MINISTRY OF COMMUNICATION, TECHNOLOGY & INNOVATION

Our Sector's Contribution to FEED SALONE



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Message from the Minister

As we advance on Sierra Leone's digital transformation path, I am proud to share the Ministry of Communication, Technology, and Innovation's contributions to "Feed Salone," a flagship program led by the Ministry of Agriculture and Food Security and championed by the visionary leadership of His Excellency, RtD. Brig Dr. Julius Maada Bio. His Excellency's vision for "Feed Salone" is simple, to ensure food security in Sierra Leone by boosting agricultural productivity, fueling inclusive growth, increasing local food production, and reducing our dependence on food imports. Through innovation and expanded connectivity, our sector is contributing to this vision by empowering farmers with access to technology and the development of a resilient agriculture ecosystem.

This year, we made significant strides by extending connectivity to underserved communities through the completion of the National Fiber Backbone Phase II and other digital transformation projects. This has opened new avenues for rural development and agricultural success. Our recent Agriculture Innovation Challenge showcased the creativity of Sierra Leone's young innovators, who presented homegrown solutions to advance our farming sector and enhance food security.

Through strategic discussions with partners such as the Bill and Melinda Gates Foundation, we are exploring advanced digital tools to support farmers in an evolving landscape, helping them adapt to new challenges and seize growth opportunities. Guided by pillar five (5) of the flagship Feed Salone strategy, we are committed to setting a high standard for digital progress that aligns with the "Feed Salone" vision of a sustainable, prosperous agricultural sector.

Join us as we continue this journey, driving connectivity and innovation to support a digitally connected and food-secure Sierra Leone.



Salima Bah

Minister of Communication
Technology and Innovation



OVERVIEW OF THE MINISTRY



Mission

To provide affordable, sustainable, accessible, and reliable communications, technology, and innovative services to the people of Sierra Leone and serve as a reservoir for technical knowledge through policy, research, planning, and coordination of communications, technology, and innovation to accelerate socio-economic growth to enhance service delivery.



Vision

To serve as a vibrant communication, technology, and innovation hub that provides strategic leadership in the creation of an enabling environment that enhances service delivery through the formulation and implementation of effective and efficient communication, technology, and innovation-related policies and programmes that promote socioeconomic transformation and development.

Functions of the Ministry

- Formulate appropriate policies, legislation, and regulations for the Communication, Technology and Innovation Sector;
- Provide policy guidance and strategic direction on all matters concerning Communication, Technology and Innovation;
- Create an enabling and responsive policy environment for the enhancement of private sector investment;
- Facilitate, network, and attract local and foreign investment in communication, technology, and innovation.
- Coordinate and liaise with the Private and Public Sector Communication, Technology and Innovation Institutions to regulate their activities and monitor their services to ensure that they comply with government standards and international best practices;
- Coordinate and liaise with MDAs, Local Councils, regional and International organizations on Communication, Technology and innovation, and set up inter-ministerial and inter-sectoral committees;
- Facilitate and promote effective sectoral coordination;



THE MINISTRY OF AGRICULTURE AND FOOD SECURITY – TRANSFORMING AGRICULTURE THROUGH INNOVATION.

Agriculture remains the backbone of Sierra Leone's economy, employing more than 60% of the population and contributing approximately 55% of the country's GDP. However, the sector is constrained by low productivity and a heavy reliance on food imports, particularly rice a staple for Sierra Leoneans. In 2022 alone, Sierra Leone imported over $200 million worth of rice, emphasizing the urgent need for localized production to reduce import dependency and improve food security.

The launch of Feed Salone signals the beginning of a transformational era for agriculture in Sierra Leone. This ambitious initiative seeks to accelerate agricultural growth, achieve food sovereignty, and position agriculture as a central driver of economic development in Sierra Leone. Building on the success of the National Agricultural Transformation Programme (NAT 2023), Feed Salone embodies a renewed commitment to enhancing food security, creating jobs, and significantly boosting Sierra Leone's GDP.

With a bold target of achieving 10% annual agricultural growth over the next five years. This will more than double the historic 3-5% growth rate Feed Salone aspires to achieve to transform the agricultural sector into a cornerstone of the nation's economic resilience. This vision aligns seamlessly with His Excellency President Julius Maada Bio's "Big 5 Game Changers" outlined in the Administration's Manifesto, placing agriculture at the heart of Sierra Leone's development agenda.

Objectives of Feed Salone

The initiative is guided by key objectives that aim to drive sustainable growth and uplift livelihoods:



Strategic Pillars of Feed Salone

With an annual rice demand of 1.6 million metric tons and local production currently meeting only about 60% of that need, Feed Salone is strategically positioned to close this gap. By boosting domestic rice production, the initiative aims to not only achieve self-sufficiency but also create surplus for export.

The Ministry of Agriculture and Food Security has identified six strategic pillars that guide the Feed Salone Strategy, which include:



01 Mechanization and Irrigation

Modernizing farming practices with advanced machinery and irrigation systems to maximize efficiency and productivity.

