FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

WEBINAR SERIES | FEB 21-MAR 14 2023 | Hosted by **Feed The Future** Innovation Lab for Horticulture

Innovating and Scaling

for Social Transformation in International Food Systems

USAID FROM THE AMERICAN PEOPLE

UC DAVIS UNIVERSITY OF CALIFORNIA

WAGENINGEN UNIVERSITY & RESEARCH

CGIAR

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WEBINAR 2 | FEB 28, 2023

E. McGuire A. Rietveld

Social Differentiation In Scaling

Speakers
Erin McGuire
Anne Rietveld

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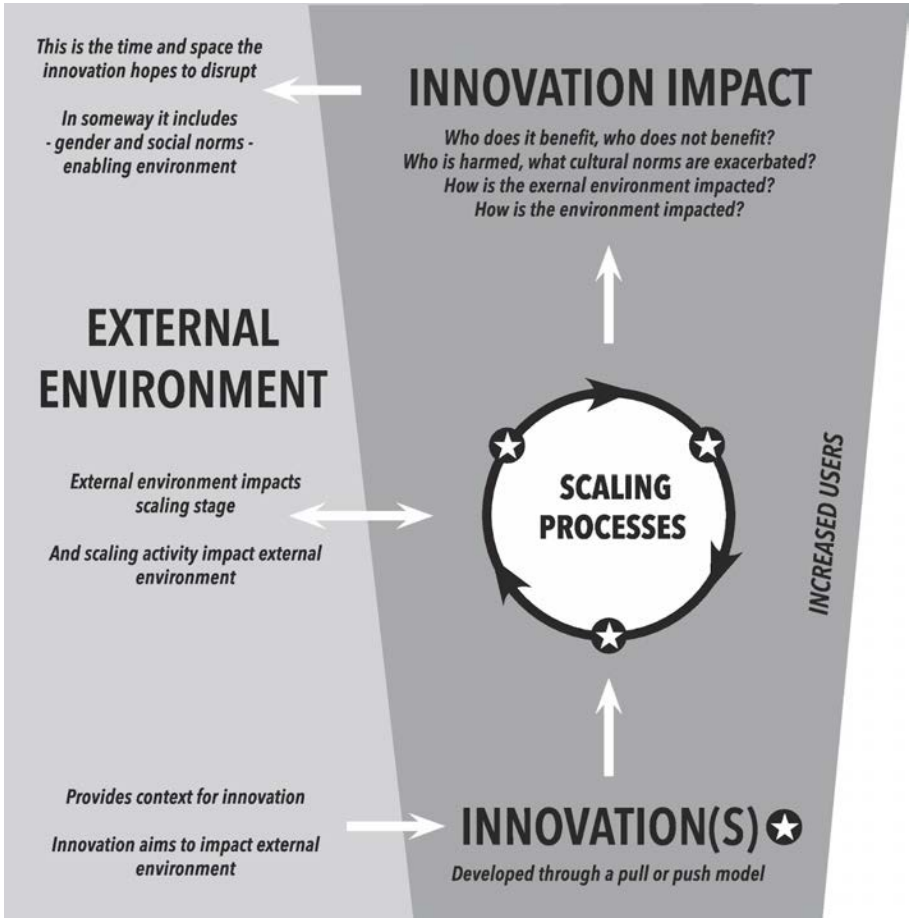
Agenda –

- Review of Scaling Terms
- Social Differentiation
  - Forms of social differentiation
  - Intersectionality
- Case-study
- Findings from the Literature
- GenderUp



Why scale?

Scaling (up and out) –
Increasing users

Purpose:
Expanding and deepening impact, and thereby contributing to a development outcome

Science of Scaling

- Scaling pathways – up, out, deep
- Contextualization
- Sustainability
- Monitoring and evaluation
- Partnership and collaboration
- Innovation diffusion
- Systems thinking
- Innovation bundling – core/complementary innovations

Responsible Research and Innovation (RRI)

- Making upstream techno science more inclusive, reflexive, responsive and anticipatory
- Preventing undesirable consequences
- Contribute to positive societal impact

Gender responsive research

- Responds to the needs of men and women, and other socially marginalized groups with the aim to reduce rather than exacerbate any existing gender disparities.
- Informed through gender analysis
- Considers innovation for social transformation

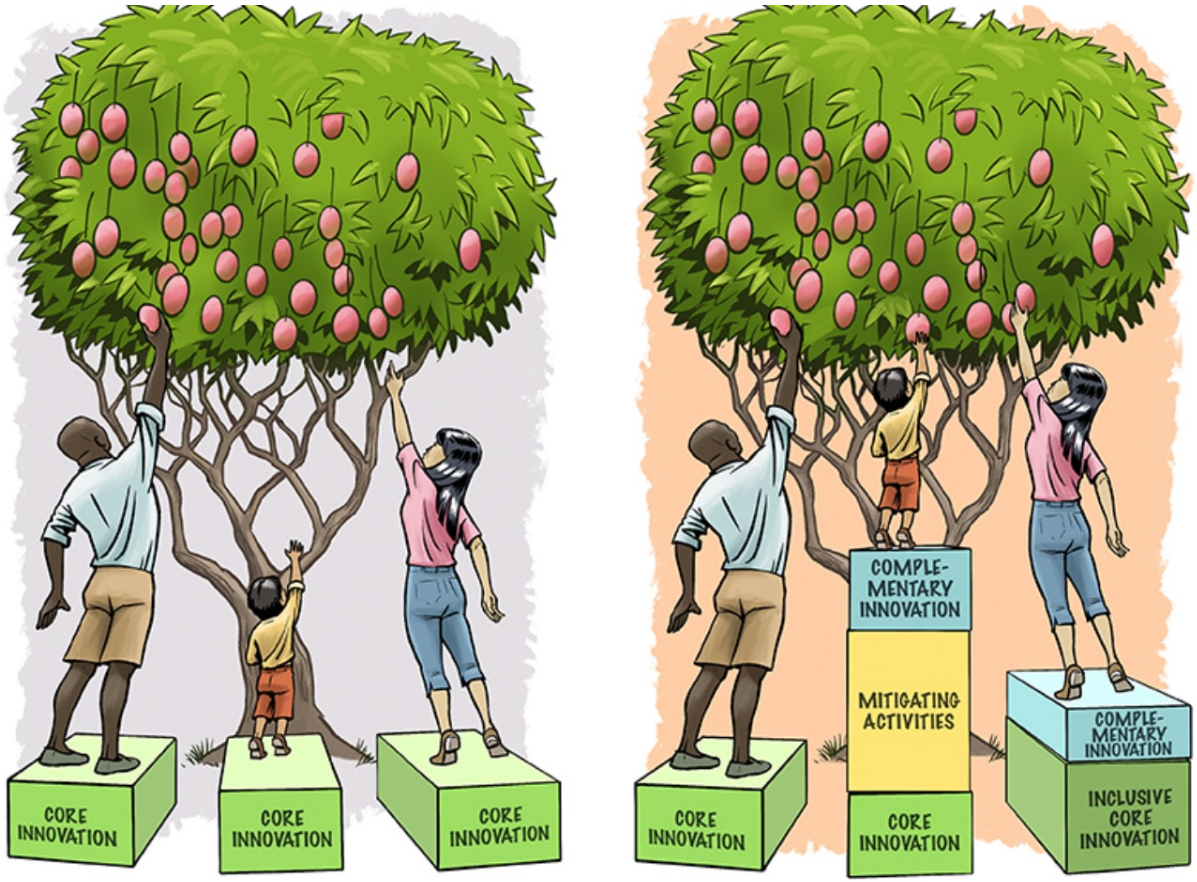
Science of Scaling

- Scaling pathways, Systems thinking, Transformation

Responsible + effective scaling

- Focus on user and non-users from a socially inclusive perspective. Considers who will benefits or not from an innovation.
- Acknowledges that innovation influences gender relations and dynamics - and vice versa
- Anticipates socially differentiated effects of scaling through identifying relevant diversity
- Anticipates longer term negative consequences and trade-offs associated with scaling

Who is benefiting?



