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# Enabling environment for success of sheep breeding programs

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# Enabling environment

- Required institutional/organizational arrangements for the functioning of the breeding programs
  - Technical backstopping of the breeding programs
  - Support of community actions by BoA and extension agents
  - Capacity development for breeding programs
  - Gender equity dimension
  - *Supportive policies and regulations*

# Enabling environment (cont.)

- Establishing supporting interventions
  - Access to Animal Health Services providing adequate disease control programs
  - Feeding systems
  - Feed and forage seed supply
  - Marketing strategies and market infrastructure
  - *Micro-finance support particularly targeting cooperatives*




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# **Required institutional/organizational arrangements for the functioning of the breeding programs**

# Technical backstopping of the breeding programs (research-based support)

- Establishment of the program
  - Developing breeding objectives
  - Developing an establishing breeding scheme incl. identification and recording systems
  - Design of evaluation schemes
- Continuous support
  - Estimation of Breeding values
  - Selection events (eventually to be handed over?)
  - Maintaining identification and recording systems
  - Scheduled evaluation of genetic gains and cost/benefit

 Long-term program led by national/regional research systems with or without international support

# Support of community actions by BoA and extension agents

- Formation of cooperatives
- Frequent community meetings at the start and regular meetings once structures are functional
- Start-up capital for cooperatives
- Enumerators (NARS or extension agents?)

➔ BoA: district level livestock agencies (livestock extension agents) and district level cooperative promotion office

**Lesson:** poor cooperation with the district offices of agriculture at CBBP sites; the extension system should be fully engaged to establish better cooperation and develop their technical skill and knowledge through training and working with breeders

# Cooperatives as organizational units

- Cooperatives formed using agreed criteria considering breeding schemes:
  - Farmers' interest to participate
  - Issues related to ram/buck sharing arrangements (communal grazing land, neighbourhood, traditional social networks, etc...)
  - Required breeding population size
- Legally registered cooperatives have by-laws and formal organizational structures:
  - Support from district office
  - record keeping practice Main committee
  - Audited financial management

**Lesson:** Better management, higher financial resources, better selection and management of breeding rams observed in legally registered cooperatives

# Capacity Development program of L&F

## Long-term: post-graduate-training of NARS

- 7 PhD on breeding/modelling
- 3 MSc students on production system/breed characterization

## Short-term: theoretical and practical training courses while implementing

- Phenotypic Characterization of SR genetic resources, in Addis, 20-22 Dec. 2012
- Molecular Characterization of SR genetic resources in Addis and Holetta, 16-21 Sept. 2013
- Sheep breeding: data recording, management and valorization, 5-7 May 2013
- Data recording and management system and estimation of breeding values, in Addis, 26-28 Sept. 2013
- Reproductive technologies, Oct. 2014, March 2015 and Oct. 2015



# Capacity development

More strategic approach to CapDev required

- At which level: site, regional and cross-regional
- Targeting whom? training of trainers
- Development of training modules to be used by trainers (parts could be e-learning)



# Ensuring Gender equity

- How?
- Which institutions could provide specific support?

## Lessons from CBBP

- women are barely represented in the membership of the cooperatives as well as in leadership:
  - women have little time because of their domestic work
  - as they are mostly not well educated, they will not be considered for leadership positions in the committees
- some women members of the CBBP cooperatives made impressive progress




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# Establishing supporting interventions

# Feed and Animal Health interventions

- Animal Health
    - Diagnostic and epidemiological studies to identify key diseases in terms of economic importance
    - Improved disease knowledge of farmers through leaflets, posters and Extension trainings and reporting systems
    - Sustainable delivery services: delivery of quality vaccines and drugs, integrated herd health programs
    - Health certification of improved rams (based on sero-prevalence and identified risk factors of major reproductive diseases)
  - Feeding systems based on available feed resources (incl. adapted forages or shrubs)
    - Strategic supplementation of productive females
    - Fattening systems linked to specific market channels
-  Ongoing and new programs of national/regional research systems and public or private vet services

# Challenges in marketing (based on VCA)

- Lack of livestock market information
- Lack of vertical linkage of goat producers to the other market actors
- Weak horizontal linkage among goat producers
- Poor market infrastructure
  - high transportation cost
  - poorly constructed marketing yards,
  - lack of facilities (vet, water, feeding, loading, etc)
- Seasonality of (inconsistent) supply and demand

# Smart marketing

- The approach under testing:

