

# NATIONAL RICE DEVELOPMENT STRATEGY (NRDS 2)

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#### **ACRONYMS**

ABC	Agricultural Business Centres (ABC)
AfDB	African Development Bank
CAADP	Comprehensive Africa Agriculture Development Programme
CARD	Coalition for African Rice Development
CBSP	Community Based Seed Project
EADF	Emergency Assistance to Displaced Farmers
GoSL	Government of Sierra Leone
GDP	Gross Domestic Product
IADPs	The Integrated Agricultural Development Projects
IVS	Inland Valley Swamp
IVSDP	Inland Valley Swamp Development Project
MDA	Ministries Departments and Agencies
MTEF	Medium Term Expenditure Framework
MTNDP	Midium Term National Development Plan
NASDP	National Sustainable Agricultural Development Programme
NCAP	North Central Agricultural Project
NRDS	National Rice Development Strategy
NRS	National Rice Secretariat
NRVCPC	National Rice Value Chain Participant Council
RPZ	Rice Processing Zones
SAP	Structural Adjustment Programme
SCADeP	Small Holder Commercialization and Agribusiness Development Project
SLADEF	Sierra Leone Agricultural Development Fund
SLARI	Sierra Leone Agricultural Research Institute
SLeSCA	Sierra Leone Seed Certification Agency
FSRP	Food Security Resilience Project
SLRVCP	Sierra Leone Rice Value Chain Project
SLRVCDS	Sierra Leone Rice Value Chain Development Strategy
SMP	Seed Multiplication Programme
RPIP	Rice Productivity Improvement Project



Figure 1. Map of Sierra Leone showing administrative districts

#### **Executive Summary**

The West African state of Sierra Leone occupies 72,300 km<sup>2</sup> of which 5.4 million ha are potentially cultivable. The crop sub sector, with the staple food rice dominating contributes about 75% of agricultural GDP. Annual per capita consumption of rice (131 kg) in Sierra Leone is amongst the highest in West Africa. About 70% of Sierra Leone's 7.9 million people in 2020 were below the national poverty line, with 53% living on less than US\$ 1.25 per day, while 26% could not afford minimum daily calorific requirements.

While climatic conditions are generally favourable for crop production including rice, biotic and abiotic factors such as diseases, pests, low soil fertility, in addition to the use of low yielding local varieties, poor extension services, and several socio-economic factors are considered to be limiting farmers' productivity. Also, most smallholder farmer's yield is greatly reduced by post-harvest losses due to poor crop management, inappropriate storage and marketing facilities. The form of agriculture practiced by most Sierra Leonean farmers is very rudimentary. Fewer than 5% of the households have access to fertilizers, pesticides and basic machinery which are resources that could help enhance rice production. Rice is cultivated in both the upland and diverse lowland ecologies (Inland Valley Swamps, Bolilands, Mangrove Swamps and Riverain Grasslands). Rice yield in the upland is however generally lower than in the lowlands.

Since Sierra Leone's independence, agricultural development policy has been focussed on the achievement of rice self-sufficiency among other objectives. Major interventions in the sector have included both direct government participation and indirectly, through the donor-funded integrated agricultural/rural development projects. All of these interventions targeted small-holder farmers who constitute approximately 90% of the farming population. The performance of the various interventions were generally disappointing and during the last two decades, the overall performance of the agricultural sector has been poor.

The clear lesson from all the past failures is that government interventions in agricultural production and marketing are very problematic. Government must therefore restrict its interventions to broad policy formulation and stimulation including support to private sector participation in production and marketing. All government programmes require sound planning, allocation of appropriate roles to various stakeholders, good management of key institutions and resources as well as exit strategies from time bound projects are crucial for development of the agricultural sector including the rice sub sector.

Sierra Leone requires about 530,000 metric tonnes (MT) of milled rice to meet the consumption needs of the population annually. National paddy rice production was projected at 947,464 MT in 2019. The level of rice self-sufficiency rose from 45.9% in 2019 to 57.7% in 2020. The remainder is imported at increasingly high cost in the current situation of high prices for food including rice. The promotion of domestic rice production is therefore a key element in the strategies for improving food security, stimulate economic growth and increase rural income. Efforts to support rice production programmes is the only solution to salvage the country's worsening rice situation and reverse the present declining trend in food self-sufficiency.

The first generation of the National Rice Development Strategy (NRDS) was developed in 2009 as part of the actions to address the unfavourable rice situation in the country. Technical support for the development of the strategy was provided by the Coalition for African Rice

Development (CARD). The goal of the National Rice Development Strategy (NRDS) was to lay out a framework for significant increases in rice production in order to contribute to the improvement of food security and economic development in Sierra Leone. The specific objectives were to:

- 1. Ensure an increase in the sustainable productivity and production of rice in Sierra Leone
- 2. Promote appropriate post-harvest handling, processing and marketing of rice
- 3. Develop appropriate infrastructure for rice production and marketing
- 4. Improve the capacity of stakeholders and institutions involved in rice sector

The strategy for increasing rice production was two pronged: (a) increase in area cultivated, mainly in the lowlands where there is much underutilised capacity, and (b) increases in productivity per unit area in all ecosystems. Area expansion focused on the Inland Valley Swamps (IVS) due to its existence in all parts of the country coupled with its potential for sustainable production. The Government's goal was to achieve rice self-sufficiency by 2013. This strategy targeted a land area of 830,000 ha and an increase in the average rice yield/ha to 2 t/ha to realise the government's goal of rice self-sufficiency. Furthermore, an extension of the area to 1,100,000 ha over the following years, coupled with an increase in the average yield of rice to 4 t/ha (ranging from 1.5 t/ha in the uplands to 4.0 t/ha in the IVS) was expected to result in the production of over 3 million tons of rice by 2018.

While several interventions geared towards achieving rice self-sufficiency in Sierra Leone by 2018 were undertaken by the Government and development partners, the attainment of rice self-sufficiency remains a challenge. To this end, further actions are required to meet this goal. At the expiration of the first NRDS document, the government developed the Sierra Leone Rice Value Chain Development Strategy (SLRVCDS) in 2020 in response to the government's new policy focus that the rice sector should be private sector driven. However, to ensure attainment of the government's objective to achieve rice self-sufficiency by 2028, it was realized that the SLRVCDS could be further elaborated through an in-depth examination of its contents and inclusion of elements that are commonly captured in the NRDS of the other 32 CARD member countries. Also, there are emerging actions in the rice sector, such as government's approval of JICA's Technical Package for Rice Production (TP-R) as an extension guide for improving rice production in the Inland Valley Swamp (IVS) ecology. In order to address the gaps and to incorporate the aforementioned developments in the SLRVCDS, the need for revision of the SLRVCDS was crucial to produce the second National Rice Development Strategy (NRDS 2) with the goal of attaining rice self-sufficiency by 2030.

#### 1.0 Introduction

Sierra Leone is yet to produce rice (its main staple food), in adequate quantities to feed its people. This is clearly a national security concern. It is therefore not surprising that consultations across the entire country in the preparation of this document revealed that self-sufficiency in rice production is both food and nutrition security priority and condition for national cohesion and stability. Rice demand exceeds domestic production and the difference is imported at huge foreign exchange costs. Notably, in 2018, Sierra Leone produced about 1,169,000 MT of rice, while consumption was 1,270,000 MT.

Sierra Leone is among other West African countries where rice is grown as a major food crop. Although rice can be produced in all African regions, West Africa accounted for more than 40% of Africa's rice production between 2006 and 2010. During this period, the leading producers were Egypt (6.1 MT), Madagascar (4.1 MT), and Nigeria (3.9 MT). Other major rice-growing countries include Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Senegal, Tanzania and Sierra Leone.

Rice yields in Sierra Leone are very low mainly because of inadequate investments in improved technologies and irrigation schemes. In addition to these, there are a myriad of challenges encountered to fully develop the rice value chain. Over the years, particularly following the 2007/2008 food crisis that caused social unrest in several African countries, many African governments, including Sierra Leone launched ambitious rice production programs in partnership with development agencies.

However, there seem to be a reversal in the gains Sierra Leone once made in rice productivity and production. Average rice yield is 1.67t/ha, with only 700,000 ha under cultivation. With low productivity, low production and increasing rice import bill, the Government of Sierra Leone under the leadership of His Excellency Retired Brigadier Julius Maada Bio, President of the Republic of Sierra Leone has declared to attain 86% rice self-sufficiency by 2023 and 100% rice self-sufficiency by 2028 (SL MTNDP 2019-2023).

The majority of Sierra Leoneans living in the rural areas consume rice as the main food and also forms an important diet for the vast majority of urban residents. The national rice consumption is estimated at 987,926.2 metric tons compared to an annual production range of 829,032 metric tons. Figure 1 depicts the national production trends from 2010 to2017. The deficit is met through imports which is valued at 116,109 million USD in 2017. Thus, promotion of rice production will improve food security, increase farmers' income, contribute to employment creation and reduce the rice import bill thereby improving balance of payment.

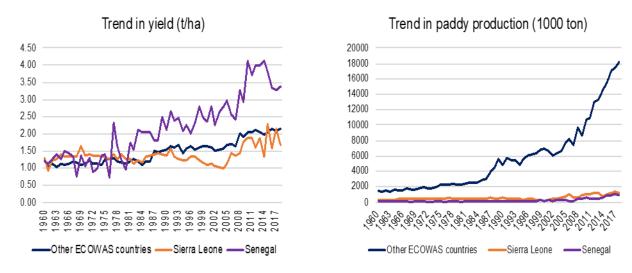


Figure 2. Rice Yield Trend (t/ha) and Production (1000t)

As detailed in the Rice Policy (MAF, January 2020 pp.), rice is grown in a number of ecologies namely; Upland (characterised by free draining soil types elevated above sea level); Inland Valley Swamps (which occur in low-lying areas, often depressions and valley bottoms between adjacent valleys); Mangrove Swamps (low-lying areas along the coast of the Atlantic Ocean which extends from the south of the country and the Western Area to the Northwest region);

Tidal Mangrove Swamps (areas which experience tidal movement of sea water twice daily, especially in the Great Scarcies river); Associated Mangrove Swamps (areas adjoining tidally affected swamps located between the tidal swamp and the upland); Boliland (vast saucershaped and poorly drained depressions lying between major rivers); Riverine Grassland (deep flooded rice ecology in Sierra Leone found in the Southern region of the country around the mouths of the Sewa and Wanjei rivers).