Possible negative Impacts of Scaling

- The better-off benefit at the expense of the poor -> aggravate inequality and food insecurity
- Women do not benefit as (much as) men -> aggravate gender inequality
- Expansion of intensive, commercial agriculture -> degradation of land and nature
- Non-users have livelihoods displaced

What is relevant diversity?

Gender and other forms of social differentiation

Gender

The socially constructed characteristics associated with women, men, boys, girls and other categories.

- Norms
- Behaviors
- Roles and responsibilities
- Relationships
- Context specific

Gender and other forms of social differentiation

Social differentiation

- Age
- Socio-economic background
- Ethnicity
- Beliefs/religion
- Sexuality
- Education
- Wealth
- Other (vulnerabilities)

Gender Norms

"Social norms defining acceptable and appropriate actions for women and men in a given group or society. They are embedded in formal and informal institutions, nested in the mind, and produced and reproduced through social interaction." (Cislaghi and Heise, 2020, p415-416)

Gender norms tend to constrain women's engagement in agricultural innovation processes

Power-laden	Powerful and mostly hidden
Multiple gender norms	Time and place specific
Specific to certain groups of women and men	Men and women uphold, contest, and flout norms
More rigid in some contexts, more flexible in others	Social sanctions against breaking norms

Intersectionality

"It is on the intersection of multiple 'inequalities' where highest levels of inequality occur" (Kabeer, 2014)

Different social factors shape someone's opportunity space

(the range of option one's has at his/her disposal to built a viable livelihood)

What gender means often changes during one's life-course (Age, fertility, marital status, occupational)

- Ethnicity
- Wealth and social status
- Family networks and support

Relevant diversity when scaling

Relevant to:

- The Innovation
- The context / environment of scaling this innovation

Agricultural innovation processes are:

- relational and
- reflect the power and agency of individuals and groups involved
- able to disrupt the ways men and women are involved in farming

Power relations

- Power relations underpin Food systems
- How do **we** deal with unequal power dynamics in the food system (across different levels)?
  - power (im)balances based on gender and other axes of marginalization such as age, ethnicity, caste etc.

Case-study

Summary: New technologies that increase crop productivity trigger expansion of intensive, commercial mono-cropping and reinforce unequal distribution of resources and benefits, lead to a reduction of diversity and ecological processes resulting in intensification-degradation spirals; loss, depletion and pollution of resources; and increased vulnerability for volatility and change.

Reference - Anne M. Rietveld, Jeroen C. J. Groot & Margreet van der Burg (2021): Predictable patterns of unsustainable intensification, International Journal of Agricultural Sustainability, DOI: 10.1080/14735903.2021.1940731

Isingiro district, Western Uganda

Altitude - Around 1800m

Bi-modal rain pattern – total precipitation / year around 1000 mm – prone to drought

Bordering Tanzania, Main Town – Isingiro city, Mbarara in the next district main city in proximity

Research Questions

- RQ: Do we understand well what changes occurred and how?
- RQ: How did gender roles, and the gender norms governing them, change over time in parallel to, and possibly directly affected by, the continuously growing importance of cooking banana as a cash crop and the simultaneous intensification of its production?
- RQ: How sustainable are these changes from a social perspective?

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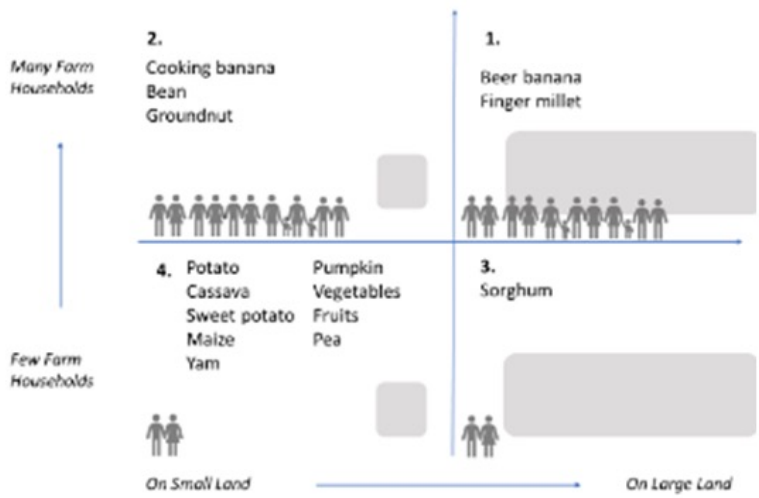
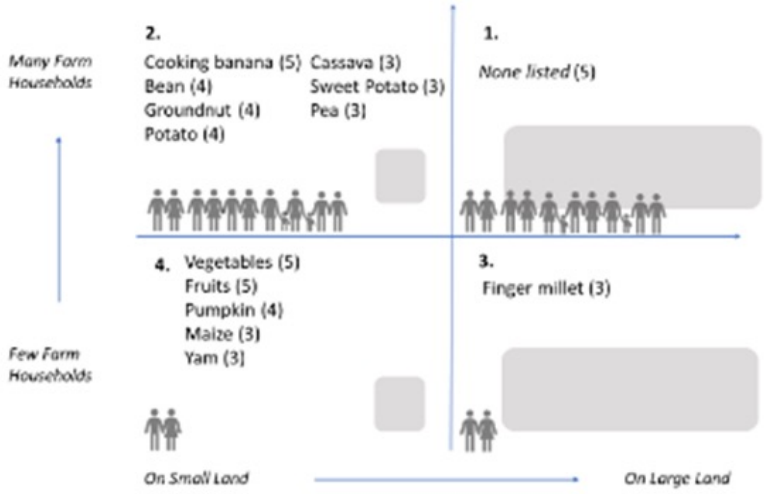
Methods

1. Mapping exercise to pinpoint and identify changes
   - Two landscape maps and two 4-square analyses of the cropping systems, both for 1998 and 2018
2. Focus Group Discussions – men / women
3. Individual Interviews
   - Verifying the maps and 4-square analyses
   - Understanding of men/women's drivers to act for change and in response to change within their (changing) farming systems

1998



2018



Changes in banana crop management 'The Innovation'

Intensive crop management

- Monocropping
- Weeding by hand instead of hoe
- 'De-suckering' (removing most shoots)
- Single diseased stem removal (BXW disease control)
- Mulching
- Manure application

Context

1960's onwards:

Settlement from foreign refugees and from internal migrants was promoted

After wars (1986):

Improving road network -> connection to markets

High urbanization and large demand for food (Kampala)

2000's onwards: Increasing prices and demand for cooking banana + extension services -> **intensification + expansion of cooking-banana production**

Economic prosperity

- 20% of population in Community moved out of poverty over the past 10 year
- Extreme poverty reduced over the past 10 year

"We grow bananas and sell them and people in this community have constructed good houses compared to other places."

