Sustainable Intensification of Mixed Farming Systems (SI-MFS)

Fred Kizito (ABC-IITA)

Santiago Lopez Ridaura (CIMMYT)
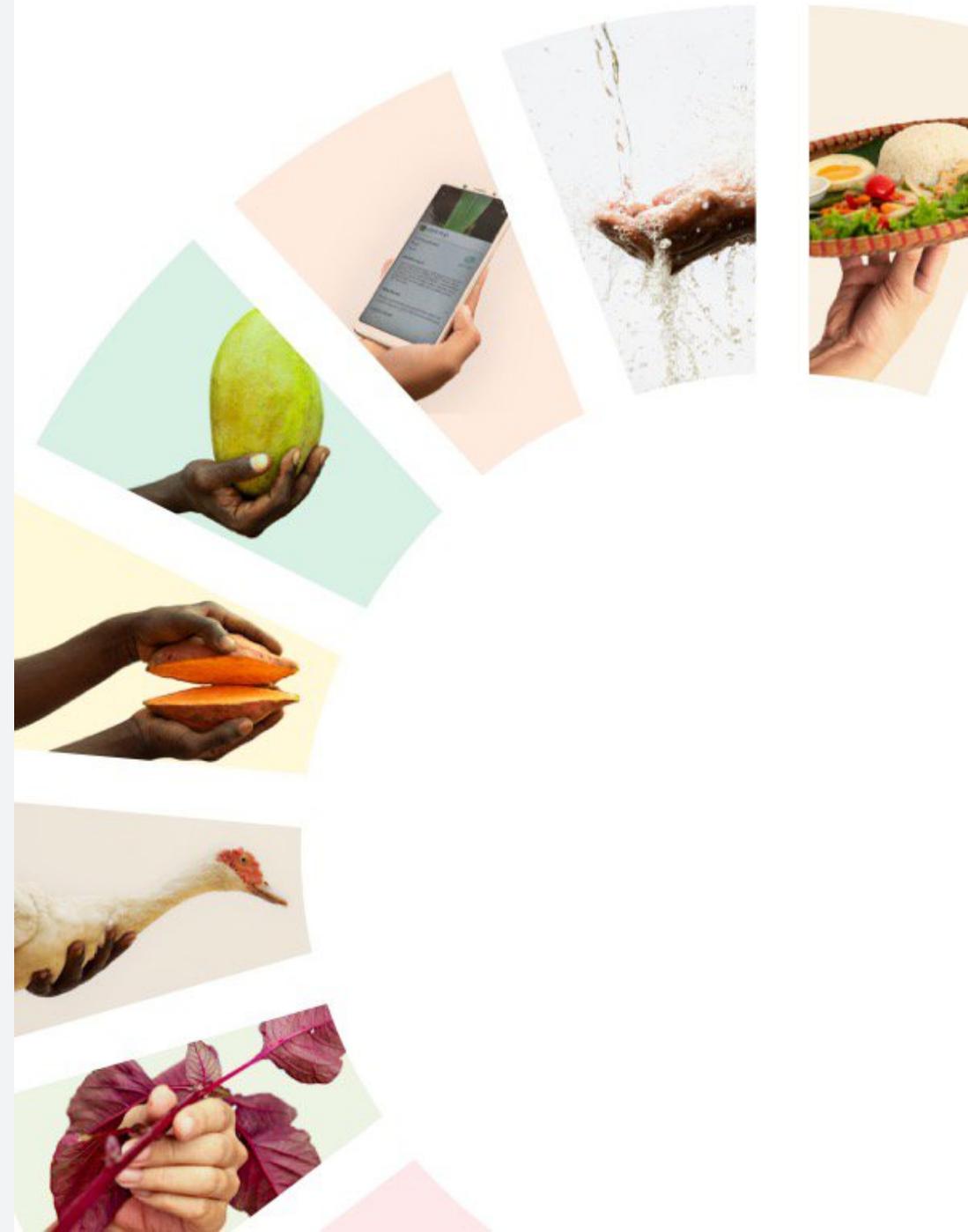
Research challenge and approach

Most agricultural production in the global south happens in Mixed Farming Systems (MFS)

- Specialized systems are the exception rathen than the ruke. E.g. Mixed crop-livestock systems are considered to cover 2.5 billion Ha of land globally and, in the Tropics, they supply around 75% of the milk, 60% of the meat and between 40 and 86 % of the maize, rice, sorghum and millet consumed (Thornton et al 2017).

- However, most agricultural R&D has been "component-focused" which often limits scaling and the potential for impact at scale and amplifies trade-offs between livelihood objectives of MFS actors.

SIMFS:

- Adopts a 'Livelihood lens' considers socio-economic, nutritional & cultural conditions

- Adopts a 'Systems approach' considering all components of farming systems and their interactions to be applied at different levels of analysis and adapted to context.