02 Seeds and Inputs Systems

Establishing a robust supply network to ensure farmers have access to high-quality seeds and essential agricultural inputs.

03 Aggregation, Processing, and Marketing

Building infrastructure and systems to streamline the aggregation, processing, and marketing of agricultural products, boosting profitability for farmers.

04 Access to Finance

Introducing targeted financial mechanisms that empower farmers with the capital to scale their operations effectively.

05 Agricultural Technology (AgTech) and Climate-Smart Agriculture (CSA)

Leveraging innovative technologies and sustainable practices to enhance resilience against climate change and ensure long-term sector sustainability.

06 Empowering Women and Youth

Creating inclusive opportunities for women and youth to thrive as key contributors to Sierra Leone's agricultural transformation.

One of the most critical pillars of the Feed Salone Strategy is Pillar 5: Agricultural Technology (AgTech) and Climate-Smart Agriculture (CSA). To deliver on this vital pillar, the Ministry of Agriculture and Food Security (MAFS) has joined forces with the Ministry of Communications, Technology, and Innovation (MoCTI). Together, the two ministries are leveraging emerging technologies and sustainable agricultural practices to build climate resilience and promote the long-term viability of Sierra Leone's agricultural sector. Through this collaboration, MoCTI is supporting the development and deployment of advanced solutions aimed at enhancing productivity, improving resource management, and providing farmers with the tools and knowledge necessary to adapt to the challenges posed by climate change.

These efforts are central to transforming Sierra Leone's agricultural landscape, ensuring that the sector not only remains competitive but also becomes more inclusive and sustainable. By integrating AgTech innovations and CSA principles, the ministries are equipping farmers with the means to increase yields, reduce environmental impact, and strengthen the overall resilience of the agricultural value chain. This joint initiative represents a pivotal step toward modernizing agriculture, and securing a sustainable and climate-resilient future for farmers across the country.



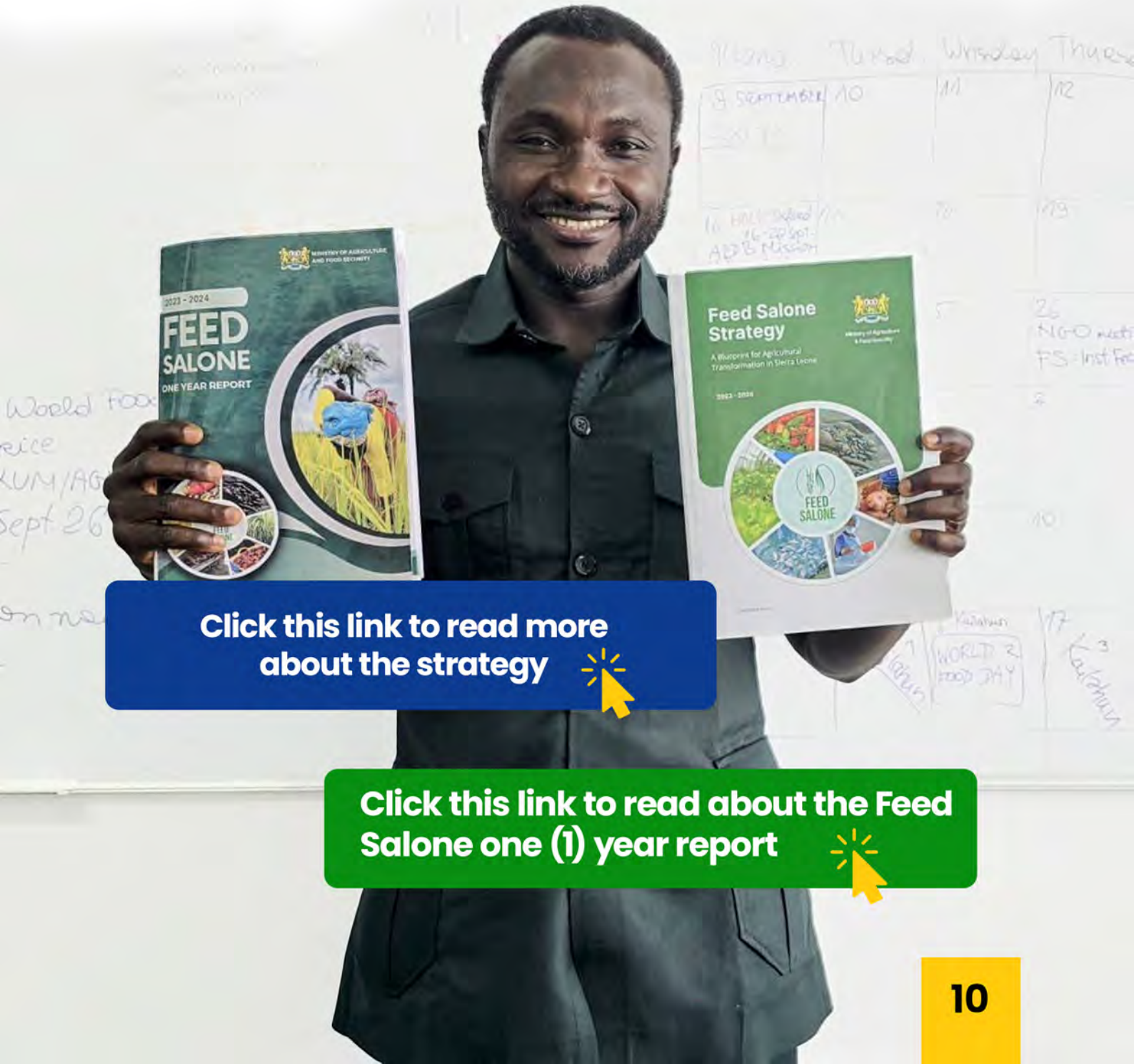
National Farmers Registry (Game Changer for data-driven decision making)