Main Changes mapped 1998-2018

- Forest / tree cover
- Grazing land
- Communal lands
- On-farm crop diversity

Population / Immigration

Cultivation of Cooking banar

Road network

Drinking water availability

Access to electricity

Bare hills & run-off erosion

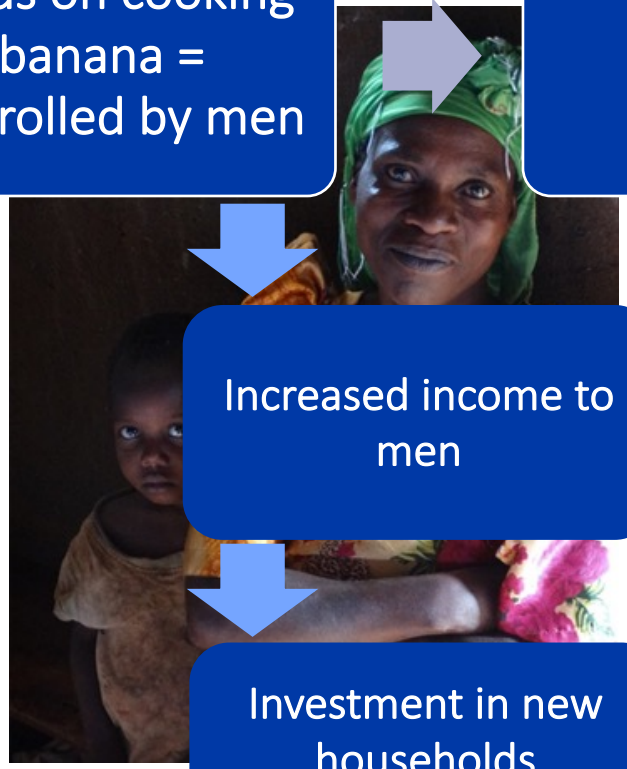
Changes farming system

- Men moved out of annual crop production
- Increased opportunity for women to produce annual crops for food and sales
- Women limited in annual crop production because of land scarcity and labor demands cooking banana
- Demand for on-farm laborers (for banana crop management) increased
- High Nutrient export (soil fertility loss)

Focus on cooking banana = controlled by men

Fewer farm enterprises

Less on-farm opportunity and control for women



Increased income to men

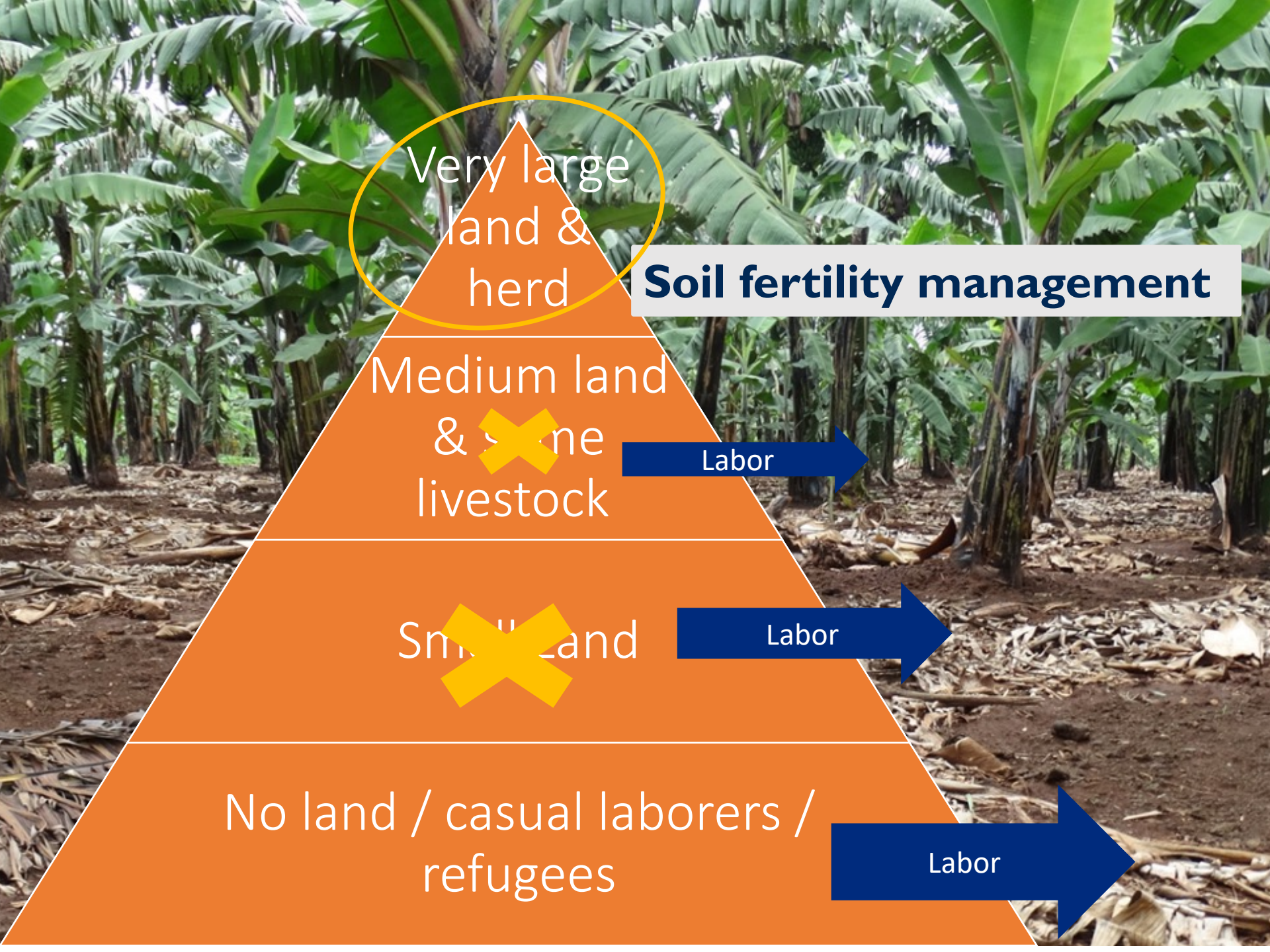
Investment in house and household members

