Climate Smart DeSIRA Malawi

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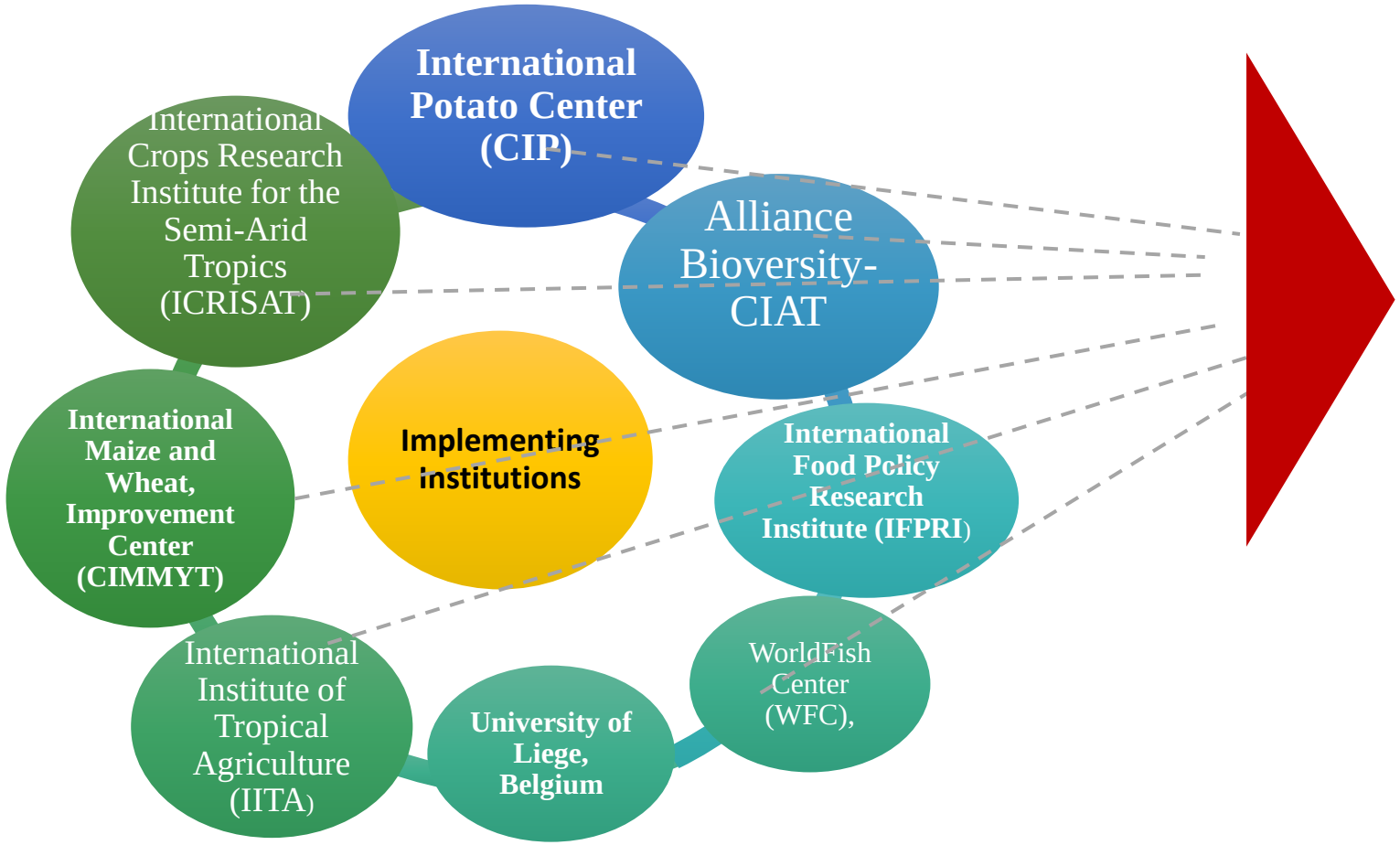
The DeSIRA Project Objectives



- Develop climate-resilient integrated technological innovations to address the complex and diverse challenges affecting the agricultural and food systems in Malawi
- Enhance understanding of the opportunities and constraints for uptake of integrated technology options by farmers
- Inform policy makers and scaling partners about the potential of integrated technological options to contribute to climate resilience and sustainability required for adoption.

Project Target Districts(The same districts with Kulima project)

- Mzimba
- Chitipa
- Karonga
- Nkhata Bay
- Nkhotakota
- Kasungu
- Salima
- Mulanje
- Thyolo
- Chiradzulu

Integrated Technology Development

- 47 integrated technology options with focus on *integrated soil fertility management, soil and water management options, integrated pest and disease management options, Rice –fish integrated technology, agroforestry farming systems and crop intensification* were co-designed through stakeholder consultation, expert knowledge, previous experiences in past and on-going projects

- Kulima farmer field schools were used as entry point for the on-farm evaluation and validation of the integrated technologies

Technology evaluation through Researcher-Managed on-station experiments

- **Conducted on-station**(research-managed) experiments across 11 DARS Agricultural Research Stations that represent major agro-ecologies

- The **11 agricultural Research stations** include *Chitedze, Bembeke, Tsangano, Bvumbwe, Makoka, Chitala, Lunyangwa, Mbawa, Kasinthula, Baka and Melu*

- The successful technologies were advanced to the on-farm level

Technology evaluation through on- farm experimentation

- Established **on-farm**(farmer-managed) experiments across **309 sites** for farmers participatory evaluation and validation
- Conducted farmers' participatory technology evaluation sessions to capture farmers perceptions and acceptability
- Conducted field days and technology assessment events

Established 3 District Innovation Platform Systems

- District Innovation Platforms were established across 3 districts(Mulanje, Salima and Mzimba) to foster effective interactions and engagement between scientists, farmers, and all the relevant stakeholders in the development and testing of various integrated technology options.
- To provide platform for collaborative interaction and relationship among various stakeholders within the district
- To better understand farmers decision making in selecting integrated technologies and best –bet practices
- Unique platform for joint learning by research, extension, and private sector partners in the district on the effectiveness and relevance of the technologies
- Foster community ownership of the technologies and motivate farmers to be active participants
- Integrate indigenous/local knowledge and approaches into the technology development agenda

Socioeconomic studies Conducted

- Literature review on the gaps between the awareness and adoption of agriculture technologies
- Develop **farm risk models** by constructing six dynamic programming models of constraints to agricultural technology adoption by smallholder farmers
- Economic benefit analysis of integrated technology options
- Farmers' **evaluation and acceptability** of the integrated technologies

Conducted joint field monitoring visits

Key Achievements

- Over the past four years, 47 climate smart integrated technology options were co-designed, tested and being validated by scientists, farmers, and other stakeholders through on-station and on-farm experimentations
- A total of 174 on-station(*researcher-managed*) field experiments were set up to Conducted 28 farmers' technology acceptability and cost benefit analysis studies with 213 farmers (114 men and 99 women) to generate information on the economic scenario and potential acceptability of the integrated technologies.
- A total of 1,881farmers (767 men and 1094 women) were involved in the hosting and testing of the on-farm experimentation across the target districts
- Seventeen (28) integrated technologies which include climate smart crop varieties, production systems, soil fertility management and management practices are at the final stage of evaluation and validation

Pathway to scaling out

Engage experts in scaling readiness assessment

- Improves innovation user awareness and access
- Mapping technologies to existing farming systems
- Strengthen user capacity on the use of innovations
- Ensure gender and social inclusion
- Promote policy framework to address scaling bottlenecks
- Put in place coordination frameworks among the scaling partners

Thank you