The National Farmers Registry (NFR), an initiative supported by the World Bank funded Food Systems Resilience Program (FSRP), is a critical intervention in the Ministry of Agriculture and Food Security's efforts to transform the agricultural sector in Sierra Leone. Developed in collaboration with the Ministry of Communications, Technology, and Innovation (MoCTI), the NFR aims to address longstanding information gaps and inefficiencies in the agriculture sector. By creating a centralized, up-to-date database of key farmer data including farm location, size, and produce type. The registry will enable more informed decision-making, enhance resource allocation, and strengthen policies tailored to the needs of the agricultural community. The NFR will also improve access to vital resources such as subsidies, training, financial support, and market linkages, particularly for underserved groups like women and youth.

The registry is designed to promote data-driven decision-making that supports long-term sector sustainability in addition to enhancing transparency and efficiency. By providing farmers with real-time information through innovative e-extension services, the NFR will facilitate the adoption of climate-smart agricultural practices, such as organic fertilization and waste reduction through circular farming systems. The initiative also strengthens market connections, directly linking farmers with buyers, which will not only boost their incomes but also foster a more self-sufficient and resilient agricultural sector. Recent technological breakthroughs, including DNA sequencing to combat cassava mosaic disease and the implementation of e-Voucher systems for streamlined input distribution, further bolster the transformative impact of the NFR.



As the Feed Salone initiative progresses, its integrated approach; connecting farmers, researchers, processors, and extension workers will promote innovation, enhance climate resilience, and contribute to the creation of a dynamic agricultural ecosystem. By uniting all stakeholders across the agricultural value chain, the Flagship is setting the stage for a more sustainable and inclusive future for one of the country's most important and vulnerable sector. With a strong framework and well-defined objectives, the program will not only empower farmers and uplift local communities but also position the country as a leader in sustainable agriculture in the region.



Click this link to read more about the strategy

Click this link to read about the Feed Salone one (1) year report

Digital Systems in operations at MAFs

To support the goals of the Feed Salone initiative, the MAFS has embraced cutting-edge digital systems that are transforming the agricultural sector. These technologies are designed to streamline operations, boost transparency, and provide farmers with timely access to essential resources and information. By integrating these digital tools, the Ministry is improving operational efficiency, empowering farmers, and enhancing the resilience of the agricultural sector, ensuring it can better withstand challenges and thrive in a rapidly evolving landscape.

01 Interactive Voice Response (IVR) System

02 Farmer Management System (E-Voucher System

03 Agriculture Market Information System (AMIS)

04 Geographical Information System (GIS)





Interactive Voice Response System (IVRS)

The IVRS serves as a vital tool for delivering verified agricultural extension messages in local languages, ensuring farmers can access essential information regardless of their literacy level or geographical location. By supporting frontline extension workers, this system empowers farmers with real-time advice on best practices, weather updates, and pest management strategies. It plays a crucial role in bridging the information gap for remote and underserved communities, making agricultural knowledge more inclusive and accessible.



Farmer Management System (E-Voucher System)

The Farmer Management System, also known as the E-Voucher System, simplifies the distribution of agricultural subsidies by replacing manual processes with digital vouchers. Farmers can securely access critical inputs such as seeds and fertilizers through this platform, which minimizes misallocation risks and enhances accountability. By ensuring resources reach the intended beneficiaries efficiently, the E-Voucher System supports equitable access to agricultural inputs, reinforcing the foundation of sustainable farming.



Agriculture Market Information System (AMIS)

AMIS empowers farmers and stakeholders by providing up-to-date market information, including price trends and demand forecasts. This system enables farmers to make informed production and marketing decisions, contributing to improved income stability and reduced economic vulnerability. By fostering transparency in agricultural markets, AMIS helps integrate smallholder farmers into value chains, boosting their participation and profitability.



Geographical Information Systems (GIS)

GIS is an indispensable tool for spatial data management and analysis. By mapping agricultural trends and identifying areas of potential growth or concern, GIS enhances the ministry's ability to allocate resources strategically. From identifying fertile lands to planning irrigation projects, GIS supports evidence-based decision-making, ensuring that interventions are targeted and effective. This tool is key to aligning agricultural development with environmental sustainability.

Management Information System (MIS)

The MIS platform acts as a centralized hub for data storage, monitoring, and analytics. By collecting and organizing information on agricultural activities and projects, MIS enables effective tracking of progress, outcomes, and resource utilization. This system strengthens accountability and provides valuable insights for strategic planning, ensuring that agricultural initiatives under the Feed Salone program are well-coordinated and impactful.



