COLLABORATIVE SEEDPROGRAMME
Nigeria-Netherlands

Contributing to the
Nigeria-Netherlands Seed Partnership

ASSESSING NIGERIA'S INSTITUTIONAL SEED MARKETS

Draft

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Executive Summary

Institutional seed markets in Nigeria play a key role in supporting national food security, agricultural productivity, and rural livelihoods. They facilitate large-scale procurement and dissemination of quality seed by governments, humanitarian agencies, donors, development projects, and agribusinesses, to reach millions of farmers. These markets are key to the performance of the broader agricultural sector in Nigeria.

We find that the institutional seed markets in Nigeria offer a high-leverage entry point for reforms, capable of catalyzing systemic improvements across the agricultural sector. With the right mix of policy innovation, private sector engagement, and regulatory strengthening, Nigeria can reposition its institutional seed markets to serve as engines of productivity and resilience.

This study, conducted under the Collaborative Seed Programme (CSP) under the Nigeria-Netherlands Seed Partnership, provides an assessment of Nigeria's institutional seed markets. It presents a diagnosis of market structure, procurement practices, regulatory frameworks, and stakeholder dynamics, while identifying both systemic bottlenecks and opportunities for reform.

Key Findings:

The study identifies several systemic challenges that constrain the effectiveness and sustainability of institutional seed markets and the seed sector in general.

Systemic Inefficiencies: Institutional markets suffer from fragmented coordination, limited transparency in procurement processes, and weak enforcement of quality standards. These challenges contribute to well-documented low seed uptake, reduced farmer confidence, and other inefficiencies across the seed system.

Market Distortions: Heavy reliance on public subsidies and donor-driven distribution programs often crowds out private sector investment, creating artificial demand patterns and undermining competitive market development.

Regulatory Gaps: Inadequate oversight, particularly in procurement monitoring, leads to the circulation of low-quality seed, damaging both productivity and trust in the formal seed system.

Undermined Private Sector: The role of private seed companies in institutional channels remains limited due to opaque procurement rules and a lack of incentives for quality differentiation or innovation.

Recommendations:

The report proposes targeted, actionable reforms across four strategic pillars of Procurement, Seed Supply, Dissemination, and Governance.

- **Procurement:** Build transparent and professional systems by aligning with the 10 Guiding Principles for Seed Aid, adopting multi-year procurement contracts to promote stability, and requiring a minimum of three years' experience from participating seed companies. Additionally, engaging financial institutions in the procurement vetting process and conducting regular process audits will enhance transparency, credibility, and long-term effectiveness.
- **Seed Supply:** Ensure traceability and local capacity Development by mandating the use of digital traceability systems, requiring a local presence for seed importers, and maintaining package integrity throughout the distribution process. Efforts should also prioritize sourcing from local seed producers, with imports limited strictly to addressing shortfall needs, thereby strengthening local capacity and accountability.
- **Dissemination:** Ensure seeds reach farmers effectively by developing a clear dissemination plan from the outset, leveraging formal and informal distribution channels to broaden access, and holding suppliers accountable for last-mile delivery. Dissemination efforts should also be paired with extension services to enhance farmer awareness and adoption.
- **Governance:** Establish oversight and accountability mechanisms by creating an inclusive, multi-stakeholder governance authority to coordinate efforts and ensure transparency. This body should hold annual forecasting and planning meetings, exclude bidders from governance committees to avoid conflicts of interest, and commission independent audits of procurement and performance. Crucially, it must also be empowered to enforce rules and apply penalties when necessary to uphold integrity and effectiveness.

Together, these reforms, when implemented, can reposition the Nigerian institutional seed markets to unlock better outcomes for farmers, seed sector actors, and the broader agricultural economy.

Introduction

Background

Institutional seed markets in Nigeria play a fundamental role in strengthening agricultural productivity, ensuring food security, and fostering economic development. This report presents an extensive evaluation of the structure, challenges, and potentials of Nigeria's institutional seed markets. It provides an in-depth examination of procurement processes, supply chains, quality control measures, stakeholder involvement, and regulatory frameworks.

The findings indicate that while institutional seed markets enable large-scale seed distribution, they suffer from systemic inefficiencies, including weak regulatory oversight, market distortions due to heavy reliance on subsidies, and fragmented coordination among key stakeholders.

The report highlights the need for comprehensive policy reforms, increased private sector engagement, and the adoption of advanced seed certification frameworks to ensure sustainable market growth.

Agriculture is the backbone of Nigeria's economy, contributing approximately 24% of GDP and providing livelihoods for over 70% of the population. However, productivity remains constrained due to limited access to quality seeds, inefficient seed distribution networks, and regulatory gaps in institutional procurement frameworks. Institutional seed markets serve as a critical conduit between seed producers and institutional buyers, including government agencies, humanitarian organizations, donor-funded projects, and private agribusiness firms.

This study, undertaken within the Collaborative Seed Programme (CSP) of the Nigeria-Netherlands Seed Partnership, aims to deliver a comprehensive assessment of institutional seed markets, identify systemic inefficiencies, and propose strategic interventions for long-term sustainability.

Objectives of the Study

This study of institutional seed markets in Nigeria aims to achieve the following objectives

- Assess the current state of institutional seed markets
- Analyse areas of effective delivery
- Identify key challenges and recommend actionable strategies

Methodology

Study Approach

The study employed a multi-phased approach, integrating desk research, stakeholder mapping, workshops, and targeted consultations to thoroughly analyze the institutional seed markets landscape in Nigeria. The methodology encompassed four key phases, ensuring a robust and inclusive engagement with relevant stakeholders across the seed value chain.

Phase 1: Desk Research and Stakeholder Mapping

The initial phase involved comprehensive desk research to review the existing landscape of institutional seed markets. Key resources included the National Seed Road Map (NSRM), The African Seed Access Index (TASAI) reports, and other relevant literature. This review provided critical insights into the current seed sector dynamics and informed the development of a stakeholder mapping framework. Relevant stakeholders identified for engagement included:

- **Government bodies:** Regulatory agencies, policymakers, and institutions involved in seed governance.
- **Development partners:** International organizations and NGOs contributing to seed sector development.
- **Seed companies and agro-dealers:** Actors involved in seed production, distribution, and retail.
- **Farmer organizations:** Groups representing the interests and needs of smallholder and commercial farmers.
- **Other institutional market players:** Key contributors to the seed market value chain, including research institutions and financial service providers.

Phase 2: Inception workshop

An inception workshop was organized to present the findings from the desk research and articulate the study's objectives. The workshop provided a platform to:

- Share the study rationale and preliminary insights with stakeholders.
- Gather inputs on stakeholders' objectives and seed practices.
- Validate desk research findings through collaborative discussions.
- Build stakeholder buy-in and foster cooperation for subsequent phases of the study.

