

Instructions & Ground Rules

1. Use the "sticky note" icon on the left to post thoughts & ideas.
2. Edit your sticky notes by double-clicking (please only edit your own).
3. You don't need to do anything else on the Jamboard!

- Food production
- Regulation services

**Soil support
multiple
ecosystem
services.**

**it is
critical to
water
security**

1. Why is soil an important resource?

Soil is a limited resource. Soil support multiple ecosystem services

i learned recently that people with toxicities take soil as a binder to remove toxicities. so it is important to human health

History has shown (for thousands of years) that not maintaining soil health can lead to degradation of human health and even communities.

it was NEVER called DIRT :)

Serves as the building block for life.

critical to food security

Soil is the basis for terrestrial plants and animals and an opportunity to improve other sustainability measures (biodiversity, water, food, climate, econ.)

Uncertainty about soil-less agriculture - is it sustainable (input intensive), is it equitable (broad based access or only to those with the technology, capacity, funding)

food sovereignty

food sovereignty

critical to greening and water storage efforts in urban environments to reduce urban heat island impacts, which also benefits human mental health.

carbon sequestration & climate change mitigation

important to water quality

soil health impacts human health

We are emphasizing topsoils -- subsoils also play a role in generating ecosystem services

Soil health increases biodiversity above and below ground

2. What is limiting the adoption of sustainable soil management practices?

Biases and background

surveys may not reflect actual practices



What are farmers' answers to this question?

Soil and soil degradation does not compete against other environmental and socio-economic problems, especially in developing countries such as South Africa.

The current commodity payment and crop insurance program encourage destructive practices in the name of maximizing yield.

defining what is a sustainable soil management practice, and understanding what the effects are of that practice for agronomic/environment impacts

Social norms, identity, cultural narratives

how do we approach farmers and relationships. on the ground asking farmers questions. building relationships, allow to build solutions / cocreation

land tenure -- short term gains - exploitation

Money, time, sociology, knowledge. Some farmers have tried and failed, so will not try again. Some do not care.

technological lock-in

Lack on knowledge on how soil does work and that it can do work for us

No mechanism for holding soil (mis)managers accountable for external harms

the business model focusing on the bottom line limits focus on soil.

MRV is difficult/uncertain:
<https://www.worldbank.org/en/news/feature/2022/07/27/what-you-need-to-know-about-the-measurement-reporting-and-verification-mrv-of-carbon-credits>

Costs and lack of agreement on what/how/where

Shifting baseline phenomenon: degradation has gone on for decades to centuries, and producers don't know how much functionality their soils have lost

Peer education works better than government/academic to farmer education

what problems we are solving and for whom?

3. What can Soil for Society do to accelerate change?

Help connect us (biophysical scientists) with more dynamic communicators from other fields, especially artists

Help push for soil-focused incentives for soil management improvements and restoration

Find and work with producers/land users to implement change that will be willing to promote their efforts and results to peers

Is there even a role for academia to play?

The best ideas travel for free -they don't need grants and funding.

Ouch! But yes - we need to look closely at the academic involvement. I think we can serve to organize the effort.

There's a difference between trying to lead change versus facilitating conditions for change.

Inform policy-makers, provide them with science-based, unbiased information

take a holistic multi-disciplinary view of soil and practices, look at multiple objectives (e.g. include simultaneous water, biodiversity, economic assessments)

work together to address the key challenges identified in the previous questions - e.g. answering / communicating the impact of soil management practice

Strengthen ties with and support the extension system in parts of the world where there is cooperative extension.

how can we bring policy makers to be part of the network and how to support them make good decisions?

how do we bring farmers to the discussion to help co-design the network

4. What do you hope to gain from joining the network?

Interact with farmers, industry partners, activists, policy-makers, and researchers from other disciplines to improve the impact of the research I do.

Leverage Soil Health Institute's resources to identify opportunities/find support for increasing the adoption of regenerative agricultural practices in the US and beyond.

increase visibility of long-term experiments as a resource for soil science :) check out www.gltten.org

connect with colleagues to explore ideas for international collaboration on holistic, multi-objective assessments of soil management practices