Feed Salone is a passion and a national initiative. It is anchored in my love for agriculture. It is about the satisfaction and joy of a fulfilling harvest at the end of every farming season. It is about the assurance of fresh food from my farm for my family and my community.

Once every Sierra Leonean shares that passion and looks ahead to the gratifying harvest, we can and we will reduce food insecurity in our communities. We will reduce the huge cost of food importation. We have sufficient arable land and hard-working Sierra Leoneans to achieve this, and Sierra Leone can be a net food-exporting nation in the near future. We will be a healthier and well-fed nation.

Let us cultivate our fertile land to attain food sovereignty.

H.E. Rtg. Brg. Julius Maada Bio



THE MINISTRY OF COMMUNICATION, TECHNOLOGY AND INNOVATION'S – ROLE IN FEED SALONE

The Ministry of Communication, Technology, and Innovation (MoCTI) plays a crucial role in driving the success of Feed Salone, particularly through the implementation of Pillar 5 Agricultural Technology (AgTech) and Climate-Smart Agriculture (CSA). By leveraging cutting-edge and emerging technologies, MoCTI is striving to enhance agriculture productivity, efficiency, and inclusivity across the country. The Ministry's strategic initiatives and global partnerships are not only strengthening food security and boosting agricultural output but also creating a more resilient and sustainable agricultural ecosystem. Through these efforts, MoCTI is helping to ensure that the objectives of Feed Salone are met, paving the way for a more modern, competitive, and climate-resilient agricultural sector.



Building on this vision, a standout moment in the ministry's contribution to Feed Salone was the Agriculture Innovation Challenge, held as part of the 2024 Sierra Leone Innovates Tech Summit hosted in June 2024. The challenge aimed to identify and support innovative solutions that were not only investment-ready but could also significantly impact agricultural practices. Six dynamic startups competed for a total of $60,000 in grant funding, with the opportunity to scale their transformative ideas to reach more farmers across the country.



Agricultural Innovation Challenge Finalists



Osman Yaah

Osman Yaah hails from Kono, representing Auto-Smart Irrigation and Energy, emerged as the winner of the **H.E. presidential Agriculture Innovation Challenge,** also an Orange Social Venture prize winner, and leads a team of three in developing an eco-friendly digital irrigation system using solar power and bamboo to help smallholder farmers in Sierra Leone remotely manage irrigation and improve agricultural productivity through a subscription-based model with payments via Orange Money, exemplified by his mother, the first user of this innovative system in the country.

Martin Dambaquee

Eco-Friendly Rechargeable Incubator project, developed by a team of three, addresses inadequate electricity supplies by creating incubators that operate through GSM control systems and recharge using renewable energy, providing an environmentally friendly solution that reduces dependence on importation, offers a two-year warranty, and aims to reach all regions of Sierra Leone, exemplified by his recognition with the Impact Award for Generation Africa in Tanzania in 2023.





Kumba Florence Banja

Kumba Florence Banja's EDEN project, developed by a team of four, tackles food scarcity and post-harvest issues by locally fabricating dehydrating machines from briquettes made of coconut shells to dehydrate cassava leaves, offering a cost-effective solution that feeds more than ten (10) people per box for NLE20, with a shelf life of up to two years, directly buying from farmers to reduce waste, create jobs, and stimulate business growth.



David Meek Jah

David Meek Jah, representing CADAP presented virtually, focuses on improving global food production through human capital and technology by addressing poor technology in agriculture, ensuring access to finance, and developing an ecosystem involving banks, early warning systems for weather, real-time predictive analytics, geotagging, and digital economy infrastructure such as connectivity, power, cloud services, global payment platforms, and satellite technology to provide farmers with real-time aggregate demand data and satellite remote sensing data using CADAP's decision intelligent knowledge graph.

Abdulai Barrie

Abdulai Barrie from Salon AGrow Market addresses the market access challenge in Sierra Leone by developing a comprehensive marketplace platform that presently connects eighty-six (86) farmers with buyers and service providers, allowing users to order locally grown produce from home, register products, and access a dashboard for seamless transactions, aiming to scale up and offer both online and offline access. Through the platform, they aim to provide reliable income for farmers and are currently offering the service for free while planning future monetization, all managed by a team of four, including him being a Yali Cohort.





Hawanatu Sesay

Hawanatu Sesay from We-AgriLAB addresses the issue of low crop yields by using sensors implanted in the soil to collect data on parameters such as humidity and growth, which helps farmers make informed decisions on when to water their crops, with the hardware having a long life and five pilot projects already conducted, earning her the 2023 OSVP TECH Queen title.

Agricultural Innovation Challenge Winners

The competition's top award, the H.E. President Bio Innovation Award, was claimed by Mr. Osman Yaah, who won $30,000 for his solar-powered smart irrigation system a technology designed to address water scarcity and boost agricultural productivity. Mr. Martin Dambaquee earned the runner-up prize of $20,000 for his eco-friendly rechargeable incubator, an innovation that provides a sustainable solution for poultry farmers. While Ms. Florence Banjao secured third place with a $10,000 prize for her dehydrating technology, which extends the shelf life of agricultural produce and helps reduce post-harvest losses.