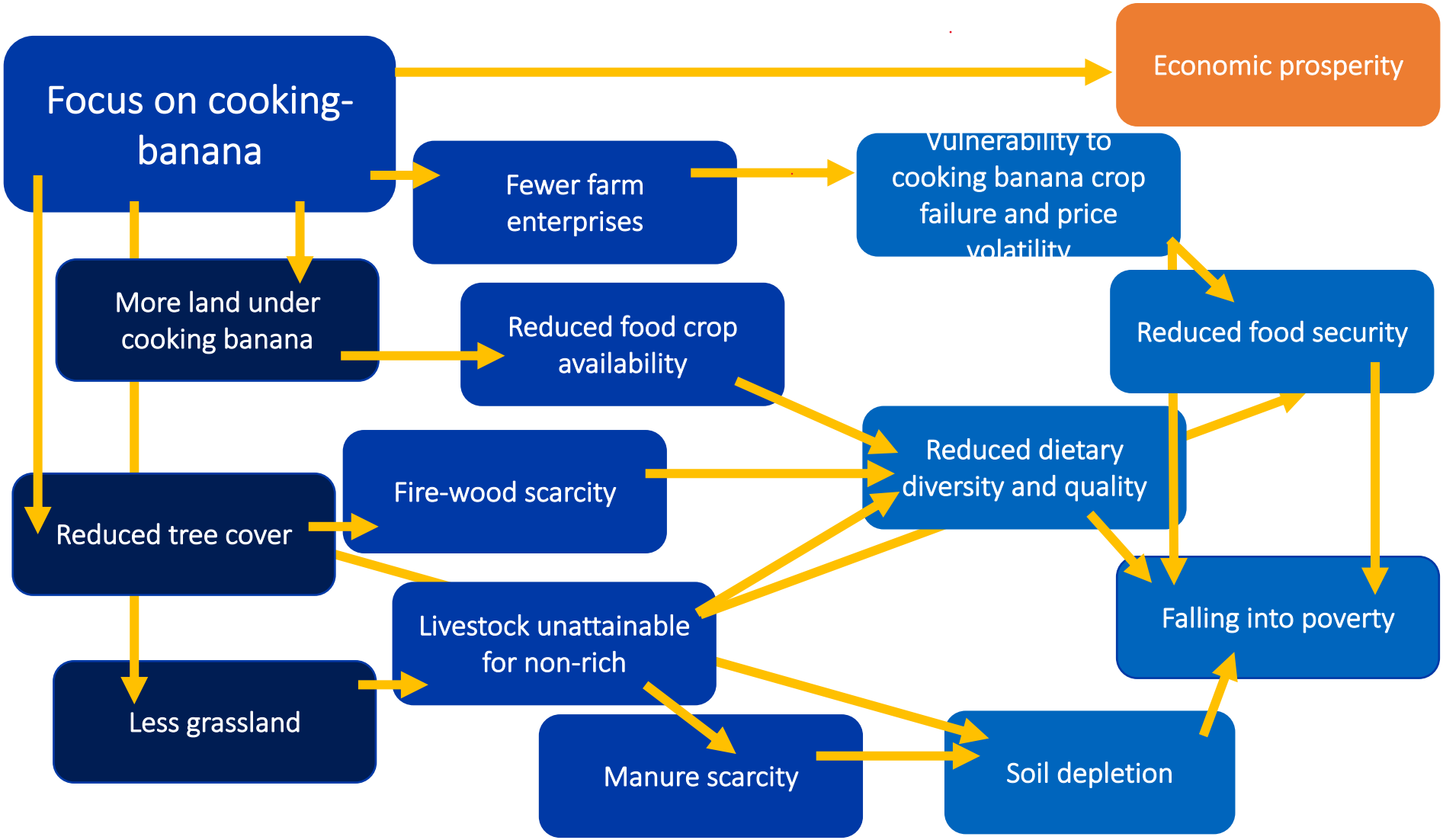
Investment in new households (polygamy)

Disempowerment of 'first' wives and fewer resources per HH member available

Food security and Nutrition

- Decreasing availability of firewood for food preparation
- Decreasing access to fresh food products and reduced dietary diversity
- Poor households experience food shortages and famine during droughts
- Livestock keeping increasingly unattainable for the non-rich because of disappearance communal lands
- Little storage of crops (Millet granaries)


Very large land & herd
Medium land & some livestock
Small land
No land / casual laborers / refugees
Labor
Labor
Labor
Soil fertility management


Focus on cooking-banana
Economic prosperity
Fewer farm enterprises
Vulnerability to cooking banana crop failure and price volatility
More land under cooking banana
Reduced food crop availability
Reduced food security
Reduced dietary diversity and quality
Fire-wood scarcity
Reduced tree cover
Falling into poverty
Livestock unattainable for non-rich
Less grassland
Manure scarcity
Soil depletion

Scaling for sustainable development

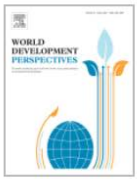
- Broadening the set of values to include environmental and communal values
- Focus on marginalized actors and their perspectives next to actors with power

'Place-orientation' - an understanding of the circumstances in which the described problems are embedded and therewith an opening to address these problems adequately through social learning

Zooming back out – what do we know from literature?

ELSEVIER

World Development Perspectives
Volume 25, March 2022, 100386



Anticipating gender impacts in scaling innovations for agriculture: Insights from the literature

Erin McGuire [a b c], Anne M. Rietveld [a b e], Amanda Crump [c], Cees Leeuwis [a d]

Show more

Findings from the Literature

Teams	Comprising research and project teams
Design	Designing agricultural innovations for women
Communicating	Communicating and extension of innovations
Scale models	Choosing scale models: Entrepreneurship and business development
Reinventing and changing	Reinventing and changing technology
Enabling	Engaging with the political economy of innovation

Comprising research and project teams

Gender and power biases are systemic and prevalent throughout innovation and scaling systems.

- Men often assume positions of power
- Women and non-white men are less likely to have their contributions taken up, even though they innovate at similar or greater rates compared to white male counterparts.
- Strong, diversified innovation pipelines lead to more effective innovation

Anticipatory Questions:

- Who is leading the project? How does positionality impact decision making? What capacity strengthening is needed to ensure team members are aware of their limitations and to contribute equitably?

Designing agricultural innovations for women

Preferences for technologies

Women and men farmers, and women and men from different socio-economic strata or ethnic backgrounds, may have different need and preferences for technologies. Ignoring intra-household power relations may miss key reasons shaping women's preferences.

This is an example from Malawi on sweet potato storage. **Women prefer the pit storage over the hut one because they can make it by themselves.** To build hut, they need their husbands' help – resulting in losing their ownership to the sweet potatoes kept in the hut. Also, if women manage by themselves, they have **more confidence.**

"Sweet potatoes are mine, because I built this storage."

Choosing scale models

- Business models that incorporate innovations might not be profitable for women or other marginalized groups. Even if they are for community members with access to social and financial resources.

Anticipatory Questions:

- Does the focus group have the necessary business acumen of market access? Do they have access to complementary inputs or system to use/sell the innovation? Does it depend on accessing credit?

Communication and extension of innovations

- **Extension services and information tend to be biased towards men.**
  - This frequently neglects disadvantaged social groups such as the extremely poor, landless, youth, and women
  - Information does not trickle down from husband to other household members
- **Women might prefer and trust different sources of information.**
  - Social networks differ

Reinventing and changing technology

- There is an increased focus on how innovations change within the systems it operates in, rather than just focusing on a binary choice of adoption or not.
- Who has power over the innovation as it scales and changes?

Anticipatory Questions:

- How will this innovation be reinvented after introduction in the field? Will the focus group have access and input into the re-invention? How will groups or individual impact future iterations?

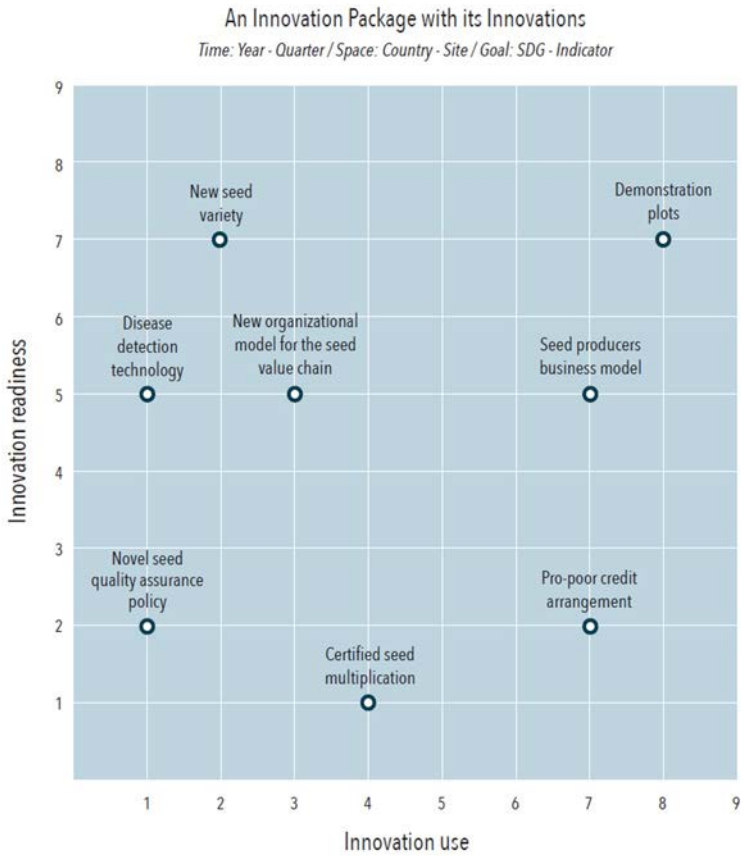
Engaging with the political economy of innovation

- Enabling conditions include the political economy and can include all-encompassing economic and social institutions.
- Significant paradigm shifts are necessary to address systemic issues within institutions that often underscore the power of already powerful actors.
- Partnership is critical to enable a dynamic scaling path, particularly when there are different levels of expertise, political connections, and positionality.

