



SIERRA LEONE COUNTRY FOOD AND AGRICULTURE DELIVERY COMPACT





EXECUTIVE SUMMARY

Context: As a net importer of food and fuels, Sierra Leone remains vulnerable to fluctuation in food prices and global supply chains disruption for essential commodities. The Agriculture Delivery Compact will lay the foundation to support Sierra Leone to become food self-sufficient, reduce dependence on food importation, boost exports of processed crops, while also creating jobs in rural areas. With a total envelope of USD 410 million over a five-year period, the Compact will target three value chains and two cross-cutting enabling interventions.

The Plan - As a priority, the Compact aims to increase milled rice production by at least 25% annually. This will be done by investing in irrigation, mechanization, and processing. An additional 100,000 ha will be put under cultivation for cassava production for the purpose of processing into flour and starch. By boosting the yields of cassava and expanding the area under cultivation, the Compact aims to add 35% of fresh cassava to current production levels, annually. The third value chain targeted is livestock. The objective of this investment is to reduce importation of dairy and poultry products which continues to grow at an alarming rate in the last five years. The aim is to halve the importation of these products in the next three years.

In the bid to consolidate services and expertise to support these value chains, the Sierra Leone Compact will establish five Farm Service Centers across the country. The centers will aim at solving coordination problems among actors and activities on the ground and provide critical infrastructure such as storage and labs. It will serve as resource center for processing and use of machines and equipment for farming. The final cross-cutting investment area of the Compact is in agriculture technologies (Ag-Tech) and data systems. The Compact will build on existing systems to reach more farmers cheaply with better information, as well as collect real time information to support decision making. An agriculture data hub will be built to maximize the insight from different and discrete sources of data. These will be used to track progress towards Compact goals. As an approach, the Compact will largely rely on the private sector for the implementation of these initiatives. Government activities will be limited to removing bottlenecks, enacting policies, and necessary legislations in support of these goals. Government will also support the provision of policies and making upstream investments that attract subsequent investment from the private sector.

Political Commitment - A Presidential Taskforce on Agriculture will be set up to provide the maximum political support for the Compact. This Taskforce will include leaders from key Ministries and Departments whose policies affect agriculture. These include Ministry of Finance, Trade, and the Bank Governor. The Presidential Taskforce provides a forum for leader to remove inconsistent policies and joint problem solve for better and sustainable result.

Financing Commitment - USD 410 million of financing secured for these initiatives will be mostly available to the private sector through various schemes to implement the Compact. These may include agriculture credit facilities, loan guarantee and value chain insurances schemes to credible farmers and private sector actors that invest in the value chain activities under the compact. Government will also seek public private partnership (PPP) arrangements for the implementation of some of the component of the Compact.

Coordination Mechanism: A lean project implementation unit (PIU) will be set up to manage components of the project that government directly implements. The PIU will also manage the various private sector schemes.



