

Sierra Leone Concept note 3: Improving Agricultural Research Infrastructure for Sustainable Rice Technologies Generation	
1. Title (Full name)	Improving Agricultural Research Infrastructure for Sustainable Rice Technologies Generation
2. Project Location:	Northwest Region, Kambia District, Magbema Chiefdom, Rokupr town, Rokupr Agricultural Research Centre
3. Implementing Agencies	MAFS (SLARI/RARC)
4. Beneficiaries	Rice farmers, Research Scientists, Agribusinesses and other Rice value chain actors
5. Target Group	Researches
6. Type of project:	1. R&D Grant, 2. Technical Corporation/Assistance, 3. National budget.
7. Field of support:	1. Quality Control, 2. Capacity Building, 3. Infrastructure
8. Suggested Funding sources	1. world Bank, 3. African Development Bank, 3. Islamic Development Bank, 4. European Union, JICA, GOSL
9. Budget (USD)	Under development
10. Duration of the project:	5 years
11. Background /Justification	<p>Sierra Leonean farmers face significant challenges to access innovative technologies for achieving rice self-sufficiency. This is as a result of inadequate research facilities to support the generation and promotion of innovative technologies. Addressing these challenges require urgent need to enhance research infrastructure for sustainable rice research activities.</p> <p>Sierra Leone's rice research centre established in 1934, is characterized by outdated research facilities, limiting researcher's abilities to generate and adopt modern agricultural technologies to support the Sierra Leonean farmers. Additionally, climate change impacts and unsustainable farming practices further exacerbate these challenges, leading to reduced yields and food insecurity.</p> <p>This concept note proposes a comprehensive strategy to improve the rice research infrastructure, with keen interest in upgrading the laboratories (providing proper storage of genetic materials, equipment, tools and machines), developing research experimental and demonstration fields, capacity building of researchers and technicians (field and laboratory), facilitate knowledge transfer, and promote sustainable agricultural practices to boost rice production in Sierra Leone under the feed Salone initiative.</p>

12. Goal and objective	Overall Objective: Enhancing the capacity of the rice research centre for increased rice production	
	Specific Objectives 1	Output 1
	1. Improving the laboratories, experimental sites and storage facilities.	1-1 Research capabilities strengthened, laboratory equipment upgraded, experimental sites upgraded. 1-2. Research Laboratories upgraded. 1-3. New innovations developed.
	2. Capacity building of the researchers and technicians (Field and Laboratory).	2-1. More researches trained to M.sc and PhD. 2-2. More technicians trained.
	3. Technology development and out scaling to rice farmers.	3-1. Appropriate technologies developed. 3-2. Training on the new technologies conducted. 3-3. Personnel deployed to disseminate the new technologies to extension agents. 3-4. EA empowered to disseminate the new technologies.
	Specific Objective 2	Output 2
	Upgrading the laboratories, experimental sites and storage facilities.	2-1. Needs Assessment conducted
		2-2. A reliable company to carry out the work recruited
		2-3. The selected laboratories upgraded
		2-4. Selected experimental sites upgraded
2-5. Storage facilities constructed		
13. Activities	1. Activate Construction and Installation of laboratory and procurement of equipment	
	2. Develop experimental fields with irrigation system	
	3. Training of researchers and technicians on the use of the new facilities	
	4. Training of personnel to acquire higher degrees	

	5. Establish monitoring and evaluation mechanism
14. Expected Impacts	1. Increased Productivity: Better research infrastructure can lead to the development of high-yielding and resilient rice varieties, which can improve overall rice productivity in Sierra Leone
	2. Food Security: Enhanced research can lead to the development of varieties that are more resistant to pests, diseases, and climate change, thereby ensuring a more stable food supply.
	3. Income Generation: Improved rice varieties and agricultural technologies can lead to increased incomes for farmers, contributing to poverty reduction and economic development
	4. Environmental Sustainability: Sustainable rice technologies can include practices that are more environmentally friendly, such as water-saving techniques, reduced chemical usage, and soil conservation methods.
	5. Knowledge Transfer: Enhanced research infrastructure can facilitate the dissemination of knowledge and best practices to farmers, extension workers, and agricultural stakeholders, leading to overall improvement in the rice sector.
	6. Rural Development: Improved rice cultivation can lead to rural development through increased employment opportunities infrastructure development, and overall economic growth in rural areas.