#### 2.0 An Overview of the Rice Sector

Rice is the staple of Sierra Leoneans. Annual per capita consumption of rice (131 kg) is amongst the highest in West Africa. It is grown mainly by small scale farmers on both the upland and diverse lowland ecologies. Sierra Leone has not been able to produce enough rice to meet its local consumption demand for a very long time now. From 1960 to 1975 production of rice has increased through expansion of land area and to some extent an increase in yield. In 1975 Sierra Leone is said to have experienced self-sufficiency in rice. Records of over 600,000 tons of paddy are reported at the end of the 1970's. In the late 1980's, production fell to an average of just above 500,000 tons; further declining to about 460,000 tons in the mid-1990s when the civil war engulfed the entire nation. The lowest production (198,000 tons) was recorded at the peak of the civil war in 1999. With the advent of the CARD initiative in 2008, rice production has increased from 2010 to 2018 (Table 1). However, this increase in production was not sufficient to meet national consumption requirement which has significantly increased within the same period. As shown in Table 1 below, milled rice production is significantly lower than consumption needs which imply that demand is met in part by imports.

Table 1: Summary of Sierra Leone rice production and consumption between 2010-2018<sup>1</sup> ('000)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Area Harvested (Ha)	549	604	718	671	736	612	765	781	796
Yield (MT/Ha)	2	2	2	2	2	2	2	2	2
Production (MT)	1029	1129	1141	1256	1203	1384	1389	1424	1460
Milled Rice (MT)	648	711	719	791	758	872	875	897	920
Consumption (MT)	768	981	1039	1121	1118	1162	1245	1197	1270

Rice production in Sierra Leone is in the hands of small-scale farmers who produce barely enough for home consumption with little or none for the market. During the 2004/2005

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<sup>1</sup> www.indexmundi.com

cropping season, 56 percent of the households cultivated less than 1 ha of farmland while only 44 percent cultivated 1 ha and more. Rice field area per household ranged from 0.25 ha to 5.5 ha with an average of 1.06 ha. (GoSL, 2006). The small-scale farmers in Sierra Leone are generally resource poor using hoes, axes and cutlasses as major farm implements for rice production while labour is mainly provided by family members thereby severely limiting their scale of production. On the other hand, the widespread use of unimproved varieties, limited use of fertilizer, coupled with unimproved agronomic and cultural practices adversely affects rice production.

After harvest most of the farmers leave paddy rice bundles in the field to dry. Threshing and winnowing are invariably done by hand and further drying is on mud floors and tarmac roads thus reducing the quality of processed rice. Access to concrete drying floors is limited to a small proportion of farmers in the country. The quality of local rice marketed is generally low due mainly to the lack of use of modern rice mills. Most of the rice mills were destroyed or rendered non-functional during the war. In 2004, a total of 53 small scale rice mills existed in the country. Sixty percent of these mills were in the Northern Province. Traditional methods and the use of steel roller mills constitute the major means of rice processing in the country. Parboiling is widely practiced, and parboiled rice constitutes a substantial proportion of local rice in the market particularly in the North.

The quality of imported rice in the market ranges from low quality 100% broken rice to higher quality Super A1 long grain rice (including perfumed rice in some supermarkets), providing all classes of consumers with a range of choices that adequately meet their needs. Unlike local rice, virtually majority of the imported rice is not parboiled. The price of local rice is generally about 15 to 20% higher than the price of comparable grades of imported rice due to the acknowledged fact that local rice is more nutritious than imported rice. However, there is a growing appreciation of non-parboiled imported rice by the younger generation of the population and urban dwellers mainly because of its lower cost.

Since Sierra Leone's independence, agricultural development policy has been focussed on the achievement of rice self-sufficiency among other objectives. Major interventions in the sector have included both direct government participation (mechanical rice cultivation in the riverain grasslands around Gbundapi and Torma Bum, and the bolilands in the Bombali and Tonkolili Districts) and indirectly, through the donor-funded integrated agricultural/rural development projects, which covered over 80% of the country in the 1970s and 1980s. All of these interventions targeted small-holder farmers who constitute approximately 90% of the farming population. The performances of the various interventions were generally disappointing and during the last two decades, the overall performance of the agricultural sector has been poor.

Sierra Leone returned to peace in the first half of 2002 after an eleven-year brutal civil war that severely devastated the country's economy including the agricultural sector. Peaceful national elections in May resulted in the re-election of His Execllelency President Kabbah for a second five-year term. In his inaugural address, he declared his goal to attain food for all within five years. With this, he placed the achievement of food security for all Sierra Leoneans as the overriding national priority for the following five years. The government supported farmers with seed rice and tractors that were mainly used for the cultivation of the Bolilands. At the end of the five years, food security was not achieved and it is estimated that over 60% of the population are still living below US \$ 1 a day.

The past government which was elected in 2007 and led by His Excellency Earnest Bai Koroma aims at accelerating the advancement of Sierra Leone through a vision articulated in his "Agenda for Change" which together with the outcomes of other consultative processes form the basis for the second medium term *Poverty Reduction Strategy*. The Agenda for Change focuses on four key priorities, the second, involves raising quantity and value-added productivity in Agriculture and Fisheries, following the first priority which is the provision of reliable power supply for the country. Based on its importance in Sierra Leone, rice is central in priority two.

Rice self-sufficiency in Sierra Leone has been the goal of virtually all post-independence governments, a goal that eluded them. Unsurprisingly, many lessons have been learnt as categorized into 4 phases viz.:

Phase 1: Covers the colonial period up to 1961 (independence);

Phase 2: The immediate post-independence period up to military rule in 1984;

Phase 3: SAP and immediate Post-SAP Period 1985 – 1999;

Phase 4: Period 2000 – 2010.

Summary of policy focus, strategies and constraints to rice self-sufficiency during each of these periods are provided in the Rice Policy, 2020 - from which this strategy takes the lead.

#### 2.1 Standing of Rice in National Policies

Colonial agricultural and food policy paid more attention to plantation crops largely, coffee, cocoa and oil palm including export. Rice production was promoted through intensive mechanized lowland large scale production. Smallholder rice producers were absorbed in the intensive mechanized rice production schemes. However, policy reforms saw local farmers, incorporated into high yielding variety crop trials and the establishment of agricultural cooperative societies. First Post-Independence Development Plan 1962 to 1971, The second post-Independence National Development Plan: 1974 to 1978, The Integrated Agricultural Development Projects (IADPs), The Agricultural Sector Support Project, The PL 480 Agricultural Schemes in the mid-1980s Post-War Policies and Strategies 2000 to 2008, The Interim Poverty Reduction Strategy Paper (IPRSP) and Poverty Reduction Strategy Paper (PRSP), The National Recovery Strategy, The Vision 2025 Planning Programme Economic Revitalization Policies and Strategies 2009 to 2018. The National Sustainable Agriculture Development Plan and CAADP were developed focusing on (a) Agricultural productivity; Commercial agriculture through Private Sector; (b) Improving Research and Extension Service Delivery; (c) Effective and efficient Resource (financial, physical and human) Management, and (d) Mainstreaming cross-cutting themes: gender, youth, farmer health care issues. The NSADP/CAADP identified four major investment sub-programmes (i) Commodity Commercialization targeting rice, cassava, etc.; (ii) Agriculture Infrastructure Development – basic agriculture infrastructure; (iii) Private Sector Promotion - enabling environment, and (iv) Sector Coordination and Management.

Between 1981 and 1989 the government embarked on several rice specific projects to cushion the intermittent food crisis that characterised this period. Some of these projects were simply

modifications of the IADPs but with different funding agencies rather than the traditional Breton Woods Institutions which favoured SAP. For instance, there were:

- The Crash Rice Programme in 1980 funded by the ailing SLPMB which was expected to cultivate 8,160 hectares.
- The Gbondapi Rice Development Project launched in 1988, a riverine grassland rice programme supported by the Japanese Government which aimed at cultivating 9,000 hectares involving 2,500 farmers.
- The Torma Bum Rice Development Project and the Rhombe Swamp Agricultural Development Project. These projects aimed at direct mechanized investment in swamp and grassland cultivation.