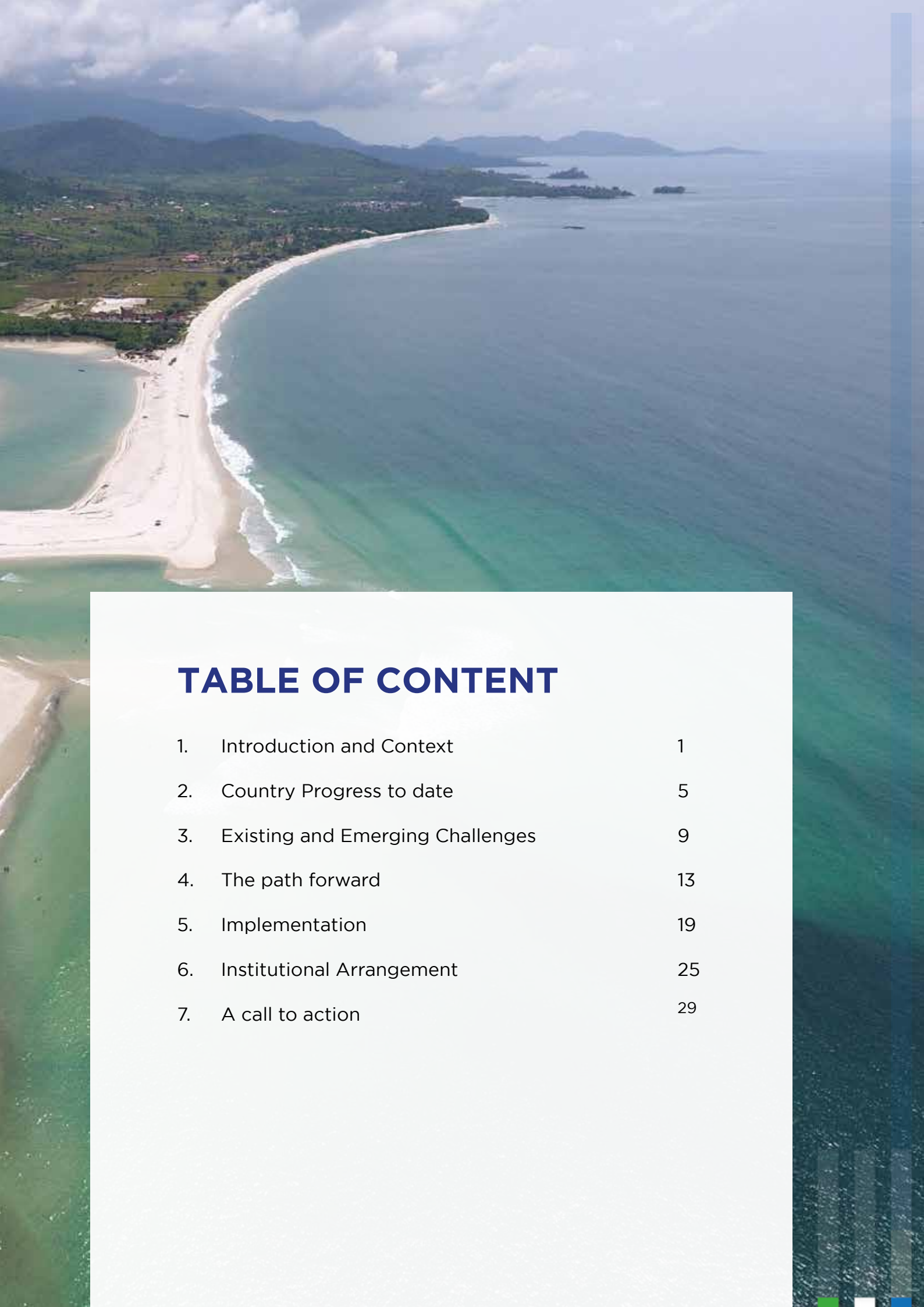


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INTRODUCTION AND CONTEXT

INTRODUCTION

The Sierra Leone Agriculture Delivery Compact provides an opportunity for the country to set a bold transformative agenda to boost productivity growth and reduce poverty. The Sierra Leone economy is predominantly agriculture based, with sector providing about 54.5% of jobs for the population. In rural areas, well over 80% of people get their livelihood from subsistence farming. In 2021, the sector contributed about 57.4% of GDP and about 28% of export. The country is endowed with the human capital and natural resources and conditions to support rapid agricultural productivity growth.

Yet agricultural productivity in the country has stagnated over the years, with an average annual growth rate of about 3.9% for the last 14 years²⁴. The cultivation of the main staple, rice, is largely smallholder-based and relies on rainfed systems. Irrigated rice accounts for less than 4% of rice production. Land preparation, planting and harvesting are also done mainly by hand, thus limiting how much farmers can cultivate and ultimately produce. Because of the subsistence nature of farming in the country, with less than 2% percent rate of mechanisation, only about 15% of arable land is under cultivation.

Furthermore, farmers' adoption of improved technologies and practice also remains low, as the pipeline that links research, release and adoption of agriculture technologies remains broken. The use of fertilizer and other agrochemicals are suboptimal. As a result, yield for most crops in the country are below attainable potential. For instance, the estimate for rice yield has ranged between **1.27 to 2.1 metric tons per hectare** over the past six years, which is well below the regional average. The yield for cassava is also well below its potential, ranging from 15.7 to 21.3 metric tons per hectare between 2017 to 2020.

Consequently, Sierra Leone is a net importer of food, with its import basket consisting of many items we can produce locally, such as **rice, onions, eggs, and dairy products**. Food import accounts for about 32% of merchandise imports. Estimates for the average annual import bill for rice alone has grown steady over the past six years and now stands above **\$200 million**. Export of cash crops, mainly cocoa and fisheries, have grown steadily post-war, but not enough to offset the importation of other food items.

The slow growth in agriculture threatens the country's food security situation and has wide ranging implication for the economy and wellbeing. Food import bills put pressure on the limited reserves of the country and ultimately create balance of payment issues, which is reflected in the continued depreciation of the leone currency. Job creation in the rural areas is also slow when agriculture outputs growth stagnates. Perhaps more telling is the World Food Programme study that estimates that as of April 2022, 1.1 million or 13.4% of the population faced acute hunger while 2 million people in Sierra Leone are experiencing chronic hunger.

With the emergence of the COVID-19 pandemic and the recent Russia-Ukraine war, the country faced serious socioeconomic challenges across all sectors, including agriculture. The effects have exacerbated the problems faced by the agriculture sector, disrupting the food system, and ultimately worsening the food insecurity levels. In response to these challenges and the estimated negative socioeconomic impact, the Government of Sierra Leone developed and implemented the Quick Action

Economic Response Program (QAERP) in 2020, with the overall goal of maintaining the macro-economic and financial stability and mitigate the impact of the shocks on businesses and households. The intervention pillar for agriculture focused on supporting local production and processing of staple food, leading to the cultivation of 6,171.96 hectares of lowland ecology through mechanization for rice production, cushioning the effects of the COVID-19 shock for an estimated 37,000 household members in especially the rural areas. Productivity was enhanced, increasing from 1.2 Tons/Hectare to about 2.5 Tons/Hectare specifically for the QAERP intervention sites. The current private sector model adopted by the Ministry of Agriculture and Food Security lend itself to the lessons learned under the QAERP intervention, demonstrating great value in engaging private sector to employ mechanization as an engine of agricultural production intensification. This has laid the foundation for the government's policy shift and the effort to transform the sector.

For over a decade now, in response to the dire need of the country in addressing local food production challenges and in response to the Malabo Commitments, the Government of Sierra Leone (GoSL) has directed tremendous efforts to developing the sector and maximizing the benefits realized both at the macro and micro levels. Given the level of emphasis placed on consolidating all investments made in agriculture, GoSL developed strategic planning documents including the National Sustainable Agricultural Development Plan 2010-2030 (NSADP) serving as a contribution of Sierra Leone to the Comprehensive Africa Agriculture Development Program (CAADP), with the objective of improving agricultural productivity; the National Agricultural Transformation Plan 2023 (NAT-2023) with the objective of ensuring sustainable and diversified production of food including crops and animals, on a scale sufficient to





feed the growing population; and the National Agricultural Investment Plan. These planning documents have been helpful guide for all agricultural investments in the country, ensuring that investments are directed to the urgent and prevailing needs of the country. In addition to these plans, policies have been developed to provide framework for improving the various areas of the sector. Some of these policies include the National Seed Policy, National Fertilizer Policy, National Agricultural Extension Policy, Gender in Agriculture Policy, and National Rice Policy, etc.

In line with these plans and policies, the Ministry of Agriculture and Food Security has designed and executed several projects with funding support from multilateral agencies and development partners including the African Development Bank (AfDB), the World Bank, the European Union (EU), the International Fund for Agricultural Development (IFAD), the Islamic Development Bank (IsDB), and the United Nations. Currently, five projects are being implemented over the past three years, valued at over USD 360 million - two of them funded by the African Development Bank, including the Sierra Leone Agribusiness and Rice Value Chain Support Project (SLARiS) (USD 11 million) and the Rice Agro Industrial Cluster Project (RAIC) (USD 42 million).



