INNOVATION PACKAGES AND SCALING READINESS WORKSHOP FOR SMALLHOLDER FARMERS MECHANIZATION STARTER PACK, ZIMBABWE.

AN ACTIVITY REPORT

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Ijudai Jasada, Abdul Matin, Christian Thierfelder, Blessing Mhlanga, Hanke Louw- Nora, Rose Faju, Shiela Chikulo
Introduction

The smallholder mechanization starter pack is an innovation pioneered and developed by CIMMYT’s mechanization team in Zimbabwe. This tool was born out of necessity to alleviate farm power shortage faced by smallholder farmers and farming communities, offering a low-cost mechanization option centered on two-wheel tractor and small engine driven machinery pack. The pack is meticulously tailored to enhance land and labour productivity, improve timeliness of agricultural operations, reduce production cost, and eliminate human drudgery. The mechanization starter pack represents a significant shift from conventional, labor-intensive methodologies, aiming to elevate the agricultural landscape of Zimbabwe. Comprising a meticulously crafted two-wheel tractor, with auxiliary components such as ripper, multi-crop thresher, sheller, and trailer. The existing service delivery model involves prospective service providers (SPs) buying the starter pack from local manufacturers with funding acquired through various financing support including loans through a commercial bank (BancABC) or leasing through Ukama Ustawi or other projects. The SPs are delivering mechanization services across in their communities in rural Zimbabwe for a service fee.

This innovation is currently being piloted in Bindura, Makonde, Masvingo, and Shamva districts which has shown great benefits to farmers, service providers and the overall agricultural communities, making farming more attractive, efficient and productive with less effort. To further improve adoption and spread of this innovation across the country, the Ukama Ustawi team adopted the IPSR framework to package this innovative technology. CIMMYT and partners have a goal of reaching 100,000 smallholder farmers in Zimbabwe by working directly with 2000 service providers across Zimbabwe.

Objective

The innovation packages and scaling readiness workshop in Zimbabwe aimed to explore the potential of scaling the smallholder mechanization starter pack and improve the package of the starter pack to be more appealing and viable to meet the needs of end users. The framework would help in evaluating various aspects of the innovation, identifying potential challenges and risks, and developing strategies to overcome them.

Workshop Overview

The workshop was designed based on the Innovation Packages and Scaling Readiness (IPSR) Methodology. Key stakeholders from national ministries, departments, private businesses, service providers, manufacturers, non-governmental organizations, and research institutions were invited and represented at the workshop. CGIAR colleagues were also present. The workshop was opened by the Chief Director of Agricultural Mechanization Engr. Edwin Zimunga and led by Dr. Abdul Matin who introduced the innovation and provided a comprehensive information on the scaling ambition. The workshop was facilitated by Ijudai
Jasada and co-facilitated by Nora Hanke-Louw. It brought together stakeholders from the Ministry of Agriculture, private sector (machinery suppliers, manufacturers, SPs/farmers, manufacturers’ association, financial institutions, national and international NGOs, national and international research centers, and media.

The packaging objectives, and key stages were introduced by Ijudai Jasada who facilitated the design approach of the workshop. The participants were divided into areas of expertise. The first stage of the design process was the uncovering of challenges. Various challenges/bottlenecks were identified and captured as impediments to the actualization of the scaling ambition. Through collaborative discussions and expert insights, the identified problems were prioritized based on their potential impact and the feasibility of addressing them.

After prioritizations, enablers/complementary innovations were proposed by the workshop participants and the readiness and use level of these enablers were determined based on the IPSR framework.

Output of the workshop
Key challenges were identified, discussed, and prioritized based on the expertise and experience of stakeholders at the workshop. Experts were given the opportunity to discuss and share the most important problems based on the domain areas listed out.

Challenges/Bottlenecks/Problems
- Limited financing of mechanization input from both public and private sector and the need to study and scale successful financing models.
- Limited buy-in by potential Service Providers and poor farmers motivation to adopt services.
- Mistrust between banks, farmers and other linked stakeholders.
- Limitations in selection of auxiliary equipment (not in the package) based on priority needs of farming communities and farmers.
- Seasonal use/demand of the machines except for the two-wheel tractor and the trailer.
- Limited training of service providers on how to service and repair machines.
- Poor gender inclusivity training on machine operations and use
- Fragmented mechanization policies
- Weak feedback loops between stakeholders such as researchers, service providers, and manufacturers.
- The benefit of mechanization is not properly sold to end users.
- Lack of wide testing and validation of equipment.
**Enablers/Complementary Innovations proposed.**
For the identified bottlenecks, experts discussed in groups to clearly curate appropriate solutions that addresses these identified bottlenecks if we want to scale the innovations to 2000 new SPs by 2025. These are:

**Capacity Building**
- A gender capacity-building program to improve women and youths' knowledge on how to access and effectively use and control machinery.
- To improve farmer-led learning, research and development through training, record sharing, information dissemination.
- Train operators and service providers on operation, maintenance, repair, and major servicing to reduce expenses, and downtime, thereby increasing operational life span. Capacitation of the research institute (Institute of Agricultural engineering and water conservation) through technical training and financial assistance.

**Policy**
- Improve enabling environment for mechanization through creation of enabling policies.

**Finance**
- Co-creation of financing models to establish gaps and offer solutions for stakeholders and financiers.
- Develop/Promote financing models that promote deposit payments to improve security for manufacturers while targeting the private sector.

**User needs consideration/innovation compatibility**
- Broaden pack offerings for value chain actors through facilitation of access to water, pumps, processing, harvesting, and storage of equipment.

**User confidence and Trust**
- Digitalize the procurement system and adapt national procurement regulations nationwide.

**Awareness**
- Create a social media platform under the Dept of Mechanization where stakeholders can share news and ideas and ask questions.
- A holistic awareness campaign targeting all supply chain actors and farmers on the benefits of mechanization.

**Scaling readiness graph:**
Conclusion:
The workshop in Zimbabwe brought together stakeholders from various sectors to address the challenges and opportunities related to the innovation called “the mechanization starter pack”. The identified barriers and proposed solutions will serve as a roadmap for scaling the innovation effectively and ensuring its positive impact on food distribution, nutrition, and local agricultural practices. By building a scaling strategy and implementing these solutions, the stakeholders aim to overcome barriers and create an enabling environment for the successful adoption and scaling of the smallholder farmers mechanization starter pack.

Disclaimer: This is not the final report, rather only reflects the activities and outputs at the end of the workshop. A final report will be produced after conducting quality assurance on the evidence provided to support the enablers.