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Abstract

Lower yield and marginalized genetic gains across Nepal have been observed in the last decade mainly due to climatic variations, low adoption of improved varieties and a low Seed Replacement Rate (SRR) of 14%. Although in the Chitwan region more than 19% of the arable area is under wheat cultivation, the average yield witnessed in the region is around 1.7 MT/hectare, which is below the national average. Further, the seed system in the region is challenged with sparingly equipped processing units. The first state owned agricultural university, Agriculture and Forestry University (AFU) in Chitwan Area of Nepal, under the aegis of DGGW set up a nationally recognized seed production facility to build the seed system towards quality seed production and enable adoption of improved varieties. The last four years have brought about a paradigm shift in the seed systems in the region for quality seed production, processing, and distribution:

- 1 The project facilitated quality seed production by the farmers using four new wheat varieties in addition to the two popular varieties in the region
- 2 With no seed production in 2016, today AFU has an established seed system capable of producing quality certified seeds meeting the national standards and is currently working towards producing and maintaining their own breeder seeds
- 3 The seed yields in the farmer fields have increased and are at par with the national average by adopting best practices
- 4 With established seed processing unit, accredited testing lab and trained manpower, AFU is one stop solution for seed processing and seed testing in the region



Key Objectives

To create awareness and accessibility to quality Certified wheat seed to smallholder farmers in the region by developing a Seed Village Model in Nepal. By increasing the Seed Replacement Rate (SRR), the gap between varietal release and adoption will be reduced and farmers can benefit from the latest technology.



Outcomes

- Built Economic Resiliency**
Average year on year increase per farmer ~\$190 per hectare
- Created Access to Quality Seeds**
~6500 wheat grain growers benefited by quality seed production and are a part of formal seed system
- Renewed Focus on Wheat & Seed Production**
4-fold increase in the enrollment of farmers and ~250 farmers are actively associated with the program
- Implemented Comprehensive Agronomic practices**
Improved field practices, soil testing, nutrition management, proactive disease surveillance



