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

INNOVATION LAB FOR FOOD SECURITY POLICY RESEARCH, CAPACITY, AND INFLUENCE (PRCI)

Innovation, localization, and the messy path to nth-best scaled solutions

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Presented at

Feed the Future Innovation Council Regional Partners' Meeting

Translating Research to Action: Opportunities for Evidence Based Scaling of Agri-Food Systems Innovations

April 22-23, 2024

Kathmandu, Nepal

SUMMARY

(two assertions and one question)

- Two assertions
  - Scaling is the outcome of a process of deep localization across multiple stakeholders
  - This process is messy and typically leads to "n^{th}-best solutions"
- One question
  - How do we, as individual ILs and collectively as a group of ILs, deal with these two facts? (if they are indeed facts)
    - How do we promote or at least feed into this deep localization?
    - How do we operate in a way that allows "better" solutions to emerge?

SCALING AS AN OUTCOME OF DEEP LOCALIZATION

WHAT IS SCALING?

- The uptake by a critical mass of relevant local stakeholders of, for example:
  - A technology (biological, digital, mechanical, …)
  - A business model or practice, e.g., franchising or third-party logistics
  - A set of rules for coordination, e.g. to ensure quality or safety along a perishable value chain
- Oftentimes what is scaled is a package of these things. For example:
  - An ownership, investment, managerial, and regulatory approach to wholesale market development
  - New agronomic practices built around new technologies and approaches to access to markets
  - A business model developed to make use of a new technology

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- Oftentimes what is scaled is a package of these things. For example:
  - An ownership, investment, managerial, and regulatory approach to wholesale market
  - ***Bundling***
  - ***(of innovations, policies, programs, regulations, investments, …)***
  - New agronomic practices built around new technologies and approaches to access to markets
  - A business model developed to make use of a new technology

DRIVERS

- The success of scaling is influenced by … many things
  - Dynamic ***market opportunity*** is necessary but insufficient
  - The **existing environment** of policies, regulations, and programs
  - ***Capacity of government*** to design and implement new supportive policies, regulations, and programs
    - And the confidence of stakeholders that they will do this
  - The depth and accessibility of ***finance***
  - ***Infrastructure*** that drives costs (transport, comms, power, …)
  - The strength of the ***business*** sector
  - ***Purchasing power*** and risk tolerance of potential adopters
  - The distribution of **power and interests** across stakeholders
  - The differing ***mindsets*** –values and animating ideas – across stakeholders
  - The openness of the system (culture, laws, attitudes) to ***disruption***
  - ***Exogenous events*** that may change attitudes, or change costs and benefits

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  - The stre[illegible]
  - Change and growth in ***market demand***
  - [illegible]ers
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The process is super dynamic, no one driver is determinant, and the weight of any particular driver is hard to determine

THE ROLE OF LOCALIZATION

- Scaling emerges out of a deeply localized process of planning, learning, negotiating, trial-and-error, use of power, seizing of opportunities
  - Affected stakeholders must own the process
    - ***We must find how to fit into it***
- This is not exactly the same localization that USAID has defined
  - USAID's definition is crucial and compelling as a set of practices for the agency and its implementing partners
  - But it is the ***start*** of the process, not the end
    - The partners that are our focus must understand this process of "scaling as deep localization" and how they can contribute to it

SCALING, STAKEHOLDERS, AND NTH-BEST SOLUTIONS

NTH-BEST SOLUTIONS

- The best available solution given the dynamics and constraints of the system you're operating in
- Typically far from what a researcher would consider "best"

MANY STAKEHOLDERS

- Scaling of any meaningful technology or practice or process involves ***many stakeholders***

A non-exhaustive list of stakeholders in agricultural value chains

Input mfrs/producers and importers
Machinery mfrs and importers
Input wholesalers
Machinery wholesalers
Rural input dealers
Farm service providers
Fuel importers, wholesalers, retailers
Social justice NGOs
Development NGOs
Environmental NGOs
Ministry of ag and others
Environmental regulators
National ag research institute
Associated technical & policy rsch centers

FARMERS (by size, location, market engagement, ethnicity, …)
Farmer Associations

Rural assemblers
Rural wholesalers
Wholesale market managers
Fuel importers, wholesalers, retailers
Transporters
Processors
Financial firms
Packaging mfrs and importers
Urban-based food wholesalers
Small food retailers
Small supermarkets
Modern supermarket chains
Food delivery workers
Trade associations
Unions
Ministry of Commerce and others
Food safety regulators
Provincial governments
Municipal governments

CONSUMERS (by income level, ethnicity, location, gender, age, …)
Consumer interest groups

Private, civil society, public sector

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For a socially "uncomplicated" innovation, e.g. a conventionally bred crop variety

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Even a "simple" innovation involves many stakeholders

Private, civil society, public sector

A SOCIAL AND POLITICAL PROCESS

- Scaling is thus a ***social and political process*** first, a technical process second
  - Economic benefit to private stakeholders is obviously central, but …
  - Nothing scales without broad social and political buy-in to the ***ideas and values*** embedded in a technology or practice
    - Technology
      - Ag biotech is a technical innovation laden with ideas and values about how the world should be
    - Practice
      - How to go about wholesale market development is laden with ideas about the proper roles – and the essential motivations – of public and private sectors

THE UNAVOIDABLE DYNAMIC

- As a social and political process, scaling requires ***trust***
- Building trust requires ***iterative dialogue***
- Change through iterative dialogue takes time and requires ***compromise***
- Compromise results in ***n^{th}-best solutions***
  - In fact it **requires** *n^{th}*-best solutions
    - Because stakeholder interests do not all align
  - The choice may be between n^{th}-best solutions and no solution at all

THE UNAVOIDABLE DYNAMIC

The process is messy. It features a combination of careful planning and coordination but also rapid adaptation and seizing of opportunities, especially by private sector

TWO POSSIBLE OUTCOMES

- An n^{th}-best solution emerges …
  - … if the innovation can be modified through this process and if the process has enough support to run its course
- Nothing emerges …
  - if the innovation cannot be changed (e.g., Bt-maize) and the societal dialogue breaks down
  - Or something emerges only much later than expected by its champions
    - After changes in mindsets, stakeholder assessments of costs and benefits, negotiations of deals and alliances, etc.

RECAP

- Scaling emerges out of a process of deep localization …
- … planning, learning, experimenting, adjusting, bargaining, use of power, seizing opportunities …
  - The process is ***messy***
- With many stakeholders holding differing interests, n^{th}-best solutions are inevitable
  - Poor business environment, government capacity, and infrastructure accentuate this tendency towards such solutions

IMPLICATIONS FOR ILs AND THE IL SYSTEM

TOP-LINE MESSAGE

- Transformation and innovation is going on without any input from us
- We need to ***understand these processes of transformation***
- And figure out how to bring added value to them
- This understanding should inform ***what*** we work on and ***how*** we work on it

TOP-LINE MESSAGE

Locally-led partnerships with carefully chosen partners are crucial to success

Our partners need to be keen to understand and engage with the processes we've described

KEY QUESTIONS

- Do existing ***incentives*** in universities and ILs allow us to work in the ***iterative, engaged*** way we need to if we wish to be agents of (better) change?
- Do incentives encourage the ***cross-lab collaboration*** that could be so useful if done right?
  - Or does multi-disciplinary capacity need to be built into each lab?
  - Or, instead, intentionally through chosen local partners?