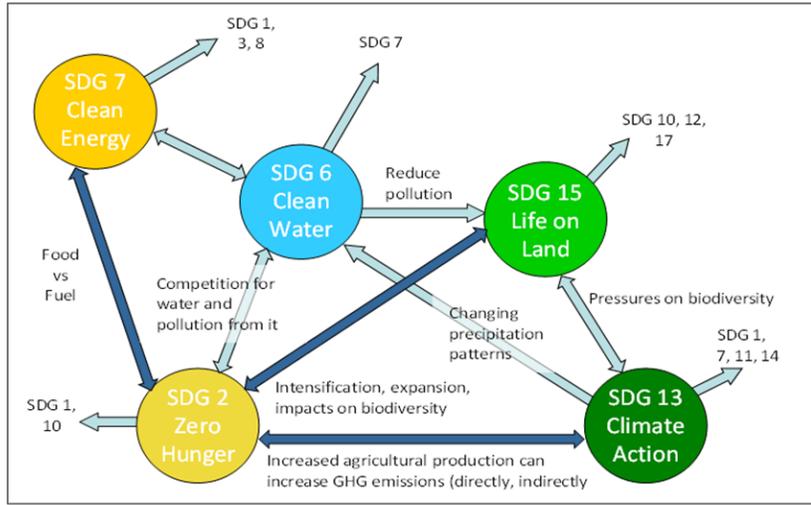
- i. Relationships between people and Nature
- ii. Aligning Biodiversity, Climate (and Food)

Policies





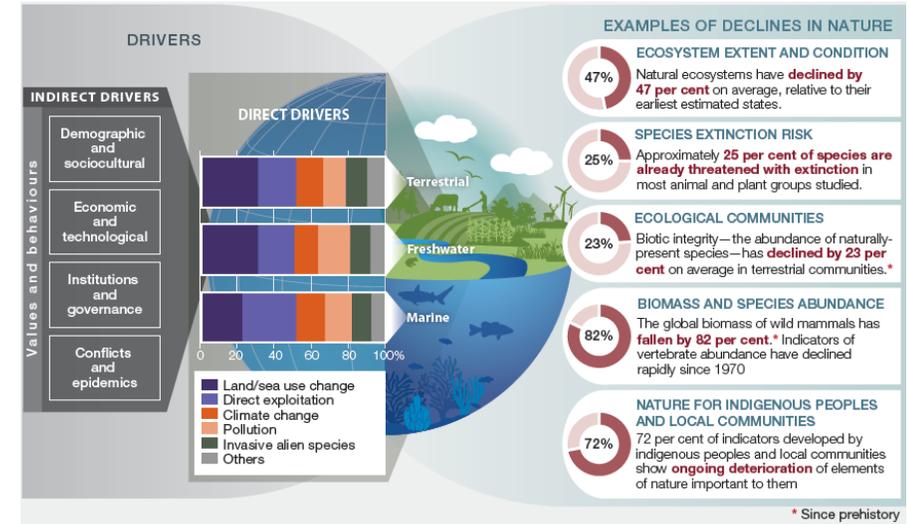
Relationships between people and nature



Centrality of land-use



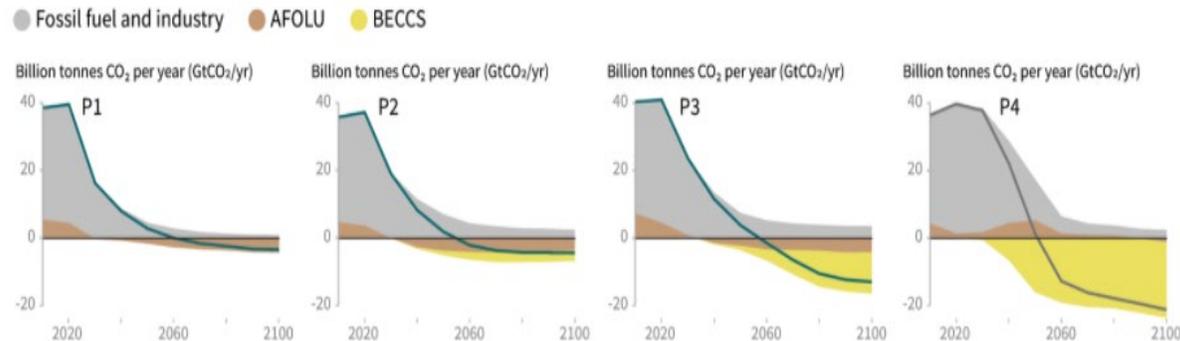
Well-being framework



Biodiversity loss



Breakdown of contributions to global net CO₂ emissions in four illustrative model pathways



Climate scenarios with land-use, biodiversity and food implications



Coherence across national strategies and action plans

- Prominence of nexus issues and degree of coherence varies substantially
- Strategies and action plans rarely acknowledge the trade-offs between different goals and policies
- Few strategies/plans contain specific targets with quantifiable goals hampering aligned policy making
- Even fewer refer to indicators to monitor progress