These winners represent just a fraction of the growing ag-tech innovation ecosystem in Sierra Leone, and MoCTI is keen to continue providing a platform to showcase these startups and increase opportunities to secure investment. The Ministry has worked closely with the awardees to develop strategic investment plans that will guide the effective use of the prize money and business scalability. These plans are designed to scale their technologies, reach a wider farmer base, and foster new partnerships both locally and internationally, helping to drive long-term sustainability and growth in the agricultural sector. Through this support, MoCTI continues to advance Pillar 5 of Feed Salone creating an ecosystem where innovation thrives, productivity increases, and climate-smart solutions are put into action.

Spotlight on Kono Ag-Tech Innovation Ecosystem



A recent visit by MoCTI's Minister, Hon. Salima Bah, to Kono District highlighted the impressive progress made by innovators who have been part of the Agriculture Innovation Challenge. Kono District, traditionally known for its mining heritage, is rapidly emerging as a center of excellence for agricultural technology (Ag-Tech) and innovation.

The visit provided an opportunity to explore how Kono is rapidly transforming into a center for Ag-Tech. By engaging with the local innovators, startups and community leaders, the MoCTI delegation witnessed firsthand how young leaders and visionaries from Kono are determined to transition their district into a center of excellence for advanced agricultural solutions, aligning closely with the overarching objectives of the Feed Salone initiative..

A key highlight was meeting Osman Yaah, the winner of the H.E. President Bio Award, who shared his journey and the inspiration behind his work. His innovative solution is changing the future of agriculture, demonstrating how technology can drive significant transformation in unexpected places. Kono District, traditionally known for its mining heritage, is rapidly emerging as a center of excellence for agricultural technology (Ag-Tech) and innovation.



Interview with Osman Yaah, Auto-Smart Irrigation, grand prize winner of the H.E. President Bio Award of $30,000.



Osman Yaah

Founder, Smart Irrigation
Grand Prize Winner in H.E. President Bio Agriculture Innovation Award

Interviewer: Congratulations, **Amb Osman Yaah**, on winning the **Grand Prize in H.E. President Bio's Innovation Award** for the first-ever Agriculture at the #2024SLInnovate Tech Summit! What inspired you to pursue a career in agriculture?
Osman Yaah: Thank you! My journey began with the realization that we need to feed ourselves as a nation. While others sought traditional jobs, I wanted to make a difference in my community.

Interviewer: What challenges did you face when you started?
Osman Yaah: There were many challenges, including skepticism about modern agricultural techniques and financial hurdles.

Interviewer: How has the perception of agriculture changed in Sierra Leone?
Osman Yaah: The change has been remarkable. Agriculture is now a flagship program under **H.E. President Julius Maada Bio**, and more young people see it as a vital sector for national development

Interviewer: After your recognition, what are your next steps in agriculture?
Osman Yaah: Winning the **H.E. Presidential Award of $30,000** at the **Ministry of Communication, Technology, and Innovations' inaugural tech summit** shows our hard work. The plan is to expand the AgTech Farm Sierra Leone project by incorporating innovative technologies and securing partnerships for funding and training young farmers. Our goal is to motivate young people to get involved in agriculture and develop a strong sector that bolsters our economy.

Interviewer: What is the vision for AgTech Farm Sierra Leone?
Osman Yaah: Our vision is to create a modern agricultural hub that combines technology with traditional practices, providing food for the tech city and serving as an educational platform for aspiring farmers.



"Seeing the remarkable innovations emerging from Kono reaffirms our commitment to advancing agricultural technology in every part of the country. As we continue to support initiatives like the Agriculture Innovation Challenge, we are not only fostering growth but also creating opportunities that will lead to a more sustainable and resilient agricultural sector. The work of innovators like Osman Yaah is a shining example of the future we are building—one where technology empowers farmers and strengthens communities.

Salima Bah
Minister of Communication, Technology and Innovation

Learn more about the incredible work happening in Kono District and how it's driving change.

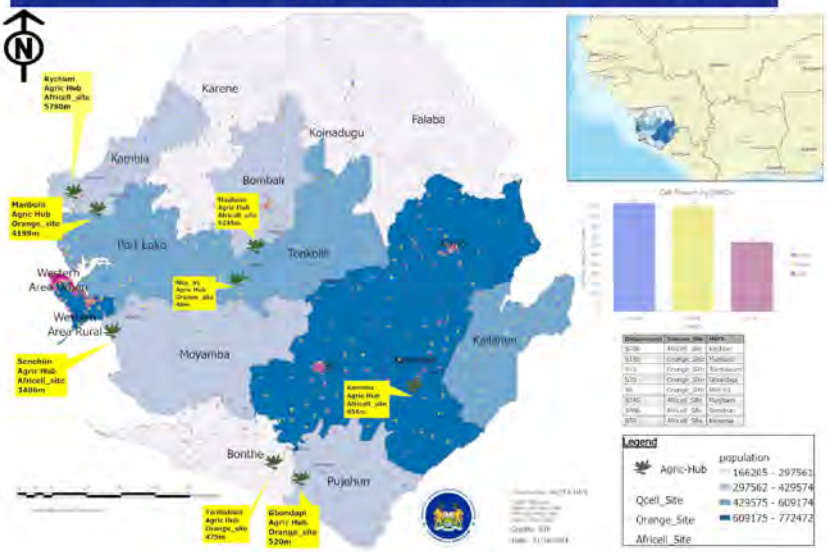
Watch Full Video Here

MoCTI's drive to prioritize access to connectivity and digital technology in the key agriculture hubs.

