

## C. NEEDS SIEM

Intervention	List of outputs for Tanzania				
	Policy / Institutional	Infrastructure	Human resource capacity	Provision / support	Information / knowledge
<b>Seed</b>	<ul style="list-style-type: none"> <li>• Statement on seed issues is in Agricultural policy which is being revised (subject to cabinet approval), no seed policy per se</li> <li>• Seed Act/law 2003 is in place and working</li> <li>• Seed standard under Seed Act of 2003</li> <li>• Seed Quality control is done by Tanzania Official Seed Certification Institute (TOSCI)</li> <li>• Tanzania is a member of International Seed Testing Association (ISTA)</li> <li>• Phytosanitary issues are in legislation 1997 Plant Protection Act</li> <li>• Intellectual property addressed in Plant Breeders Act 2002</li> <li>• Seed multiplication (Agricultural Seed Agency –Government Institution with semi-autonomy challenged to meet seed demand in terms of quantity and quality.</li> <li>• Agro-dealers/stockists are concentrated in urban areas not rural where farmers are.</li> <li>• Seeds not timely delivered Modality of seed marketing between ASA and private companies need to be reviewed</li> <li>• Seed release committee in place and effective</li> </ul>	<ul style="list-style-type: none"> <li>• Breeding facilities in place but need rehabilitation and retooling</li> <li>• TOSCI infrastructure in place but need rehabilitation and retooling</li> <li>• Modern Seed processing equipments needed for seed dealers</li> <li>• ASA seed foundation seed farms need rehabilitation and retooling</li> <li>• Irrigation infrastructure of the foundation seed farms need rehabilitation and retooling.</li> <li>• Seed multiplication farms outdated</li> <li>• Infrastructure in private seed farms be assessed.</li> <li>• Plant Genetic Resource at Tropical Pesticide Resource Institute (TPRI) at Arusha need rehabilitation and expansion</li> </ul>	<ul style="list-style-type: none"> <li>• Short and long courses for Breeders and other disciplines are needed. Current: 3PhD and 4MSc students already enrolled by EAAPP support</li> <li>• Short and long term training to TOSCI scientists for all disciplines is required</li> <li>• Training on seed technologists for ASA officials</li> <li>• Training and exchange visits of technicians in local and foreign potential for rice production</li> <li>• Training on irrigated rice management is required</li> </ul>	<ul style="list-style-type: none"> <li>• Subsidy on seeds and fertilizer in place for entire country however need proper monitoring.</li> <li>• Continued support for research in terms of identification and promotion of high value added varieties</li> <li>• Facilitation of seed acquisition</li> <li>• Promoting production of quality seeds in sufficient quantity</li> </ul>	<ul style="list-style-type: none"> <li>• Advocate on the use of improved varieties to respective agro-ecological zones needed.</li> <li>• Established Catalogue on variety needs to be accessible to stakeholders</li> <li>• Map on rice variety needs to be produced</li> <li>• Rice knowledge bank to be available to stakeholders</li> <li>• ASA sensitise stakeholders on seed issues</li> <li>• ASA and private seed dealers promote use of improved seeds to stakeholders</li> <li>• Reviewed seed production, demand and supply be</li> <li>• Knowledge on use of improved seeds be promoted</li> </ul>

<b>Fertilizer</b>	<ul style="list-style-type: none"> <li>• Fertilizer policy, Laws/standards, certification system and distribution policy is available</li> <li>• Fertilizer Regulatory Authority established by MAFC (2009)</li> </ul>	<ul style="list-style-type: none"> <li>• Private phosphate fertilizer production at Minjingu in place</li> <li>• Establishment of fertilizer production plant(s) in pipeline.</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of quality standards available extension services under MAFC, strengthening on use in respect of quality and standard required. Strengthening the capacity of agro-dealers to access inputs.</li> </ul>	<ul style="list-style-type: none"> <li>• Subsidies via Government programme (2003/04) to selected regions</li> <li>• Subsidies via Government programme be sustained to cover all districts</li> </ul>	<ul style="list-style-type: none"> <li>• Location specific Fertilizer application guidelines developed by National Soils Service and available for use.</li> <li>• Advocacy and awareness creation needed</li> </ul>
<b>Irrigation / water management</b>	<ul style="list-style-type: none"> <li>• Water resource policy</li> <li>• Laws and regulations for water resource</li> <li>• National Irrigation policy</li> <li>• Laws and regulation for irrigation is on pipeline</li> <li>• Institutional framework for WUA and IOs</li> </ul>	<ul style="list-style-type: none"> <li>• Few full irrigation facilities</li> <li>• Water harvest facilities in semi arid areas e.g. Singida, Dodoma and shinyanga on pipeline</li> <li>• Development of Small scale irrigation schemes (traditional and improved schemes)</li> <li>• Rehabilitation of irrigation schemes</li> <li>• Construction of irrigation and drainage infrastructure</li> <li>• Dam constructions and underground water use facilities.</li> </ul>	<ul style="list-style-type: none"> <li>• On farm water management</li> <li>• WUA/IOs resource and leadership management</li> <li>• Administration of irrigation operation and management</li> <li>• Capacity building to irrigation staffs and farmers e.g. at Ausha Technical College and MATI Igurusi ( irrigation technician and engineers)</li> <li>• Capacity building on value addition.</li> <li>• Undergraduate programme for civil and irrigation engineering and environmental engineering.</li> <li>• Undergraduate programme for land surveyors.</li> </ul>	<ul style="list-style-type: none"> <li>• Technical support by provision of experts on irrigation design and construction (pipeline)</li> <li>• Financial support (In adequate) in rehabilitation and development of new schemes</li> </ul>	<ul style="list-style-type: none"> <li>• Irrigation research section on water management, siltation and other irrigation technology</li> <li>• Technology transfer is needed</li> </ul>
<b>On-farm technology</b>	<ul style="list-style-type: none"> <li>• Agricultural policy of 1997 (under reviewed) addresses technology</li> </ul>	<ul style="list-style-type: none"> <li>• Ward resource centres established in phases in</li> </ul>	<ul style="list-style-type: none"> <li>• Exchange visits and study tours</li> </ul>	<ul style="list-style-type: none"> <li>• Zonal Research and Extension Liaison</li> </ul>	<ul style="list-style-type: none"> <li>• Zonal communication</li> </ul>