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COUNTRY PROGRESS TO DATE

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Making Sierra Leone food self-sufficient and industrialising the agriculture sector continues to be the top priority of the President Bio-led government. The National Agricultural Transformation Strategy 2023 (NAT 2023) lays out the priorities of the government and builds on broader sector documents including the National Sustainable Agricultural Development Plan 2010-2030 (NSADP), which continues to serve as Sierra Leone's contribution to the Comprehensive Africa Agricultural Development Program (CAADP). NAT 2023 provides an investment strategy with the objective of ensuring sustainable and diversified production of food including crops and animals, on a scale sufficient to feed the growing population. Its strategic goal is to be less dependent on importation of staple food items and to diversify the food and export basket of the country. As such, boosting rice production is the priority of the NAT 2023, with a stated goal of reaching 86% rice self-sufficient by the end of 2023.

In the bid to meet these objectives, the government made a bold shift in approach away from a predominantly public sector driven service provision in the sector, to one where the private sector plays a lead role. The government moved to unlock critical bottlenecks and continues to provide the right incentive to spur private sector activity along the rice value chain.

The government launched four initiatives to this effect:

- **Agriculture Credit facility to stimulate private sector activity:** The government committed **to extend a USD 10 million-dollar agriculture credit facility** for the private sector to access to invest in the following areas: Fertilizer import and distribution, Seed production and distribution, agrochemicals and mechanisation. The credit was given at 7% interest rate, compared to 25% market rate and structured to meet planting cycles.
- **Public-Private Partnership to expand mechanisation in rice production.** The government has made an initial investment, in over **390 agricultural machineries (tractors, power tillers, seed broadcasters, harvesters and fertilizer applicators)** to lease to private sectors to kick start mechanization services in the country. The machines have been used to establish 14 mechanization service centres (Machine Rings) across the country. The fleet of machinery are **worth over USD 18 million.**
- **An e-voucher programme to increase efficacy in government support to farmers for input and mechanization services:** Also, to stimulate demand government has further committed, through the 2021 annual budget outlay another USD 5.5 million dollars as direct support to vulnerable farmers to access and afford agricultural inputs through an e-voucher system. About 18,000 farm households across the country have benefited from the programme so far.
- **Modernization of the agriculture advisory services through e-extension:** At the current national average rice yield of 1.7 tons/ha, quality inputs and mechanization alone will not be enough to get the country closer to the yield potential in the various rice ecologies. The government has committed further investment to strengthen extension services, including establishing an e-extension platform, to serve the selected cohort of farmers to raise yields, strengthen market linkages and other agricultural services.

In addition to these fiscal commitments, the government, has put the necessary policies and regulatory bodies in place to support this shift toward the private sector. Specifically, **The National Fertilizer Regulatory Agency Act 2018, The National**

Fertilizer Policy 2017, The Seed Policy 2017 and The Sierra Leone Seed Certification Agency Act 2018. These regulatory bodies are now being staffed up and infrastructure, such modern laboratories erected to regulate the industry.

Despite the interruption of the COVID-19 pandemic, these interventions have yielded positive results. On mechanised areas, yield at 2.5 metric tons per hectare were demonstrably better than the national areas. Rice production jumped steady, with baseline milled rice production **of 568,478 tons in 2019, to 636,668 tons in 2020 and 901,554 tons in 2021.** The positive impact of these interventions and the lesson from the implementation allows the government to scale this approach to other value chains, and to deepen the investment in rice.

These interventions, policy initiatives, and reforms have helped Sierra Leone improve its performance on CAADP reviews. From 2017 to 2021, there were three Biennial Reviews and Sierra Leone participated in all of them. In the first review, Sierra Leone's average score was 1.5, way below the average score for the 47 reviewed member states (3.6) against the 3.97 benchmark; in the second review (2019), Sierra Leone's overall rating improved by about 256% (5.34), well above the average score for the 49 member states (4.03). The 2019 benchmark was 6.66. In 2021, the country's overall rating dropped by about 18.9% (4.33), slightly above the overall score for the whole of Africa (4.32), measured against the benchmark of 7.28. For each of these reviews, the country demonstrated strong performance in some areas and poor performance in others.

Another indicator of progress in the sector in Sierra Leone is that the country has been able to attract investment from diverse sources to support its plans and programs. These investments are backed by partnerships with critical multilaterals including African Development Bank (AfDB), the World Bank, the European Union (EU), the International Fund for Agricultural Development (IFAD), the Islamic Development Bank (IsDB), and the United Nations. Currently, five (5) projects are being implemented from the past 3 years ago, valued over USD 360 million²⁵, with two of them being funded by the AfDB, including the Sierra Leone Agribusiness and Rice Value Chain Support Project (SLARiS) (USD 11 Mil) and the Rice Agro-Industrial Cluster Project (RAIC) (USD 42 Mil). These investments are significant contributors to the productive base of the sector, alleviating the persistent problems of low production and productivity, and lessening poverty and food insecurity.

Disruptions in production and global supply chain resulting from the Russia-Ukraine conflict has adversely impacted progress in transforming the agriculture sector in Sierra Leone. Increases in energy costs, global inflations and tightening of monetary policy in the west has led to increased debt burden and a tight fiscal space for critical long-term investment. For instance, in Sierra Leone, the government had to reduce the number beneficiaries to target from its e-voucher program from 20,000 farmers to 6000 in the 2021 planting cycle. This comes on the back of increases in shipping costs and disruption in the global food supply chain due to the COVID 19 pandemic.

Consequently, the country is constrained to put forward an even bolder plan to address growing food security concerns and the worsening of the balance of payment situation in the country. A WFP October report of 2022²⁶ holds that the overall food insecurity reached unprecedented levels in Sierra Leone, with 81% of households classified as food insecure and 14.9% as extremely food insecure. Further evidence of significant and deteriorating food insecurity in Sierra Leone is provided in the most recent Hunger Map analysis by WFP, which finds that in 12 of the 16 districts in Sierra Leone, 2.19 million people (26.7% of the population) have insufficient food consumption, 2.65 million people (32.3% of the population) have crisis or above crisis level food-based coping strategies, and 3.34 million people (40.7% of the population) face challenges accessing markets.²⁷



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Existing and Emerging Challenges

Existing and Emerging Challenges

The results of the policy shift initiatives have demonstrated that large scale transformation is possible in the sector. A coordinated set of interventions are needed across critical food and cash crop area to truly transform the entire agriculture sector in Sierra Leone. The interventions need to address challenges that persist and anticipate climate risks. Attracting and sustaining Foreign Direct investment (FDI) in key value chains is critical for unlocking the potential in the sector. The following continue to be challenges that the sector must address in preparation for a transformative agriculture agenda.