Access to connectivity and digital technology is a game-changer for farmers, providing the essential tools needed to enhance productivity and improve livelihoods. Through mobile phones and internet connectivity, farmers can access vital resources such as weather updates, market prices, agricultural advice, and mobile payment systems. This access allows them to make informed decisions, reduce the risk of crop failure, and connect directly with buyers, bypassing middlemen. By leveraging these technologies, farmers can improve crop yields, increase efficiency, and achieve greater financial stability.

The Ministry of Communication, Technology, and Innovation (MoCTI) has been instrumental in expanding digital connectivity across Sierra Leone, especially in rural areas. Through various initiatives such as the National Fibre Backbone Phase I and II, MoCTI has ensured the expansion of our fibre backbone to 14 out of 16 districts in Sierra Leone. MoCTI has also worked with MAFs to geo locate all 6 of the country's designated Argriculture hub and has layered this information to our existing network coverage to understand the status of connectivity in these zones. This vital information has been crucial to enable the Ministry to identify existing network coverage gaps and prioritize areas for expansion

Closest Telecom Sites & Agric-Hub Locations Acros The Country




Launching of Starlin at the Sierra Leone Innovates Tech Summit

Improving ICT infrastructure and network coverage is crucial to ensure that farmers in the most remote communities have access to the benefits of technology and the internet. This will ensure we continue to reshape traditional farming practices to a new era where farms are more connected and intelligent.

To foster this transformation, the launch of Starlink in Sierra Leone (making it the 10th country in Africa) will be crucial to expand network in the most unserved and underserved communities with a special focus on Agriculture.

Pilot of Digital Agriculture Hub in Turmabome



In a major development during the Forum on China-Africa Cooperation (FOCAC) Summit, MoCTI signed a partnership agrement with Huawei for the establishment of Digital Village in Turmabome. This launch of this initiative will mark a significant step towards transitioning to SMART agriculture hubs. The Digital Village solution will increase the connectivity coverage in Turmabome, provide solar powered electricity for the tower sites as well as an innovation hub that will provide the opportunity for farmers to access information and connect them to international experts that can provide extension services. This pilot program will demonstrate an efficient and affordable solution to provide sustainable connectivity and energy to rural farming communities as well as opportunity to access crucial services.



"The launch of the Digital Village Pilot Project is not just another milestone in our partnership with China but also a demonstration of the vital role that technology and infrastructure development play in driving our Big Five Agenda for a better future.

H.E. Rtd. Brg. Julius Maada Bio
President of the Republic of Sierra Leone





CONTRIBUTIONS OF OUR IMPLEMENTING AGENCIES TO FEED SALONE.

THE UNIVERSAL ACCESS DEVELOPMENT FUND'S (UADF) RURAL TELEPHONY PROJECT

Mandate

The Universal Access Development Fund (UADF) is committed to bridging the digital divide by ensuring universal access to telecommunications services in underserved and under-served rural communities. They are dedicated to providing equitable access to high-quality voice and broadband services, enabling communities to participate fully in the digital economy. Through strategic initiatives and partnerships, UADF strives to create a connected society where everyone has the opportunity to benefit from digital advancements.

Through the Ministry of Communication, Technology, and Innovation (MoCTI), the UADF has prioritized enhancing connectivity in the six agriculture hubs identified by the Ministry of Agriculture in the Feed Salone Strategy. Over 47,700 people have been connected through the Rural Telephony Project, including 30 schools and 10 healthcare facilities. The installation of telecommunication towers and equipment in key locations such as Dodo-Kortuma in Luawa Chiefdom, Kailahun District, Benducha Chiefdom in Bonthe, Sogbaleh in Bonthe, and Yoyema-Kayamba Chiefdom in Moyamba District will contribute to this effort. About 14,000 people in nine communities in Falaba District will benefit from these new towers, including Kamandu, Foedadu, Makali, Budu, Kambia, Mafidu, Masundu and Jawadu.









The UADF through the Ministry of Agriculture and Food Security (MAFs) has also distributied over 600 smart mobile phones to various stakeholders in the Argriculture sector. It has also installed5 PECK kiosk in rural communities that provides access to electricity for mobile charging and mobile money transfer as a sustainability model for the communities.