Phase 3: Stakeholder Consultations and Workshops

This phase involved extensive consultations with a broad spectrum of stakeholders, including government representatives, seed companies, development partners, value chain actors, and farmers. Key activities included:

- Conducting 76 in-depth interviews to capture diverse perspectives and practical insights.
- Facilitating a workshop with 28 participants to discuss interview findings and co-create potential solutions.
- Engaging 34 stakeholders in a mid-study evaluation session to assess progress and refine strategies.

The study also leveraged the SeedConnect 2024 conference to broaden engagement, reaching over 500 industry actors through an interactive panel discussion. This provided additional opportunities for knowledge sharing and feedback collection.

Phase 4: Develop study report

The final phase involved consolidating all research findings and insights into a comprehensive report that presents clear conclusions, supporting evidence, and actionable recommendations for a sustainable institutional seed markets in Nigeria.

Institutional Market Actors

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Market Actors

Institutional market actors play a vital role in the country's seed markets through procurement, supply, and dissemination. Their seed interventions are driven by diverse objectives, including agricultural productivity, food security, and smallholder support, influenced by policies, funding, and strategic priorities.

Government	Humanitarian and Food Security Programmes	Value Chain Development Programmes	Processors and Aggregators	Seed Companies & Agrodealers	Other Contractors
Objective for seed intervention					
To support food security, livelihood for small-scale farmers, strengthen local seed systems, and provide disaster relief	Extension - Support to raise productivity, farmer linkage to input sources, and capacity building for local seed production	Research and Development - develop new varieties that have specific nutritional value	Business - Support Farmers with input to ensure uniformity of produce	Secure a stable revenue stream by supplying food security crops through institutional procurement	Secure a stable revenue stream by supplying food security crops through institutional procurement

Source: Sahel Consulting Field Survey, 2023.

Activities of Institutional Market Actors

Government Institutions:

- Large-Scale Market Support: The government stimulates the seed market through large-scale procurement, ensuring an adequate supply of certified seeds. Policies and regulations support market stability, while dissemination programs ensure that seeds reach intended beneficiaries.
- Subsidy Programs: Initiatives such as the Growth Enhancement Support Scheme (GESS) and the Anchor Borrowers' Programme (ABP) lower the cost of seeds for farmers, enhancing accessibility. These programs often provide input vouchers or direct seed subsidies to reduce farmers' financial burden.
- Quality Assurance: The government enforces quality standards and certification to maintain the integrity of seeds in the market. This involves setting standards for germination rates, purity, and seed health, monitored by regulatory bodies such as the National Agricultural Seeds Council (NASC).
- Research Partnerships: Collaboration with national and international research institutes helps develop locally adapted seed varieties. These partnerships contribute to breeding programs that produce seeds resistant to local pests, diseases, and climatic conditions, thereby improving agricultural productivity and resilience.

Humanitarian and Food Security Programmes:

- Crisis Response and Seed Distribution: During emergencies, humanitarian organizations distribute certified seeds to vulnerable populations. This intervention is critical in maintaining food security during and after crises.
- Seed Quality Initiatives: Programs like those run by the Norwegian Refugee Council (NRC) conduct germination testing and seed fairs to promote seed quality and farmer awareness. Germination tests ensure seeds meet viability standards, while seed fairs create platforms for farmers to access quality seeds.
- Farmer Education and Sustainability: These programs often train farmers on best practices for seed use, including planting techniques, seed storage, and crop management. Linking farmers to local seed suppliers supports the development of sustainable seed systems and enhances community resilience.

Institutional Market Actors

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Activities of Institutional Seed Market Actors

Value Chain Development Programmes:

- Market Connectivity: Value chain programs establish connections between farmers and markets, boosting agricultural productivity and ensuring that farmers receive fair prices for their produce.
- Support for Seed Companies and Processors: These programs enhance the efficiency of seed distribution by strengthening the roles of seed companies, processors, and aggregators. They facilitate access to quality seeds and help maintain a steady supply to the market.
- Outgrower Schemes: Through partnerships with companies like Flour Mills and OLAM, outgrower schemes provide certified seeds, training, and support to farmers. These schemes often involve contract farming, where companies provide inputs and technical support in exchange for produce at predetermined prices.
- Infrastructure and Access: Establishing agro-dealers, seed hubs, and demonstration plots improves seed access. Demonstration plots serve as practical training sites where farmers can learn about new seed varieties and agronomic practices, promoting adoption of improved seeds.

Processors and Aggregators:

- Seed Distribution through Outgrower Schemes: These actors procure certified seeds from seed companies and distribute them to farmers involved in contract farming. Outgrower schemes often provide a package of support, including seeds, training, and market access.
- Meeting Industrial Standards: Processors and aggregators ensure that the seeds and subsequent produce meet quality and safety standards required by industrial buyers. This standardization is vital for value chains involving processing, export, and large-scale consumption.
- Technical Training: Farmers receive training on crop management practices, which include planting techniques, pest management, and post-harvest handling. This training aims to enhance yield quality and reduce losses.
- Market and Price Stability: Through structured contracts, processors and aggregators offer farmers stable markets and fair pricing. These contracts reduce market risks for farmers and encourage the adoption of improved seeds by providing a secure outlet for their produce.

Seed Companies and Agro-Dealers:

- Development and Marketing of Certified Seeds: Seed companies create seeds tailored to specific local agro-ecological needs, ensuring farmers have access to varieties that thrive in their regions.
- Collaborative Research: Working with research institutions and NGOs, seed companies contribute to the development of improved seed varieties. These partnerships accelerate the introduction of seeds with better yield, disease resistance, and climate adaptability.
- Promotion of Seed Adoption: By organizing demonstrations and training sessions, seed companies and agro-dealers educate farmers on the benefits and proper use of certified seeds.
- Quality Assurance Practices: Ensuring seed quality through rigorous germination tests, quality packaging, and efficient delivery systems. Agro-dealers play a critical role in last-mile delivery, making seeds available even in remote areas.
- Training Initiatives: Agro-dealers and extension officers receive training on seed handling, which helps maintain seed quality from production to planting.
- Advisory Services: Agro-dealers often serve as the first point of contact for farmers seeking farming advice, providing guidance on seed selection, planting techniques, and crop management.

Other Contractors:

- Support from Non-Seed Actors: Fertilizer suppliers, cooperatives, and agro-service providers are vital to the seed ecosystem. They support seed adoption by offering complementary inputs and services.
- Enhancing Farmer Access to Inputs: Cooperatives help farmers purchase seeds and other agricultural inputs at lower costs, leveraging group buying power and offering credit facilities.
- Sustainable Agricultural Practices: Contractors promote sustainable practices, including composting, soil management, and improved storage techniques. These practices help farmers maintain soil fertility and reduce post-harvest losses, contributing to food security.

