Innovation Packages and Scaling Readiness workshop: Community-based breeding program

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About SAPLING: CGIAR's Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion (SAPLING) is working in seven countries focusing on livestock value chains to package and scale out tried-and-tested, as well as new, innovations in livestock health, genetics, feed and market systems. SAPLING aims to demonstrate that improvements in livestock productivity can offer a triple win: generating improved livelihoods and nutritional outcomes; contributing to women's empowerment; and reducing impacts on climate and the environment. Its seven focus countries are Ethiopia, Kenya, Mali, Nepal, Tanzania, Uganda and Vietnam.

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Abbreviations and acronyms

CBBP	Community-Based Breeding Program
ICARDA	International Centre for Agricultural Research in the Dry Areas
IPSR	CGIAR Innovation Packages and Scaling Readiness
RASP	Resilient Agrosilvopastoral Systems Program
SAPLING	CGIAR Initiative on Sustainable Animal Productivity for Livelihood, Nutrition and Gender
SEP	Social Economic and Policy Research

Introduction

In Ethiopia, the Sheep and Goat Community-Based Breeding Program (CBBP) was introduced in 2009 as an alternative approach to the previously unsuccessful centralized nucleus breeding scheme and crossbreeding program implemented in the low-input system. It aimed to shift towards a more participatory and community-driven approach to genetic improvement in sheep and goats. Since its inception, the sheep and goat community-based breeding program has achieved remarkable success in terms of genetic improvement, economic benefit, consumption of animal-source food, and stakeholder participation. This success is a testament to the potential for sustainable livestock development in Ethiopia. The program has not only provided a more viable and community-driven approach to sheep and goat breeding but has also become a beacon of hope for the future of agriculture in the country. Community-based breeding programs (CBBPs) have then become essential for food security and climate change resistance in Ethiopia, where agriculture drives the economy and millions of jobs. These programs, led by the International Centre for Agricultural Research in the Dry Areas (ICARDA), bring researchers, farmers, and local communities together to enhance animal breeds for the country's specific agroecological circumstances. These programs use traditional knowledge and current science to generate high-yielding, climate-resilient breeds for smallholder farmers. Farmers participate in participatory selection and breeding to generate improved animal breeds that suit local conditions and preferences. The success of the sheep and goat CBBP has experienced significant growth and expansion. The program has successfully extended its reach to a remarkable 155 villages across the country, which is equivalent to 120,000 animals. The current reach has provided valuable insights and demonstrated the program's potential for wider impact. However, there is a need to scale out the program to benefit a larger population. The work has been ongoing for the past three years under the CGIAR Initiative on Sustainable Animal Productivity for Livelihood, Nutrition and Gender inclusion (SAPLING).

To deliberate on the possibilities and readiness of scaling up the programs, a workshop was held in Addis Ababa on 27 February 2024. This report delves into the insights gained from the workshop, identifying user needs and bottlenecks and, ultimately, designing an innovation package. The innovation package includes a set of tools, methods, and strategies to propel and sustain the gains made in scaling CBBP in Ethiopia. The goal is to ensure that by 2027, ICARDA/SAPLING and partners will work together in Ethiopia to link the existing 155 CBBPs to 750 production units to create a more efficient market for breeders and link the production units with local consumers and exporters for the commercialization of 972,247 male offsprings per year resulting in the improvement of the livelihood of 110,000 households. This will contribute to enhanced resilience and adoption of integrated technologies and best practices to achieve 25-30% improvement in sheep and goat productivity.

Objectives

- To assess the key challenges to the sustainable scaling of the CBBP and the needed complementary innovative package that could propel its dissemination.
- To assess the bottlenecks and potential solutions that could ensure successful implementation and large-scale adoption of the complementary innovation package and hence facilitate the sustainable scaling of the CBBP in Ethiopia.
- To assess the readiness of the complementary innovation package and its use.
- To examine the scaling readiness of the complementary innovation package.
- To agree on the next steps that should be taken to enhance the scaling readiness of the technology package.

Workshop overview

A welcoming remark was made by Barbara Ann Rischkowsky, who is the research team leader for the Resilient Agrosilvopastoral Systems Program (RASP) and Social Economic and Policy Research (SEP). She provided an

overview of the journey of scaling CBBP in Ethiopia. The SAPLING co-lead Mourad Rekik made a brief introduction to SAPLING and its objectives. Participants included representatives from the public and private sectors, national research institutions and universities, CGIAR partners, extension agents, donors, and ICARDA staff who are knowledgeable and involved in the implementation processes of the CBBPs. The workshop facilitators, Ijudai Jasada (lead) and Bezaiet Dessalegn (co-lead) introduced the design component of the workshop.