These initiatives have had a broad impact on the achieving the Feed Salone Initiative:

OBJECTIVES

01
Communication
Reliable mobile and internet access connects residents locally and internationally.

02
Education
Digital tools and online resources enhance learning opportunities.

03
Economic Empowerment
Small businesses benefit from expanded market access and improved efficiency.

04
Healthcare
Telemedicine services provide access to essential medical consultations.

05
Population
Connectivity supports demographic data collection, enabling better planning and resource allocation for community needs.



CONTRIBUTIONS OF OUR IMPLEMENTING AGENCIES TO FEED SALONE.

THE DIRECTORATE OF SCIENCE, TECHNOLOGY AND INNOVATION (DSTI)

The Directorate of Science, Technology, and Innovation (DSTI) is driving innovation in Sierra Leone's agricultural sector as part of the Feed Salone initiative. Through advanced tools like drones and artificial intelligence (AI), DSTI is helping farmers tackle challenges related to climate change, food security, and resource management. Here's how DSTI is making a difference:

Farm Mapping with Drones: By mapping large farming areas, drones provide detailed images of soil health, topography, and crop patterns, enabling farmers to optimize resources like water, fertilizer, and pest control for higher yields and environmental sustainability.

Livestock Health Monitoring: Drones track grazing patterns and monitor livestock health, allowing farmers to manage herds more effectively and address potential health issues early, improving overall productivity.



Precision Spraying: DSTI equips drones with systems for precise fertilizer and insecticide application, minimizing waste, protecting the soil, and improving crop growth efficiency.

AI for Weather Predictions: Using AI, DSTI analyzes weather data to predict rainfall, helping farmers plan planting, watering, and harvesting based on accurate forecasts, reducing risks from unpredictable weather.

Real-Time Crop and Soil Monitoring: Drones with advanced imaging tools allow farmers to monitor crop health and soil conditions in real-time, enabling rapid response to issues like pests or drought, and improving overall crop resilience.

Data-Driven Resource Optimization: DSTI uses predictive analytics to model future crop yields, assess climate impacts, and optimize resource allocation, ensuring sustainable practices and food security.

Promoting Innovation: Through partnerships with universities and the private sector, DSTI supports research and development in digital agriculture, fostering innovation and equipping young farmers with digital skills to build a future-ready agricultural sector.

DSTI's efforts are crucial in building a data-driven, future-ready sector that can adapt to climate change and drive long-term food security and economic growth.



MOBILE NETWORK OPERATORS (MNOS) CONTRIBUTIONS



ORANGE SIERRA LEONE

Orange Sierra Leone has long demonstrated its commitment to innovation through the Orange Social Venture Prize (OSVP), a program that has been promoting ideas for several years. By supporting entrepreneurs and start-ups, Orange Sierra Leone has consistently invested in innovative solutions that address critical societal challenges. This extends to agriculture, where the OSVP has played an important role in driving advancements and supporting agricultural innovations. Through this initiative, Orange has empowered innovators to develop technologies that enhance productivity, improve market access, and promote sustainability in the agricultural sector, making a meaningful impact on communities and economies alike. Over the past few years, the OSVP has developed innovations such as:

An innovative mobile service that provides farmers with essential knowledge to enhance their agricultural practices and prepare for future challenges, in collaboration with Ignitia. Recognizing the gaps in farmer education, the initiative focuses on providing farmers with the necessary information and resources. clear, accessible information about Good Agricultural Practices (GAP). These practices are designed to optimize farming operations, increase yields, and reduce environmental impact.

Good Agricultural Practices (GAP) refer to a set of standards that promote safe, sustainable farming, ensuring that crops and livestock are produced in a way that maximizes efficiency and minimizes risk. Through this partnership, over 365 best agricultural practices are distilled into bite-sized SMS messages, delivered daily in simple language, making them accessible to farmers with varying levels of literacy.

Objectives of the Initiative

- Expand e-agriculture services to broaden access to vital farming knowledge.
- Contribute to sustainable livelihoods by improving farming practices and increasing productivity.
- Support farmers economically by helping them make informed decisions that enhance efficiency and profitability.
- Ensure food safety and improve nutrition by promoting practices that yield sufficient, safe food.
- Protect agricultural workers' health by educating farmers on the proper use of chemicals and pesticides to prevent health hazards.



Through this service, Orange Sierra Leone is helping to create a more informed, efficient, and resilient agricultural sector, supporting farmers in achieving both economic success and environmental sustainability.

OSVP 2019 National Prize Winner



Agro Fish Farm
Aminata Kande

Dedicated to cultivating a sustainable and profitable fishing sector for Sierra Leone's growing population. Through the implementation of the latest fish farming technologies and techniques, our team of experts is dedicated to enriching the local fish industry and to providing the best services and products to our customers. This ensures that both the environment and the fish population remain healthy by ensuring that the fish population remains healthy as well.

Project:
Salone Agro-Market
Bayoh Turay

An agricultural company with over five (5) acres of land in Portloko District that engages in the cultivation of rice, cassava, and corn.