- 1 Poor Infrastructure (irrigation and Processing):** Infrastructure to support large scale production is limited in Sierra Leone. Even with the government Machine Rings, the rate of mechanization in Sierra Leone agriculture remains low, less than 2%. The situation is similar for irrigation. The country is endowed with over 800,000 hectares of boli land suitable for irrigation to support up to three rice planting cycles, yet only a fraction of this is under cultivation and the irrigated parts account for less than 1%. In addition, across most value chains, investments are concentrated on the production aspect, with little attention to post-harvest handling and agro-processing. For the rice value chain, proper drying technologies and millers are lacking. Across the country there is also limited storage infrastructure to support farmers and aggregators.
- 2 Associated services for mechanization:** Lessons learned from implementing the Machine Ring intervention suggest that, providing machines alone may not be enough to reap the full benefit of a mechanized agriculture production. Machines should be accompanied by services to maintain and repair machines, technologies to link farmers to these services. Without these investments, such interventions will be sub-optimal and not sustainable.
- 3 Advisory services and data for decision making:** Countries that have successfully embarked on agriculture transformation have made huge investment in advisory services to farmers. Farming communities have trained community members and lead farmer to experiment and share ideas with other farmers. The government just launched an Interactive Voice Response (IVR) system for farmers. This needs to be developed further, and investments made to recruit and train farm agents at chiefdom level. Furthermore, interventions must be supported and informed by credible data systems. Mobile technology has now made it possible to push and pull data from farmers. Predictable and credible data will be used to inform both farmers and policy makers.
- 4 Limited fiscal space and weak coordination of resources:** The anticipated global economic headwind is likely to further shrink the fiscal space for the Sierra Leone government. As the U.S dollar continues to strengthen the country's debt burden will increase, squeezing out resources for investment in agriculture. This poses a big threat as Sierra Leone has consistently struggled to meet the 10% budget allocation as per the CAADP recommendation. Effectively coordinating existing resources from development partners and private sector will help keep critical resources for the sector.
- 5. Furthermore, climate change risks are significant and increasing.** The country faces climate change vulnerabilities emanating from sea level rise, coastal erosion, floods, reduction in groundwater, and pandemics, among others²⁸. These incidents have resulted in population displacement, loss of property and reduction in freshwater quality. According to the Government's National Adaptation Plan²⁹

extreme weather induced floods accounted for 90% of people affected by disaster in Sierra Leone. Specific to agriculture, floods and coastal erosion have reduced agricultural potential for coastal areas (e.g. mangroves). These events take a toll on agricultural production, infrastructure, people's homes, public health and biodiversity along the coast. Climatic change is expected to make cropping calendars more unpredictable and to negatively affect crop production for key staple crops such as rice and cassava. Rice is highly sensitive to increased humidity and rainfall intensity and is vulnerable to pest that thrive in higher temperatures. In the absence of appropriate adaptation measures, possible increases in the incidence of flooding may put farmers' agricultural assets at heightened risk of destruction, especially in areas marked by high levels of deforestation and land degradation.







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THE PATH FORWARD

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As outcome of the existing and emerging challenges highlighted above, production of key staple crops and other important value chains has been low, affecting household consumption pattern and making the country to over rely on food import. From 2017 to 2021 for instance, rice production level has been fluctuating with an overall average of 1.31 million tons of paddy rice produced annually. The highest production over this five-year period was experienced in 2021 at 1.98 million tons while the lowest was experienced in 2019 at 0.95 million tons. The annual average growth rate over this period was recorded at 17.1%. This situation has been mainly driven by a discouraging yield level and the limited land area cultivated. Over the past five years (2017-2021) the yield of rice was at an overall average of 1.63 tons/Hectare with the highest presented in 2021 at 2.1 tons/Hectare and the lowest in 2018 at 1.27 tons/Hectare. Land area put under cultivation was also low over this period, with an annual average of 90,169 Hectares. At this level of production, the country can barely meet less than two-third of its national consumption need. With an estimated 131Kg per caput consumption for rice, the estimated national consumption requirement outweighs the current level of production. In 2020 for instance, national consumption requirement for rice was estimated at 1.8 million tons of paddy rice with a projected population of 8.2 million. However, production in 2020 stood at 1 million tons, which translated into 58% of the national requirement, implying a 42% rice self-sufficiency gap. This imposes import burden on the country to fill the consumption requirement gap, requiring on average over USD 200 million per annum as import value³¹. Without appropriate actions by GoSL and development partners, Sierra Leone will find it difficult to attain food self-sufficiency, continuing the trend of worsening food insecurity situation with over reliance on imported food items. Farmers income levels will remain low hence trapped in the vicious cycle of poverty with increased vulnerability in the face of shocks.

Conversely, if the production environment is enhanced with major investments directed to intensification, productivity enhancement, and value addition, the country will rise above the shortfalls of not meeting its consumption requirement and poverty reduction need of especially the vulnerable populations, hence eliminating the huge expenditure in importation of the country's staple and other important food items that can be produced locally including livestock products.

The Sierra Leone Agriculture Delivery Compact is an opportunity for Sierra Leone to design a transformative agenda to address existing challenges, build on gains made so far and to secure resources and partners towards these goals. The strategic goals of the Sierra Leone Compact include:

- i) import substitution by replacing imported food with locally grown foods, which reduces our demand for forex ,**
- ii) boosting of export from processed crops to earn forex and**
- iii) job creation in rural areas from agro-processing**

WHAT WILL THE SIERRA LEONE COMPACT ENTAIL?

To achieve these objectives, the Sierra Leone Compact will focus on three value chains- rice, cassava and livestock, with initial phase focusing on poultry (feed production with maize and soybean).