The period 1991 to 2004 saw the development of the following programmes, most of them with rice production as a major component:

- North Central Agricultural Project (NCAP)
- Revised Agricultural Sector Support Project (ASSP)
- Farmers Association Support Project (FASP)
- Community Based Seed Project (CBSP)
- The Integrated Agricultural Development Projects (IADPs) in many districts e.g., Bo/Pujehun, Moyamba, Kenema, Makeni, Port Loko, etc.
- FAO Emergency Assistance to Displaced Farmers (EADF)
- FAO Inland Valley Swamp Development Project (IVSDP)

The current rice value chain development projects include:

- Agricultural Value Chain Development Project funded by IFAD US\$ 100 million of which 60% is dedicated to rice.
- Sierra Leone Agricultural Development Fund (SLADeF) under the Smallholder Commercialization and Agribusiness Development Project (SCADeP) – US\$ 55 million with support from the WB
- Sierra Leone Agribusiness Rice Value Chain Project (SLARiS) US\$ 12 million funded by AfDB
- Regional Rice Value Chain Project funded by the AfDB and BADEA US\$ 34 million
- Rice Productivity Improvement Project (SPIP) funded by JICA US\$ 4 million
- Rice Agro-Industrial Cluster Project (RAIC) funded by the AfDB US\$ 36.7 million
- Food Security Resilience Project (FSRP) funded by the World Bank US\$ 110 million

#### 2.2 National Rice Production and Demand Projections

Studies dedicated to rice preference have not been carried out in recent times. However, because of sustained exposure to imported rice, field observations revealed that Sierra Leoneans generally prefer the aromatic basmati rice compared to the other local and imported varieties. Over the past 5 years, citing health factors, it has been observed that the long grain parboiled rice is gaining currency especially among the elderly and diabetic and hypertensive patients. In Table 2, the national rice production projections for the next 10 years i.e. 2020-2030 is illustrated. From the Table, it shows that more attention will be dedicated to the Inland Valley Swamp (IVS) ecology with 40% of the total rice production expected to be obtained from this ecology, while rice production in the Boliland, Riverain and Mangrove ecologies will be 30%, 20% and 10% respectively. Whilst rice production will be concentrated in the lowland ecologies, the upland ecology will be dedicated to the production of other crops. Table 3 shows production and demand projection. In 2021, whilst rice production was 1,013,222 MT, demand was 1,064,309.10 MT. This resulted to a deficit of 344,921.48 MT. There was a further reduction in deficit to 7,475.3MT in 2026. Based on the projections, it is anticipated that Sierra Leone will be self-sufficient in rice production by 2030. Sustaining the trajectory of increased production, the country will have surplus rice for export by 2030.

Table 2 National Rice Production Projections by Ecology<sup>2</sup>

		IVS (40%)		В	oliland (30%	<b>(o)</b>	Riverain (20	)%)		Mangrove	(10%)		Total		
Year	Area (Ha)	Yield	Production	Area (Ha)	Yield	Production	Area (Ha)	Yield	Production	Area	Yield	Productions	Area (Ha)	Yield	Production
		(MT/Ha)	(MT)		(MT/Ha)	(MT)			(MT/Ha)	(Ha)	(MT/Ha)	(MT)		(MT/Ha)	(MT)
2021	238,405.24	1.7	405,289	178,803.93	1,7	303,967	119,202.62	1.7	202,644	59,601.31	1.7	101,322	596,013.10	1.7	1,013,222
2026	279,070.73	2.5	697,677	209,303.04	2.5	523,258	139,535.36	2.5	348,838	69,767.68	2.5	174,419	697,676.82	2.5	1,744,192
2030	316,543.26	3.5	1,107,901	237,407.45	3.5	830,926	158,271.63	3.5	553,951	79,135.82	3.5	276,957	791,358.15	3.5	2,769,754

Table 3 Summary of National Rice Production and Demand Projections MT<sup>3</sup>

Year	Paddy Production (MT)	Milled rice(MT)*	Consumption (MT)	Deficit/Surplus
2021	1,013,222	719,387.62	1,064,309.10	(344,921.48)
2026	1,744,192	1,238,376.3	1,245,851.46	(7,475.3)
2030	2,769,754	1,800,340.1	1,413,139.56	178,054.9

<sup>\*71%</sup> milling recovery rate

 <sup>&</sup>lt;sup>2</sup> Calculation done by the NRDS Task Force during the NRDS 2 development working week.
 <sup>3</sup> Calculation done by the NRDS Task Force during the NRDS 2 development working week

#### 2.3 Types and Number of Rice Farmers, Processors and Traders

Specific updated and disaggregated statistics on types and number of rice value chain participants in Sierra Leone is not available for reference even though farmer's census in general is periodically undertaken. A comprehensive inventory of rice value chain production capital and physical assets in the country should be obtained for targeted support and interventions. Rice is mainly grown by smallholders on the upland ecology in the provinces.. Reliable data on number of rice mills, tractors, ploughs etc., has not been ascertained. However, the 150 Agricultural Business Centres (ABCs) established during the Smallholder Commercialization Project (SCP) had rice mills installed. Additionally, there are several small privately owned mills and rice traders in the country. The major outlet is the Commodity Trading Company – the key rice importer. Currently, there is no government owned National Rice and Produce Marketing Board in operation. The largely Government owned Sierra Leone Produce Marketing Board and Rice Cooperation could not survive the SAP conditionality in the 1980s to early 1990. The Sierra Leone Produce Marketing Company which replaced these institutions is still finding its bearing for full operation with little success. Rice is sold at supermarkets and stores in urban centres. A good number of petty traders mostly women sell rice in the local markets across the country.

#### 2.4 Gender Dimension of Sierra Leone's Rice Sector

There is a clear gender dimension in rice production, processing and marketing. Men are mostly involved in land preparation including brushing, felling of trees, burning, ploughing and harrowing, while women and the youths are mostly involved in planting, weeding and bird scaring. Harvesting is almost equally shared between the sexes while processing and marketing of rice is predominantly done by women. The rice market is now dominated by four importers, three of whom operate as a cartel. Entry is restricted mainly by the capital requirements of the trade (MAFFS/MFMR, 2004). The system of marketing domestic rice which is dominated by women is quite traditional involving assemblers, wholesalers and/or itinerant merchants and retailers. Measures targeting women and youths for capacity building and technology transfer will enhance production and productivity.

#### 2.5 Comparative Advantage of Domestic Rice Production

Sierra Leone has diverse ecologies covering huge areas and a climate to support large scale rice production. As the main staple cereal, a ready market is guaranteed which should serve as an important motivation to invest in rice production. Cheap labour, efficiency maintained along the value chain and mechanisation should ensure cost effectiveness and enhance competitiveness. The labour force is experienced from generations of engagement in rice farming to reduce the cost of capacity building, extension services and technology transfer.

Increased production of rice will ensure food security and saving of the much-needed foreign exchange earnings. Local rice production, processing and marketing will improve livelihoods of rural and urban populations by creating employment opportunities for private investment and income for small-scale farmers. Reduction or elimination of rice import bills will improve the balance of payment situation in the country.

#### 3.0 Challenges and Opportunities in Rice Sector Development

#### 3.1 Challenges

The development of the rice sector in Sierra Leone has witnessed several challenges which include the following:

- Limited availability of improved rice seeds of high yielding and early maturing varieties. There has been a challenge in meeting the national seed requirements/demand for the various categories of seeds (breeder, foundation and certified seeds) based on agroecological needs. The lack of seed production plan to a greater extent presents a challenge in making informed decisions in terms of seed production requirements to meet the growing demand of farmers. Poor physical infrastructure (road condition and network) for farmers to access certified seeds further compounded the problem. Poor processing and storage facilities to ensure quality and competition with imported rice is also a major challenge. Admixture of rice seeds also affects the quality of the grains as the size and shape of the grains when milled are mostly not uniform to match with international rice standards.
- Low level of mechanisation for rice production intensification. Majority of farmers are engaged in manual labour as they cannot afford the cost of hiring available machines thus limiting increase production and productivity.
- There is inadequate research capacity including infrastructure to effectively and efficiently undertake research activities to support the rice sector to produce the desired results.
- Low crop yields due to low adoption of research technologies, declining soil fertility and climate change (erratic rainfall pattern and flooding). Excess water resulting from flooding leads to rapid increase in soil solution iron concentration which predisposes the crop to iron toxicity because of excessive iron uptake by rice plants.
- Limited access to fertilizer due to its high price as the country relies on importation of fertilizers to boost production and productivity.
- While the country is endowed with nine (9) major rivers, reliance on rain-fed cultivation system remains a challenge due to unavailability of sustainable irrigation systems.
- Pests and diseases also undermine rice production and productivity.
- Limited availability of extension services to provide the needed extension advisory services to farmers.
- Weak linkage between research and extension services in terms of meeting farmer's needs.
- Weak producer organisations and financial constraint.
- There is limited access to credit and other inputs for rice production.

- The level of mechanization is low thus constraining increase in area under cultivation and timeliness in undertaking farm operations based on the local cropping calendar.
- Lack of appropriate policies for standardization and marketing.
- Poor coordination between various stakeholders/actors along the rice value chain.
- Limited capacity of the private sector to effectively and efficiently invest in rice sector development actions along the value chain.
- Bird scaring and other crop protection challenges continue to pose huge challenges to children and women.
  - There is weak political will from the government to transform the rice sector to cut down importation of rice and ensure attainment of rice self-sufficiency.

#### 3.2 Opportunities

While the development of the rice sector is faced with several challenges, some opportunities exist to address the challenges in the sector.

- The policy shift of the Ministry of Agriculture and Food Security from direct input (seeds, fertilizers and pesticides) provision through the private sector contributes to increase access to rice production inputs in a timely manner and also promotes ownership as well as sustainability.
- Research initiatives in progress by the Sierra Leone Agricultural Research Institute and Universities to generate new technologies to improve the rice sector and emerging private research institutions for seed production.
- Availability of credit facility at commercial bank for private sector actors for inputs acquisition in the policy shift to support rice production and commercialization drive.
- The establishment of machine rings across the agricultural districts in the country by the Ministry of Agriculture and Food Security through Public Private Partnership (PPP) arrangement in providing opportunity for access to machine services to support mechanized rice production actions.
- Sierra Leone has vast arable land and favourable climate for rice production including soils and water resources. Availability of several rivers provides opportunity for irrigation, thus enhancing multiple cropping of rice and all year-round cropping.
- Existence of rice related donor funded projects in the Ministry with various interventions along the value chain.

