

Day ONE [14 September]

Review [progress with implementation of ESA workplan sub-activities]

Outcome 1. Productivity, diversity, and income of crop–livestock systems in selected agroecologies enhanced under climate variability		
Output 1.1 Demand-driven, climate-smart, integrated crop–livestock research products (contextualized technologies) for improved productivity, diversified diets, and higher income piloted for specific typologies in target agroecologies		
Activity 1.1.1: Assess and iteratively improve resilient crop-crop and crop-livestock integration systems		
Start time	Presenter	Sub-activity title
14:20	B. Jumbo	Sub-activity 1.1.1.1: Validation of drought-tolerant maize (DT) hybrids under on-farm conditions in central Tanzania
14:25	R. Chikowo	Sub-activity 1.1.1.2: Investigations on the medium to long term impacts of SI technologies on crop productivity at multi-locational fields
	R. Chikowo	Sub-activity 1.1.1.3: Determining the productivity of groundnut as a function of seed generation × variety × density interactions in two contrasting agroecologies, and rotational benefits to maize
	R. Chikowo	Sub-activity 1.1.1.4: Exploring productivity of goats under controlled breeding and feeding regimes among young breeding female goats in the crop–livestock system in Malawi
14:40	A. Kimaro	Sub-activity 1.1.1.5: Determining the productivity and resilience benefits of Gliricidia-based cropping systems
14:45	J. Kihara	Sub-activity 1.1.1.6: Assess the yield, economic and BNF benefits of innovative approaches addressing the pigeon pea and common bean productivity within maize-based cropping system and variable weather
	J. Kihara	Sub-activity 1.1.1.7: Monitoring the impact of weather and climate variability on the productivity and resilience of maize–legume cropping systems of Kongwa and Kiteto, Tanzania
14:55	L. Claessens	Sub-activity 1.1.1.8: Explore, document, and assess the sustainable intensification pathways of 3 farming system case studies in Tanzania to inform scaling potential.
	L. Claessens	Sub-activity 1.1.1.9: Assessing the impacts of Africa RISING technologies on the performance and resilience of multi-location and differentially exposed farming systems case studies in Malawi.
Activity 1.1.2: Evaluate and implement pathways that are effective at improving access to seeds and clonal materials of modern varieties of legumes, cereals, vegetables, forages, and livestock		
Start time	Presenter	Sub-activity title

15:05	S. N'Danikou	Sub-activity 1.1.2.1: Assessment of the benefits of management technologies on the performance of improved vegetable varieties
Output 1.2 Demand-driven, labor-saving, and gender-sensitive research products to reduce drudgery while increasing labor efficiency in the production cycle piloted for relevant typologies in target areas		
Activity 1.2.1: Support local partners through training on appropriate drudgery-reducing technology delivery. No sub-activity was planned for 2019-2020.		
Activity 1.2.2: Co-adapt existing mechanization options with target communities		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
15:10	E. Swai	Sub-activity 1.2.2.1: Use of tractor mounted ripper tillage implement for enhancing soil water infiltration and moisture conservation in semi-arid areas of Kiteto
Output 1.3. Tools (including ICT-based) and approaches for disseminating recommendations in relation to above research products, integrated in capacity development		
Activity 1.3.1: Conduct extrapolation domain analysis based on GIS, agroecology, and crop model-generated information to establish the potential of technologies for geographical reach		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
15:15	M. Bekunda on behalf of B. Lukuyu	Sub-activity 1.3.1.1: Farmer/Extension messaging (forage production and use, crop residue processing and use and feed rations) using the MWANGA ICT-Platform
15:20	F. Muthoni	Sub-activity 1.3.1.2: Produce regionally relevant extrapolation domain maps for validated conservation agriculture (CA) practices
	F. Muthoni	Sub-activity 1.3.1.3: Produce regionally relevant extrapolation domain maps for validated soil and water conservation practices
15:30	J. Manda	Sub-activity 1.3.1.4: Ex ante impact assessment with Trade-off Analysis Model for Multidimensional Impact Assessment (TOA-MD) for regional relevance of Africa RISING technologies.
Outcome 2. Natural resource integrity and resilience to climate change enhanced for the target communities and agroecologies		
Output 2.1 Demand-driven research products for enhancing soil, land, and water resource management to reduce household/community vulnerability and land degradation piloted in priority agroecologies		
Activity 2.1.1: Characterize current practices in ESA through identifying formal and informal arrangements for access to and use of water and land resources		