- 1 Investment in the Rice Value Chain:** Rice is the main staple of Sierra Leone consumed by over 90% of the Sierra Leone population. With over 400 million

people in the sub-region, the rice market in West Africa is estimated to be about \$1.2 billion which makes it an ideal value chain for Sierra Leone to focus on. Although mechanization has been introduced at a limited scale, rice farming is still largely rain-fed, which can only support one cycle of production per year especially for the staple crops. Introducing irrigation to support multiple planting cycles in a year and investing in processing to reduce post-harvest loss will immediately boost productivity.

- Support Irrigation Scheme for Rice Production: The irrigation potential of Sierra Leone as estimated since 1981 is at 807,000 hectares. From then to-date, there has been limited effort directed to investing in irrigation-based production, despite its high-level potential in making valuable contributions to production and productivity enhancement. A key goal of this Compact is to pilot a 30,000 ha irrigation scheme in lowland ecologies to boost rice production in Bonthe, Kambia, and Pujehun districts. This scheme is expected to expand area under cultivation, increase yield to between 2.5 to 3 tons per hectare for rice, and act as centers of excellence for rice production and processing. Under this scheme, the country will be deliberate about mobilizing local effort to practice a coordinated process of managing the natural resources relevant to agriculture for optimal outputs from their utilization.
- Provide Productivity Enhancement Support: Irrigation technologies alone won't be enough to attain to boost yields. The availability of quality inputs (seed, fertilizer, and other agro-chemicals) and effective farm management will be required. About 1,875 tons of seed rice will be required annually over the period of the compact to cultivate the 30,000 Ha. Over a five-year period, about 9,375 tons of seed rice will be provided by the compact for cultivation. About 7,500 tons of fertilizer will be required annually, translating into 37,500 tons over a five-year period. However, fertilizer application will be based on soil nutrient capacity across the various lowland ecologies irrigated. Thus, serious consideration will be given to conducting soil tests to ascertain the PH level. Findings from a recent soil survey, reveals that our soils are acidic³², which confirms the findings of the soil survey conducted between 1974 and 1978, presenting Sierra Leone's average soil acidity at 4.58, implying that about 80% of soil nutrients are lost to the environment. The compact will thus seek to administer acidity- and alkalinity-correcting measures on the earmarked 30,000 hectares, through liming before soil fertility. **In this regard, the Project will ultimately support and build the capacity of nascent liming factories operating in Sierra Leone, while, in the short-term relying on imported lime.** Also, the compact will provide other agrochemicals as applicable to the agro-ecologies.
- Processing and Value Addition Support: Another critical element to boost productivity is to reduce post-harvest loss. Investment in processing and value addition will be a critical part of the irrigated rice production scheme. Existing investment from the AfDB can be combined with resource from the Compact to build storage infrastructure, millings factories and packing.

The irrigation rice scheme pilot and associated investment is expected to increase productivity level of rice to about 3 to 4 tons/Hectare. With up to three cropping cycles possible and increased yield, this investment will add at least 270,000 tons of paddy rice each year, contributing about 15% of the rice consumption requirement in the country. Over a five-year period, and with expansion of irrigated area, the Compact will contribute towards making Sierra Leone rice-self-sufficient with surplus to sell in the sub-region, and consequently reduce the food insecurity levels in the country

For this investment, an estimated USD 200 million is needed for over a five-year period.

- 2. Investment in Cassava Value Chain:** Cassava is a very important food crop in Sierra Leone, regarded as the closest substitute to the main staple of the country (rice). About 90% of cassava produced in the country is used for human consumption. Close to 490,000 **hectares** is available for cassava production across the country. However, its potential in supporting sufficient food availability in the country has not been fully realized. In fact, cassava is a versatile crop that derives multiple products for different consumption needs. Despite it being consumed fresh by humans, cassava is an industrial crop from which **flours and starch** are derived for beverage manufacturing purposes. It's skin can be used as a major ingredient in the preparation of animal feeds. Unfortunately, Sierra Leone is yet to tap fully into these opportunities of the crop. Yields for cassava, at a national average of 17 ton per hectare have remained well below potential, and despite suitable varieties available for process, adoption have remained low. A second priority of the Compact is to boost cassava production, with emphasis on processing to make flour and starch for industrial use.
- Intensify production through formalized groups: The Compact will aim attract investment to pilot 50,000 ha of cassava production for processing for flour and starch. Like with rice, the 50,000 ha will spread in a few locations to serve as center of excellence for cassava. Each center will work with organized groups of small holder farmers that cultivate on 2 to 5 hectares on average. in an out-grower scheme. Through this scheme the Compact will aim to add a total of 100,000 ha of cassava production in 10 districts in Sierra Leone. These centers will promote the use of the appropriate technologies and build farmer know-how along the cassava value chain.
 - Support Value Addition: The Compact will seek to attract investment to set up cutting-edge value addition technologies in each of these centers. Processing will aim to support the production of multiple products from cassava for domestic needs and industrial. Cassava flour and starch will be key outputs from the processing. Under this support, composite flour mill will be established to produce cassava flour which can be used for bread making.

This intervention will aim to boost yield to about **25 tons per hectare**, adding an estimated 1,250,000 tons of fresh cassava to the current production. **A total of USD 80 million** will be required for this investment.

3. Investment in Livestock: Livestock production is an important agricultural activity in Sierra Leone. The sector contributes about 5.7% of the agricultural GDP contribution³³. About 74% of households are involved in livestock production with the major share engaged in a more traditional system (wide range)³⁴. This sector has been an important source of income yet underdeveloped. The importation of dairy and poultry products have increased steadily over the years in Sierra Leone. Combined, they make up the third highest food import value. The rate of growth of importing poultry products alone stands at 36% annual for the past three years. Yet investment in the poultry sector remains low. Even feed is imported to support existing poultry farmers. The compact will also aim to attract investment for the livestock sector with initial emphasis on poultry feeds. Under this scheme, a national livestock zone will be established to aggregate live animals for in-country consumption and possible export opportunities. To foster livestock product diversification, a factory will be established for Dairy Milk production in Bombali district. Efforts will be made to improve on the existing breeds through artificial insemination for optimal dairy production **by setting up a Liquid Nitrogen Plant (LNP). This Plant will service the Sierra Leone, Liberia, Guinea, and Ivory Coast markets. Neither of those four countries has an LNP.** Production intensification will include large and small ruminants, and poultry. Also, intervention will be directed to the establishment of animal feed mills in strategic locations in the country (Bombali, Moyamba, Bo) with an out-grower scheme to support **maize and soya beans** production through smallholders (especially youth and women) to supply the mills. Smallholder farmers will be supplied relevant inputs, including high quality, early-maturing, pest-and disease-resisting varieties of seed.