#### 4.0 Priority Areas and Approaches

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Sierra Leone has a total of 5.4 million hectares of arable land. The vast majority of this land is upland ecology while the remaining 20% is in diverse lowland agro-ecological systems comprising of the Inland Valley Swamps, Mangrove Swamps, Bolilands, and Riverain grasslands. In 2014, 61.78% of the total land area under rice was on the upland while the remaining 38.22% was in the various lowland ecosystems. Inland valley Swamp rice occupies the greatest portion of lowland rice area (Table 3). Farmers perceive lowlands as being less important because lowland cropping does not allow for diversified crop stands at the same time. It also imposes higher labour requirements and increase production cost.

However, the steady increase in the population of Sierra Leone is making it increasingly impossible for farmers to have access to sufficient land to allow for adequate fallow periods (minimum 10 years) in order to allow restoration of soil fertility. In recent times, the fallow periods along the major highways have dropped to 3 to 4 years and more farmers now have to travel long distances to secure land that has fallowed for more than 5 years. The reduced fallow period and attendant increase in weed infestation has increased the burden of weeding on women while the declining yields have adversely affected productivity and farmers' welfare. The bush fallow system therefore needs serious consideration and possible modification to address its adverse consequences of weed infestation and deforestation. There is a general tendency for the preservation of uplands through reforestation and tree crop production.

In view of the shortcomings of the bush fallow system, it may be advisable to concentrate on rice production in the lowlands and use the uplands for tree crop production and other annual crops that cannot tolerate waterlogging conditions in the lowlands. There is presently more than enough lowland area to produce sufficient rice for local consumption and even export. This alternative will significantly reduce the upland area needed to grow rice and thereby increase the area that can grow into forest. Also, productivity will increase due to the relatively higher fertility of the lowlands compared to the present uplands.

Of the total land area of 3,244,214 ha<sup>4</sup> under cultivation for food crops production, 35% of it is under upland rice production, 17.3% is used for lowland rice cultivation, 10.6% for cassava cultivation, 9.2% for groundnut cultivation, 1.5% under sweet potato and 0.9% under maize cultivation.

Table 4 Production Agroecologies and Land use in Sierra Leone\*

Ecology	Ecosystem	Arable	Arable	Cultivated	Total
		land area	land (%)	Area	area
		(ha)		under rice	under
				(ha)*	rice (%)
Upland	Upland	4,300,000	80	454,433	61.78
	Inland valley	630,000	12	195,757	26.61
Lowland	Swamp				
	Mangrove	200,000	4	23,120	3.14
	Swamp				
	Riverain	110,000	2	21,112	2.87
	Grassland				
	Boliland	120,000	2	41,196	5.60
	Total	5,360,000	100	735,628	100

<sup>\*</sup> Rice area in 2014

#### 4.1 Lowland ecology

Soils of the lowlands benefit to some extent from the nutrient losses of the upland areas through leaching in the movement of the water downstream. Lowlands have deeper subsoil with low contents of weatherable minerals but with high content of organic matter in the topsoil. There are instances where iron and aluminium cations are in excess tending to combine in insoluble

<sup>&</sup>lt;sup>4</sup> National Agricultural Sample Survey 2020/21

mineral forms while other mineral bases are leached in excess. These circumstances create plant toxicity conditions (MAFS/MFMR, 2004).

#### **4.2 Mangrove Ecology**

Mangrove swamp rice cultivation is important for food security in some countries of West Africa including Sierra Leone. In this agro-ecology, rice is cultivated during the rainy season when freshwater flows in the rivers and salt and acidity concentrations have reduced to non-toxic levels. Rice yields in the mangrove ecosystem of Sierra Leone are higher than in other agro-ecologies and weed, disease and pest pressures are minimal. However, salinity, acidity and crabs negatively affect rice productivity in the mangrove swamps. Due to the differences in levels of flooding, salinity and acid sulphate conditions of mangrove swamp soils, it is assumed that there is variability of soil properties of mangrove swamps along the associated river, which may impact the choice of suitable rice varieties and soil management practices.

#### 4.3 Boli Land Ecology

The Boli land ecology is a low lying, flat or undulating grassland area thought to be formed by merging of the Mobole, Rokel, and Pampana Rivers at a period of higher sea level. It has a saucer shape, usually flooded by rain water in the rainy season; it becomes too dry for any crop production in the dry season hence rice cultivation is possible only in the rainy season. The Boli land stretches from Yonibana through Batkanu in Northern Sierra Leone to the Guinea frontier. The Bolis of Sierra Leone is predominantly a zone of derived Guinea savannah, resulting from the destruction of forest vegetation by human activities. Major problems associated with the Boliland are low nutrient status particularly in phosphorous, water control issues, weeds and acidity. It is the ecology that can be mechanised easily because of its vast nature.

#### **5.0 Vision and Scope**

## **Strategic Vision, Objectives and Interventions**

The Sierra Leone National Rice Policy prescribes four (4) policy clusters from which this strategy takes the lead with respect to developing the actions and activities geared towards the achievement of the policy clusters namely:

Policy Cluster 1: Increase Rice Productivity and Production

Policy Cluster 2: Establishment of Rice Processing Zones

Policy Cluster 3: Improve market opportunities for producers.

Policy Cluster 4: Implementation and coordination of the Rice Self-Sufficiency Policy

Consequently, Sierra Leone National Rice Development Strategy 2 outlines interventions that will achieve the above cluster.

#### **5.1 Strategic Vision**

The Vision of the second Sierra Leone National Rice Development Strategy (NRDS2) is that all strategic interventions are effectively and efficiently implemented resulting to the country attaining its rice consumption requirements with good quality rice produced locally and competitive with imports, including the trading of surplus in the regional and international market.

#### **5-2 Targets**

The target of the NRDS 2 is to double rice production and be self-sufficient by 2030 and to export the surplus 178,054.9MT of rice that will be produced.. In order to achieve this target, this strategy aim at increasing rice productivity to deliver higher yields and expand area under cultivation especially the lowland ecologies. It is envisaged that cultivating two cycles of rice per year in the lowland ecologies will yield enough paddy to cover the deficit as well as export surplus rice that will be produced in 2030.

#### **5.3 Strategic Objectives**

The overall objective is to increase the production of domestic rice and thus attaining self-sufficieny in rice production by 2030. Key amongst the strategies to achieve this objective is to intensify land development in the lowland ecologies to ensure multiple cropping. The upland ecology will be dedicated to the production of other crops. The government will partner with the private sector by attracting and creating the enabling environment for sustainable investment in the rice sector. The government will also welcome interventions by development partners. Actions to achieve the aforementioned objective of the NRDS 2 will leveraged on the R-I-C-E (Resilience, Industrialization, Competitiveness and Empowerment) of CARD Phase 2.

Accordingly, the specific strategic objectives include:

- 1. Increase productivity and outputs in the Rice value chain.
- 2. Put legal instruments in place to facilitate and support the establishment of Rice Processing Zones (RPZ).
- 3. Development of market for rice produced and processed in the country.
- 4. Development of effective coordination mechanism for the implementation of rice policy and strategy.

#### **5.4 Strategic Interventions**

The following strategic interventions and accompanying activities have been identified:

#### Strategic Issue 1: Increase Rice Productivity and Production

**Strategic Intervention 1**. Promote the attainment of rice self-sufficiency through the strengthening of the input market, particularly the seed sector, land expansion in the lowland ecologies and mechanization.

- Develop and promote high yielding rice varieties that are tolerant to biotic and abiotic stresses.
- Intensification of seed multiplication and maintenance interventions that will ensure sufficient good quality rice seed availability and accessibility by farmers.
- Procurement of machines/equipment based on the appropriateness/suitability for the various agro-ecologies including availability of the requisite spare parts
- Private sector to procure their own machines based on specific needs/requirements along the rice value chain (production, transportation and post-harvest/processing).
- Review the current machine ring contracts and operations in the Ministry's Policy Shift actions.
- Government to focus on medium and large-scale rice producers with access to appropriate funding.
- Support irrigation of a minimum of 200ha per district in the 15 geographical districts per year for the next 5 years.
- Government to support SME's, smallholder farmer's cooperatives with 3% loan interest rate with 2 years repayment plan.
- Private sector to have access to single digit loan with 5% interest over a period of 5 years and 40% grant allocation.
- Removal of subsidies on imported milled rice by 2025.

#### **Strategic Issue 2: Establishment of Rice Processing Zones**

**Strategic Intervention 1**. Facilitate and support the establishment of Rice Processing Zones (RPZ)

- Establish a technical committee comprising senior officers of international financial institutions, commercial banks, government and the private sector to serve as a Steering Committee for the development of RPZ Master Plan
- Develop a master plan for the establishment of RPZ and have the plan approved by Cabinet of Sierra Leone
- Mobilize financial resources including capacity and establish the RPZ based on the principles of comparative advantage and agro-industrial location considerations.
- Enact legislation to attract private sector investors to produce, process and market rice and associated products in and from the RPZ. E.g. removal of subsidy on rice importation,

• Establish an appropriate Public-Private sector management model for the RPZ development. E.g. Government/donors to provide funding for upfront lending to the private sector at 5% or less interest over a 10 year period.

#### **Strategic Issue 3: Promoting Domestic Rice Consumption**

**Strategic Intervention 1**. Support the development of market for rice produced and processed in the Sierra Leone through appropriate legislature that facilitates the supply and sale of domestic rice to public institutions.