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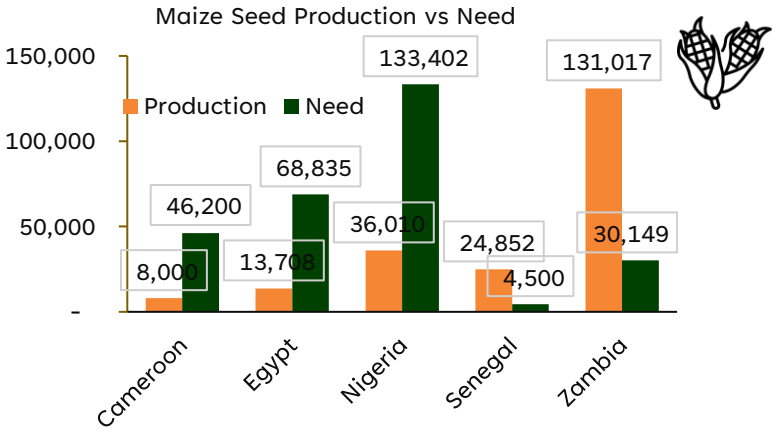
Current State of Institutional Seed Markets

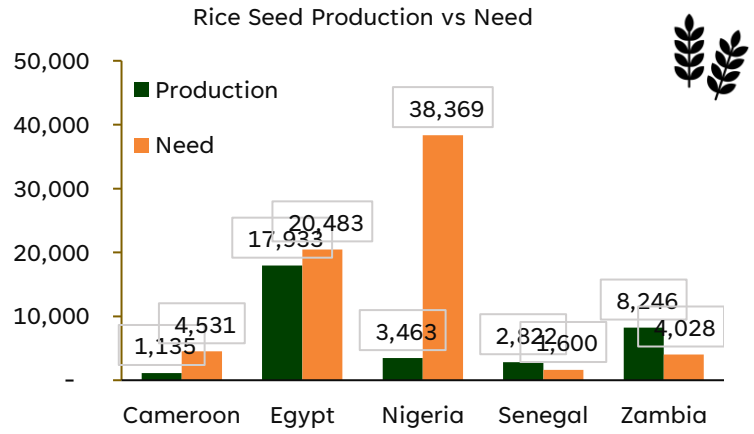
Seed Production vs Need

Nigeria and some other African countries like Cameroon and Egypt face major maize and rice seed deficits, while Zambia and Senegal produce surpluses due to strong policies and markets. Boosting research, private investment, and policy support is key to closing the gap in deficit in these countries



- **Cameroon, Egypt, and Nigeria** have maize seed needs that far exceed their local production capacity.
- This could be attributed to factors like underdeveloped seed production system, **weak institutional markets,** poor breeding programs, or limited investment amongst others.
- Zambia is a **leading maize seed exporter** in Africa, with production outpacing demand by more than 4x. **Senegal's** production (24,852) greatly exceeds its need (4,500), possibly due an export-oriented seeds system

This necessitates activities of **institutional actors** who provide interventions to bridge the gap between seed production and need.

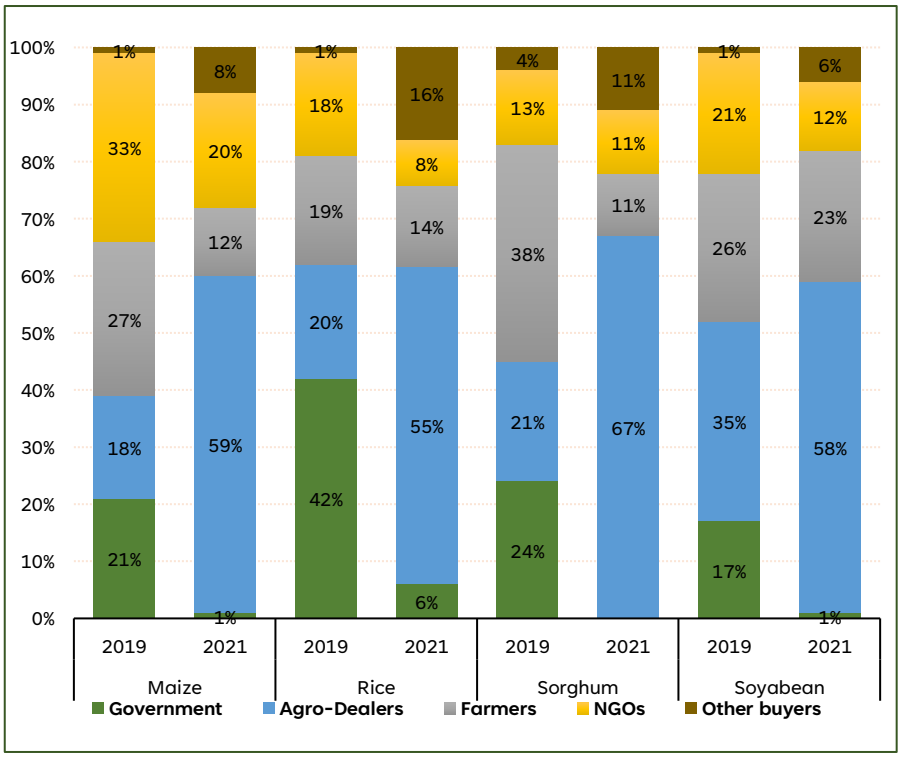


- The story remains the same in rice seeds production as **Cameroon, Egypt, and Nigeria** produce far less than their needs.
- Though Nigeria has a thriving rice production, demand outweighs supply because of high rate of rice consumption **(11th highest in the world).**
- To bridge the gap, seed research, private-sector investment, and policy support should be prioritized in deficit countries to strengthen local rice seed production.
- **Senegal** and **Zambia** have a rice seed surplus, due to a combination of favourable seed policies, strong institutional seed markets.

Source: WUR, 2019, Seed Sector Review Nigeria

Contribution of Institutional Players in the Seed Sector

Agro-dealers now play a larger role in seed distribution, while government involvement has declined. Strengthening market coordination and quality assurance is essential for sustainable growth in Nigeria's seed sector.



Over the past few years, the role of agro-dealers in the seed distribution process has significantly increased, while the contribution of the government has seen a marked decline. This shift can be attributed to several key government interventions that have strengthened the marketing and distribution capabilities of seed companies, enabling agro-dealers to take a more central role in the seed supply chain. Key interventions include the Anchor Borrowers' Program (ABP), the Agricultural Productivity, Enhancement and Livelihood Improvement Support (APPEALS), and the Growth Enhancement Support Scheme (GESS). These government-led initiatives have provided seed companies with the necessary support, improving their ability to distribute certified seeds, which in turn empowered agro-dealers to reach more farmers. For instance, the ABP focused on providing smallholder farmers with affordable loans to access agricultural inputs, including seeds, fertilizers, and machinery. This initiative enabled agro-dealers to be more effective in delivering these inputs directly to farmers. Similarly, the APPEALS program has focused on improving productivity in agricultural value chains, enhancing access to agricultural inputs, and providing farmers with the necessary training. These efforts not only expanded access to seeds but also improved the distribution networks of agro-dealers.