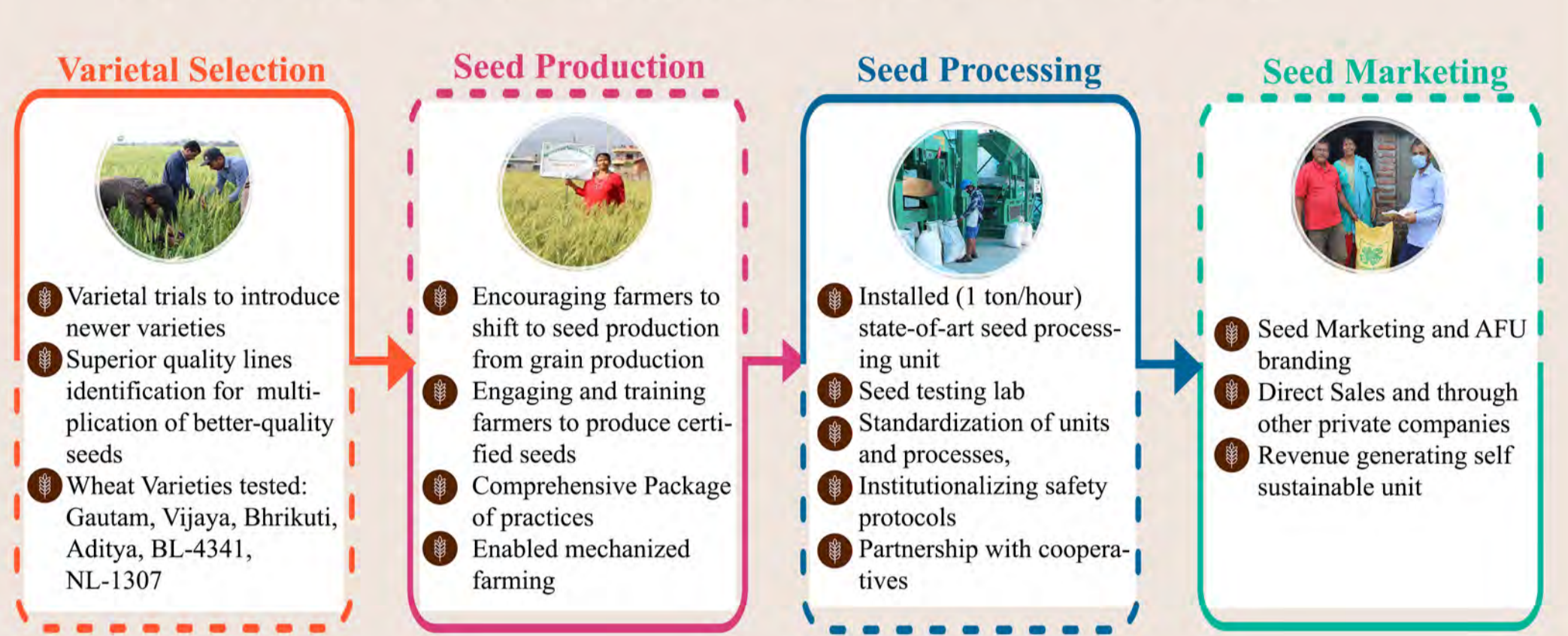
Seed Village Model

Strengthening and sustaining formal seed systems



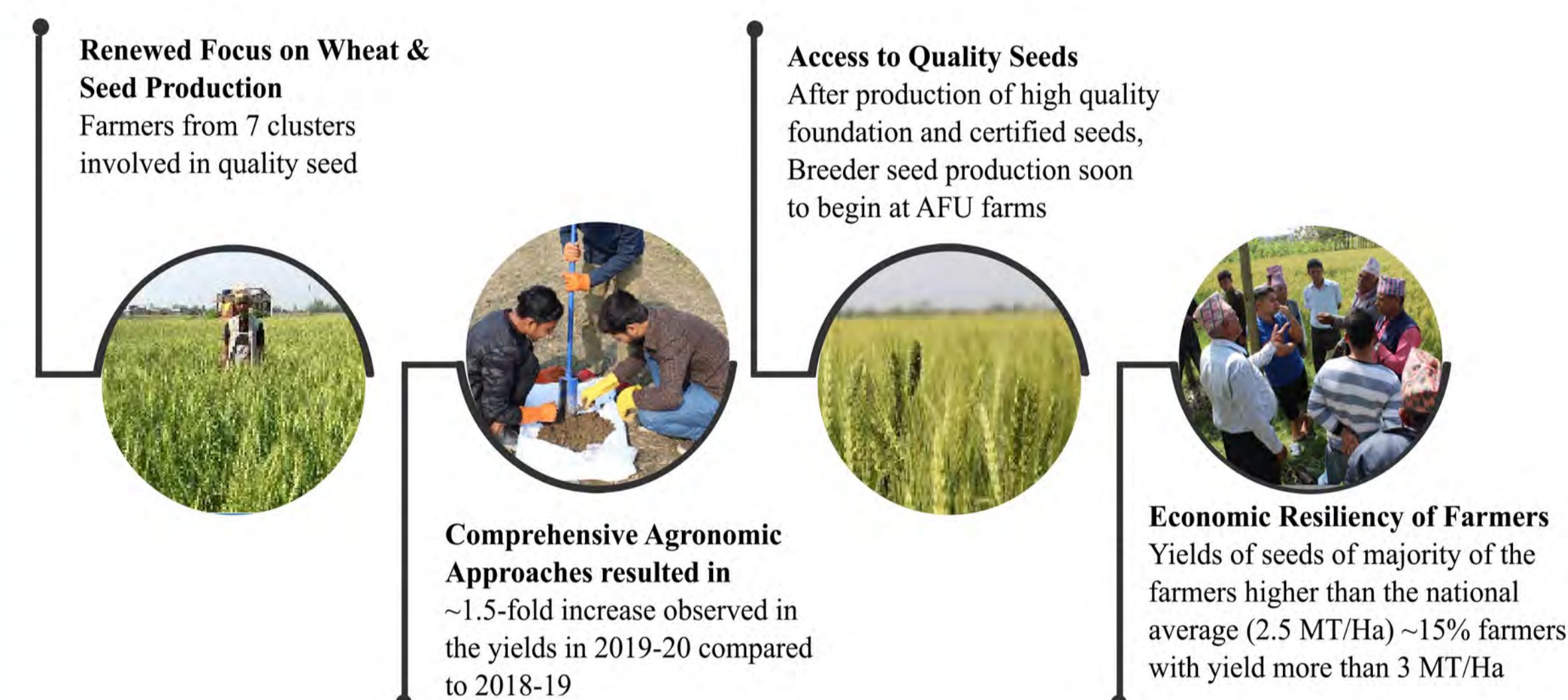
Our Approach

Creating accessibility to quality certified wheat seed to small holder farmers



Milestones Achieved