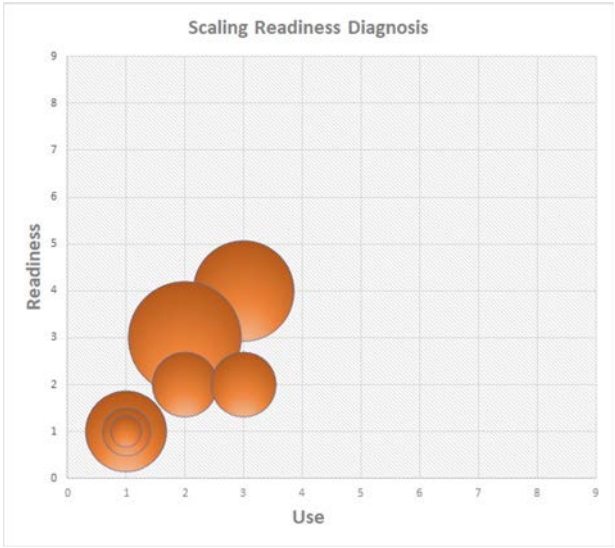
Anticipatory Questions:

Is there a policy or social norm that somehow excludes access to the innovation, complementary inputs, or systems necessary to exchange and interact with the intervention?

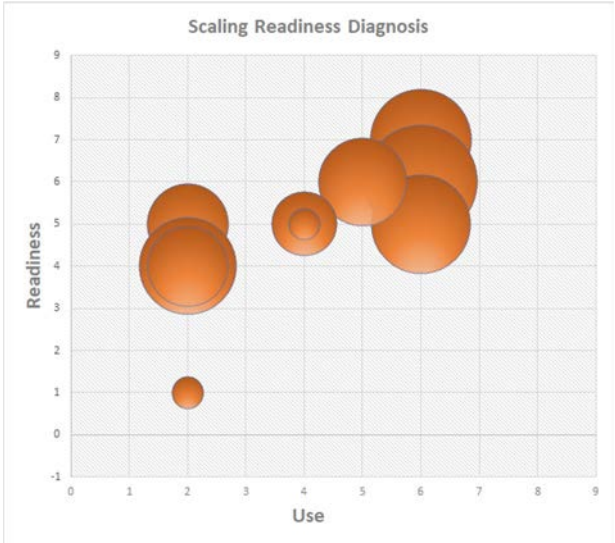
Understanding social differentiation



women



men

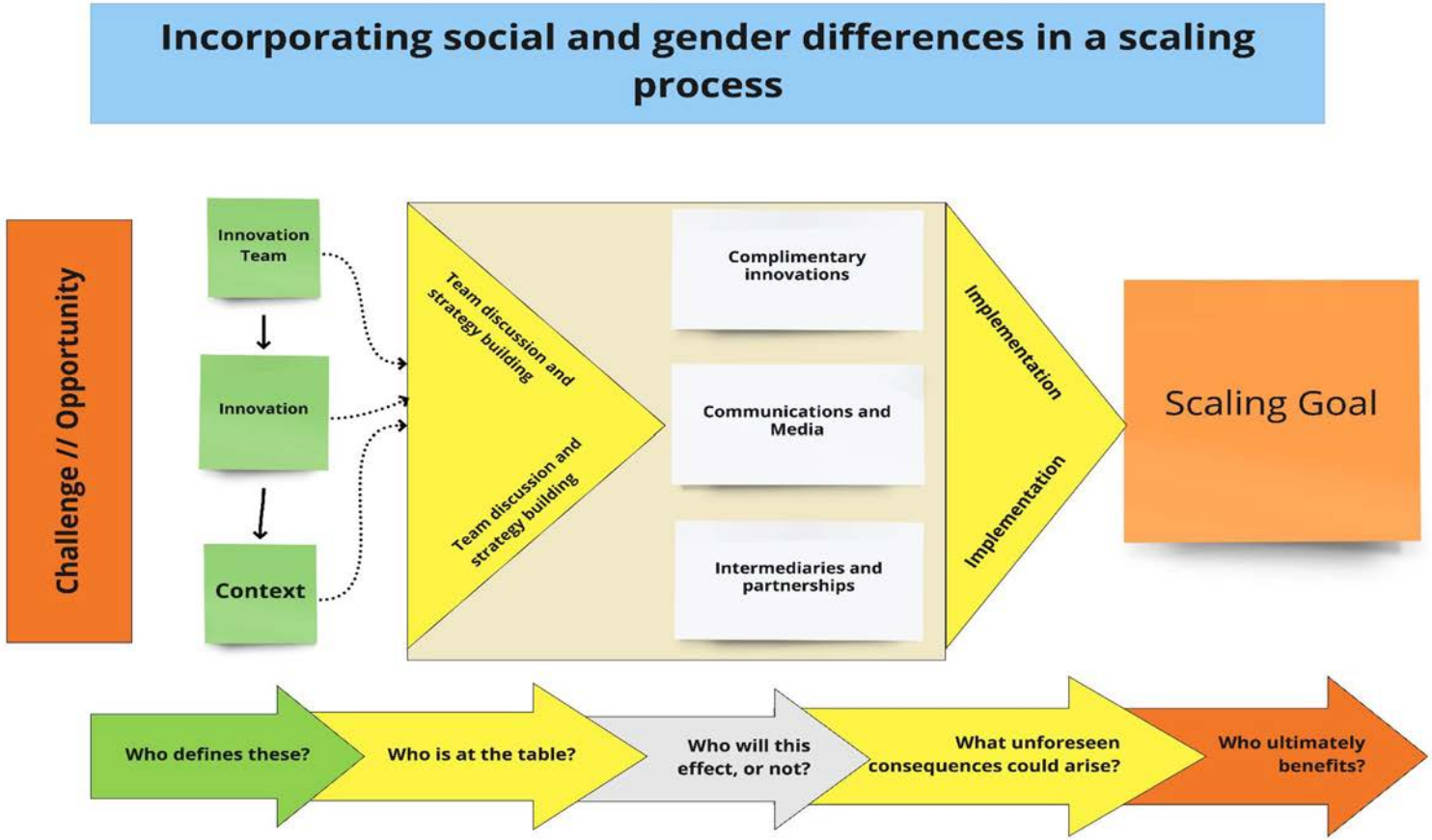


Innovation packages look different for different social groups

- The appropriate innovation package may differ along gender and social identity lines
- The appropriate scaling strategy may need to be different
- Mitigating activities may be needed for additional adaptations to make core or complementary innovations more inclusive.