The livestock component of the Compact aims to replace import of poultry and dairy products into Sierra Leone, which currently stand between **USD 15 to USD 20 million annually. An initial investment of USD 100 million over a four-year period to be sourced for these initiatives' objective.**

4. Farm Service Center (FSC): The Sierra Leone Compact will also aim to establish Farm Service Centers in all 15 agricultural districts in Sierra Leone to support the delivery of services for these value chains. The aim will be to consolidate critical **expertise and capacity, advisory support, access to finance, market, aggregators, and farm infrastructure such as storages and labs** to support production. These centers will be tailored to meet the needs of each value chain, and will serve as centers for experimentation, knowledge sharing and technology exchange. They are envisioned to be established at the district level and will also service as a resource center and technical clearing house for all agriculture programs in that district. Emphasis will be given **to building capacity for mechanization services, training of agriculture developments agents**, building of processing facilities storage and lab (soil testing) infrastructure.

While there will be public goods provided at these centers, most services will be paid for services by farmers. These may include rental or lease of machines and equipment, fees for storage use, customized soil test, fees for processing etc. When these centers are functional, they promote the **adoption of improved technologies and practices, reduce post-harvest losses**, and **shorten the linkages to market** by serving as hubs for aggregation. This ultimately increases value for farmers and the quality of products destined for market.

The Sierra Leone Compact will aim to establish 5 of these centers, two each for rice and cassava value chains and one for livestock. An estimated **USD 25 million** is required to start these initiatives.

5. **Strengthen Ag-Tech Systems – e-Extension and Data Systems:** In the context of the current global challenges and the need to foster the environment of evidence-based investments, Sierra Leone’s compact will support the existing ag-tech systems to optimize the benefits realized by both the government and the public. Central to this are the implementation of the e-extension framework and the operationalization of the ag-data systems. Proposed activities will include developing the following areas to support the three identified priority value chains of rice, livestock, and cassava:
- Upgrading the farmer registry and making it independent from which input distribution for farmers can be queried.
 - Integrating the voucher platform with the interactive voice response (IVR) system
 - Developing a mobile app version of the Agriculture Market Information System (AMIS), which is potentially useful for market in and out of country, and integrate it with data collection tools making it user-friendly for data collectors
 - Providing stipends for data collectors (for AMIS) as they reside in distant places far away from the data collection areas which involve transportation and lots of commitments.
 - Supporting the Planning Evaluation Monitoring and Statistics Division of the Ministry of Agriculture for effective data cleaning and uploading updated content on the AMIS platform
 - Providing hosting fees for the AMIS platform.
 - Providing Frontline Extension Workers tablets and power banks to enable them respond in real time to agricultural emergencies, communicated through the IVR system, and record the response and the response site.

An estimated **USD 5 million** is needed to support this over a five-year period. The coordination center for this delivery will be at the Ministry of Agriculture and Food Security.

These investments are supposed to improve on the production environment for the targeted value chains. Production levels per unit area for crops will almost be doubled, and the production level of livestock products will increase dramatically, which maximize farm outputs, contribute to food availability in the country, and enhance agri-commercialization. This will ultimately result into a drastic increase in the income levels of farmers, serving as incentive for farm interventions; boost the country’s foreign exchange reserve, helping to improve the balance of payment; and contribute to the overall poverty reduction in the country.



5

IMPLEMENTATION



THE APPROACH FOR IMPLEMENTING THE COMPACT INITIATIVES:

These interventions will be largely driven by the private sector, where government's effort will be geared towards providing the right incentives and removing critical bottleneck to encourage private sector investment. Government will also undertake critical public goods investments to encourage further downstream investment from privates and farmers. But even with public goods, a PPP arrangement where appropriate will be sought.

Therefore, the Sierra Leone Compact will seek different funding source and different models for financing the initiatives listed. The following instruments will be used to finance private sector towards these initiatives:

- 1 PPP model:** where government makes initial down payments, for instance in the case of machines, which can be leased to private sector or through the Farmer Service Centres.
- 2 Agriculture Credit Facility:** Private sector players already operating along any of these value chains will be given access to credit at concessionary terms to help achieve the goals of the Compact.
- 3 Insurance Schemes:** Here government will spur investment in these areas by offering insurance to private sector that take the risk to invest in any of the prioritised value chains.
- 4 Loan Guarantee Schemes:** Like the insurance scheme, funds secured through the Compact can be set aside to back credible private sector and farmers secure loans to expand businesses along these value chains.
- 5 Land Concessions to attract FDI:** Government can also make concessions for land lease from local communities to undertake investments along these value chains.
- 6 Build Operate Transfer (BOT) models:** This another form of PPP where an investor can build, operates, and later transfers a critical agriculture infrastructure to government. This would be suitable for the irrigation scheme, and the Farmer Service Centres.

Table 1: Summary Components of the Compact:

Compact Initiative	Indicative Cost (\$ million)	Funding Sources	Government Role	Private Sector Role	Financing model
Rice: Irrigation, Mechanization and Processing	500	Government, private sector, FDI, Donor Partners and Compact	Public goods funding- e.g. initial infrastructure	Upstream investment to develop land, and produce	BOT, land concessions, and Credit facilities

Cassava: Production and Processing	84	Private sector, FDI, donor partners, Compact	<ul style="list-style-type: none"> • Public goods funding-development of improved varieties, • building capacity of agriculture agents • Financing guarantees 	Direct investment in production and processing Marketing	Agriculture credit facilities, loan guarantee schemes, and insurance
Livestock	110	Government, private sector, FDI, Donor Partners and Compact	<ul style="list-style-type: none"> • Capacity building, development of Vet, • Providing subsidized inputs improved varieties, • Financing guarantees 	Direct production Processing and marketing	Agriculture credit facilities, loan guarantee schemes, and insurance

- **Coordination and oversight**

The Ministry of Agriculture and Food Security drives the agriculture agenda of the Government of Sierra Leone, providing oversight and technical guidance in promoting the agricultural production space. This compact will therefore be delivered through the Ministry as the core Executing Agency. Quite recently, the Ministry established the National Development Partners Project Coordinating Office (NDPPCO) to provide technical oversight in coordinating donor-funded projects deliveries and ensuring proper fiduciary controls. This office will be central coordination unit for the compact and will provide direct oversight in the physical implementation and fiduciary management. For the day-to-day coordination of the compact activities, an Implementation unit will be established with key experts relevant to the compact delivery mechanism. This implementation unit will work directly with the relevant Divisions in the Ministry of Agriculture and Food Security including Crops Division; Engineering Division; Livestock Division; Extension Division; and the Planning, Evaluation, Monitoring, and Statistics Division.