Source: TASAI, 2023.

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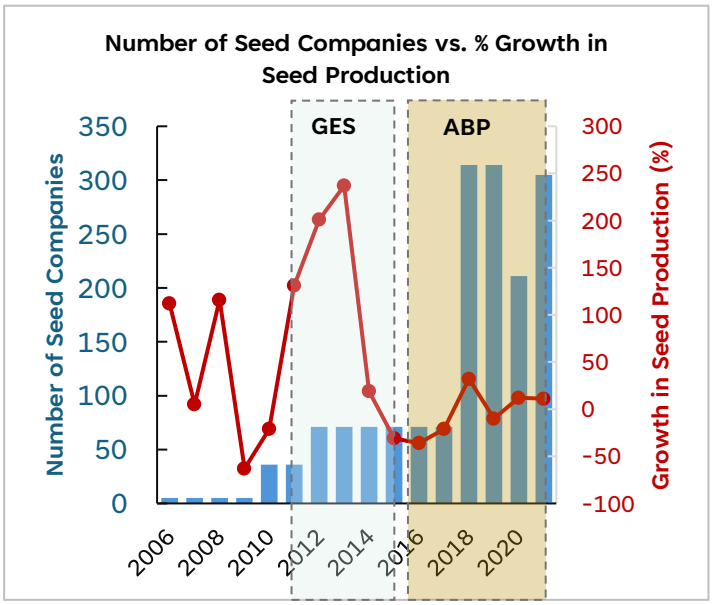
Trends in Institutional Seed Markets

Trend of Certified Seed Production Growth Rate

Intervention Programmes like ATA-GESS have driven short-term booms in Nigeria's seed industry, but their impact have been unsustainable without long-term market-driven systems. Strengthening seed marketing, quality control, fair competition, and business-to-business linkages are key to building a resilient seed sector.

Between 2011 and 2015, the Agricultural Transformation Agenda Seed System (ATA-GESS) executed a transformative intervention in Nigeria's agricultural sector, driving seed production from 14,788 metric tons to 123,597 metric tons—a remarkable 736% increase. This substantial growth demonstrated the program's immediate and significant impact on agricultural productivity. The momentum continued with the Anchor Borrowers programme, which further accelerated industry development. From 2016 to 2018, the number of seed companies expanded dramatically from 71 to 314, reflecting the program's effectiveness in stimulating entrepreneurial activity and private sector engagement in the seed industry. However, these interventions also revealed a critical challenge in agricultural development: creating sustainable, market-driven seed systems that can maintain growth beyond initial government-supported program lifecycles. While the short-term results were impressive, the long-term sustainability of these gains remained a key consideration for policymakers and agricultural strategists.

Trends



Key Challenges

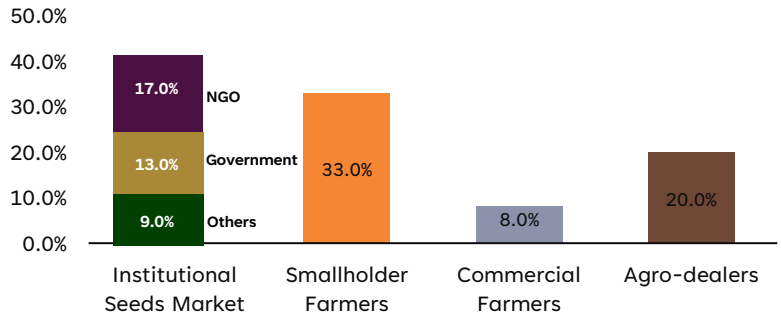
- Capacity of seed entrepreneurs on seed marketing and promotion
- Access to a large market of farmers interested in quality seed of improved varieties
- Quality of seed on the market, including presence of counterfeit seed
- Unfair practices of seed sector stakeholders leading to poor trust in the sector (seed pricing, unfair competition from NARIs, side-selling by outgrowers, seed poaching, etc.)
- Subsidy schemes offered to farmers to obtain seeds through institutional markets causing market distortion and harming the sustainability of seed businesses
- Limited opportunities for business-to-business with Nigerian and international seed companies

Source: NASC, 2023.

Seed Company Business Models

Local seed companies risk financial instability due to overreliance on institutional markets, while international seed companies thrive by adopting market-driven strategies, integrating innovation, and ensuring sustainability. To remain competitive, local firms must shift towards customer-focused, resilient business models that align production with actual market demand.

Nigerian Seed Companies' Customer Segmentation



An assessment study conducted under the Seed Company Marketing and Promotion (SCMP) component of the Collaborative Seed Programme (CSP) revealed that approximately 40% of seed company sales are generated through institutional markets, including NGOs, government agencies, and other organizations. This reliance on institutional engagements significantly influences production planning, as seed companies often anticipate demand for seeds driven by potential intervention programs. However, these expectations are not always met, resulting in overproduction and financial losses when patronage from institutional buyers fails to materialize. In contrast, international seed companies operate with well-defined business models and strategies that prioritize market-focused operations. This approach ensures the sustainability of their businesses by reducing dependence on institutional interventions and aligning production with actual market demand. This comparison highlights the need for local seed companies to adopt more robust, market-driven strategies to enhance their sustainability and reduce vulnerabilities associated with institutional market dependencies.

International Seed Companies

International seed companies have evolved to embrace comprehensive business practices that prioritize both innovation and sustainability. At the core of their operations is an integrated value chain, where they maintain control from initial research through to customer support, often establishing their own facilities and forming strategic local partnerships.

These companies place significant emphasis on research and development, combining traditional breeding methods with cutting-edge biotechnology. They've embraced precision agriculture technologies while fostering collaborative relationships with research institutions to accelerate innovation.

Sustainability has become central to their operations. Companies are developing climate-resilient seeds while implementing environmentally responsible farming practices and optimizing resource use. This environmental focus goes hand-in-hand with strict regulatory compliance and intellectual property management, ensuring their seed varieties are both protected and traceable.

Customer relationships remain fundamental, with companies providing specialized training and support to farmers. They develop region-specific seed varieties and offer digital tools to help farmers optimize crop management. This customer-centric approach supports their market expansion strategy, particularly in emerging markets, where they're diversifying into specialty crops and building local partnerships to better serve regional needs.