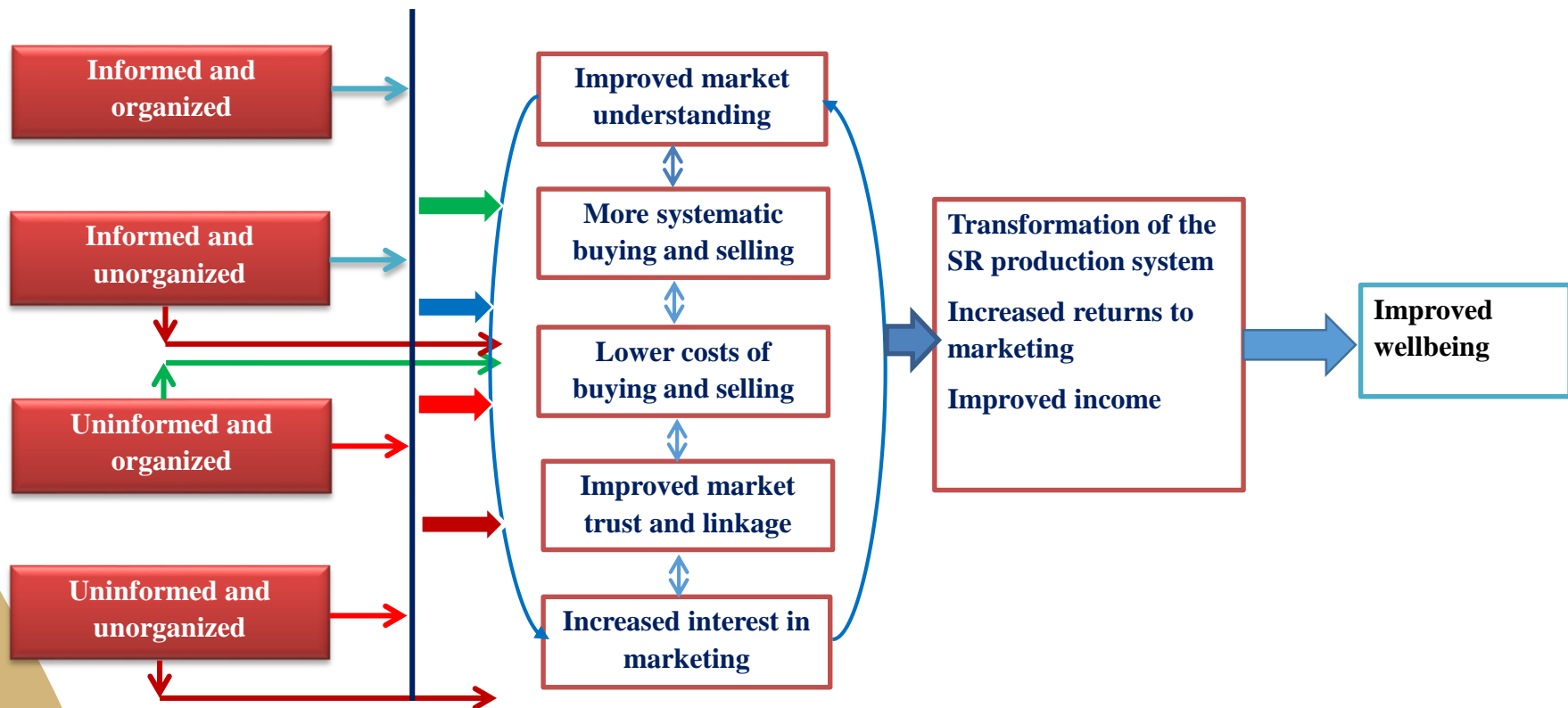
Combining **access to market information** and **voluntary organization (formal or informal) of smallholder farmers** as an experimental variable in order **to assess the combined and individual effect** of access to information and membership in farmers' associations.

- Market information on:

- trait preferences,
- price expectations,
- quantity demanded,
- quantity supplied,
- availability of and access to market services, and
- key social [e.g. extraordinary social occasions] and environmental [e.g., profound shifts in the weather] phenomena will be monitored, synthesized and communicated to all key actors along the value chain within a manageable scope.

# Smart marketing (cont.)

**Hypothesis:** Information and collective action increase market participation and market returns.



# Market infrastructure: economic impact of market facilities

- Lack of market infrastructure significantly undermines the market margins farmers generate and elevates the prices they pay for agricultural products when involved as buyers.
- The transaction costs in livestock markets are quite high due to - *inter alia*:
  - lack of transport facilities that force marketers to trek their animals,
  - lack of feed and watering services in and around the markets,
  - lack of veterinary services around markets,
  - lack of storage facilities, and
  - lack of market information.
- Study in central Highlands will quantify the added monetary advantage for livestock keepers due to accessing key market facilities in selected markets



# Marketing: Commercializing breeding animals

## Example breeding rams in Bonga

- Cooperatives in Bonga have made significant effort in promoting their breeding rams at regional and national level.
- breeding rams are supplied to different areas in the region as well as to different regions of Ethiopia.
- Sales of breeding rams are controlled by the cooperatives who bargain with traders and other organizations
- Price of breeding ram is different from meat animals



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CGIAR is a global partnership that unites organizations engaged in research for a food secure future. The **CGIAR Research Program on Livestock and Fish** aims to increase the productivity of small-scale livestock and fish systems in sustainable ways, making meat, milk and fish more available and affordable across the developing world.