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Assessing the biodiversity impacts of agricultural production and consumption

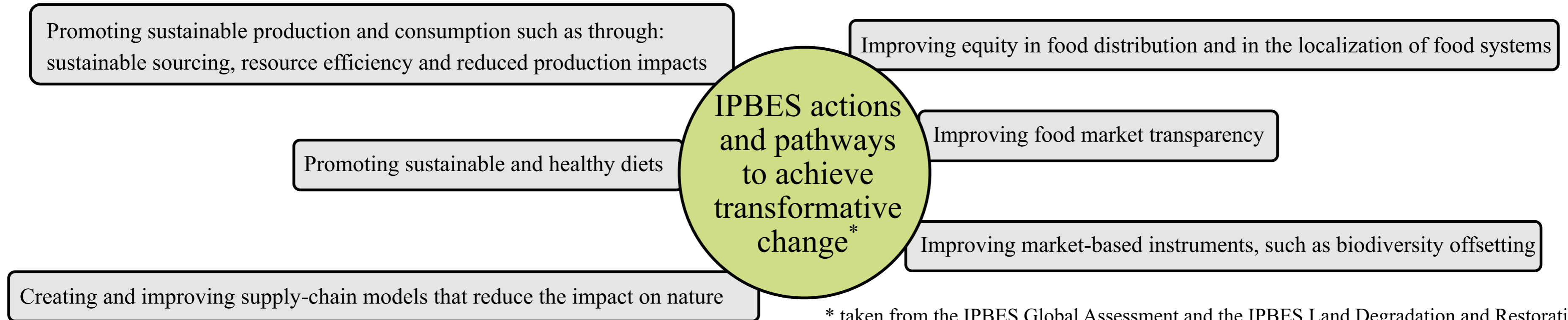
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Rationale

The loss of natural ecosystems due to an expanding agricultural land-use has been identified as the main driver of historic and recent biodiversity loss. The IPBES framework has identified underlying drivers, such as demographic and economic changes - for instance a shift towards more resource demanding lifestyles and diets. In order to stop this unsustainable trend, the IPBES assessments suggest system-wide change and identify potential leverage points, such as:



* taken from the IPBES Global Assessment and the IPBES Land Degradation and Restoration Assessment