Farmer collecting orange flesh sweetpotato (OFSP) leaves for food in Mozambique. Photo by Benjamin Rakotoarisoa/CIP

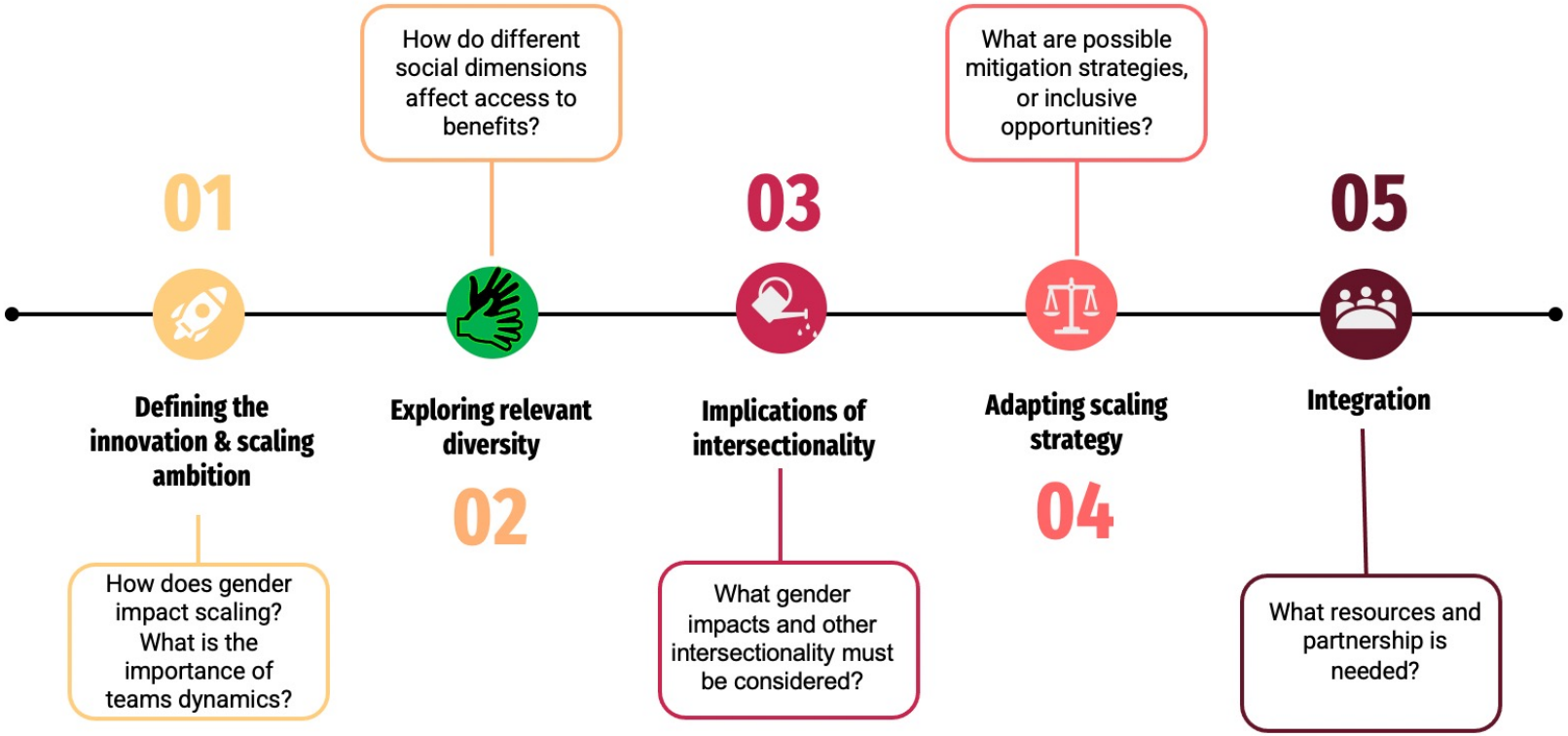
Where does responsible scaling matter?



Introducing:

GenderUp
A conversational method for responsible scaling

Elements of GenderUp



GenderUp journey – Resources needed

Time:

- 3 workshops of each 3 hours,
- To be completed within a period of 3-6 weeks.
- In between there are activities to complete (e.g survey, team discussions)

Structure:

- Pause and learn
- Team reflection
- Guided discussion in plenary and breakout groups

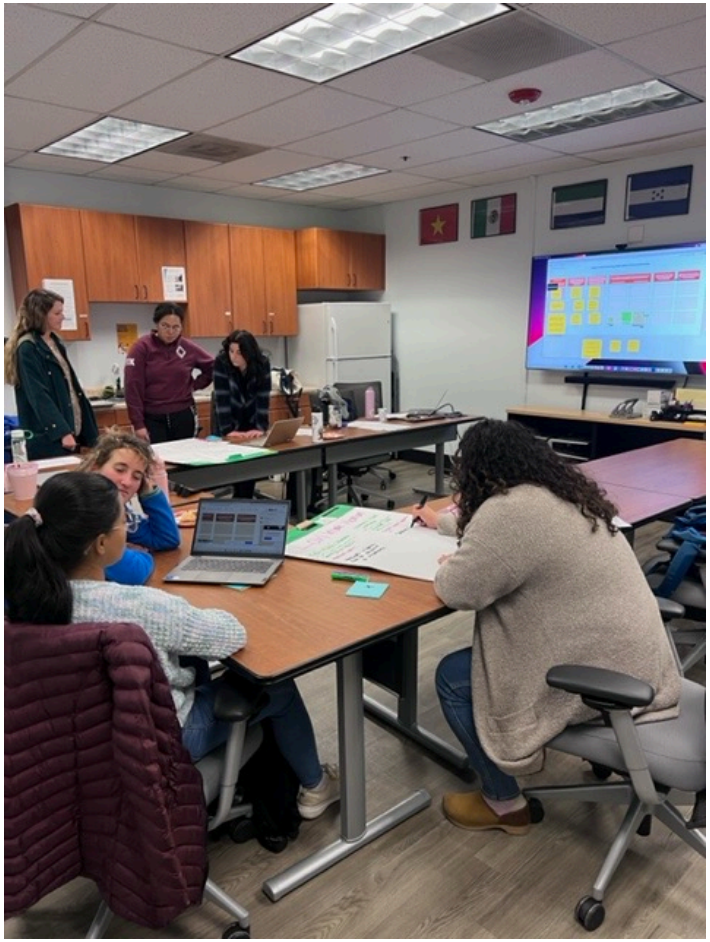
Attitude:

- A willingness to think thoughtfully about scaling strategies – and incorporate changes to project structure.

