Agricultural Transformation Technologies and Innovations

Why Agricultural Transformation Technologies and Innovations?

Smallholder farmers in Eastern and Central Africa face similar challenges. Many use poor quality inputs with farms often under the threat of attack by menacing pests and diseases. This is aggravated by variable climate, declining natural resource base, and lack of access to input and output markets. ASARECA is duty bound to be on the lookout for regional AR4D opportunities to address these challenges.

Through this thematic area, ASARECA focuses on coordinating and supporting the development and adaptation of Technologies, Innovations and Management Practices (TIMPs) to address priority regional agricultural transformation challenges; development of approaches, tools and pathways for enhancing uptake of TIMPs; enhancing scaling up of priority regional agricultural value chains; and supporting development of private sector-driven agribusinesses and entrepreneurships.

Strategic Results Areas: The three strategic result areas required to deliver this thematic area are:

- Support and coordinate development and adaptation of gender responsive and climate-smart technologies, innovations and management practices.
- Support and coordinate scaling up of gender responsive and climate-smart technologies, innovations and management practices; and.
- Support and coordinate development and scaling up of gender responsive and youth focused regional value chains and agribusinesses.

Opportunities: Some of the major opportunities that this thematic area addresses include:

- Strengthening participatory research planning, priority setting, programme development and implementation to address demand driven regional priorities.
- Strengthening dissemination processes to improve uptake, utilization and
scaling up of agricultural technologies and innovations.

- Ensuring sufficient involvement of farmers and other end-users in the generation of technologies and innovations to ensure relevance and appropriateness.
- Improving development, upgrade and competitiveness of agricultural value chains to enhance their contribution to improved livelihoods.
- Strengthening linkages between research, extension and training/education institutions to improve agricultural research, extension and training service delivery.
- Improving coordination of national and regional AR4D initiatives to work together more effectively and synergistically around identified regional priorities.
- Improving on packaging and communication of scientific research results in forms that are easily understandable by different end users.
- Identifying barriers and proposing mechanisms to facilitate exchange of TIMPs across national boundaries
- Establishing, strengthening, facilitating and brokerage of multi-stakeholder partnerships among researchers, farmers, private sector to foster co-creation and co-ownership of TIMPs.

**Key achievements**

**Leveraging research resources:** ASARECA has leveraged resources to enhance capacities for generation and dissemination of TIMPs from various development partners through projects such the Comprehensive Africa Agricultural Development Programme (CAADP-XP4)—EU; the Climate Smart Water Management and Sustainable Development for Food and Agriculture in East Africa (WatDev) Project—EU; the Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) (World Bank); Land, Soil and Crop Data Hub Project for EA; Information for agriculture and food security Project; and Strengthening agricultural knowledge and the innovation ecosystem for inclusive rural transformation and livelihoods in Eastern Africa (AIRTEA) Project.

**Formation of Think Tank of Directors General:** ASARECA has established the Think Tank of Directors General (CDG) of the NARIs to champion agenda setting for priority TIMPs. The CDG have held dialogues with stakeholders including the private sector, farmer organisations; youth and women groups to agree on AR4D priorities in ECA.
Technologies, innovations and management practices generated: Through ASARECA work, a total of 364 TIMPs have over the years been generated or improved to suit farmers’ demands. Besides, a total of 435 demand-driven gender responsive TIMPs have been availed for uptake by targeted stakeholders.

Production of quality seed: Through ASARECA coordinated projects, over 1,000 ha of land has over the years been dedicated to production and multiplication of seed. From this, over 800 metric tons of quality seed for selected crops were produced and availed for further multiplication.

Reclamation of degraded lands and watersheds: Over 5,000 ha of highly degraded lands and watersheds were reclaimed. As a result of the above interventions over 869,000 rural farming households have benefited from the TIMPs hence impacting over 57 million individuals directly and over 63 million people indirectly.

Climate Smart Agriculture Alliance: ASARECA has established the ASARECA Climate Smart Agriculture Alliance (Alliance), which now regularly convenes to set research priorities on climatic change issues including migratory pests such as the desert locusts, fall armyworm, green climate finance.