<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
15:35	J. Groot	Sub-activity 2.1.1.1: Assessing buffer and adaptive capacity to harness resilience of different farm types
Output 2.2 Innovative options for soil, land and water management in selected farming systems demonstrated at strategically located learning sites		
Activity 2.2.1: Set up demonstration and learning sites in target ESA communities		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
15:40	C. Thierfelder	Sub-activity 2.2.1.1: Lessons from long-term on-station Conservation Agriculture (CA) trials in Zambia
15:45	R. Chikowo	Sub-activity 2.2.1.2: Assessing the benefits of nutrient and water management for climate resilience in Malawi
15:50	J. Kihara	Sub-activity 2.2.1.3: Climate-smart farming practices (soil water micro-catchments, weather informed varieties, cover crops integration [cowpea]) for increasing productivity of the maize-legume system under variable weather conditions
15:55	A. Kimaro	Sub-activity 2.2.1.4: Integration of fodder trees and grass forages in dryland farming
	A. Kimaro	Sub-activity 2.2.1.5: Evaluation of land rehabilitation benefits of shelterbelts and contours
16:05	E. Swai	Sub-activity 2.2.1.6: Validation of residual tied ridging as a labor-saving technology in the semi-arid areas of central Tanzania
Outcome 3. Food and feed safety, nutritional quality, and income security of target smallholder families improved equitably (within households)		
Output 3.1 Demand-driven research products to reduce postharvest losses and improve food quality and safety piloted in target areas		
Activity 3.1.1: Conduct packaging and delivery of postharvest technologies through community and development partnerships with an iterative review, refining, and follow-up		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
16:10	S. N'Danikou	Sub-activity 3.1.1.1: Impact of nutritional messaging on household nutrition, knowledge, attitude, and practices
16:15	G. Fischer	Sub-activity 3.1.1.2: Validating hermetic storage structures and the environment on physical and economic loss abatement in produce
16:20	M. Bekunda for C. Mutungi	Sub-activity 3.1.1.3: Nutritional value, safety, and processing quality of produce during storage and utilization by households

Output 3.2 Nutritional quality due to increased accessibility and use of nutrient dense crops by farmers improved		
Activity 3.2.1: Promote and deploy nutrient-rich crop varieties and livestock food resources in target communities		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
16:25	P. Okori	Sub-activity 3.2.1.1: Pathways to sustainable adoption of nutrient-dense diets in rural communities of central Tanzania
16:30	R. Chirwa	Sub-activity 3.2.1.2: Promoting farmer production of nutrient-dense (Zn, Fe) NUA45 and drought-tolerant SER83 bean varieties in Malawi
16:35	R. Chikowo	Sub-activity 3.2.1.3: Determining quality and safety of locally produced legume grain-derived complementary foods and adoption in Dedza District
16:40	P. Okori	Sub-activity 3.2.1.4: Assess the contribution of the farming systems interventions in narrowing the food and nutrient gaps in Kongwa and Kiteto, and the probability of smallholder farmer production to meet them
Outcome 4. Functionality of input and output markets and other institutions to deliver demand-driven sustainable intensification research products improved		
Output 4.1 Access to profitable markets for smallholder farming communities and priority value chains facilitated		
Activity 4.1.1: Conduct comprehensive value-chain analysis with a specific focus on SI technologies		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
16:45	B. Jumbo	Sub-activity 4.1.1.1: Conduct value chain analysis (VCA) for (quality protein) maize seed in Kongwa and Kiteto
16:50	P. Okori	Sub-activity 4.1.1.2: Value chain analysis of groundnut seed and design of operation enhancement strategies for semi-arid ecologies of central Tanzania
16:55	J. Kihara	Sub-activity 4.1.1.3: Assess how livelihoods of farmers are affected by implementation of ISFM practices as a result of Africa RISING activities in Babati
17:00	E. Swai	Sub-activity 4.1.1.4: Assess how livelihoods of farmers are affected by implementation of ISFM practices as a result of Africa RISING activities in Kongwa and Kiteto
17:05	R. Chirwa	Sub-activity 4.1.1.5: Value chain analysis of nutrient-dense common bean varieties in Malawi
Activity 4.1.2: Conduct a value chain stakeholder analysis (stakeholder mapping)		

