

Linking farmer innovation with formal research



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PROLINNOVA
PROMoting Local INNOVation



JOLISAA
Joint Learning in Innovation
 Systems in African Agriculture



INSARD
Including Smallholders in Agricultural
 Research for Development



EUROPEAN COMMISSION
 Research & Innovation

What we want to talk about ...

1. What is farmer innovation & who are farmer innovators?
2. Why link farmer innovation with formal research?
3. How we link farmer innovation with formal research:
Participatory Innovation Development (PID)
4. Changing the power balance in ARD:
Local Innovation Support Funds (LISFs)
5. Example: LISF grant for innovation to deal with climate change
6. Impacts of this approach
7. Lessons from experience with PID & LISF

Focus on smallholders

- People engaged in small-scale farming (cropping, livestock-keeping, forestry, fishery, aquaculture) managed & operated by a family, relying mainly on family labour, combining economic, environmental, social & cultural functions
 (FAO 2013. *Coping with the food & agriculture challenge: smallholders' agenda*)



- **Smallholders produce 60–70% of food globally**
- **Smallholders are the major (often sole) providers of the food that reaches the 2 billion poorest people in the world**
 (ETC Group 2013: *Who will feed us?*)

Smallholder cropping and herding in Nigeria

What is farmer innovation? Who are farmer innovators?



- Farmer innovation: process of developing locally new & better ways of farming & managing natural resources (intermediate outputs along the way: innovationS)
- Farmers innovators: individuals or groups in farming communities who innovate on their own initiative, building on local knowledge, using own & external ideas
- Not "model farmers" groomed by projects to adopt transferred technologies

Ethiopian farmer Kes Malede developed water-lifting devices

Formal ARD often overlooks local dynamics: endogenous innovation in aquaculture

- Farmers in southern Benin dug *hwedos* in floodplains to trap fish as water recedes
- Intensified system through better drainage & irrigation to grow off-season vegetables on raised *hwedo* banks to sell to coastal city markets
- Rely on both fish & vegetables to secure income while adjusting to environmental & market fluctuations
- Introduced "modern" aquaculture projects ignored this locally developed low-external-input system



Maintaining canal to keep *hwedo* productive (Photo: Anne Floquet)



Why link farmer innovation with formal research?



- ★ To learn how farmers creatively use available resources to come up with locally relevant innovations
- ★ To motivate people by starting with the positive instead of problems
- ★ To bridge the gap between i) what smallholders are doing & actively seeking and ii) formal ARD
- ★ Because recognising local capacities lays basis for true partnership with other knowledge-holders in ARD
- ★ To help develop farming systems that suit the situations & needs of farmers

How we link farmer innovation with formal research

- Regard farmer innovation as entry point for Participatory Innovation Development
- Facilitate farmer-led experimentation starting with local ideas & questions, supported by research & extension
- Create space for social learning that links knowledge (from many sources) with reflection & action
- Communication & policy dialogue to scale up this approach → institutional change



South African innovator in backyard poultry farming

Vision: A world where women and men farmers play decisive roles in ARD for sustainable livelihoods

Changing the power balance in ARD

- In most "participatory ARD", technology-transfer & domination by formal researchers continue:
 - testing or demonstrating scientists' ideas
 - exploring scientists' rather than farmers' questions
- Some funds for "participatory ARD" but controlled by scientists
- **INSARD** (Including Smallholders in Agricultural Research for Development) seeks to strengthen mechanisms for farmers to have a greater say in ARD decision-making
- **PROLINNOVA** (PROmoting Local INNOVation) seeks to change how ARD funds flow *so that ...*



... farmers call the tune through Local Innovation Support Funds (LISFs)

- Local-level funds (co-)managed by grassroots organisations
- For supporting farmer-led experimentation & innovation
- Local people decide what will be investigated, how & by whom – including bringing in experts / scientists to support this
- *Communities can thus drive their own adaptation to change and explore new opportunities*



Kenyan farmer experiments with locally made feed supplements

How does an LISF work?

- Open calls by Local Fund Management Committees (FMCs)
- **FMCs define screening criteria:**
 - Idea driven by farmers
 - Sound in economic, environmental & social terms
 - Applicable by resource-poor
 - Applicants willing to share
 - Proposal for *experimentation & learning* (not farm investment)
- Farmers submit simple proposals
- FMCs select grantees (individuals/groups) & provide resources
- Farmers lead research & share results



FMC members screening LISF applications in Uganda

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Example: LISF grant for local innovation to deal with climate change

Simon Masila, Machakos Region, Kenya

Innovation: Finger millet nurseries and transplanting into fields to make maximum use of limited and uncertain rainfall



Result: Harvest when millet crops of neighbouring farmers failed

Received LISF grant for:

- collecting data more systematically
- analysing results with other farmers
- making results more widely known, e.g. through adult literacy classes

... leading to PID with KARI researchers



- Scientists first did own on-station trials to learn about new technique themselves
- Now doing joint experiments in field with Simon and other farmers on:
 - timing of sowing nurseries
 - timing of transplanting seedlings
 - spacing seeds in nurseries & seedlings in fields
 - labour-saving ways to water nurseries (often women's task)
- Simon Masila given award as outstanding innovator at National Council of Science & Technology (NCST) exhibition

Impacts of this approach

Involvement of different actors in LISF:



Ethiopian farmer explains his agroforestry trial to MoA staff

- Generates site-specific improvements in smallholder farming with potential to improve livelihoods more widely
- Strengthens social organisation around managing local ARD and funds for it
- Builds smallholders' capacities to formulate own needs and access relevant information
- Increases smallholders' confidence to interact with "outsiders" in joint innovation
- Stimulates interest of extension & research to support farmer-led PID

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PROMOTING LOCAL INNOVATION
in agriculture and rural livelihoods

Lessons from experience with PID / LISFs

- **Smallholders can manage funds for locally relevant innovation development:** LISF is a promising *complementary* mechanism for decentralised farmer-governed ARD that can be scaled up
- Constant efforts needed to prevent scientists from "taking over": stimulate reflection by scientists to realise that farmers have own questions
- Involvement in LISF strengthens role of farmers in local multi-stakeholder platforms to discuss and prioritise research
- A key to sustainability lies in creating widespread local-level capacities to *continue innovating and adapting to deal with never-ending change*



Farmer innovators and local research and extension staff at innovation fair in Tigray, Ethiopia

Key messages for this workshop

- Smallholders are innovating → we need to recognise innovation in the "social wild" & build on these initiatives
- Research should be done not for development but rather in the midst of ongoing development with farmers & other actors in existing innovation processes → we need to support these processes in ways that strengthen local innovative capacities
- Innovation cannot be planned & transferred; it evolves in unexpected ways over a long time → we need to take flexible and open-ended approaches to ARD to accommodate & support the dynamics & multiple dimensions of innovation
- **Seek to partner with smallholder women, men, communities & organisations in ways that value their contribution to agricultural innovation & development**

Vision



A world where women and men farmers play decisive roles in research and development for sustainable livelihoods