- **Resource mobilization and performance contracts/result-based financing**

An indication of increased GoSL financing to the agriculture sector to support the compact is necessary to demonstrate commitment to achieving the CAADP target. Funding for the compact will be provided by African Development Bank (AfDB) and other multilateral and bilateral development partners either as grant or loan to the government of Sierra Leone. Government will provide counterpart funding through Ministry of Finance either in-kind (government infrastructure, personnel, etc.) or cash. During project implementation, beneficiary will make in-kind contributions to include the provision of local materials for any infrastructural development, labour, etc. Government will also pay subventions and duty waivers for imported project materials. In the Public-Private Partner (PPP) arrangement, private sectors will provide resources to match with funding support provided by the compact to foster commitment and sustainability.

- **Implementation capacity and solutions to limited capacity**

The Ministry of Agriculture and Food Security has established agencies supporting the delivery in the input sector for regulations, input quality assurance (seeds, fertilizers, and agro chemicals), technical guidance (varietal selection, fertilizer use, soil nutrient correction, etc.), and sector transformation. These agencies will be leveraged upon for the transformation of the input sector through the Compact. For operations, the Ministry divulges its divisional functions to all districts to support extension service delivery engineering; crops production and protection; livestock production and animal health; agri-business; and planning, monitoring, and evaluation. These functional divisions will be the frontline implementers of the Compact through the coordinating office and Implementation Unit, assuring the Ministry of sufficient capacity to deliver optimal results. In the area of research, the Ministry has a research institution (Sierra Leone Agricultural Research Institute) that executes research projects to support improved technology innovations. This institution will be leveraged upon for agriculture innovation and learning especially through the Rice Research Station. With the current interest for promoting mechanization as a key driver for intensification, the Ministry has established mechanization facilities in the 15 agricultural districts. These facilities will be utilized with some form of improvement to enhance production efficiency.

To enhance delivery through the various structures, the Compact will provide capacity building supports in multidimensional ways. To improve on extension service delivery, district personnel will be provided with transport facilities and needed technologies to reach the farmers with agri-information. Trainings will be supported for district personnel and regulatory agencies, tailored to needs of the Compact. Functional capacity of private sectors to be engaged will be built through regional collaboration, learning, and adaption; establishment of credit facility for private sector; and enhance market competitiveness. At the smallholder level, farmer field schools (FFS), targeting technology transfer, agri-business, and sustainability will be supported.

- **Compact Risk Analysis and Risks Mitigation**

The compact will target the 15 agricultural districts for value chain support and support policy reforms and functional improvement initiatives. With this nature of interventions, several externalities are likely to negatively impact the smooth implementation of the compact, thereby interrupting the perceived theory of change. The theory of change of this compact is that advancing into a more investment-based production with focus on diversification and improved value addition will promote production intensification, doubling production output and ultimately contribute to achieving food self-sufficiency in the country, increase the level of farm incomes, and contribute to poverty reduction. Therefore, the main goal of the compact is to intensify local production to achieve food self-sufficiency and create local food export opportunities for the country. With such investment, several players interact in the space. Therefore, acceptance is major if interventions must be directed as planned. Without stakeholder acceptance, transformation in the direction of the investment will be nearly impossible. Considering that the Ministry of Agriculture and Food Security will use the private sector as the main vehicle to deliver chunk of the compact interventions, capacity issues with the private sector players will reduce the possibility of achieving desired transformation.

Government's commitment to ensuring that policies related to the compact and the overall sector are enforced and that new polices are established is key if the narrative of the country's agricultural landscape must change. Lacking this commitment by the government is an impeding factor to the compact, reducing the possibilities of transforming the sector and maximizing its contribution to the overall economy.

With the current trend in global supply chain, which affects commodity prices for especially net importing countries, inflations of prices of compact related items will affect the compact deliverables hence reducing the possibility of establishing the required outputs.

Additionally, the delivery capacity of implementation team can have tremendous effect on compact success. Weak delivery capacity of project management team reduces the possibility of creating the desired results.

RISKS	MITIGATIONS
Weak Private Sector Capacity to deliver compact interventions.	The compact will embark on robust capacity building for all private sector players engaged in the compact. Local Government structures will also be involved in the capacity building process to enhance sustainability and national ownership.
Low Government commitment to enforcing policies for the transformation of the agriculture sector with improved delivery mechanisms.	The compact will take the following actions: Ensure procurements are initiated earlier for items that are only sourced internationally. Ensure quotations are made in the local currency for items sourced locally
Commodity Price Inflation	The compact will embark on continuous engagement of government stakeholders to enhance meaningful participation and commitment demonstration.
Poor Community Acceptance and Participation	The compact will embark on robust and continuous community stakeholder engagement throughout the period of the implementation, to enhance participation and ownership.





6

INSTITUTIONAL ARRANGEMENT

INSTITUTIONAL ARRANGEMENT

For the Sierra Leone compact, there will be two broad levels of institutional arrangements: the management, technical, and administrative level; and the Strategic High Governance Level.