OSVP 2022 National Prize Winner



Project: Smart Irrigation
Osmaan Yaah

The Auto-Smart Irrigation System is Sierra Leone's first locally developed climate adaptation technology, providing eco-friendly, automated irrigation to enable year-round farming and increased crop yields.
Created by **Osman Yaah,** this innovative system eliminates reliance on seasonal rain. In 2024, Osman Yaa also won the 2024 presidential award for Ag-Tech Challenge at the National Tech Summit hosted by the Ministry of Communication, Technology and Innovation, exemplifying young Sierra Leoneans driving smart agriculture for sustainable farming and environmental benefits.

OSVP 2022 National Female Winner



Project: Wi-Agric Lab
Hawanatu Sesay

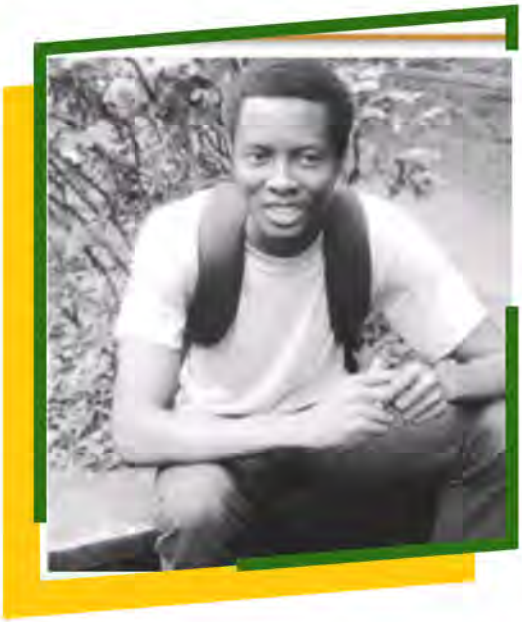
This start-up leverages IoT-based technology for smart, sustainable farming. Its device monitors soil fertility, moisture, plant growth, and pest presence, making automated decisions on watering and light. It alerts users via cloud tech, helping farm workers assess pest and disease issues in real time. This data-driven approach supports efficient crop management, boosting food quality and yield.

OSVP Agro Start-Up

Project: Salone Agro-Market
Abdulai Barrie

Salone Agro-Market is a digital platform in Sierra Leone connecting small-scale farmers directly with buyers to enhance market access and fair compensation. By offering an online marketplace, USSD codes for offline access, and real-time pricing and weather updates, it promotes inclusivity, reduces postharvest losses, and fosters transparency. This transformative platform empowers farmers, and contributes to Sierra Leone's food security.





Project: Windro Power Solutions
Alhaji Sesay

Windro Power Solutions is a renewable energy company focused on providing innovative and sustainable power solutions to drive agricultural growth. By designing and manufacturing portable wind turbines from recycled materials, we aim to supply reliable, clean energy to rural farmers. Our energy systems enable irrigation, grain processing, and cold storage, enhancing agricultural productivity and reducing post-harvest losses. This empowers smallholder farmers to improve yields and income, promoting sustainable agricultural practices and supporting food security in rural communities.

MINISTRY OF COMMUNICATION, TECHNOLOGY & INNOVATION

FEED SALONE



AFRICELL SIERRA LEONE

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Africell is expanding its efforts to support Sierra Leone's agricultural development, aligning with the Feed Salone initiative through various initiatives aimed at empowering farmers and enhancing rural economic opportunities. The company is scaling its agricultural training programs to reach more communities, providing farmers with essential skills in sustainable farming practices. Africell is also improving financial inclusion and operational efficiency by offering digital payment solutions through its Afrimoney platform, enabling secure, seamless cash transfers for farmers and expanding merchant payment facilities to agribusinesses. Additionally, Africell provides agricultural education via radio and digital platforms, including AfriRadio 105.3 FM and regional stations like Kamboi Agriculture Radio, delivering valuable farming knowledge to remote areas. The company's AI-driven services, AfriGPT and EVA, provide voice-activated agricultural information through USSD, further enhancing access to digital resources. In partnership with the United Nations Development Programme (UNDP), Africell has launched the "Tross en Pay Small" smartphone hire purchase scheme, distributing 1,000 smartphones in the pilot phase to increase connectivity and economic opportunities for rural farmers, small business owners, and youths.



Kiptieu F. Debs, customer Care Director and head of Africell Impact Foundation with the farmers

Kiptieu F. Debs, customer Care Director and head of Africell Impact Foundation with the farmers





QCELL'S CONTRIBUTION





Qcell has supported local farmers by distributing agricultural marketing materials and contributing 5,000 tons of fuel to aid rural mobilization efforts. This contribution aligns with the Feed Salone Project's objectives by enhancing logistical resources for farmers in communities.

Through the integration of technology and innovative solutions, Feed Salone is redefining agriculture in Sierra Leone. From biometric farmer registry to digitised soil mapping and advanced seed systems, we are equipping our farmers with the tools to boost productivity, enhance food security, and build a climate-resilient food system. Embracing innovation is part of the Feed Salone strategy and our pathway to sustainable growth and prosperity for all.



Dr. Musa Kpaka

Minister of Agriculture and Food Security

MINISTRY OF COMMUNICATION, TECHNOLOGY & INNOVATION

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