SIMLESA- spearheading sustainable intensification of maize-legume cropping systems in Africa

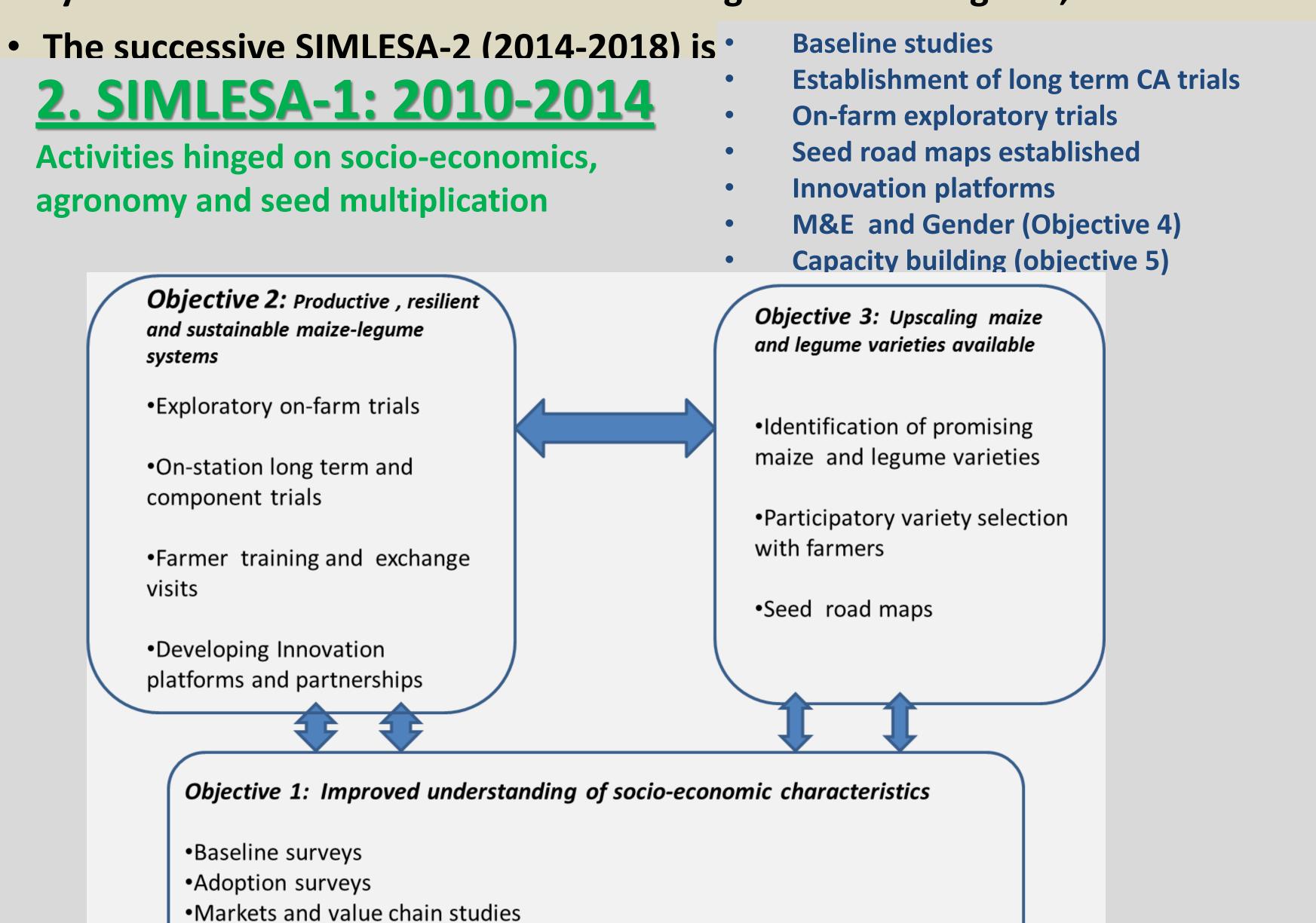
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1. Introduction

- Maize and legumes are an important source of food security and livelihoods among smallholder farmers of Eastern and Southern Africa (ESA).
- Between 2010 and 2014, SIMLESA-1 embarked on developing Conservation Agriculture (CA) based sustainable maize-legume cropping systems in five countries of ESA with the goal of reaching 500,000 farmers in 10 yrs-

Integration across objectives



Crop-livestock integration Increased focus on sustainable intensification, • **Greater focus on interactions among** varieties and CA-based technologies: integration and impact. incl. intercropping, disease, drought Scaling now a major activity component and N-stress tolerance, Farm scale studies Obj 1: Enhanced the understanding of CAbased intensification options for maize-legume production systems, value chains and impact Integration pathways CA meta-analysis Variety preferences Value chains Obj 3: Increased Markets Typologies & intensification range of maize, Obj 2: adaptation of farmscale productive, CA-based legume and studies fodder/forage intensification options for Varieties sustainable smallholder varieties available for CA for smallholders maize-legume production systems impact seed road map; business Smart sequencing models Objective 4: Outscaling & Innovation Systems

ssing SIMLESA Sites On-Station On-farm Lakes Agro-ecological zones Tropic - cool / arid Tropic - cool / humid Tropic - cool / semiarid Tropic - cool / subhumid Tropic - warm / arid Tropic - warm / humid Tropic - warm / semiarid Kenya Tropic - warm / subhumid Tanzania (Malawi Mozambique 250 500 1,000 Km

4. Highlights

- Maize varieties compatible with intercropping systems identified
- Water conservation and labour savings from **CA** demonstrated
- Superior yields from legume rotations in CA realized across ESA
- The positive impacts of CA practices on risk, incomes and the environment analysed and disseminated
- Innovation platforms contributed to scaling out and sustainability
- Over 46000 (17,000 female, 29,000 male) farmers reached by 2014.
- 22 PhD and 42 MSc students trained.











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Ethiopia





3. SIMLESA-2: 2014-2018







30% yield risk reduction+ 30% productivity increase among 650000

farms by 2023



Australia