- Enact legislation that foster purchase and supply of domestic rice to public institutions in the country. e.g. Institutional feeding should be restricted to **only** locally produced rice.
- Tariffs should be imposed to discourage imports and promote local production. However, this should be on incremental basis to ensure smooth transition from zero tariff. Establish formal partnership with Mano River Union Countries on rice research, trade, technology and knowledge transfer to increase local rice production, technology transfer on processing of local rice to increase local consumption.
- Road infrastructure development to facilitate movement of inputs and rice thereby increasing access to markets from the farm gate.
- Market information systems establishment to raise awareness and promote interest (market linkages) thus contributing to enhancing profit maximization by farmers.
- Rice processing through PPPs arrangements to promote value addition.
- Establish national granaries/silos (national rice reserve) managed by the State, to procure and store rice which can be sold to public institutions such as schools, police, military, correctional centers etc.

#### Strategic Issue 4: Implementation and coordination of the Rice Self-Sufficiency Policy

**Strategic Intervention 1**. The rice value chain development projects effectively and efficiently coordinated leading to significant progress towards the achievement of rice self-sufficiency.

- Presidential Initiative to declare domestic rice production for national rice selfsufficiency.
- Establishment of a National Rice Secretariat comprising relevant institutions in the country with well-defined mandate.
- Educate and mobilize the public, private sector, NGOs and development partners to support the rice self-sufficiency initiative.
- Promote a dialogue at community level and work through the issues of community ownership and implementation of the rice self-sufficiency initiative.
- Mobilize and synergize with other MDAs for the successful implementation of the rice self-sufficiency initiative.
- Implement the policy and strategy geared towards achieving rice self-sufficiency by 2028 and maintaining it beyond, involving all rice value chain stakeholders including the public and private sector.

# 6.0 Monitoring, Evaluation, Resource Mobilization and Implementation structure

#### **6.1 Monitoring and Evaluation**

There is need for a suitable monitoring and evaluation system/mechanism to track the implementation of the strategic interventions and implementation plan provided in Appendix 1. This includes use of results/logical frameworks, work plans, field visits, quarterly and annual reports, mid-term review and evaluation, and end term evaluation form inputs for the next strategic plan.

#### **6.2 Resource mobilization**

It is important to note that increased production and productivity of rice will mainly be achieved through use of improved seeds, fertilizers, and pesticides, including irrigation development. These will require high capital investment which may be outside the purse of the GoSL alone. Thus, government will put in place investment friendly modalities to encourage the private sector to invest in both the up and down stream of the rice value chain. It is also important that the GoSL and development partners work together to prioritize investment in this area to ensure successful implementation of the rice value chain development strategy. Therefore, the following actions need to be taken.

- ✓ Attract foreign direct investment
- ✓ Leverage resources with like-minded partners including donors and private sector players (Projects).
- ✓ Anchor Borrowers (Agriculture financing facility, ring fencing)
- ✓ Government to increase budgetary allocation in line with the Malabo Declaration of at least 10% allocation to the agriculture sector.
- ✓ Improve agricultural lending through local financial institutions.
- ✓ Establishment of Agricultural Investment Bank.
- ✓ Capacitating the private sector players in agriculture to improve participation for business growth and further investment in the sector.

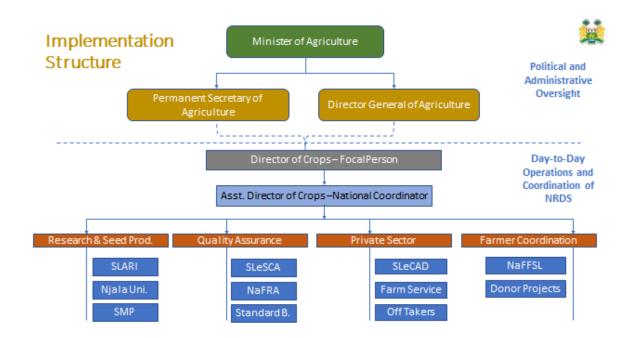
#### **6.3 Financing the Policy**

The GoSL will commit financial resources through its Medium-Term Expenditure Framework (MTEF) process and development partners to meet the goals of this strategy. Budgetary allocations will give particular attention to the establishment of the RPZ (specifically for development of the RPZ Master Plan, Legal and Management arrangements, Monitoring and

Evaluation mechanisms) to ensure policy and the implementation strategy are efficiently and effectively implemented.

#### **6.4 Implementation Structure**

The Rice Secretariat is the governing body responsible for coordinating strategic interventions in the rice sector in the country along the value chain. The Secretariat will ensure that planning and implementation of activities are aligned with national priorities and needs.



## **Appendices**

## **Appendix 1: Logical Framework Implementation Matrix**

#### Strategic Issue 1: Increase Rice Productivity and Production Strategic objective 1: To increase productivity and outputs in the Rice Value Chain

Strategies	Activities	Expected Output/ Target	Responsibility/ Actor	Performance Indicator	Timeframe
Promote the attainment of rice self-sufficiency through the strengthening of the input market, particularly the seed sector, land expansion and mechanization	1.Screen, select and multiply two high yielding seed varieties per rice production ecology 2. Develop and release climate smart, resilient, high yielding and consumer acceptable varieties 3.Promote readily accessible and affordable improved seed varieties to farmers 4.Establisment and management of a genetic bank 5. Promote good	High yielding seed varieties disseminated to at least 25% of registered rice farmers throughout the country by 2025 and 50% by 2028 and subsequently 100% by 2030.  One (1) genetic bank established at Rokupr Agricultural Research Centre (RARC)	Research Institution (Rokupr Agricultural Research Centre) /Private Sector	1. No. of high yielding rice seed varieties disseminated.  2. No. of climate smart, resilient, high yielding and consumer acceptable varieties developed and released.  3. No. of readily accessible and affordable improved seed varieties promoted.	4 – 6 years
	agronomic and soil fertility management practices	At least 2 good agronomic and soil fertility management		4. Gene bank functional	

6. Strengthen seed certification and quality assurance 7. Establishment/upgrad ing of varietal maintenance centres	practices promoted.  SLeSCA capacitated and operational to fully deliver their mandate in ensuring seed certification and quality assurance.  7. At least 4 varietal maintenance centres established in the country and existing varietal maintenance centres upgraded.		5. Farmers practices good agronomic and soil fertility management practices.  6. Seed certification and quality assurance system strengthened; good quality seeds made available to farmers.  7. No. of varietal maintenance centers established and upgraded.	
Support Rokupr Agricultural Research centre to rapidly test and introduce High Yielding Varieties (HYV) with on-farm average yield of 3.5t/ha and above	Rokupr Agricultural Research Centre supported	Research Institutions, MAFS and donor funded projects	HYV with on- farm average yield of 3.5t/ha introduced	4 years
Improve farmers' access to HYV and improved seeds, fertilizers and pesticides	Access by farmers to HYV and improved seeds, fertilizers and pesticides	Research Institutions, MAFS and donor funded projects	No. of farmers who receive HYV and improved seeds, fertilizers and pesticides	4 years

	improved (minimize the use of inorganic fertilizers and pesticides through the promotion of composting and IPM and soil fertility management practices.		Quantities of HYV and improved seeds, fertilizers andpesticides plant received and organic fertilizers promoted including soil fertilizer management practices.	
RARC supported the production of breeder, foundation and certified seed production and distribution with the private sector playing a leading role facilitated by the Ministry of Agriculture and Food Security	RARC supported to produce breeder, foundation and certified seeds including distribution; private sector participation strengthened by the Ministry I this action.	RARC, Private sector with the lead role facilitated by the Ministry of Agriculture and Food Security.	Quantity of foundation, breeder and certified seeds produced and distributed.	4 – 5 years
Support seed production to meet the required seed demand for the attainment of rice- self-sufficiency by 2028	Seed production supported to meet national seed demand for attainment of rice self- sufficiency by 2028.	MAF Development partners and NARC	% of seed demand met	4 – 5 years
Rehabilitate all previously developed	Rice production in the	SLARI/SMP and private sector for	% of previously developed Inland	4 – 5 years

Inland Valley Swamps, lowlands, flood plains and support rice production in the rehabilitated land areas by 2025	rehabilitated land areas by 2025 supported	certified seed with the lead role facilitated by the Ministry of Agriculture and Food Security.	Valley Swamps, lowlands, flood plainsrehabilitated by 2025	
Rehabilitate and/or expand existing rice production areas in lowlands and Inland Valley Swamps for both large scale and small production	Existing rice production areas in lowlands and Inland Valley Swamps rehabilitated and/or expanded	MAFS, development partners, private sector	% of existing rice production areas in lowlands and Inland Valley Swamps rehabilitated	4 - 5 years
Improve farmers' access to mechanized farm tools and machinery for land preparation	Increase farm machinery accessibility to farmers (ploughs, harrows, planters, weeders, sprayers, grass cutters, balers, rippers and other small farm machinery and equipment)	MAFS, development partners, private sector	Improvement of farmers' access to mechanized farm tools and machinery for land preparation  No. of farm machinery and accessories procured and accessible to farmers	4 - 5 years
Develop < 350,000 ha of suitable land for rice cultivation (IVS, lowland, flood plains) through a sustainable agricultural mechanization programme, including	A minimum of an additional 350,000 ha of suitable land for rice cultivation developed	MAFS, development partners, private sector	Area (ha) of land developed for rice cultivation	4 – 5 years

public-private partnership and support rice cultivation in the developed land				
Develop and implement a sustainable agricultural mechanization policy and strategy that promote investment in mechanized rice farming and value chain development	A sustainable agricultural mechanization policy and strategy that promote investment in mechanized rice farming and value chain developed	MAFS and development partners	Agricultural mechanization policy and strategy in place and implemented	4 years
Develop and implement a sustainable irrigation policy and master plan with special focus on rice value chain development and commercialization	Irrigation policy and master plan with special focus on rice value chain developed	MAFS, development partners and private sector	Irrigation policy and master plan in place and implemented	4 years
Invest in the development and operation of small to medium and large-scale irrigation schemes for the production of rice and associated crop in a sustainable manner	Development and operationalizati on of small- to medium and large scale irrigation schemes	MAFS, development partners and private sector	No. of small- to medium and large-scale irrigation schemes established and operational  Area (ha) of land irrigated per district per year in 5 years	4 years