Activity 4.1.3: Develop a value chain enhancement strategy (including collective action approaches, contractual arrangements, and standardization)		
Activity 4.1.4: Identify and evaluate existing mechanisms that inform farmers about dynamic market needs		
Activity 4.1.5: Conduct an analysis of the existing baseline survey data and supplement them with qualitative surveys from target regions		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
17:10	J. Manda	Sub-activity 4.1.5.1: Identify the most profitable market channels and welfare effects of participating in the maize, groundnut, and pigeon pea markets in Malawi, Tanzania
Outcome 5. Partnerships for the scaling of sustainable intensification research products and innovations		
Output 5.1 Opportunities for the use and adoption of sustainable intensification technologies identified for relevant farm typologies		
Activity 5.1.1: Farmer participatory experimentation with crop and soil management and integrated crop-livestock technologies in on-farm situations		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
17:15	C. Thierfelder	Sub-activity 5.1.1.1: Continued experimentation in six target communities of Eastern Zambia and nine target communities in central and southern Malawi with already established clustered CA trials
17:20	P. Okori	Sub-activity 5.1.1.2: Explore the productivity domains of selected legumes and cereals to elucidate their best fitting cropping system at community/landscape level and their dissemination
17:25	M. Bekunda on behalf of B. Lukuyu	Sub-activity 5.1.1.3: Engage development partners to identify livestock management technologies of interest for partnership dissemination
17:30	C. Thierfelder; R. Chikowo	Sub-activity 5.1.1.4: Case studies: Application of SI technologies use among farmers interacting with Africa RISING at different intensities (MSU/CIMMYT partner study)
17:35	R. Chikowo	Sub-activity 5.1.1.5: Panel survey, soils processing, and meta-analysis studies for maize-grain legumes sequences and implications for sustainability
Activity 5.1.2: Use farm trial data to apply crop simulation models and assess performance over space and time, including assessment of climate-smart technologies to establish the potential for adaptation and mitigation		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
17:40	P. Okori	Sub-activity 5.1.2.1: Apply APSIM crop simulation model to assess changes in resource use efficiencies, productivity, and profitability of the different cropping systems in Kongwa, Kiteto, and Iringa in Tanzania.

17:45	J. Kihara	Sub-activity 5.1.2.2: Evaluating potential contributions of integrated soil fertility management around the five SIAF domains with emphasis on Africa RISING interventions in Tanzania
Activity 5.1.3: Establish adaptive field experiments with mineral and crop/animal-derived organic manure		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
17:50	R. Chikowo	Sub-activity 5.1.3.1: Rainfall-responsive nitrogen fertilization strategies: in search of increased nitrogen use efficiency by smallholder farmers under rainfed conditions in Malawi
	R. Chikowo	Sub-activity 5.1.3.2: Assessing the effect of residue quantity and quality, and water conservation on maize productivity and nitrogen dynamics on smallholder farms in Malawi
18:00	S. Mawazo	Sub-activity 5.1.3.3: Assessing the integrative effect of in-situ rainwater harvesting and fertilizer micro-dosing on crop yield, water, and nutrient use efficiency in Kongwa District
Activity 5.1.4: Demonstrate the use and impact of crop residues, forages, and other organic resources as animal feed and nutrient resources		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
18:05	M.Bekunda on behalf of B. Lukuyu	Sub-activity 5.1.4.1: Test the effect of feeding Napier grass and Maize stover supplemented with bean haulms at different levels on milk yield under smallholder farmer conditions
	M.Bekunda on behalf of C. Rubanza	Sub-activity 5.1.4.2: Demonstrating the effect of home-made feed rations based on Gliricidia sepium and vegetable waste on the productivity of selected strains of chickens
Activity 5.1.5: Use crop-livestock models for trade-off analysis		
Activity 5.1.6: Disseminate best-fit integrated crop-livestock technologies to reach and have an effect on small-scale farmers in a landscape context		
<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
18:15	J. Groot	Sub-activity 5.1.6.1: Small-scale piloting of FarmMATCH – a framework for typology-based targeting and scaling of agricultural innovations. (Matching Agricultural Technologies to Farms and their Context)
Activity 5.1.7: Conduct cost-benefit and gender analysis coupled with other socioeconomic analyses to identify and quantify adoption constraints and opportunities for different farmer contexts		

<i>Start time</i>	<i>Presenter</i>	<i>Sub-activity title</i>
18:20	C. Thierfelder	Sub-activity 5.1.7.1: Socio-economic studies on cost/benefits of CA systems, labor, nutrition, and gender in target communities of Malawi and Zambia
	C. Thierfelder	Sub-activity 5.1.7.2: Farmer application of SI principles in CA long-term trials in Malawi and Zambia, and Sub-activity 5.1.7.3: Socio-economic studies on nutritional benefits of SI practices
	C. Thierfelder	Sub-activity 5.1.7.3: Socio-economic studies on nutritional benefits of SI practices
18:35	J. Manda	Sub-activity 5.1.7.4: Assess the effect of tied ridging, residual tied ridging and rip tillage on maize productivity, net crop returns, household income, and food security
	J. Manda	Sub-activity 5.1.7.5: Determine the effect of the joint adoption of improved maize varieties and maize-legume rotation on maize productivity and crop incomes in Malawi
	J. Manda	Sub-activity 5.1.7.6: Determine Africa RISING research on household welfare and return on investment