Methods

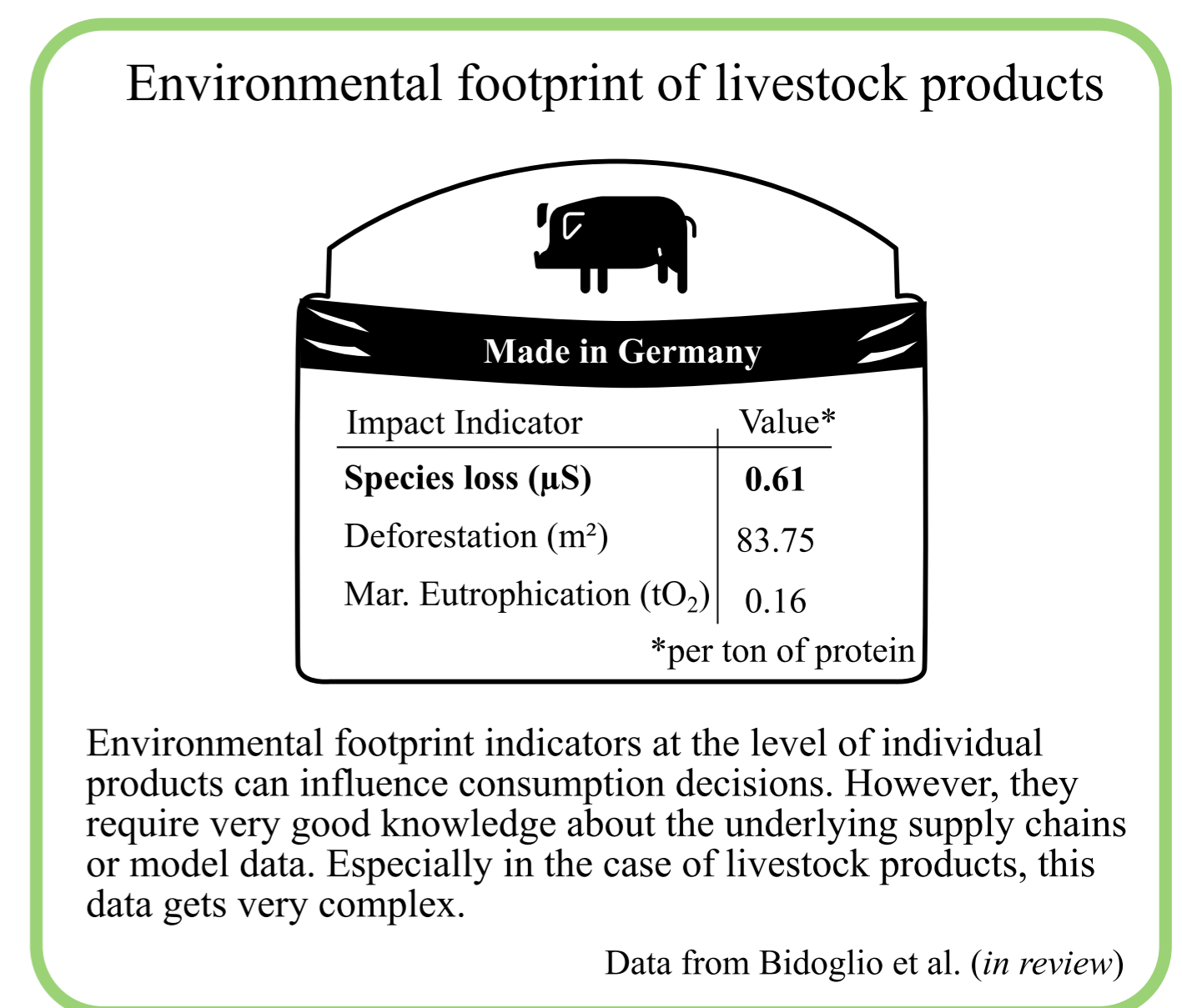
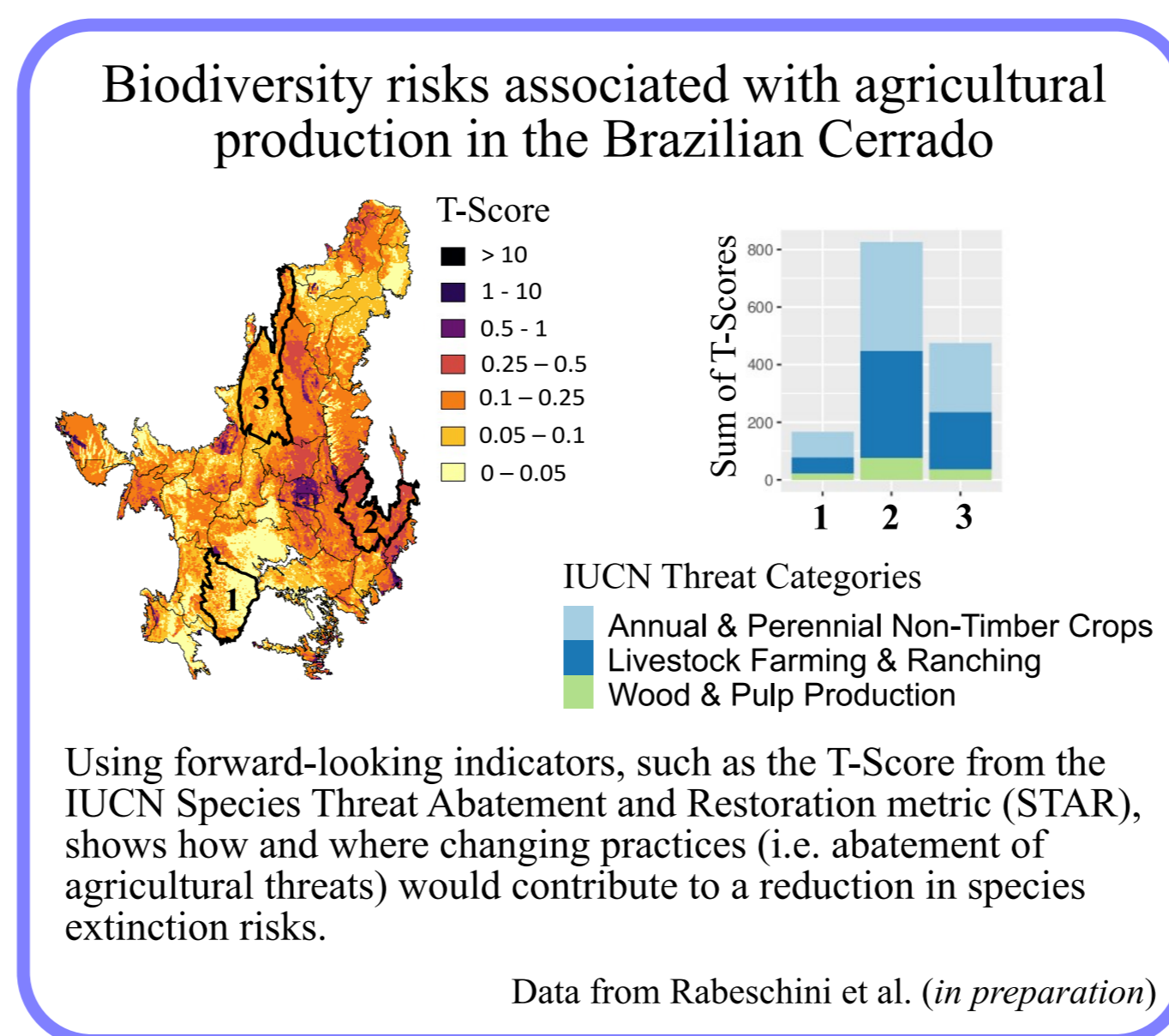
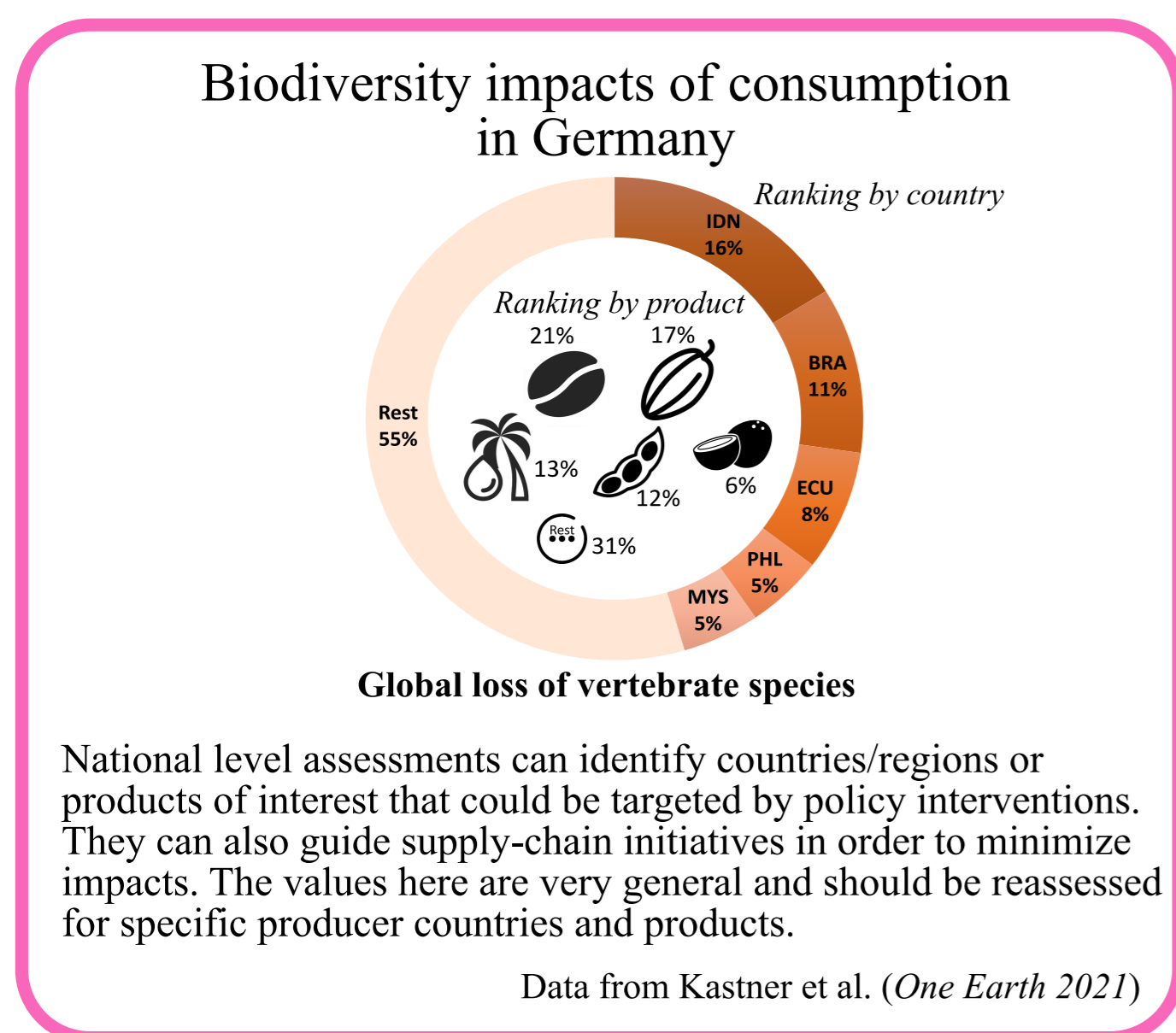
Quantifying the impact of food consumption on biodiversity, requires accounting methods that (I) include measurements of biodiversity impacts, (II) combine them with information on global supply chains, and (III) turn them into applications on a consumer/system-level.

