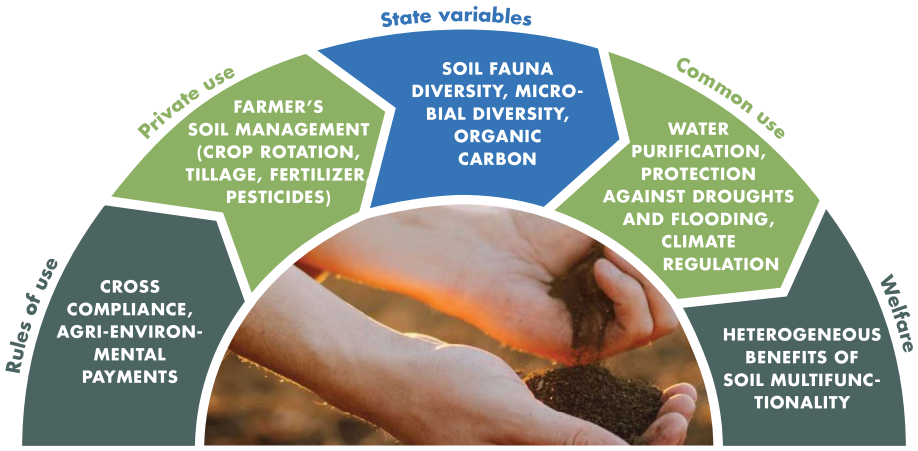
UNIVERSITÄT LEIPZIG

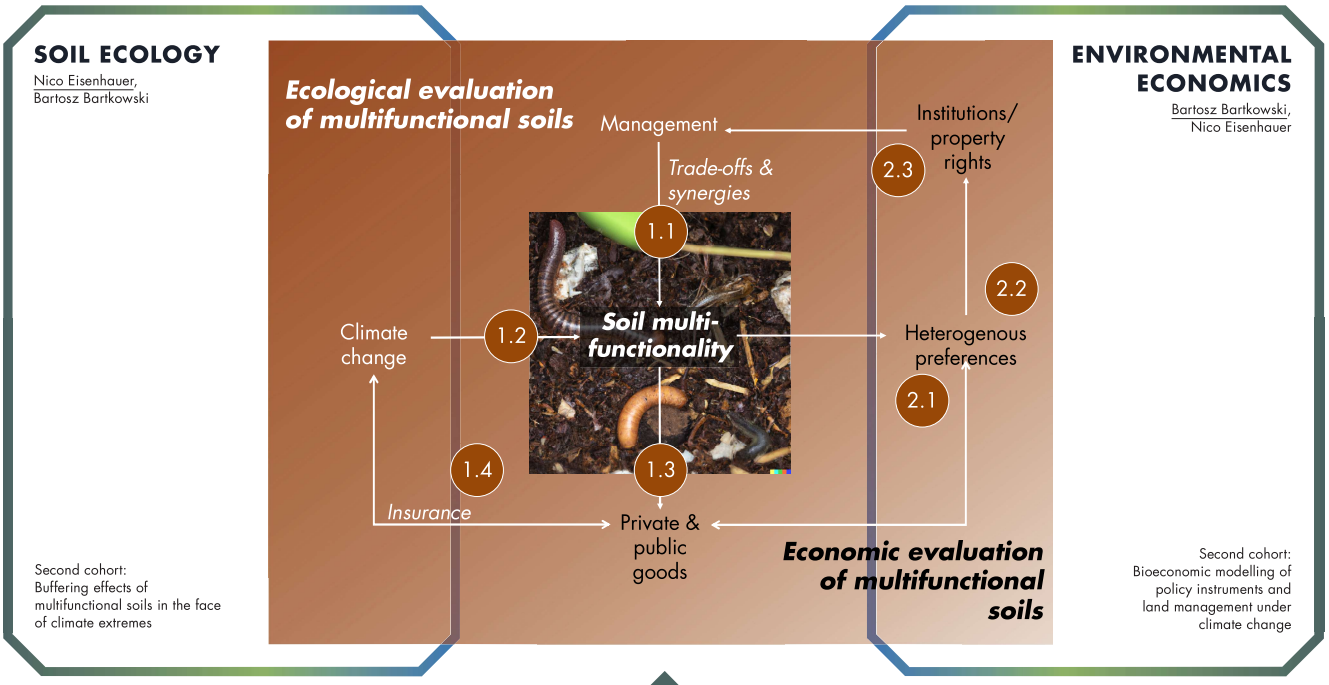
Soils

WHAT ARE THE HUMAN BENEFITS OF SOIL MULTIFUNCTIONALITY?