	Irrigate 200ha/district/year for the next five years  Design and implement sustainable credit facilities and guarantees to support rice farmers access inputs and farm machines and equipment	Low interest rates on farmers loans Affordable credit services accessed	MAFS, development partners and private sector	Reduction on interest rates  No. of credit facilities accessed	4 years
Removing barriers hindering the competitiveness of domestic rice, promote extension services and effective participation of the public-private partnerships in	Adopt special measures to encourage private sector investments in the rice value chain development in suitable agroecologies leading to the private sector production of at least 20% of the total rice requirement of the country by 2028	Private sector investments in the rice value chain development and production of at least 20% of the total rice requirement of the country by 2028		Private sector investments in the rice value chain	4 years
the rice value chain development.	Strengthen the private sector to produce and market agricultural inputs (rice seeds, fertilizers and other agrochemicals)through the establishment of dealerships in every District	Increase in inputs availability and accessibility at district level.	Private sector in collaboration with MAFS	No. of rice farmers accessing quality inputs at district level	4 years

	Revitalize cost- effective extension and advisory services supporting farmers and other key participants in the rice value to be competitive and adhere to quality standards.	Revitalized cost-effective extension and advisory services	MAFS, Extension service providers, development partners	Cost-effective extension and advisory services supporting farmers	4 years
Control of diseases and pests	Develop contingency plans for management of diseases and pests	Contingency plans for management of diseases and pests developed	MAFS, development partners	No. of Contingency plans for management of diseases and pests developed and implemented	5 years
	Develop and implement control strategies for diseases and pests	Control strategies for diseases and pests developed	MAFS, development partners	No. of control strategies for diseases and pests developed and implemented	5 years
	Develop and implement strategies for surveillance and monitoring diseases, anti-microbial, and pesticide resistance development	Strategies for surveillance and monitoring animal diseases, antimicrobial, and pesticide resistance developed	MAFS, development partners	No. of Surveillance Strategies developed and implemented.	5 years
	Carry out disease outbreak investigations	Disease outbreaks investigated	MAFS, development partners	Percentage of outbreaks investigated and actions taken	5 years
Reduce post- harvest losses	Promote responsive handling and preservation technologies and their	Responsive handling and Preservation technologies promoted	MAFS, development partners and private sector	No. of responsive handling and preservation technologies promoted	4 – 5 years

	adoption to reduce post-harvest losses.				
	Establish Post- harvestg handling, drying and storage facilities	Drying and storage facilities established	MAFS, development partners	No. of drying and storage facilities established and functional	4 - 5 years
Address effects of climate change	Mainstream climate change adaptation and mitigation strategies into agricultural extension	Climate smart technologies and management information disseminated; Capacity development undertaken; Policies and programmes facilitated and implemented	MAFS, development partners	Number of rice farmers reached and climate smart technologies adopted.	4 – 5 years
	Establish and maintain climate information for agriculture	Database for climate information established	MAFS, development partners	Database for climate information in place	4 – 5 years
	Upscale Climate- smart agriculture technologies	Climate-smart agriculture technologies up- scaled	MAFS, development partners	Number of Climate-smart agriculture technologies introduced and adopted	4 – 5 years
Develop and adopt climate resilient agricultural technologies	Develop and Apply Performance Benefit Measurement Methodologies for Adaptation, Mitigation and Development	Performance Benefit Measurement Methodology in developed and applied for adaptation	MAFS, development partners	Methodology for Performance Benefit Measurement in place and functional	4 - 5 years

	mitigation and development.			
Promote sustaina agricultural Ecosystem management	Reviewed Environmental impact assessment/ Audit reports of proposed projects	MAFS, development partners	No. of reviewed reports	4 – 5 years

# Strategic Issue 2: Establishment of Rice Processing Zones Strategic Objective 2: Legal instruments put in place to facilitate and support the establishment of Rice Processing Zones (RPZ)

Strategies	Activities	Expected Output/ Target	Responsibility/ Actor	Performance Indicator	Timeframe
Facilitate and support the establishment of Rice Processing Zones (RPZ)	Establish a technical committee comprising senior officers of international financial institutions, Commercial Banks, government and the private sector to serve as a steering committee for the development of RPZ Master Plan	A steering Committee established for the development of RPZ Master Plan	MAFS, Steering Committee	Steering Committee in place and functional	4 years
	Develop a Master Plan for the establishment of RPZ with focus on rice and		Parliament of Sierra Leone	Master Plan in place approved by	4 years

have the plan approved by Parliament of Sierra Leone	Parliament of Sierra Leone		Parliament of Sierra Leone	
Mobilize financial resources including capacity and establish the RPZ based on the principles of comparative advantage and agroindustrial location considerations	RPZ based on the principles of comparative advantage and agro-industrial location considerations established	MAFS, Steering Committee	No. of locations of RPZ established based on the principles of comparative advantage and agro-industrial location considerations	4 years
Enact legislation to attract private sector investors to produce, process and market rice and associated products in and from the Rice Processing Zones	Legislation to attract private sector investors to produce, process and market rice and associated products enacted	MAFS	Enacted egislation in place to attract private sector investors to produce, process and market rice and associated products enacted	4 years
Establish an appropriate Public- Private sector management model for the RPZ	Public-Private sector management model established for the RPZ	MAFS	No. of Public- Private sector management model established for the RPZ	4 years

## Strategic Issue 3: Promoting Domestic Rice Consumption Strategic Objective 3: Development of market for rice produced and processed in the country.

Strategies	Activities	Expected Output/ Target	Responsibility/ Actor	Performance Indicator	Timeframe
Support the development of market for rice produced and processed in the Sierra Leone through appropriate legislation that facilitates the supply and sale of domestic rice to public	Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country	Existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country reviewed	MAFS, development partners	Updated or enacted legislation that foster purchase and supply of domestic rice to public institutions in the country in place	4 years
institutions	Review the rice import support to align with the ECOWAS free trade regime with the aim to attain zero tariff waiver by 2028	Rice import support aligned with the ECOWAS free trade regime with the aim to attain zero tariff waiver by 2028 reviewed	Zero tariff waiver by 2028	Zero tariff waiver in place	1 - 2 years
	Establish formal partnership with Mano River Union Countries on rice research, trade, technology and knowledge transfer	Partnership with Mano River Union Countries on rice research, trade, technology and knowledge	SLARI/RARC,	Formal partnership with Mano River Union Countries on rice, trade, technology and knowledge transfer in place.	4 years

	transfer established		

# Strategic Issue 4: Implementation and coordination of the Rice Self-Sufficiency Policy Strategic Objective 4: To better coordinate implementation of rice policy and strategy

Strategies	Activities	Expected Output/ Target	Responsibility/ Actor	Performance Indicator	Timeframe
The rice value chain development projects effectively and	Presidential Initiative to declare domestic rice production for national rice self-sufficiency	Domestic rice production for national rice self-sufficiency declared	Office of the President	Declaration from the Office of the President in place	
efficiently coordinated leading to significant progress towards the achievement	Establishment of National Rice Secretariat with well- defined mandate to relevant institutions in the country	National Rice Secretariat with well-defined mandate established	MAFS	National Rice Secretariat in place and functional	4 years
of rice self- sufficiency	Educate and mobilize the public, private sector, NGOs and development partners to support the rice self- sufficiency initiative	Public, private sector, NGOs abd development pafrtners mobilized to support rice self-	MAFS	Rice self- sufficiency initiative supported by private sector, NGOs and development partners	4 years

	sufficiency initiative			
Promote a dialogue at community level and work through the issues of community ownership and implementation of the rice self-sufficiency initiative	Issues of community ownership and implementation of the rice self- sufficiency initiative promoted	MAFS, development partners and private sector	Community ownership in place and implementation of the rice self- sufficiency initiative activitated at community level	4 years
Mobilize and synergize with other Ministries, Departments and Agencies (MDAs) for the successful mplementation of the rice self-sufficiency nitiative	MDAs coordinated support to the implementation of the rice self-sufficiency initiative	MAFS	MDAs coordination support to the implementation of the rice self- sufficiency initiative in place	
Implement the policy and strategy geared towards achieving rice self-sufficiency by 2028 and maintaining it beyond, involving all rice value chain stakeholders including the public and private sector.	Policy and strategy geared towards achieving rice self-sufficiency by 2028 implemented by key stakeholders in the rice value chain	MAFS, development partners and private sector	Rice self- sufficiency achieved by 2028	

### **Appendix 2. Fast Track Interim Rice Self-Sufficiency Strategy**

#### Strategic Objective: Within the overall context of progressing towards self-sufficiency in rice production by 2030, the strategy aims to:

- 1. Increase rice productivity and production through the provision of timely inputs to farmers and other value chain participants
- 2. Increase the capacity of rice value chain participants to produce rice competitively with quality and in quantities to compete with imported rice
- 3. Increase the market share of local rice in the rice market

### Specific Objective 1. Rice Farmers and other Participants in the Rice Value Chain Development Registered in every District

Outcome: Targeted support to participants in the rice value chain achieved

Activity 1. Seed growers (private, individual and community) identified and supported to produce quality seeds by District

Activity 2 Needs assessment across the value chain regularly undertaken.