Sources:
1. CSP Seed Company Assessment, 2024.
2. FAO. (2020). State of Food and Agriculture Report . Food and Agriculture Organization of the United Nations

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Seed Problems and Interventions

Seed Problems and Broadly Appropriate Responses

High-quality seeds are the foundation of a productive and resilient agricultural systems, yet many farmers especially in Nigeria, face significant challenges related to seed availability, accessibility, affordability, and quality.

Seed Problems and Broadly Appropriate Responses

Parameter of the problem	Short-term response (acute)	Long-term response (chronic)
Unavailability of seed	***Where farmers source seed predominately through informal seed channels:*** Enhance immediate operation of local and regional markets (e.g. offer inventory credit to traders, facilitate improved access to market information, including advance notice of demand subsidies or of purchase).	***Where farmers source seed predominately through informal seed channels:*** Support development of local and regional markets (e.g. encourage more access to credit, better established market information channels, perhaps more effective transport and seed storage support).
	Where farmers source seed predominately through formal seed channels: Direct distribution of seed.	***Where farmers source seed predominately through formal seed channels:*** Support development of quality assured seed production or supply chains, including commercial enterprises where viable.
Poor and vulnerable farmers do not have access to seed	Cash disbursement, Seed Fairs with vouchers or cash, Local procurement and distribution (if the disaster rendered the communities dysfunctional).	Poverty reduction programs.
Seed of poor quality and lack of appropriate varieties	Seed fairs with quality controls. Direct distribution of test samples of quality seed or sale of subsidized test samples. Distribution of foundation seed to a limited number of farmers, making use of informal seed channels to diffuse the seed to others.	Programs to improve seed quality (on farm and in seed/grain markets), Participatory variety selection, Participatory plant breeding.

Gender Considerations
Gender is a cross-cutting concern in seed system programming. Programs should recognize the different needs and preferences of men and women, ensure equitable access to seed technologies, and promote women's participation in seed supply chains. Gender-based violence risks should also be considered when designing interventions.

Source:
1. CIAT, CRS, & CARE Norway. (2023). *Seed Aid for Seed Security: Advice for Practitioners* . Retrieved from www.ciat.cgiar.org

Institutional Seed Interventions: Funding, Crop Focus, and Lessons

Institutional seed interventions ensure farmers access high-quality seeds, boosting productivity and food security. In Nigeria, initiatives like GESS, NAGS-AP, and the Anchor Borrowers' Programme have strengthened seed systems through strategic funding and distribution.

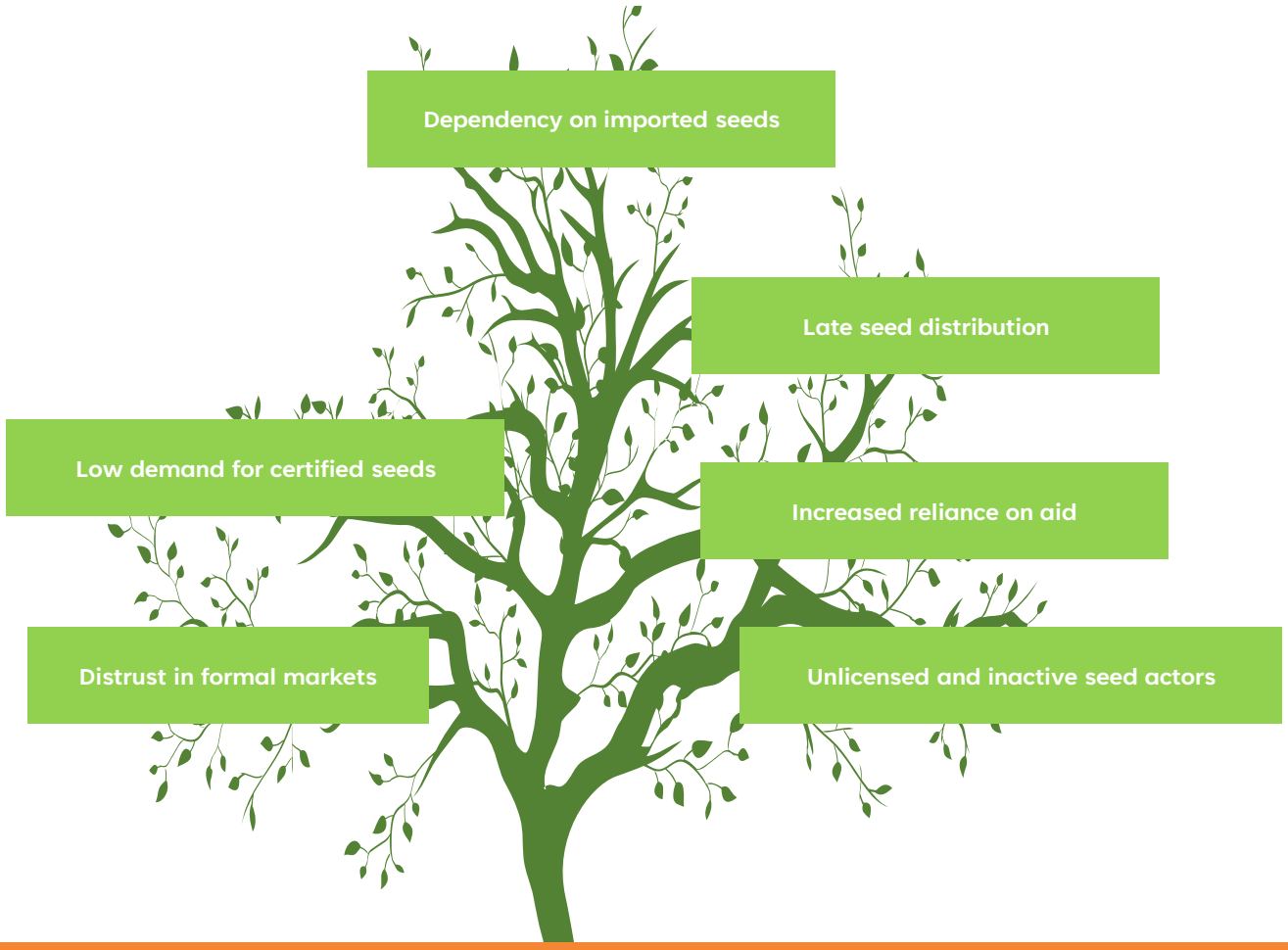
Project name	Project Financier	Crop type	Imported or not	Fund size	Lesson learnt
Growth Enhancement Support Scheme (GESS)	Federal Government of Nigeria	Staple crops (rice, maize, sorghum, etc)	Local & Foreign sourced	$118.0m	The scheme highlighted the importance of farmer participation in subsidy programs to enhance fertilizer usage. Challenges included limited mobile network coverage and difficulties faced by women due to cultural constraints.
Seed Intervention by Nuru Nigeria	GIZ through Nuru Nigeria	Groundnut & soybeans	Imported	Undisclosed	Expansion efforts underscored the need for robust community engagement and the importance of tailoring interventions to local contexts.
NRC Seed Intervention	Norwegian government	Staple crops (Millet, cowpeas, sorghum, etc)	Local & Foreign sourced	Undisclosed	Emphasized the critical role of timely seed distribution in conflict-affected areas to ensure food security and support livelihood restoration.
Anchor Borrowers' Programme	Central Bank of Nigeria	Various crops (maize, millet, cotton, etc)	Local & Foreign sourced	*$5.7m	The program facilitated economic linkages between smallholder farmers and processors but faced challenges such as loan repayment issues and the need for improved monitoring mechanisms.
National Agricultural Growth Scheme and Agro Pocket (NAGS-AP)	Federal Government of Nigeria	Staple crops (rice, maize, sorghum, etc)	Local & Foreign sourced	$134.0m	Recognized the necessity of integrating agricultural insurance to mitigate risks associated with climate change and ensure program sustainability.
Tomato Jos Processing Factory	Private	Tomato	Local	Varied	Demonstrated the effectiveness of vertical integration—from cultivation to processing—in reducing post-harvest losses and improving the livelihoods of smallholder farmers.