Our project *"Global impacts of agricultural trade and consumption on ecosystems and biodiversity- GRADED"*, aims to refine existing footprinting approaches and develop a scientific basis for publicly available databases and transparent models, that allow for tailored quantification of biodiversity impacts on various different levels. Such approaches can support analyses about indirect drivers of biodiversity loss and help identifying leverage points for transformative change.

Actors	Type of Data	Example Applications
Consumers	Consumer Preferences Drivers of consumption choices	Impact analyses Guiding policy around trade and economic collaboration, or accountability for past impacts
Importing Countries	Import flows Trade regulations	Risk assessment Making business models sustainable and fulfilling reporting duties. Guiding incentives for biodiversity-friendly practices
Traders / Retailers	Supply chain data	Footprint of Products Enabling sustainable consumption choices
Producing Countries	Land-use maps Biodiversity assessments	
Producers	Environmental Impacts	

Results

Depending on data availability and quality, different assessments with varying resolution can be developed and tailored for different actors.



Outlook

In the next phase of the project, we want to engage with stakeholders from NGOs, politics, and society. This will allow us to ensure that the developed approaches fit the respective needs. It will also help to guide communication strategies, that convey the complexity of these approaches and their sensitivity towards input-data quality, while still providing actionable suggestions.

Find out more about our work