Activity 3. Promote exchange visit between regions on an experience sharing exercise

Activity 4. At least 50% of registered farmers trained in modern rice production techniques

### **Specific Objective 2: Timely Provision of Inputs Across the Value Chain**

Outcome: At least 50% of registered rice farmers provided with quality rice seeds and input in a timely manner

Activity 1. Development of seed/input centres stocked with approved viable seeds

Activity 2. Seed and other inputs demand assessment undertaken

Activity 3. Development of robust seed/input distribution mechanism complete with logistical support

Activity 4. Sustained research in and production of high yielding adaptive seeds/inputs

### Objective 3: Increase Area under Cultivation and Increase Productivity

Outcome: Area under rice cultivation increased by 50% from baseline and productivity increased by 50%

Activity 1. Improving and expanding irrigation infrastructure

Activity 2. Increasing the area under irrigated and rain fed rice production

Activity 3. Increased certified effective fertilizer uptake

Activity 4. Establish 100 farmer field schools across the country to improve on extension services

Activity 5. Promote the use of high yielding pest and disease resistant varieties

### Specific Objective 4: Provision of Rice Post-harvest and Processing Facilities

Outcome: Post-harvest loses reduced by 50%

Activity 1. Appropriate utilization post-harvest technologies

Activity 2. Improving harvesting, timing and post-harvest handling techniques

Activity 3. Developing and introducing appropriate harvesting and processing equipment such as harvesters and threshers

Activity 4. Developing good storage, drying and milling facilities,

#### Specific Objective 5: Market for Rice Commodity Identified and Established

Outcome: Market identified for 100% of product

Activity 1. Develop and apply quality standards of international standing

Activity 2. Assess institutional feeding needs and supply using local rice

Activity 3. Promote the competitiveness of local rice production systems in terms of quality and cost

Activity 4. Improve on road network to enhance distribution

Activity 5. Initiate discussion with partners for development of rice processing zone master plan and establishment of rice processing zones

#### Specific Objective 6: An Effective Coordination Mechanism at National and District Levels

Outcome: Rice production system regularly and effectivity monitored and coordinated

Activity 1. Organize a retreat for the Directors and District Agriculture Officers to harmonize a national rice work plan

Activity 2. Organise agricultural shows based on rice for farmers to compare notes and offer incentives to deserving producers

Activity 3. Establish National Rice Stakeholders' Forum for priority setting and implementation of interventions identified in the rice strategy

Activity 4. Presidential initiative for the establishment of National Rice Secretariat

## Appendix 3. Sierra Leone paddy requirement taking consideration of its current per capita consumption

			Sierra Leon	e paddy require:	ment taking cons	ideration of its	current per ca	apita consump	tion.			
Year	Population	PCC(kg)	Req (kg)	Req(MT)	Paddy (MT)	Area (Ha)	CS (MT)	Area (Ha)	FS (MT)	Area (Ha)	BS (MT)	Area (Ha)
2020	7,976,983	131	1,044,984,773.00	1,044,984.77	1,462,978.68	585,191.47	19,506.38	7,802.55	650.21	260.09	21.67	8.67
2021	8,124,497	131	1,064,309,107.00	1,064,309.11	1,490,032.75	596,013.10	49,667.76	19,867.10	1,655.59	662.24	55.19	22.07
2022	8,384,480.90	131	1,098,366,998.42	1,098,367.00	1,537,713.80	615,085.52	51,257.13	20,502.85	1,708.57	683.43	56.95	22.78
2023	8,652,784.29	131	1,133,514,742.37	1,133,514.74	1,586,920.64	634,768.26	52,897.35	21,158.94	1,763.25	705.30	58.77	23.51
2024	8,929,673.39	131	1,169,787,214.13	1,169,787.21	1,637,702.10	655,080.84	54,590.07	21,836.03	1,819.67	727.87	60.66	24.26
2025	9,215,422.94	131	1,207,220,404.98	1,207,220.40	1,690,108.57	676,043.43	56,336.95	22,534.78	1,877.90	751.16	62.60	25.04
2026	9,510,316.47	131	1,245,851,457.94	1,245,851.46	1,744,192.04	697,676.82	58,139.73	23,255.89	1,937.99	775.20	64.60	25.84
2027	9,814,646.60	131	1,285,718,704.60	1,285,718.70	1,800,006.19	720,002.47	60,000.21	24,000.08	2,000.01	800.00	66.67	26.67
2028	10,128,715.29	131	1,326,861,703.14	1,326,861.70	1,857,606.38	743,042.55	61,920.21	24,768.09	2,064.01	825.60	68.80	27.52
2029	10,452,834.18	131	1,369,321,277.64	1,369,321.28	1,917,049.79	766,819.92	63,901.66	25,560.66	2,130.06	852.02	71.00	28.40
2030	10,787,324.87	131	1,413,139,558.53	1,413,139.56	1,978,395.38	791,358.15	65,946.51	26,378.61	2,198.22	879.29	73.27	29.31
		cs	Certified Seed					Seed:Seed	1:30			
		FS	Foundation Seed									
		BS	Breeder Seed					Yield/Ha	2.5MT			
		PCC	Per Capita Consu	ımption								
		BS	Breeder Seed									
		PCC	Per Capita Consu	ımption								

# **Appendix 4: Seed Requirement by Ecology, Seed Class and Variety**

			Seed Re	equirement by	Ecology, Seed (	Class and Varie	etv			
						2022				
Seed Class	Seed	IVS (40	%)	Boli (	(20%)	Riverain	(30%)		Mangrove (10%	·)
Seed Class	Requiment (MT)	NERICA L-19(70%)	ROK 24 (30%)	ROK 34 (80%)	ROK 29 (20%)	ROK 10 (60%)	ROK 3(40%)	ROK 10(50%)	ROK 36 (10%)	ROK 5 (40%)
cs	2269	363.04	272.28	363.04	90.76	408.42	272.28	340.35	68.07	272.28
FS	76	12.16	9.12	12.16	3.04	13.68	9.12	11.4	2.28	9.12
BS	2.5	0.4	0.3	0.4	0.1	0.45	0.3	0.375	0.075	0.3
						2024				
Seed Class	Seed	IVS (40	%)	Boli (	(20%)	Riverain	(30%)	ı	Mangrove (10%	•)
Seeu Class	Requiment (MT)	NERICA L-19(70%)	Rok 24 (30%)	Rok 34 (80%)	ROK 29 (20%)	ROK 10 (60%)	ROK 3(40%)	ROK 10(50%)	ROK 36 (10%)	ROK 5 (40%)
cs	11345	3176.6	1361.4	1815.2	453.8	2042.1	1361.4	567.25	283.625	141.8125
FS	380	106.4	45.6	60.8	15.2	68.4	45.6	19	9.5	4.75
BS	12.5	3.5	1.5	2	0.5	2.25	1.5	0.625	0.3125	0.15625
						2026				
S4 SI	Seed	IVS (40	%)	Boli (	(20%)	Riverain	(30%)	Mangrove (10%)		·)
Seed Class	Requiment									
	(MT)	NERICA L-19(70%)	Rok 24 (30%)	ROK 34 (80%)	ROK 29 (20%)	ROK 10 (60%)	ROK 3(40%)	ROK 10(50%)	ROK 36 (10%)	ROK 5 (40%)
cs	20421	5717.88	2450.52	3267.36	816.84	3675.78	2450.52	1021.05	204.21	816.84
FS	684	191.52	82.08	109.44	27.36	123.12	82.08	34.2	6.84	27.36
BS	22.5	6.3	2.7	3.6	0.9	4.05	2.7	1.125	0.225	0.9
					2028					
	Seed	IVS (40	%)	Boli (	(20%)	Riverain	(30%)	ı	Mangrove (10%	•)
Seed Class	Requiment									
	(MT)	NERICA L-19(70%)	Rok 24 (30%)	, ,	, ,	ROK 10 (60%)	, ,	· · · ·	, ,	, ,
	29497	8259.16	3539.64	4719.52	1179.88	5309.46	3539.64	1474.85	294.97	1179.88
FS	988	276.64	118.56	158.08	39.52	177.84	118.56	49.4	9.88	39.52
BS	32.5	9.1	3.9	5.2	1.3	5.85	3.9	1.625	0.325	1.3
						2030				
	84	D/C /40	0/ )	Dali d			(200/)		Manager (4.00/	,
Seed Class	Seed	IVS (40	<b>%)</b>	Boll	( <b>20%)</b> I	Riverain	(30%)		Vlangrove (10% ∣	) 
	Requiment (MT)	NERICA L-19(70%)	ROK 24 (30%)	Rok 34 (80%)	ROK 29 (20%)	ROK 10 (60%)	ROK 3(40%)	ROK 10(50%)	ROK 36 (10%)	ROK 5 (40%)
cs	38573	10800.44	4628.76	6171.68	1542.92	6943.14	4628.76	1928.65	385.73	1542.92
FS	1292	361.76	155.04	206.72	51.68	232.56	155.04	64.6	12.92	51.68