Source:
1. CBN archives. *Monthly Average Exchange Rate of the Naira.* Retrieved from https://www.cbn.gov.ng/rates/exrate.html
This accounts for ONLY direct borrowings to farmers for input (seeds) through participating financial institutions.

Bottlenecks

Bottlenecks in the Institutional Market Seed System in Nigeria

There are several bottlenecks in the institutional markets system in Nigeria which have implications on the seed system.



Key Challenges

Key Challenges of Institutional Seed markets in Nigeria

The following are major challenges affecting the institutional seed markets in Nigeria.

Market Distortion

Bulk procurement and free distributions create unfair competition, reducing the incentive for private seed companies to invest in quality seed production and marketing. This discourages the growth of a robust, market-driven seed system, as farmers come to rely on handouts rather than purchasing seeds.

Ad Hoc Procurement Practices

Lack of long-term contracts between institutional buyers and seed companies leads to unpredictable seed production cycles. Without reliable forecasts, seed companies struggle to plan production effectively, often resulting in shortages or overproduction.

Quality Control Issues

Weak regulatory frameworks and limited enforcement allow low-quality or mislabeled seeds to enter the market. For example, some interventions deliver grains instead of certified seeds, leading to poor germination rates, low yields, and farmer dissatisfaction. Adulteration and tampering during storage and distribution further erode confidence.

Weak Monitoring and Evaluation Mechanisms

The absence of robust monitoring systems prevents effective tracking of seed quality and performance. For example, seeds may not undergo proper germination testing before distribution. Weak enforcement mechanisms fail to hold suppliers accountable for poor-quality seeds.

Inadequate Storage and Distribution Infrastructure

Improper storage conditions, such as exposure to heat and moisture, reduce seed viability. Delays in delivery often result in seeds arriving too late for planting, forcing farmers to use suboptimal inputs or miss planting windows altogether.

Dependency on Interventions

Farmers become dependent on external interventions, undermining their ability to purchase seeds independently. This culture of dependency discourages private sector investment and stifles the development of a self-sustaining seed market.

Exclusion of Key Stakeholders

Farmers are often excluded from discussions about seed system design and interventions, leading to mismatches between the seeds provided and the needs of end-users. Small-scale seed companies face challenges accessing financing and technical support, reducing their competitiveness.

Lack of Regional Adaptation

Many seed interventions do not account for regional differences in climate and soil. As a result, seeds are distributed that are unsuitable for specific areas, leading to crop failures and wasted resources.

Gender and Youth Inclusion Deficits

Women and youth often lack access to resources, training, and opportunities to participate in seed-related businesses or decision-making. This limits the inclusivity and long-term sustainability of the seed system.

Funding and Capacity Constraints

Research institutions lack funding to develop and commercialize new seed varieties. Donor-funded programs focus on short-term goals, leaving little room for sustainable, long-term capacity building for local seed companies.

Poor Farmer Education and Extension Services

Farmers often lack access to information about the advantages of certified seeds and improved agricultural practices. Weak extension services fail to bridge this gap, further limiting adoption and productivity.

Procurement Challenges

Procurement processes are often biased, favouring companies with political or financial clout over those that are technically capable of producing high-quality seeds. This leads to a scenario where non-seed are sometimes awarded contracts to supply seeds, which leads to supply of substandard seeds and sometimes grains.

Areas of Effective Delivery

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Support for Smallholder farmers

Activities of institutional seed market actors have contributed to improved livelihood of farmers through the following

Dissemination of quality seeds

- Ensure farmers have access to certified seeds that are tested for quality, leading to improved resilience
- Provided farmers with reliable inputs that enhance food security, especially in regions vulnerable to climate shocks.

Enhancing productivity through improved crop varieties

- Introduce of disease-resistant and high-yielding crop varieties, reducing the risk of crop failure and increasing productivity.
- Encouraged diversification of crops to help smallholder farmers mitigate risks and meet market demands

Promotion of biofortified seeds

- Advocate for seeds enriched with vital nutrients to combat micronutrient deficiencies (e.g., vitamin A-enriched cassava and iron-enriched beans).
- Targeted malnutrition in vulnerable populations, especially women and children, by integrating nutrition-focused crops into agricultural systems.

Introducing high-value crops

- Focused on crops with both economic and nutritional value, enabling farmers to improve their livelihoods and health outcomes simultaneously.
- Supported the production of export-oriented crops, creating opportunities for farmers to access international markets.

Partnerships with Local Communities

- Collaborated with farmer cooperatives and local stakeholders to ensure fair and widespread access to quality seeds.
- Built trust within communities by involving them in the planning and distribution process, fostering inclusivity and ownership.

Demonstration Plots

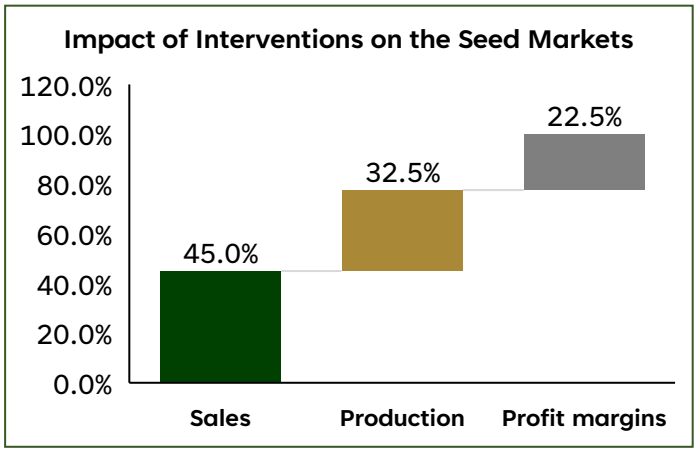
- Established demonstration plots to show the tangible benefits of improved seeds, such as higher yields and better disease resistance.
- Encouraged adoption of improved seeds through real-world examples, which build confidence among hesitant farmers.
- Integrated training sessions at demonstration plots to educate farmers on best practices for crop management.