The innovation was introduced by Tesfaye Getachew, who is the research management coordinator for Resilient Agri-Food Systems at ICARDA. Getachew talked about the innovation, the scaling model, the focus regions, and the scaling ambition. The stated ambition was discussed in the plenary to ensure consensus among the different stakeholders and to assess its validity from various perspectives. Alternative views were also aired and discussed for future consideration. Key among the highlights made include:

- **The importance of branding** – the need to also focus on meat quality (including taste) and not just quantity to be made available. Opportunities to target high-end markets in major cities like Addis Ababa could offer more sustainable market outlets. This will require increased attention to securing quality feed for the animals and reducing the cost of production and marketing (including transportation). *Comment by Berhanu Admassu, private sector.*
- **Differentiating between the export and local market demands** – it is important to understand the demands and preferences of the different markets and invest accordingly. It was highlighted that animals from the lowlands are best positioned to meet the demand from the export market. Hence, it is critical to consider the geographic focuses in scaling and including areas like the Afar and Somalia regions. *Comment by Lulseged Yosuf, private sector.*
- **Importance of strong partnerships and commitment** – the need to establish reliable frameworks that ensure continued partnerships to achieve set goals, sustain the work that is underway and planned, and ensure farmers' and local implementors' commitment to stay the course beyond the life of projects. *Comment by Asrat Tera, DG, Livestock Development Institute.*
- **Proper bundling of innovations across all CBBPs** – the importance of policy engagement to ensure the inclusion of the smart pack in the national extension program and avoid differences in outreach across the regions. This will require investment in building the capacity of all actors involved in the process. *Comment by Berhanu Belay, ICARDA.*
- **Resource mobilization** – to support the vast coverage envisioned in the stated ambition. The need for expanding the donor base and establishing effective partnerships with donors was emphasized. *Comment by Biruktayit Assefa, World Bank.*
- **Sustainable inclusion** – ensuring equitable access and control over production and marketing benefits requires consistent efforts against cultural and other norms embedded in institutional structures. However, such gender transformative approaches require time and conscious investment to initiate and sensitize norm gatekeepers to influence change. *Comment by Meseret Tsige, ICARDA, gender expert.*
- **Others highlighted the need for** – an improved input market and an effective and efficient extension system, which currently suffers from inadequate funding and high staff turnover (district and regional levels), which hinders the smooth transfer of knowledge, identifying alternative knowledge campaign partners to support scaling, organizing production units into larger/mega cooperatives, improvement in the effective implementation of laws and regulations that are in place.


Some of the participants during the workshop (photo credit: Ijudai Jasada, ILRI).

Participants were then directed to identify 2-3 key challenges and bottlenecks to the achievement of the stated ambition. The identified bottlenecks were then grouped into the following categories:

i. User capacity and know-how of the core innovation
ii. Availability/access to core innovations,
iii. User access to finance/affordability to core innovation,
iv. Compatibility of core innovations with existing systems (policy, markets, policy, labour market, etc.),
v. User confidence/trust
vi. Legal conditions and governance (by-laws, policies, regulations, business models, etc.),
vii. Stakeholder coordination and scaling partnerships,
viii. Gender equality and social inclusion,
ix. User awareness,

The bottlenecks under each category were then prioritized as 'most critical', 'critical', and 'not as critical'. The participants were then grouped based on their respective areas of expertise and engaged in identifying appropriate solutions/enablers that could address the 'most critical' bottlenecks and improve the innovation's viability to achieve sustainable scaling in Ethiopia. The identified enablers are presented in Table 1 below.