Quality Wheat Seed Production



2019-2020 Wheat Season

Famers involved : 221 | Seed Production Area : 133 Hectares | Seeds Produced : 255 MT



Capacity Building

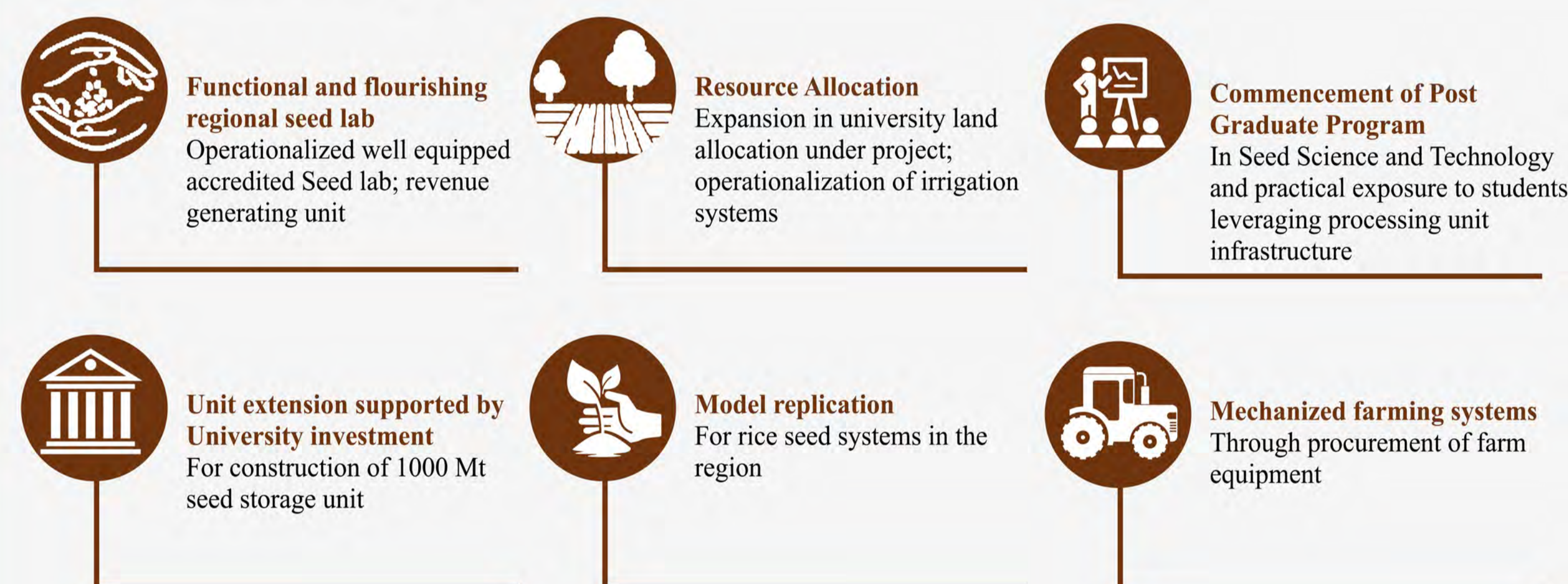
Creating a Knowledge Hub—Training all stakeholders