Key Outcomes of Effective Delivery

- Increased resilience among smallholder farmers to climate and market shocks.
- Improved nutritional outcomes through biofortified crops, addressing malnutrition risks.
- Enhanced farmer income and economic stability by promoting high-value crops and access to export markets.
- Strengthened seed systems through equitable distribution and local involvement, ensuring long-term market sustainability
- Greater adoption of certified seeds and advanced agricultural practices through community partnerships and demonstration sites.

Impact of Interventions on the Seed Markets

Seed interventions drive short-term market growth, but their impact diminishes once the interventions end. Sustainable, market-driven strategies are essential to maintaining seed availability and strengthening the seed value chain in the long run.



Stakeholder engagement findings reveal that seed interventions create a strategic economic cascade, initially boosting seed sales, production, and distribution networks, driving short-term growth in institutional seed markets. However, heavy subsidies, direct distributions, and donor-led models often lead to unsustainability. When support ends, seed demand falls, disrupting market stability. A shift to market-driven, private-sector-led approaches, with stronger regulations, stakeholder coordination, and innovative financing, is needed for lasting impact and sustained farmer access to quality seeds.

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Seed Procurement Practices

Draft

Overview

Seed procurement practices in Nigeria vary widely depending on the entity involved, the target beneficiaries, and the overarching goals of the intervention. These practices range from government-led centralized procurements to private sector-driven initiatives. Key factors influencing seed procurement include:

Stakeholder involvement: Collaborations between governments, NGOs, private companies, and farmer organizations.

Purpose-driven focus: Programmes are tailored to address humanitarian crises, improve food security, develop value chains, or support agro-processors and aggregators.

Government

Central Role: The government ensures access to high-quality certified seeds for farmers, particularly smallholders, to support agricultural development and food security

Subsidy Programs: Initiatives like the Growth Enhancement Support Scheme (GESS) and Anchor Borrowers Programme (ABP) subsidize seed procurement, enabling farmers to buy seeds at reduced costs and promoting certified seed adoption.

Quality Regulation:
- The National Agricultural Seeds Council (NASC) regulates seed certification, testing, and traceability to prevent counterfeit products.
- These measures build farmer trust and encourage the use of certified seeds.

Research Collaboration:
- The government partners with institutions like the International Institute of Tropical Agriculture (IITA) and National Root Crops Research Institute (NRCRI) to develop improved seed varieties.
- These varieties are tailored to local conditions, addressing challenges like climate resilience and pest resistance.

Public-Private Partnerships: Collaborations with private seed companies and agro-dealers streamline distribution and improve access to certified seeds in remote areas, especially for smallholder farmers.

Capacity Building:
- Seed programs include training on proper seed handling, storage, and planting techniques to maximize benefits.
- Extension services disseminate information on the advantages of improved seed varieties, driving demand.

Challenges:
- Market distortions from free seed distribution, inadequate planning, and quality assurance issues hinder effectiveness.
- Solutions include improved coordination with private-sector actors, strict quality control, and fostering a sustainable, demand-driven approach.

The goal of government seed intervention is strengthening the seed system to enhance productivity and achieve food security.

Humanitarian and Food Security Programmes

Purpose: Address the needs of vulnerable populations, such as displaced persons, conflict-affected communities, and food-insecure households, to support food production and livelihood recovery during emergencies.

Procurement Process:
- Certified seeds are purchased in bulk from reliable suppliers to ensure quality and compliance with standards.
- Rigorous quality control measures, such as germination tests, verify seed viability before distribution.

Distribution Mechanisms:
- **Direct Seed Distribution**: Provides immediate access to quality seeds.
- **Seed Fairs**: Farmers choose suitable varieties, empowering them and stimulating local seed markets.

Awareness and Sensitization: Educate beneficiaries on the importance of certified seeds and how to identify them, fostering trust and encouraging adoption.

Capacity Building:
- Training on improved agronomic practices and post-harvest handling for long-term sustainability.
- Establishing linkages between farmers and local agro-dealers to ensure continued access to certified seeds.

Support for Local Seed Systems: Engage community-based seed producers and cooperatives in procurement to strengthen local economies and ensure seeds are adapted to local agroecological and cultural contexts.

Challenges:
- **Market Distortions**: Free seed distribution can undermine local seed markets.
- **Balanced Approaches**: Combine emergency relief with market-based strategies to build local seed system capacity while addressing immediate food security needs.

Humanitarian-focused seed procurement aims to address immediate needs caused by conflicts, natural disasters, or food insecurity. These programs are typically funded by international organizations like the World Food Programme (WFP) or NGOs like GIZ.

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Seed Procurement Practices

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Value Chain Development Programmes

Facilitating Market Linkages
- Connect farmers, seed companies, processors, and markets to improve access to high-quality certified seeds.
- Enhance agricultural productivity, farmer incomes, and overall value chain efficiency.

Seed Procurement Strategies
- Collaborate with private seed companies and research institutions to promote high-yielding and climate-resilient seed varieties.
- Procure seeds in bulk through certified seed producers to ensure a steady supply for contract farming and outgrower schemes.

Outgrower Scheme Model
- Processors and aggregators (e.g., **Flour Mills Nigeria, OLAM**) provide certified seeds, training, and technical support to farmers.
- Ensures high-quality produce for industrial processing while improving farmer access to superior seed varieties.

Financial Support Mechanisms
- Facilitate access to **credit and subsidies** to reduce financial barriers to certified seed adoption.
- Implement **prepayment schemes and cost-sharing arrangements** to improve affordability for resource-constrained farmers.

Capacity Building & Knowledge Transfer
- Conduct training sessions on certified seed benefits, proper planting techniques, and crop management.
- Equip farmers with the skills needed to maximize productivity and ensure long-term adoption.

Challenges & Sustainability Concerns
- **Coordination gaps** among stakeholders affecting efficiency.
- **Market distortions** caused by poorly targeted subsidies or free seed distributions.
- Need for **public-private partnerships** and a sustainability-focused approach to strengthen seed systems.

Value chain development programmes aim to enhance productivity and profitability by integrating seed procurement with other value chain components like input supply, marketing, and processing.

Processors and Aggregators

Bridging the Gap Between Seed Producers and Farmers
- Ensure high-quality certified seeds reach farmers in sufficient quantities.
- Support **industrial processing** and market-driven agricultural systems.