Workshop output

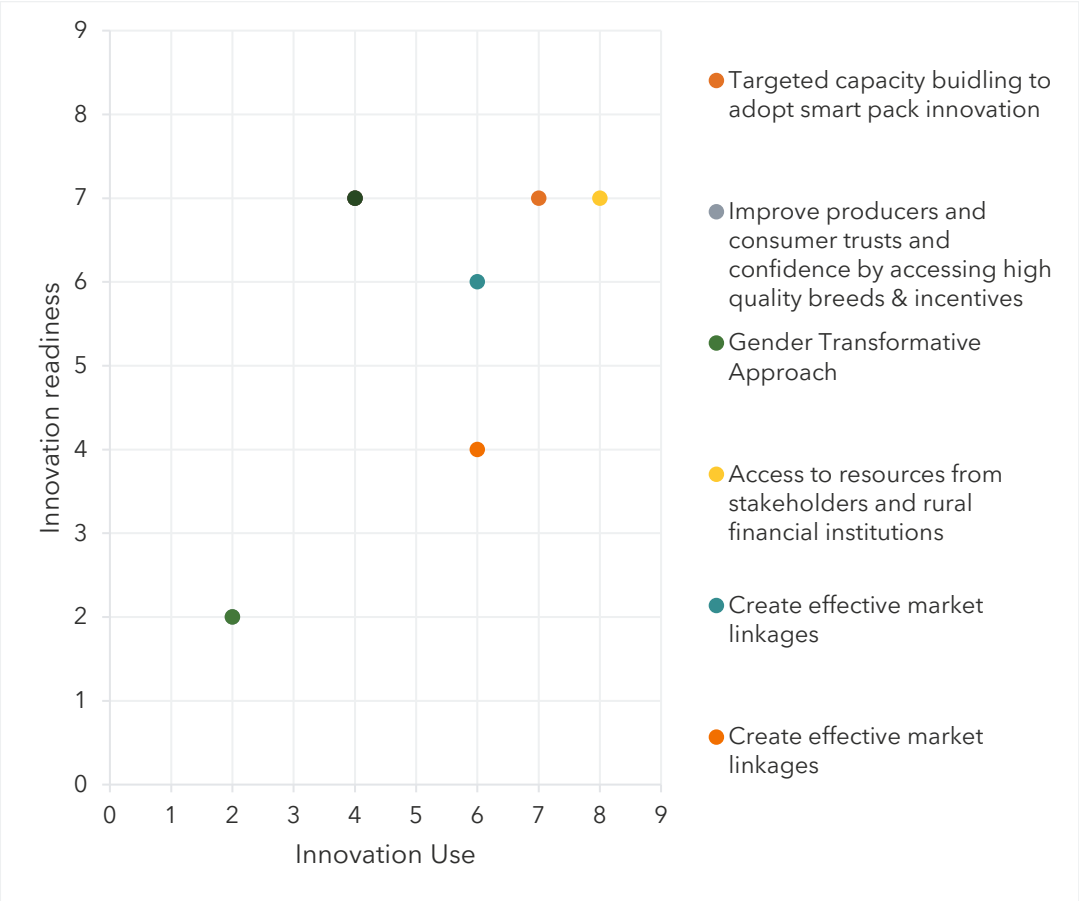
Table 1: Challenges to and enablers for the achievement of set ambition

Challenges/obstacles/bottlenecks	Enablers/complementary innovations
Need to capacitate actors at each stage	Targeted capacity building to adopt smart pack innovation
Low confidence and farmer's commitment	Improve producer's and consumer's trust and confidence through incentives.
Patriarchal presumptions embedded in norms, institutions and policies	Gender Transformation Approach implementation through integrating norms setters and mobilizing communities
Limited access to resources from partners	Increase access to resources from stakeholders and rural financial institutions
Weak market linkages for commercialization	Establish market linkage platforms for commercialization
Weak market linkages for breeding animals	Establish market linkage platforms for breeding animals
The livestock breeding program is not a priority at MOA	Integrate CBBP to existing govt implementing programs at a wider level
Innovation bundles are not inclusive.	Co-design of innovation packages
Non-balance commitment at different levels	Advocacy for impactful CBBP

Scaling readiness graph

The CGIAR Innovation Packages and Scaling Readiness (IPSR) approach of assessing 'innovation readiness' and 'innovation use' was presented by the lead facilitator, Ijudai Jasada from ILRI. Each group was then tasked with assessing the readiness and use of the suggested solutions/enablers. These were later used to assess the scaling readiness of the different enablers identified and are presented in Figure 1 below.

Figure 1: Scaling readiness of the proposed complementary innovation to out-scale CBBP



Conclusion and recommendations

The community-based breeding program in Ethiopia represents a promising avenue for improving livestock productivity and resilience while promoting community involvement and empowerment. Many communities across the country currently adopt it, and it is being integrated into government extension systems (in some areas of the country) and even linked with university curriculums. However, more needs to be done to link the CBBPs with effective production units and market outlets to ensure its sustainable and large-scale dissemination. The latter was translated into a scaling ambition, which guided the discussions and assessments conducted in this exercise.

The workshop allowed the core innovation team to assess the challenges in - and opportunities for - achieving the set ambition from the perspective of the different stakeholders represented. The team, along with their partners, were able to gauge the level of readiness of proposed solutions that need to be in place to achieve set targets and identify the ones that will require further investment and those that are readily available for use. The team will follow up with the respective group leaders to further explore and understand in greater detail the mechanisms for putting proposed solutions into action, the evidence for those that have been tested and documented, etc.

Photos




Participants taking part in the workshop (photo credit: Ijudai Jasada, ILRI).

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