At the management, technical and administrative level, a delivery team will be set up to form the Project Management Unit, responsible for the day-to-day implementation of the project with cognizance paid to timely delivery, proper resource management, and human resource management, aligning with the Compact Development Objectives. The Delivery Team will be composed of a Team Lead, Finance Expert, Procurement Expert, Monitoring and Evaluation Expert, Irrigation Expert, and Business Development Expert. The Team will be situated under the National Development Partner Project Coordinating Office at the Ministry of Agriculture and Food Security. This office coordinates with the i) Technical (Advisory) Team of the Ministry, ii) the Office the Chief Agriculture Officer/Director-General, and iv) the Office of the Senior Permanent Secretary, Ministry of Agriculture and Food Security. To foster cross Collaboration, Learning, and Action (CLA), the team will work closely with the two existing projects of ADB within the Ministry i.e., Rice Agro-Industrial Cluster (RAIC) project and the Sierra Leone Agribusiness and Rice Value Chain Support (SLARiS) project. It will also extend the collaboration to other projects funded under the Ministry with similar interventions to avoid duplication in effort and enhance learning to maximize results

At the Higher level of Governance, a State-Led governing body will be instituted to provide strategic oversight and coordinate with development partners at both national and international levels, galvanize regional and global efforts and seek additional opportunities to improve on the compact intervention at both regional and continental levels, creating the avenue of seeing this Compact as essentially African Initiative for African Agricultural Transformation and Sustainable Food Security. Similar governing body already exists in Sierra Leone, in keeping with Sierra Leone's commitment to the Comprehensive African Agricultural Development Programme (CAADP). In that structure, the Presidential Task Force on Agriculture (PTFAg) is the highest-placed Agricultural Transformation Facilitation body, headed by the Presidency. Below that stratum is the Agricultural Advisory Group (AAG), consisting of the Ministry of Agriculture and Food Security and Development Partners in Agriculture. A key subset of the AAG is the Food Security Working Group (FSWG), which is co-chaired by the FAO and the Ministry of Agriculture and Food Security and comprises of other development partners working on food security, farmers (represented by the National Federation of Farmers of Sierra Leone (NaFFSL), private sector players, and civil society. There is also a strategic governance dimension (the Agriculture Champions), which can be strengthened and whose relevance can be brought to bear for the success of the Compact. They include the First Lady, the Minister of Finance, and the Chief Minister. Also, there is the Cross-Party Agriculture Committee in the Sierra Leone Parliament. Having highlighted the above bodies, the compact will leverage upon these structures to set up the High Level of Governance body. A combination of members from the Presidential Task Force on Agriculture (PTFAg), the AAG, the FSWG, the Agriculture Champions, and the Parliamentary Committee on Agriculture will be purposefully selected to form a Presidential High-Level Council, with a maximum membership of 10 officials, including at least 30% female representation, to support the delivery of the Sierra Leone's food and agricultural compact and collaborate internationally to share learnings and

promote cross regional coordination in strengthening the food systems of Africa. The Council will be chaired by the HE the President, with the Minister of Agriculture and Food Security being the Secretary. It will meet quarterly or at earlier times, in cases of emergency. The project will provide monthly progress report to the Council through the AAG/FSWG. The AAG/FSWG, will set the Agenda for the Quarterly High-Level Meetings and brief HE before the Meetings. The key functions of the Presidential High-Level Council will include to:

- Ensure that the project is being implemented in the set manner, within the agreed timelines and with the expected quality of outputs, outcomes and impacts;
- Facilitate the process of the Project getting all the resources (local and international) it needs to meet its objectives and for its activities to be implemented timely and qualitatively;
- Facilitate addressing high-level encumbrances that stand in the way of the project's success;
- Advise HE on Agriculture being the next main Government Priority;
- Facilitate Sierra Leone meeting the prescriptions of the CAADP and BR processes (that found the Compact), which Sierra Leone is a signatory of; and
- Be the local and international face of the Compact and source international funding and goodwill for it as an African initiative to foster agriculture transformation and food and nutrition security in-country, regionally, continentally and at the world stage.







7

A CALL TO ACTION

A CALL TO ACTION

Recent food price hikes resulting from disruptions in the global supply chain due to the Russia-Ukraine war and the COVID-19 pandemic is a wake-up call for political leaders in Africa to strive to be food self-sufficient. Policy responses such as border closures and export bans by major food exporting countries has been the starkest reminder in recent times of the need for Africa to invest in boost food security. Food price hikes have raised import food bills for net-importers of food, like Sierra Leone. At the peak of the crises, food import bill for Sierra Leone rose by more than 35%, which leave little room for other productive use of the country's limited foreign reserves.

To make matters worse, most countries on the continent that are net-importers of food also rely on the global market for the energy and fuels. As net importer of not just foods, but fuel and energy, Sierra Leone remains vulnerable to global fuel prices as well.

Our dependence on foreign oil and energy will remain in the immediate and medium term. However, with endowment of the country to boost agriculture productivity we can reduce our external exposure by making smart and bold investment in the sector to not only feed the country but to also take advantage of increased global prices.

Sierra Leone has put forward a bold and transformative agenda for the Compact. The value chains targeted for the Compact aim to reduce the country's dependence on food import, boost agro-processing to promote exports of high value commodities, and to create jobs in rural areas. If successfully implemented, the Compact will contribute to Sierra Leone being food self-sufficient by meeting the national consumption requirement for rice, helping to shift the food insecurity curve in-wards. In addition, over 12,000 green jobs will be created for youths and women. This will help increase average household income level by an estimated 20%. These effects will surmount to reducing poverty levels and promoting economic growth of the country.

In regard of these anticipated returns, getting the Compact off the ground requires actions from all stakeholders, ranging from government, development partners and internal financial institution, private sector, both local and international, NGOs and the scientific communities. Given the total amount quoted for the Compact (USD 410 million), which does not cover investments in other important areas of the agriculture sector, critical partnerships are required. This could be the South-South Cooperation, and strategic collaboration with developed countries, solidifying and optimizing the Compact outcomes.

Despite progress made over the past four years, the food security situation in Sierra Leone remains dire. Malnutrition is prevalent among children, and the pandemic and the Russia-Ukraine war have stalled efforts to extreme poverty. Sierra Leone has barely been able to withstand these global shocks, but it is unclear how long the country will absorb further shocks, especially considering currency depreciations. With an uncertain global economic outlook, now might be the right time to make those investments. Without investments like the ones highlighted above, Sierra Leone will likely not be able to withstand further shocks.







SIERRA LEONE COUNTRY FOOD AND AGRICULTURE DELIVERY COMPACT