BARTOSZ BARTKOWSKI
ENVIRONMENTAL ECONOMICS

NICO EISENHAUER
SOIL BIODIVERSITY





SHARED METHODOLOGY:

Quantitative analysis of synergies and trade-offs; synthesis of drivers

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ICP SOILS

BARTOSZ BARTKOWSKI, NICO EISENHAUER

ECOLOGICAL EVALUATION OF MULTIFUNCTIONAL SOILS

RESEARCH QUESTIONS

— What are the management options for and trade-offs between different soil-related ecosystem functions?

— What are promising mitigation actions for and natural insurance of multifunctional soils in a changing climate?

METHODS

— Multivariate and multifunctionality analyses

— Meta-analysis

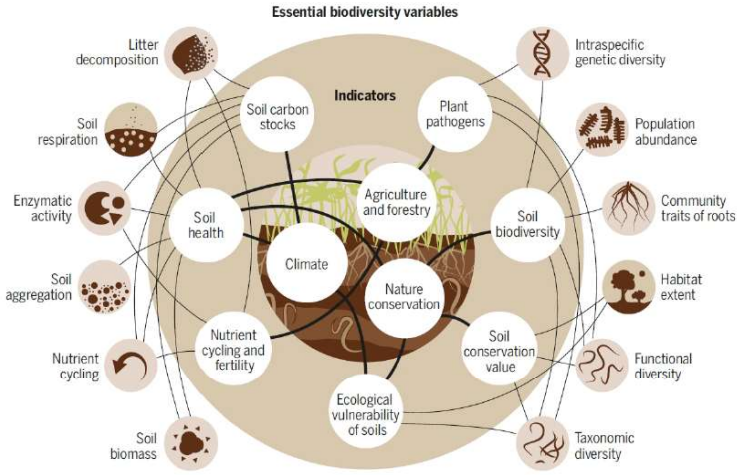
PAPERS

— Paper 1.1: Identify management-related drivers and trade-offs of soil multifunctionality in agricultural contexts

— Paper 1.2: Predicted changes in and mitigation actions of soil functions related to public good/commons in a changing climate

— Paper 1.3: Identify most beneficial management practices for grasslands and agricultural fields in Central Europe

— (Joint) Paper 1.4: Interactions between soil multi-functionality and natural insurance



— **WHAT ARE THE LINKS BETWEEN SOIL BIODIVERSITY, SOIL MULTIFUNCTIONALITY, AND HUMAN BENEFITS?**

— **WHAT DRIVES CHANGES IN THESE LINKS IN MANAGED (AGRICULTURAL) SOILS?**

— **WHAT ARE THE PREFERENCES OF DIFFERENT SOCIETAL GROUPS FOR SOIL BIODIVERSITY AND SOIL MULTIFUNCTIONALITY?**

— **WHAT CONSEQUENCES DO THESE HAVE FOR THE PROPERTY RIGHTS REGIMES AND POLICY FRAMEWORKS TO PROTECT MANAGED SOILS?**

RESEARCH QUESTIONS

— What are the preferences of different societal groups for soil biodiversity and soil multifunctionality?

— What consequences do these have for the property rights regimes and policy frameworks to protect managed soils?

METHODS

— Deliberative monetary valuation

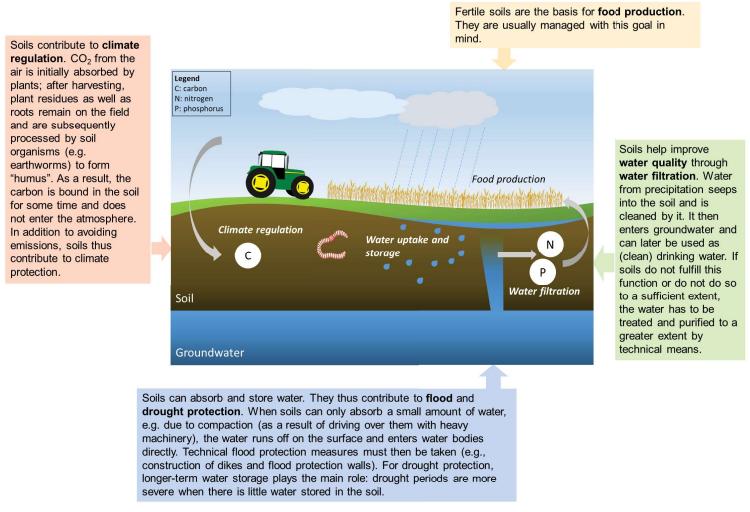
— Institutional analysis

PAPERS

— Paper 2.1: Uncovering public preferences for soil multifunctionality

— Paper 2.2: Understanding heterogeneity of preferences for soil multifunctionality

— (Joint) Paper 2.3: Effects of different groups' preferences on management and multifunctionality and consequences for institutional and property rights regime



ECONOMIC EVALUATION OF MULTIFUNCTIONAL SOILS