Team:

- 3-8 team-members
- Preferably diverse in disciplinary backgrounds

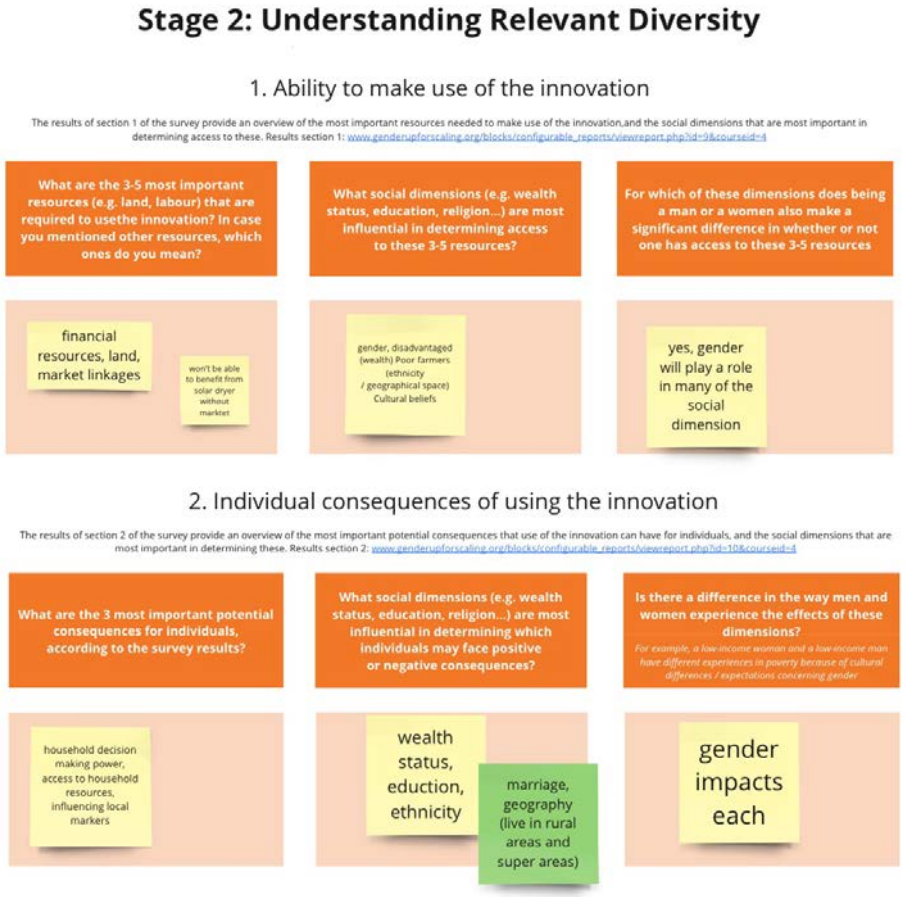
GenderUp Facilitator



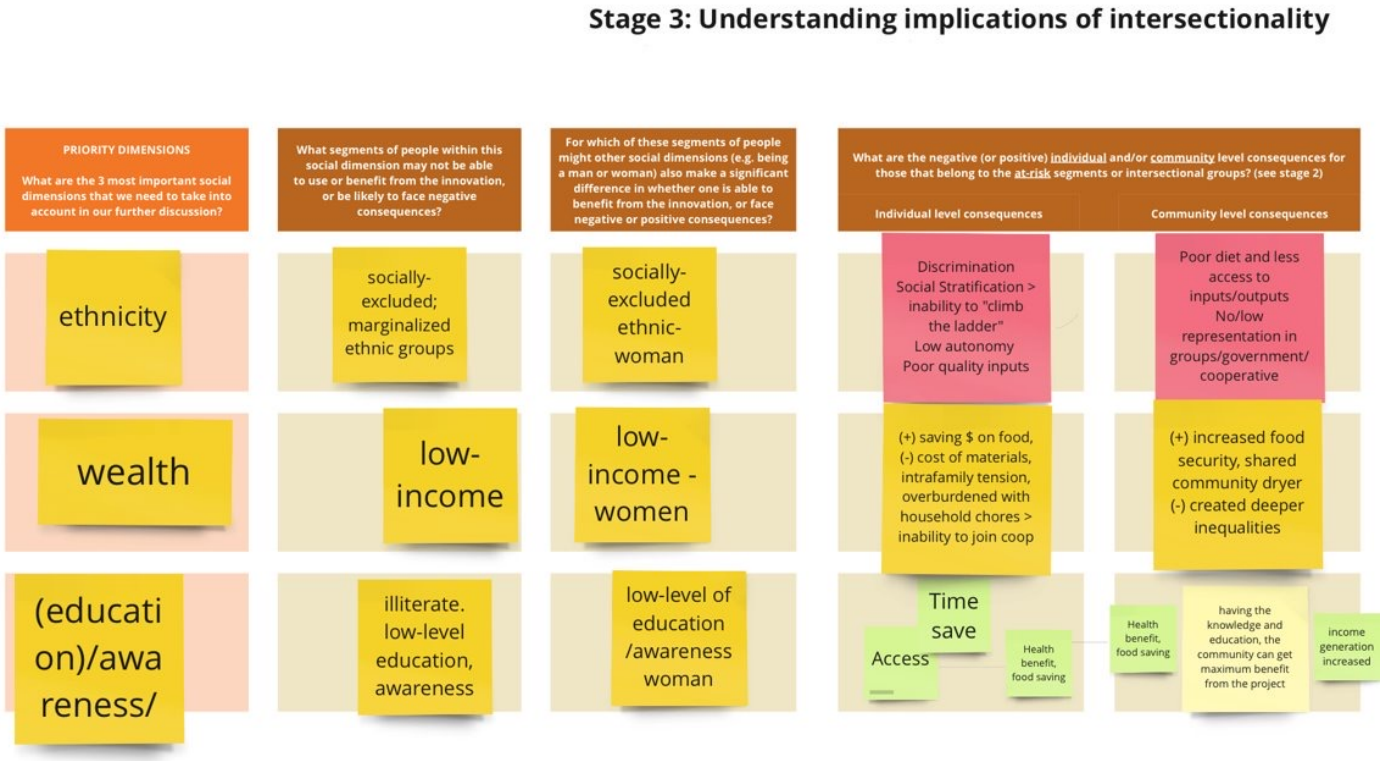
GenderUp Snapshot

- Pause and Learn

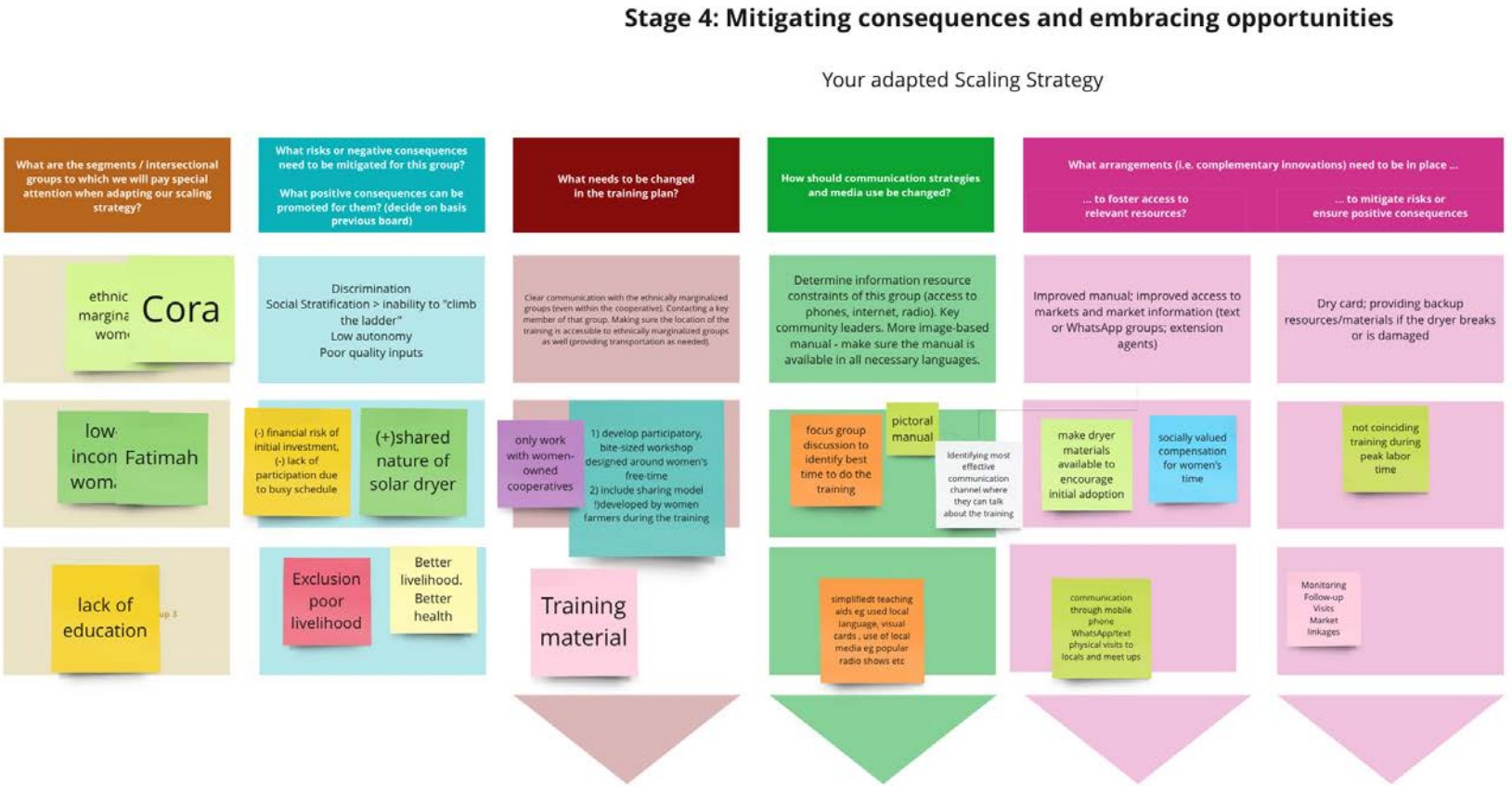
Team discussions



Team discussions



Team discussions



GenderUp experiences

Went from the *innovation user* being "farmers that produce for the market" - to - "rural, low-income women who may not have decision making power in their homes"

GenderUp
A conversational method for responsible scaling

GenderUp experiences

Went from training being:

"Engineering training needed to ensure smooth running of machine and factory"

- to -

"Training when women are available and in an accessible location; Training focused on skills necessary to understand and implement quality standards.

GenderUp
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GenderUp experiences

Went from complementary innovations being

"Market products as socially inclusive / building communities"

- to -

"Women farmer-to-women farmer training - including quality standard certificates of completion; Subsidies for complementary inputs through gov't programs; connect/partner with local NGOs that have experience working with some of the poorest households, and particularly women"

GenderUp
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Mitigating strategies in GenderUp

Team expertise, dynamics, partnership

- Building capacity of project team on gender responsiveness
- Partnering with established experts in community

Environment

- Address gender norms which impede women's ability to use and benefit from innovations

Communication

- Use modes of communication, such as radio or women extensionists, that are more accessible to women farmers

Training

- Consider times of day and labor requirements for marginalized populations. Eg. Providing meals or childcare for attendees.

GenderUp
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Innovation Lab for Horticulture

Thank you!

We hope you have enjoyed this presentation

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Innovation Lab for Horticulture

Questions?