**Appendix 5: Fertilizer Requirement by Year/Area by Seed Class** 

Fer	tilizer Requirem	ent by Year b	y Area	Fertilizer Requirement by Year/Area by Seed			
	Paddy-Fert	ilizer (bags)			Certified Se	ed - Fertili	zer (bags)
Year	Area (Ha)	NPK	Urea	Year	Area (Ha)	NPK	Urea
2021	596,013.10	2,980,065	1,490,033	2021	19,867.10	99,336	49,668
2022	615,085.52	3,075,428	1,537,714	2022	20,502.85	102,514	51,257
2023	634,768.26	3,173,841	1,586,921	2023	21,158.94	105,795	52,897
2024	655,080.84	3,275,404	1,637,702	2024	21,836.03	109,180	54,590
2025	676,043.43	3,380,217	1,690,109	2025	22,534.78	112,674	56,337
2026	697,676.82	3,488,384	1,744,192	2026	23,255.89	116,279	58,140
2027	720,002.47	3,600,012	1,800,006	2027	24,000.08	120,000	60,000
2028	743,042.55	3,715,213	1,857,606	2028	24,768.09	123,840	61,920
2029	766,819.92	3,834,100	1,917,050	2029	25,560.66	127,803	63,902
2030	791,358.15	3,956,791	1,978,395	2030	26,378.61	131,893	65,947
			•				
F	oundation Seed	- Fertilizer (b	ags)		Breeder Se	ed - Fertiliz	zer (bags)
Year	Area (Ha)	NPK	Urea	Year	Area (Ha)	NPK	Urea
2021	662.24	3,311	1,656	2021	22.07	110	55
2022	683.43	3,417	1,709	2022	22.78	114	57
2023	705.30	3,526	1,763	2023	23.51	118	59
2024	727.87	3,639	1,820	2024	24.26	121	61
2025	751.16	3,756	1,878	2025	25.04	125	63
2026	775.20	3,876	1,938	2026	25.84	129	65
2027	800.00	4,000	2,000	2027	26.67	133	67
2028	825.60	4,128	2,064	2028	27.52	138	69
2029	852.02	4,260	2,130	2029	28.40	142	71
2030	879.29	4,396	2,198	2030	29.31	147	73

## **Appendix 5: Machinery/Equipment Requirement Across Ecologies**

Machinery/Equipment Requirement Across Ecologies									
Ecology	Machine Type	Total Area	Machine Efficiency	Machine Quantity					
Inland Valley Swamp (IVS)	Power Tiller (RT90-M)	690,000	0.8 Ha/Day	394					
Mangrove Swamp (MS)	Lighter Power Tiller (RT80-M)	110,000	0.4Ha/Day	126					
Boli Land	Power Tiller (RT100-M)	120,000	0.8 Ha/Day	68					
Boli Lalid	Tractor	120,000	4 Ha/Day	137					
Riverain	Power Tiller (RT100-M)	200,000	0.8 Ha/Day	114					
Kiverain	Tractor	200,000	4 Ha/Day	228					

# **Appendix 6: Human Resource Capacity Building**

Human Resource Capacity Building											
	MA	AFS	SL	ARI	SMP		SLeSCA		NaFRA		
Human Resource	No.	Freq.	No.	Freq.	No.	Freq.	No.	Freq.	No.	Freq	
Professional Trainings	5	4	5	5	5	5	6	5	11	2	
Study Tours	5	5	5	5	4	3	4	3	4	3	
Ordinary National Diploma	15	4	5	3	9	5	5	2	4	1	
Higher National Diploma	15	4	5	5	7	5	5	2	8	2	
BSc	5	3	5	2	5	2	5	1	6	2	
MSc	8	5	10	2	5	1	3	2	5	2	
PhD	5	4	10	3	2	1	3	1	5	1	

## **Appendix 7: Logical Framework with Funding Agencies**

Policy Cluster 1: Productivity and Production	2022	2024	2026	2028	2030	<b>Funding Agency</b>
Strategic Intervention:1.1 Seed sector- Inputs (seed, fertilizer) & land						
expansion						
1.1.1 Seed & fertilizer						GoSL, WB, EU
1.1.2 Screen, select and multiply two high						
yielding seed varieties per rice production						
ecology						
1.1.3 Test and introduce high yielding						
varieties with on-farm average yield of						
3.5t/ha and above.						
Type of Investment						
1.Review fertilizer recommendation for the						
various lowland ecologies (Ref: National						
Soil Survey Report)						
2. Establishment and operationalization of						
fertilizer analytical laboratories for						
NaFRA.						
IVal IVA.						
3.Strengthening seed inspection and						
analysis through enhancement of seed						
inspection and analytical facilities.						
Strengthen SLARI capacity to improve on						
the production of selected existing						
varieties, human and infrastructure						
resources. Enhancement of small holder						
community-based seed production centres.						
Strengthen market linkage between seed						

companies and users.			
_			
<ul> <li>Type of Investment</li> <li>Enhancement of paddy fields for seed production with irrigation structures and agricultural machines</li> </ul>			WB(SCADeP), AfDP, FAO, EU, IsDB IFAD (AVDP)
1.2 Barriers hindering the			
competitiveness of domestic rice.			
1.2.1 Extension and advisory services			IFAD (AVDP);
supporting farmers and other key			FAO
participants.			
1.3 Control of disease & pest			
1.3.1 Pests and disease management			EU-BAFSP
1.3.2 Surveillance and monitoring diseases,			
anti-microbial, and pesticide resistance			
development			
1.3.3 Surveillance and monitoring diseases,			
anti-microbial, and pesticide resistance			
development			
1.4 Soil Acidity Reduction			
1.4.1 Soil acidity amendment			
1.5 Reduce Post-harvest losses.			
1.5.1 Promote responsive handling and			IFAD/ SCADeP;
preservation technologies and their			AfDB
adoption to reduce post-harvest losses.			
1.5.2 Post-harvest handling, drying and			
storage facilities			
1.6 Effect of Climate Change			

1.6.1 Climate change adaptation and							IFAD/ SCADeP;
mitigation strategies into agricultural							AfDB
extension							
1.6.2 Climate information for agriculture							
1.6.3 Upscale Climate-smart agriculture							
technologies							
1.7 Climate resilient agricultural							
technologies							
1.7.1 Develop and Apply Performance							SCADeP/WB,
Benefit							AfDP, FAO, EU,
1.7.2 Measurement Methodologies for							IsDB
Adaptation,							IFAD (AVDP)
Mitigation and Development							
1.7.3 Promote sustainable agricultural							
Ecosystem management							
Policy Cluster 2: Establishment of Rice Pr	rocessing Zones	2022	2024	2026	2028	2030	<b>Funding Agency</b>
Strategic Intervention: 2.1 Facilitate and s	upport the establishment of						
Rice Processing Zones							
2.1.1 Establish a technical committee							SLARiS/AfDB
comprising senior officers of international							(SLRVCP)
financial institutions, Commercial Banks,							
government, SLeCAD/NaFFSL and the							
private sector to serve as a Steering							
Committee for the development of RPZ							
Master Plan							
2.1.2 Develop a Master Plan for the							
establishment of RPZ with focus on rice							
and have the plan approved by Parliament							
of Sierra Leone							

2.1.3 Mobilize financial resources and						
capacity and establish the RPZ based on						
the						
principles of comparative advantage and						
agro-industrial location considerations						
2.1.4 Enact legislation to attract private						
sector investors to produce, process and						
market rice and associated products in and						
from the Rice Processing Zones						
Investment Type						
Strengthen market linkage						
between seed companies and						
users.						
<b>Policy Cluster 3:</b> Promoting Domestic Rice Con	sumption 2022	2024	2026	2028	2030	<b>Funding Agency</b>
Strategic Intervention: 3.1 Development of mar	ket for rice produced					
and processed in Sierra Leone through appropria	ate legislation that					
facilitates the supply and sale of domestic rice to						
facilitates the supply and sale of domestic rice to 3.1.1 Review existing legislation or enact						WB, AfDB,
						WB, AfDB, FAO, EU, IsDB
3.1.1 Review existing legislation or enact						
3.1.1 Review existing legislation or enact legislation that foster purchase and supply						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country  3.1.2 Review the rice import support to						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country  3.1.2 Review the rice import support to align with the ECOWAS free trade regime						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country  3.1.2 Review the rice import support to align with the ECOWAS free trade regime with aim						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country  3.1.2 Review the rice import support to align with the ECOWAS free trade regime with aim						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country  3.1.2 Review the rice import support to align with the ECOWAS free trade regime with aim to attain zero tariff waiver by 2028						FAO, EU, IsDB
3.1.1 Review existing legislation or enact legislation that foster purchase and supply of domestic rice to public institutions in the country 3.1.2 Review the rice import support to align with the ECOWAS free trade regime with aim to attain zero tariff waiver by 2028  3.1.3 Establish a National Rice Secretariat						FAO, EU, IsDB

3.1.6 Establish formal partnership with					
Mano River Union Countries on rice					
research, trade, technology and					
knowledge transfer					
Type of Investment					
Strengthen market data collection					
and information dissemination					
Policy Cluster 4: Implementation and coordination of the Rice Self- 2022	2024	2026	2028	2030	<b>Funding Agency</b>
Sufficiency Policy					
Strategic Intervention 4.1: The rice value chain development projects					
effectively and efficiently coordinated leading to significant progress					
towards the achievement of rice self-sufficiency					
4.1.1 Presidential Initiative to declare					GoSL
domestic rice production for national rice					
self sufficiency					
4.1.2 Establishment of National Rice					GoSL
Secretariat					
4.1.3 Educate and mobilize the public,					AfDB, FAO, EU,
private sectors, NGOs and development					IsDB, IFAD
partners to support the rice self-					,
sufficiency initiative					
4.1.4 Promote a dialogue at community					SCADeP/WB,
levels and work through the issues of					AfDP, FAO, EU,
community ownership and					IsDB
implementation of the rice self-sufficiency					IFAD/AVDP
initiative					
4.1.5 Mobilize and synergize with other					FAO, IFAD,
MDAs for the successful implementation					GoSL (MDAs)
of the rice self-sufficiency initiative					SCADeP/WB,

4.1.6 Implement the policy and strategy							SCADeP/WB,
geared towards achieving rice self-							AfDP, FAO, EU,
sufficiency by 2030							IsDB
							IFAD/AVDP
		2022	2024	2026	2028	2030	<b>Funding Agency</b>
<b>Policy Cluster 5:</b> Monitoring, Evaluation, I	Resource Mobilization and						
Partners							
Strategic Intervention: 5.1 Development and	d implementation of a						
monitoring and evaluation framework							
5.1.1 Short term Evaluation							GoSL
5.1.2 Final Evaluation							
5.1.3 Mid-term Evaluation							