The SI-MFS Initiative can deliver critical outcomes that result in multiple impact at scale, minimize sectoral trade-offs and leverage/maximize synergies in MFS

Objectives (2022-2024)

- To improve overall systems productivity and reduce environmental footprint of MFS through better resource use efficiency

- To provide equitable, transformative pathways for improved livelihoods for MFS actors through SI in target agro-ecologies and socio-economic settings

- To mainstream co-development and application of systems analysis and design tools with R&D partners (i.e., multi-criteria assessment, targeting innovations, trade-off analysis)

- To institutionalize systems thinking for SI within innovations systems and R&D programs led by CGIAR, NARES, local universities and international partners

CGIAR
Science for a food-secure future
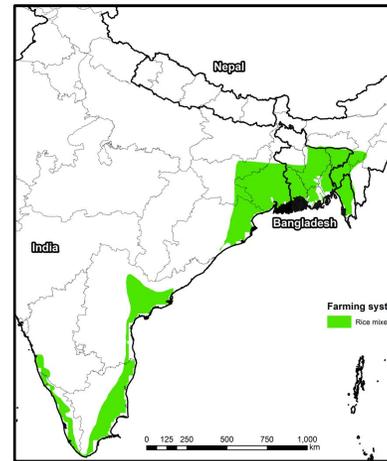
Sites and partnerships
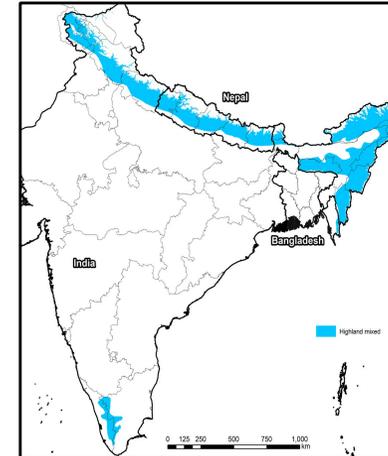

Highland mixed (Ethiopia)
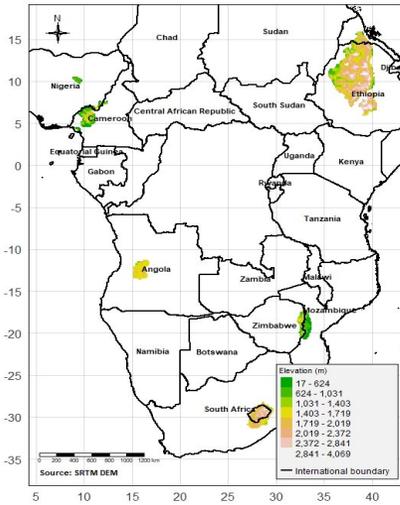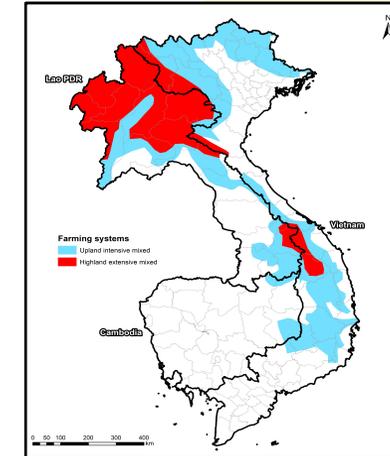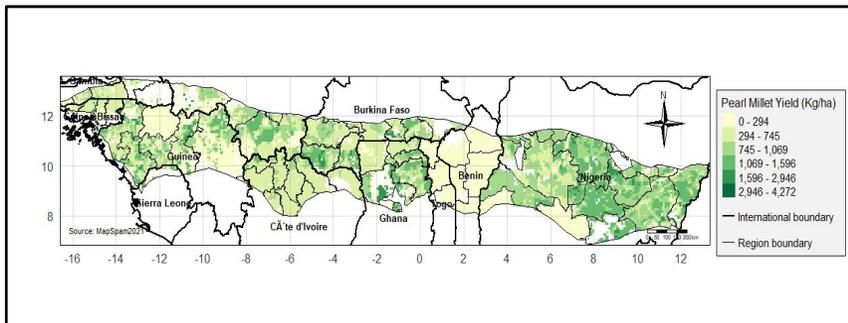

Maize-mixed (Malawi)
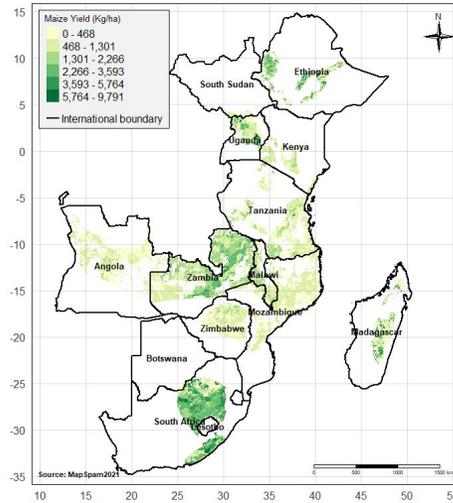
Rice-mixed (Bangladesh)

Highland mixed (Nepal)

Upland intensive mixed and Highland extensive mixed (Laos)

Cereal-root mixed (Ghana)

Partners:

- NARS, extension systems and local NGOs for co-design and implementation

- IARIs for global and regional partnership for methodological development and scientific backstopping. (WUR, KIT, Cornell, MSU)

Thank You