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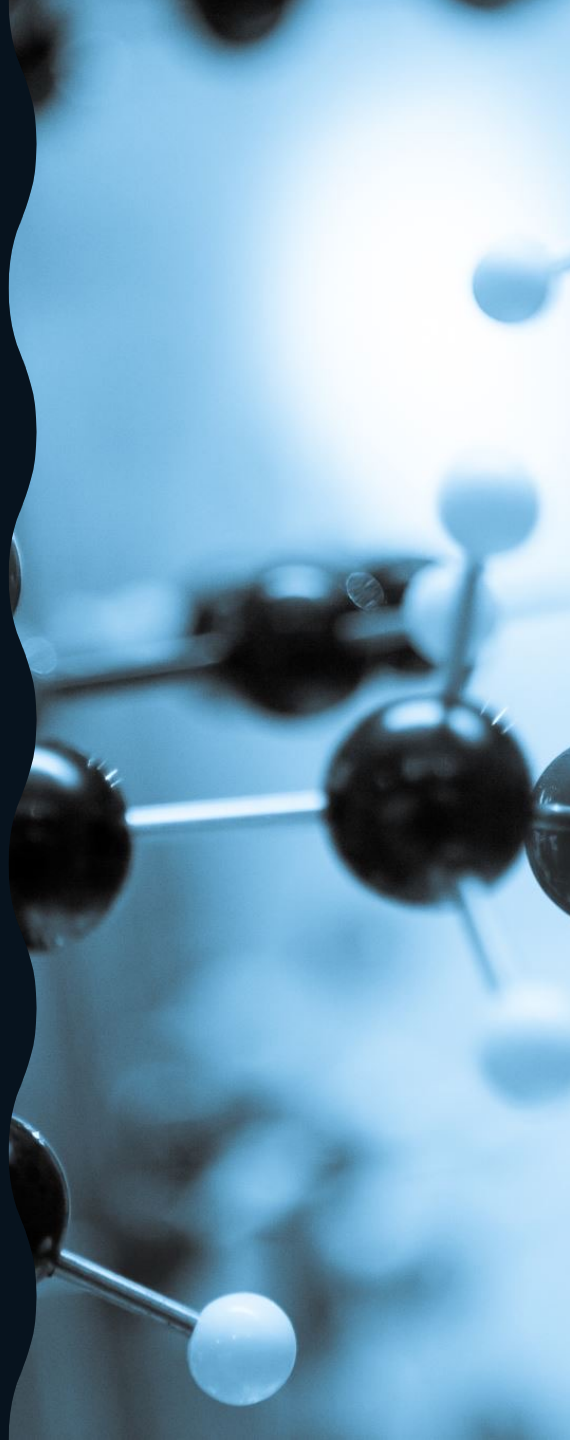
Readings

- McGuire, Erin, et al. "Anticipating gender impacts in scaling innovations for agriculture: Insights from the literature." World Development Perspectives, vol. 25, 2022, article no. 100386, ISSN 2452-2929, doi: https://10.1016/j.wdp.2021.100386.
- Polar, V., Babini, C., Flores, P., Velasco, C. Technology is Not Gender Neutral: Factors that Influence the Potential Adoption of Agricultural Technology by Men and Women. International Potato Center, 2017. https://cgspace.cgiar.org/bitstream/handle/10568/90133/Technology_is_not_gender_neutral_ENG.pdf?sequence=1
- Rietveld, Anne M., et al. "Bridging youth and gender studies to analyse rural young women and men's livelihood pathways in Central Uganda." Journal of Rural Studies, vol. 75, 2020, pp. 152-163, ISSN 0743-0167, doi: https://doi.org/10.1016/j.jrurstud.2020.01.020
- McGuire, Erin, et al. "Anticipating social differentiation and unintended consequences in scaling initiatives using GenderUp, a method to support responsible scaling." Submitted to Agricultural Sciences, February 2022.

Practical applications

- **GENNOVATE:** This framework focuses on gender norms and how they influence the adoption and success of innovations in agriculture and natural resource management. It includes data from over 7,500 men and women across 26 countries, making it one of the largest gender and agriculture studies in the world.
- **WEIA:** an assessment tool that measures the empowerment, agency, and inclusion of women in the agricultural sector. The WEAI is used to identify constraints to women's empowerment in agriculture and to track changes in empowerment over time
- **GENDERUP**



Questions for discussion

- In the context of largely bio-physical innovation, how can we account for social differentiation?
- From a structural standpoint, what obstacles may arise when attempting to merge the bio-physical and social sciences?
- Based on your experiences, what insights can you share regarding the incorporation of these findings in the field?
- Who and what sources can be relied upon to obtain the most comprehensive data for making informed decisions?