

“Adaptive Irrigation Model for Small Farmers”

From validation to upscaling, deepening and broadening

Alwin Gerritsen, 27 October 2021



Start of sesame experiments

- Scientists and extension officers in Andhra Pradesh have been promoting one supplemental irrigation to rice fallow sesame crop to enhance yields
 - Sesame is a 'chance crop'
 - Nice example of climate smart agriculture
- During the AIMS project (2019), we found that farmers are not adopting this practice due to labour constraints and preconceived notions on cost economics
 - Same experiences in Eastern Africa (Ethiopia, Kenya, Tanzania)

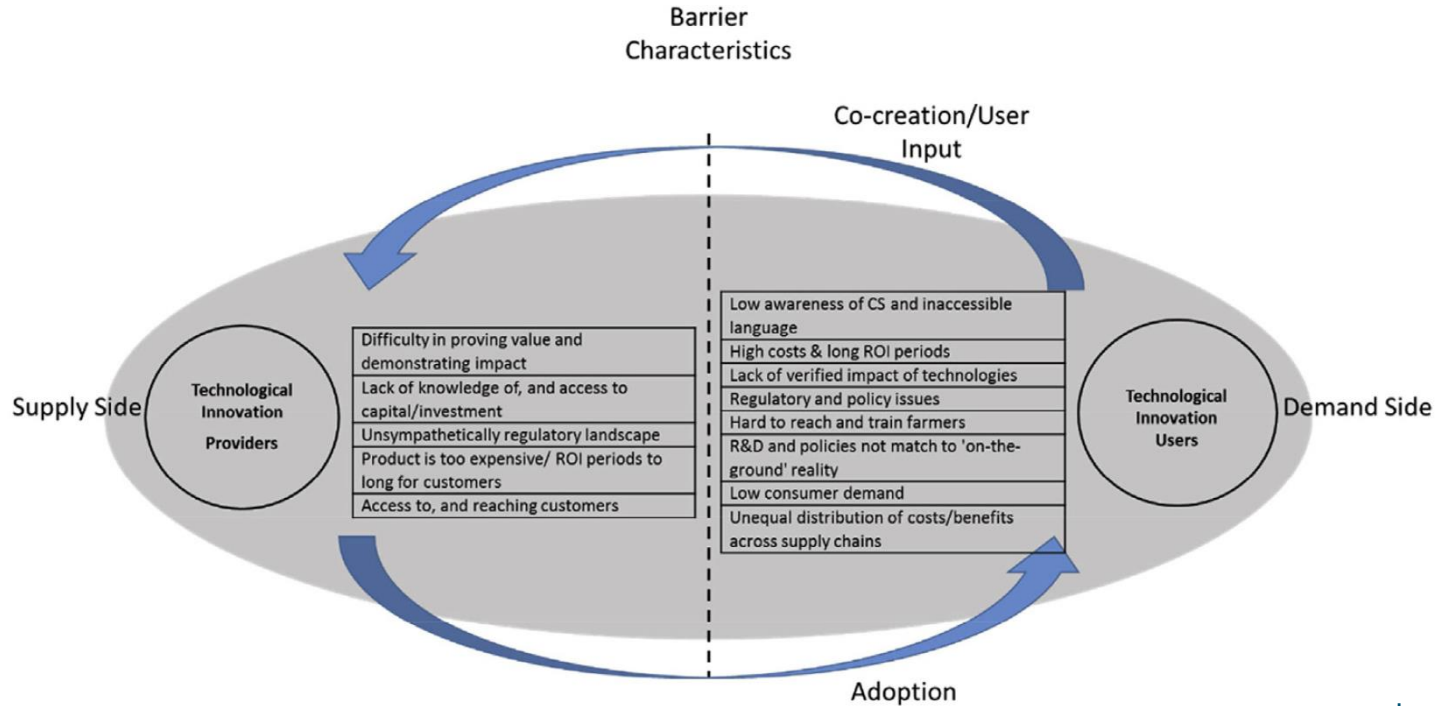
Conclusions experiments

- Hosereel irrigation together with a custom service model has potential for increasing sesame yields and higher farmer revenues
- Thereby opening the way to sustainable intensification and thereby decreasing water use and increasing farmer welfare
- The business case for a custom-hireable irrigation service model is largely there

- Easy upscaling ahead?



CSA technological innovation barriers



Long et al, 2015

Typical institutional issues (innovation system)

- Limited constructive dialogue and learning between stakeholders about new technology and business models
 - Surpassing the local networks
 - Enabling policy influencing and operationalization
- Balance between technological/economic and social/cultural/political issues
 - Effects on value chains and general farm practice
 - And the relevant actors within them
 - E.g. access to technology (De Roo et al, 2019)
 - Conflicting preferred directions (Gerritsen et al, 2018)



Intermediaries and service providers at local level

- Andhra Pradesh has its Custom Hiring Centres at the Rythu Bharosa Kendras (RBKs) level
- Other examples
 - Tanzania has Villages Savings and Loan Associations and bundles them with Farmer Field Business Schools
 - Kenya has extension cooperatives
- Private service providers
- Public or private? Or both?



Going forward

- Other crops: ground nut, black gram, green gram, rice
- Changes in land use and value chains
- Upscaling
 - Broadening and deepening (Van den Bosch & Rotmans, 2008)



Thank you for your attention

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