

GAPS PRIORITIES FOR each SAR

Need to connect soil and ecosystem with society and economy

How much soil do we have, how is this changing?
What is the mass balance
Erosion vs formation?

How are people's beliefs and values connected to soil management?
Which values do we appeal to to improve management?

How do we maintain soil function?
Which functions are most important?

Where do we put waste to minimize environmental impact and maximise degradation of waste?

Need integrating simple models of ecosystem services, not just focus on 1 narrow deep process.
Help with decision making.

How do soils change on anthropogenic time scales.
driven by land use and climate change

Understand Soil functions in order to understand effective useability

Bio-Economy
→ increased demand for land [agri-products] to substitute fossil/direct resources

Urbanisation
Land-Take challenge

Implementable & Practicable instruments
→ make theoretical instruments practicable
→ start from implementation side

Values / risks for reuse of brownfield and operational sites

Industry reserves specific areas in order to safe other areas

Integration of productivity in the agenda in order to show the added value of ecosystem services and successfully engage operators i.e. farmers

How do we trade off functions, how do we weight the models?

Trade off of jobs vs environment
value

Research the potential value of the cities contributing to agriculture through different policy areas (waste, nutrients etc). We only research on the contribution of agriculture to cities (via economy etc) but it can also go the other way.

SEEA
System of environmental economic accounting
How do we account for soil?

What are critical factors for the sustainability of soil?
→ ex. soil resilience?
→ indicators [key, integrated functions]

How valuable is soil
Economic
Non-economic?

What happens when P fertilizer runs out?

What is the value of soils [keep scientific questions]
→ value understanding needed in order to deal w/ soil sustainability
→ include on-site and off-site aspects

Incorporation of values of soil into decision-making (at all levels → politics, regulator, ...)

PRIORITY:
TARGETING
[specific soil types / specific contexts / Ecosystems / challenges]

What is the key message about soils, and why they are important?

How is soil carbon, moisture, biology changing at regional to global scales

How important is the soil gene pool to society?
eg. biomedical resources

How will soil salinity impact global food production

What are the key indicators of soil function?

General! →

How to integrate available knowledge / data

research motivation and drivers

Success indicators of "successful research"

Make links clear for stakeholders, eg. • industry • DLR Home

Raise awareness and appreciation for individual soil functions

pair site-specific view with broader spatial context