- 1 Pre-season farmer training on best practices and cropping system management,
- 2 Farmer field schools and farmer knowledge exchange program for sharing best practices in the region
- 3 Student training leveraging processing unit and seed testing facility
- 4 Operators trained on best practices and safe handling of the seed processing unit
- 5 Seed Certification training for senior members in AFU and private sector stakeholders of the region
- 6 Training on maintenance breeding



Incremental Initiatives

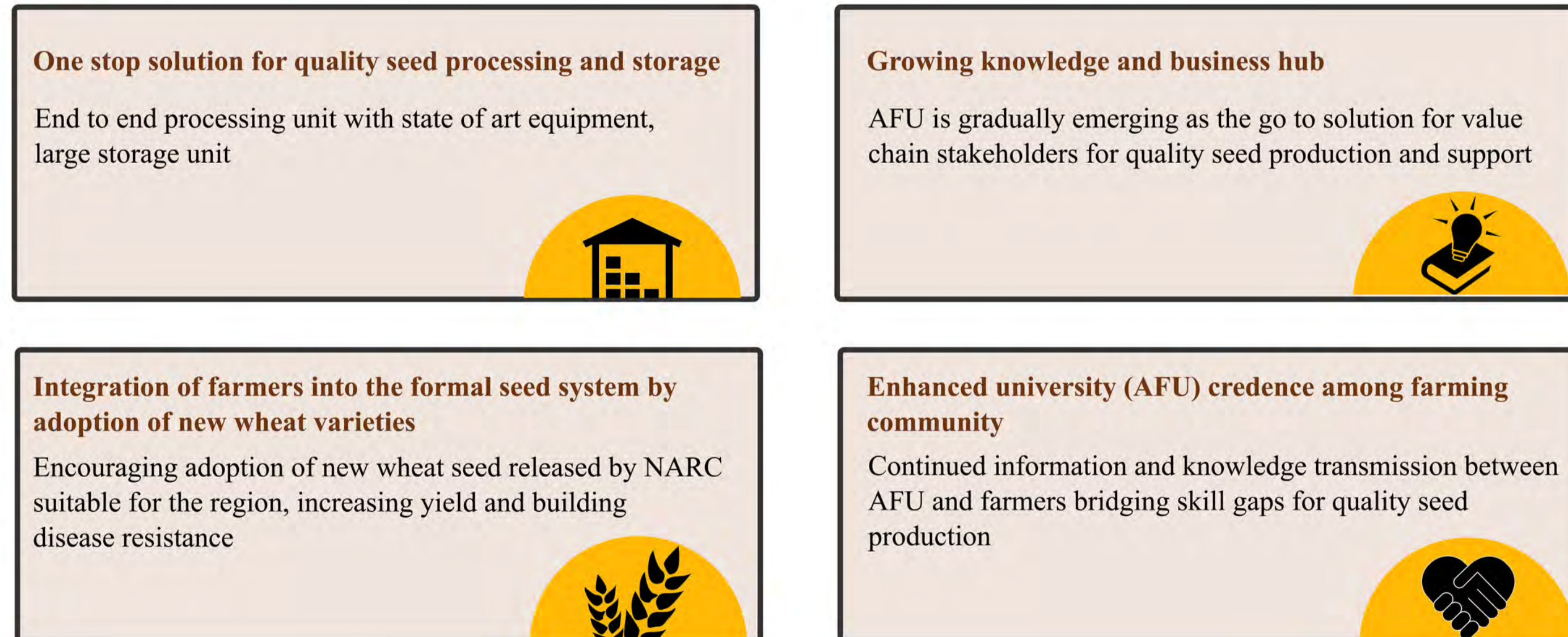
Multidimensional University efforts



Glimpses



Impact



Way Forward



Acknowledgment