<b>dissemination (R&amp;E)</b>	dissemination <ul style="list-style-type: none"> <li>• Agricultural extension guidelines in place and applied</li> <li>• Farmers are involved on on-farm technology generation</li> <li>• Guideline on private agricultural extension delivery system in place</li> <li>• Research and extension networking/linkage needs strengthening</li> <li>• Farmers Field Schools in place</li> <li>• Farmers organisations in place more to be established</li> </ul>	whole country but need to be expanded	<ul style="list-style-type: none"> <li>• Training of motivator farmer (farmer to farmers extension services)</li> </ul>	Officer in place and motivated	centres in place and working <ul style="list-style-type: none"> <li>• Mass media and publications need to be strengthened</li> <li>• Audio visual technology for dissemination of rice technology be strengthened</li> <li>• Rice knowledge bank in place need to be publicised</li> </ul>
<b>Mechanization</b>	<ul style="list-style-type: none"> <li>• Mechanization Strategy in place (Not officially released)</li> <li>• Update and release officially the Mechanization Strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Presence of manufacturing plants for processing machines (Intermech Engineering)</li> <li>• Training &amp; machinery maintenance facilities</li> <li>• Support local manufacturing/assembly of tractors and Draft animal power implements. (Commercialize prototypes made by R&amp;D institutions)</li> <li>• Establish training centres for machine operators</li> <li>• Support establishment of mechanization centres (hire services)</li> </ul>	Engineers, technicians, mechanics, artisans and blacksmiths (Not well equipped and use traditional knowledge) <ul style="list-style-type: none"> <li>• Machine operators (Tractors and Processing Machines)</li> <li>• Local dealers (mainly in Dar es Salaam).</li> <li>• Train and equip artisans and blacksmiths.</li> <li>• Train more, Engineers, Technicians &amp; Mechanics</li> <li>• Build capacity of farmers/owners on machinery use</li> </ul>	<ul style="list-style-type: none"> <li>• Loans (Agric Input trust Fund)</li> <li>• Subsidy on machinery (DADPs)</li> <li>• Support &amp; encourage financial institutions to provide loans to farmers for the purchase of mechanization inputs under the PPP arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Standards &amp; Specifications on Machinery</li> <li>• Guidelines on exploitation of machinery</li> <li>• Make guidelines on machinery exploitation (Especially the power tillers) available to farmers country wide.</li> </ul>
<b>Quality improvement</b>	<ul style="list-style-type: none"> <li>• Quality control standards.</li> <li>• Quality Laws</li> <li>• Certification</li> <li>• Revise and enforce existing laws to</li> </ul>	<ul style="list-style-type: none"> <li>• Quality and standards control facilities</li> <li>• Support establishment of small and medium scale processing plants.</li> </ul>	<ul style="list-style-type: none"> <li>• Inspectors</li> <li>• Build capacity of inspectors.</li> <li>• Training on standards,</li> </ul>		<ul style="list-style-type: none"> <li>• Advertisements on quality</li> <li>• Training by the Government and development</li> </ul>

	<ul style="list-style-type: none"> <li>compel testing of farm machinery</li> <li>Strengthening capacity of post harvest and rural based agro industries.</li> <li>Facilitating private sector investment in rice processing</li> </ul>	<ul style="list-style-type: none"> <li>Capacitate quality control institutions.</li> </ul>	quality and traceability.		partners
<b>Access to market</b>	<ul style="list-style-type: none"> <li>Trade policy in place (2003). Old enough to deserve a review.</li> <li>Marketing policy in place (2008)</li> <li>Marketing Information System in place. It needs linkage to GIIS.</li> <li>Rice promotion policy is missing and there a need to develop one</li> <li>Rice distribution policy is missing and there a need to develop one</li> <li>Rice production input subsidy available. However this needs propulsion.</li> </ul>	<ul style="list-style-type: none"> <li>Warehouse Receipt System (WRS) available in respect of rice, cashew, maize, coffee, sunflower, sesame, cotton. However, awareness is limited and scaling-up is needed</li> <li>Access for traders and consumers: markets, roads still inadequate. There is a need to construct cross border and strategic international markets and road infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Farmer groups: Training programmes available via ASDP. Agribusiness skills be inculcated among these groups.</li> <li>Processors and traders: capacity building available via private initiatives</li> <li>Enhancement of PPP needed.</li> </ul>		<ul style="list-style-type: none"> <li>Marketing intelligence needs to be strengthened within MITM</li> </ul>
<b>Access to credit</b>	<ul style="list-style-type: none"> <li>Financial policies for individual financial institutions</li> <li>AGITF(Agricultural Input Trust Fund)</li> </ul>		<ul style="list-style-type: none"> <li>Farmers groups and individual</li> <li>Support contract farming scheme</li> </ul>	<ul style="list-style-type: none"> <li>Inputs credit</li> <li>Financial support to farmer's organizations to establish and strengthen SACCOS.</li> <li>Scale up inputs guarantee</li> <li>Establishing agricultural bank</li> </ul>	<ul style="list-style-type: none"> <li>Research on credit issues in different MFI</li> <li>Information in accessing loans is needed</li> <li>Risk analysis information is needed to farmers</li> </ul>