Policy Recommendations:

- Engage a range of relevant stakeholder, both state and non-state in the creation of national strategies and plans
- Include targets that are specific, measurable, actionable, realistic, and time-bound (SMART) and quantitative indicators



Institutional co-ordination & coherence

- Land use governance is fragmented, between sectoral ministries and different levels of government
- Significant impact of multi-lateral agreements or actions on national institutional setups (e.g. for SDGs)

Policy Recommendations:

- Strengthen institutional co-ordination, both horizontally and vertically through:
 - Creation of specific bodies to co-ordinate policy creation
 - Dedicated mechanisms for institutional co-ordination
 - Sub-national representation of national level institutions





Policy instruments

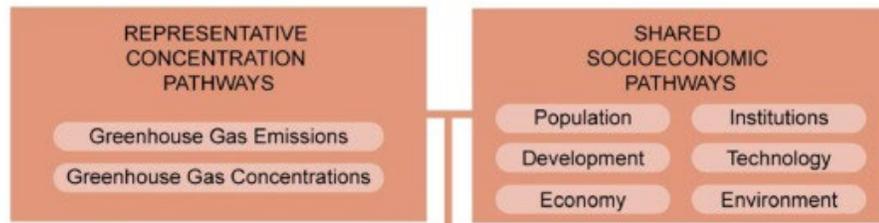
- Clear and secure land tenure are a essential prerequisites
- Negative externalities of land-use tend to be under-priced or un-priced
- Effective policy mixes are context specific
- Significant support available to food production but not other ecosystem services
- Information and data on food loss and waste missing at policy relevant scales, therefore tracking progress is difficult
- Impacts of international trade on land use not well quantified



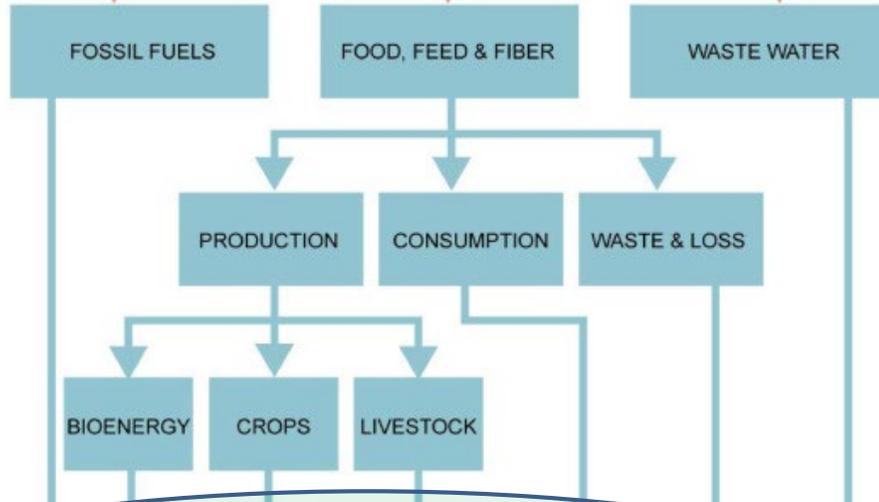
Policy Recommendations:

- Better data needed to inform policy making (e.g. spatial data, LCA for trade)
- Reassess the balance of support between the relevant ecosystem services from land (e.g. food, carbon, biodiversity, water)
- Monitor and enforce regulations in a consistent and regular manner

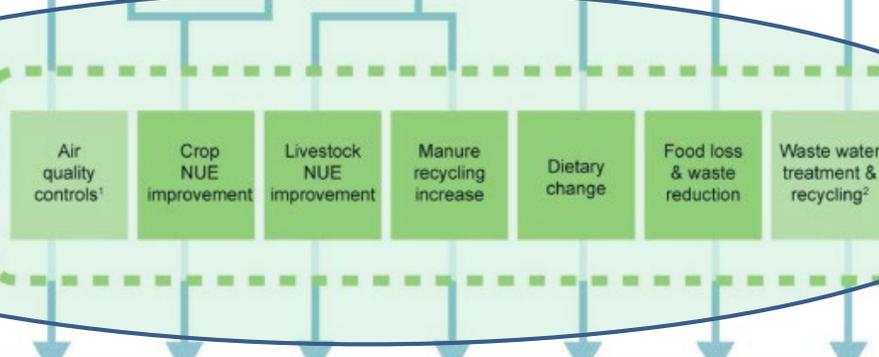
Scenarios



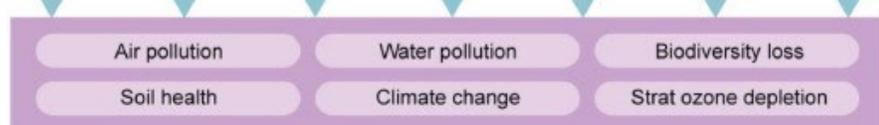
Nitrogen Relevant Drivers



New Nitrogen Interventions



Nitrogen Pollution



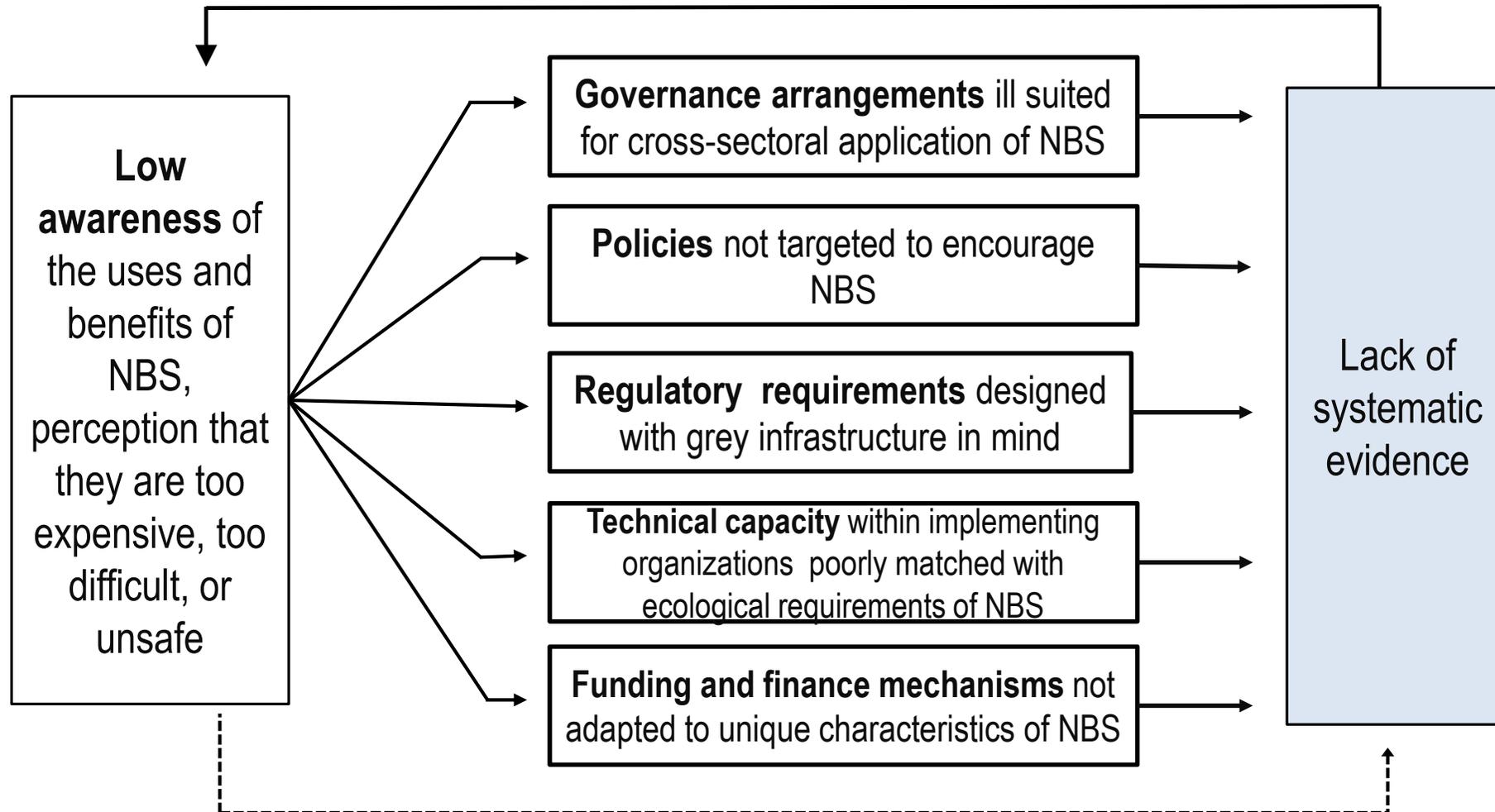
¹Rao et al. 2017

²van Puijenbroek et al. 2018

- To date most scenario efforts addressing nitrogen flows have either taken a narrow approach, focusing on a singular impact or sector, or have not been integrated within a broader scenario framework – a missed opportunity given the multiple environmental and socio-economic impacts that nitrogen pollution exacerbates.
- Study introduces a framework for new nitrogen-focused narratives based on the widely used Shared Socioeconomic Pathways that include all the major nitrogen-polluting sectors (agriculture, industry, transport and wastewater).
- These new narratives integrate the influence of climate and other environmental pollution control policies, while also incorporating explicit nitrogen-control measures.

Kanter, D. R., Winiwarter, W., Bodirsky, B. L., Bouwman, L., Boyer, E., Buckle, S., ... & Zurek, M. (2020). A framework for nitrogen futures in the shared socioeconomic pathways. *Global Environmental Change*, 61, 102029.

FULLY EXPLOITING THE POTENTIAL OF NBS WILL REQUIRE OVERCOMING A NUMBER OF CHALLENGES





Thank you!

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