Key Players in Contract Farming & Outgrower Schemes
- Facilitate **certified seed distribution** while securing markets for farmers' produce.
- Collaborate with seed companies to purchase seeds in bulk for distribution to outgrower networks.

Major Industry Players
- Processors like **Flour Mills Nigeria, OLAM, and Tomato Jos** supply certified seeds and provide technical support.
- Ensure **steady supply of high-quality raw materials** for their processing facilities.

Technical Support & Capacity Building
- Train farmers on **agronomic practices, pest and disease management, and post-harvest handling**.
- Offer **extension services** to monitor progress and address farming challenges.

Market Stabilization & Demand Creation
- Drive demand for certified seeds through **structured farming schemes**.
- Provide farmers with **guaranteed markets**, incentivizing the adoption of certified seeds.

Financial Support Mechanisms
- Establish **prepayment schemes and input financing** to help farmers afford certified seeds.
- Work with **value chain development programs and government initiatives** to improve seed access.

Strengthening Seed Distribution Networks
- Liaise with **agro-dealers and seed hubs** to ensure timely delivery, particularly in rural areas.
- Address **supply disruptions and inconsistent seed quality** through partnerships with research institutions.

Processors and aggregators are key stakeholders in seed procurement, particularly for large-scale farming operations and contract farming arrangements.

Best Practices in Seed Procurement

Monitoring and Evaluation
Implementing strict monitoring protocols during procurement phases ensures that only certified seeds are purchased.

Collaborative Decision-Making
Engaging farmers in seed selection processes ensures alignment with local agricultural priorities. This approach builds trust and improves adoption rates.

Empowering Local Institutions
Supporting local seed companies and aligning procurement efforts with NASC's guidelines fosters a more sustainable seed market.

Transparency and Accountability
Payment structures, such as tranche-based vendor payments (e.g., 50% post-supply, 30% after germination confirmation, and 20% after evaluation), enhance accountability and reduce risks associated with poor-quality seeds.

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Seed Supply Practices

Draft

Overview

Seed supply practices in Nigeria encompass a range of activities aimed at ensuring that farmers have access to high-quality seeds. The supply chain involves various stakeholders, including seed companies, agro-dealers, and occasionally non-seed actors. These practices are influenced by market demand which is often driven by government or NGO interventions.

The supply chain includes production, packaging, distribution, and sales through formal and informal channels.

The effectiveness of the seed supply system depends on collaboration among actors, regulatory oversight, and alignment with farmers' needs.

Seed Companies

Seed Breeding & Development
- Collaborate with research institutions to develop high-yield, pest-resistant, and biofortified seed varieties.
- Ensure genetic purity through controlled seed multiplication and production processes.

Seed Production & Quality Assurance
- Contract seed growers and provide technical support, training, and inputs.
- Conduct rigorous quality assurance, including germination tests and certification by NASC

Marketing & Awareness Creation
- Promote certified seeds through demonstration plots, field days, and training sessions.
- Partner with value chain programs, humanitarian organizations, and government initiatives to expand reach.

Seed Distribution
- Establish networks of agro-dealers, seed hubs, and retail outlets for widespread availability.
- Collaborate with processors and aggregators in contract farming schemes.

Pricing & Affordability
- Work with partners to offer subsidies, financing, and cost-sharing arrangements.
- Implement pre-financing models with large-scale buyers to stabilize supply and demand.

Challenges & Advocacy
- Combat counterfeit seeds through regulatory engagement and strengthened certification.
- Invest in research and development to enhance seed varieties and production techniques.

Impact
- Drive innovation, ensure seed quality, and improve farmer access to certified seeds.
- Support food security, economic growth, and resilience to climate change.

Seed companies are the backbone of the formal seed supply system. They are responsible for producing, certifying, packaging, and distributing high-quality seeds to meet market demands.

Agro Dealers

Key Role in Seed Distribution
- Serve as the primary link between seed companies and farmers, especially in rural areas.
- Ensure timely availability of certified seeds by maintaining strategic locations in farming communities.
- Partner with seed companies, government programs, and development organizations to stock and supply seeds.

Marketing & Awareness Creation
- Organize demonstration plots, field days, and training sessions to promote certified seeds.
- Educate farmers on proper planting techniques and agronomic best practices.

Technical Support & Advisory Services
- Provide guidance on seed selection, pest management, and agronomic practices.
- Act as an alternative source of extension services in areas with limited agricultural advisory support.

Financial Intermediation & Seed Affordability
- Participate in subsidy programs, prepayment schemes, and credit arrangements.
- Sometimes extend credit directly to farmers, allowing for post-harvest repayment.

Challenges & Capacity Building
- Face issues such as limited financing, poor storage infrastructure, and counterfeit seed competition.
- Collaborate with seed companies and development partners to improve operations and access financing.
- Engage in capacity-building programs to enhance technical expertise and business sustainability.

Challenges & Advocacy
- Combat counterfeit seeds through regulatory engagement and strengthened certification.
- Invest in research and development to enhance seed varieties and production techniques.

Impact
- Strengthen seed supply chains and improve farmer access to high-quality inputs.
- Drive the adoption of improved seed varieties, boosting agricultural productivity and food security.

Agro-dealers act as intermediaries, connecting seed companies to farmers, particularly in rural areas. They play a vital role in the seed supply chain by ensuring last-mile delivery of seeds and related inputs.

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Seed Supply Practices

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Non-Seed Actors

Role in Seed Supply Chain
- Operate outside direct seed production but impact seed distribution and farmer access.
- Include contractors, vendors, and intermediaries securing supply contracts, often through government or NGO programs.

Procurement & Contracting
- Secure seed supply contracts, sometimes without technical qualifications.
- Frequently bypass certified seed companies, affecting quality assurance.

Seed Distribution & Delivery
- Distribute seeds through government programs or NGO-led initiatives.
- Lack technical expertise, leading to risks of substandard or mislabeled seeds.
- Subcontract distribution tasks to agro-dealers, increasing reach but reducing accountability.

Challenges in Quality Assurance
- Supply seeds in bulk without standardized packaging, compromising traceability.
- Rarely conduct germination tests or quality checks, increasing the risk of poor seed quality.

Market Distortions & Risks
- Bypass formal seed companies, weakening the credibility of certified seed markets.
- Introduce substandard products, leading to mistrust in seed interventions.

Need for Regulatory Oversight
- Stricter procurement and distribution standards required to ensure seed quality.
- Improved monitoring can enhance trust and efficiency in the seed supply chain.

Non-seed actors, such as general contractors or middlemen, are sometimes involved in seed supply, particularly in government or donor-funded interventions. While their involvement may fill gaps in logistics or distribution, it often introduces inefficiencies and risks.

Seed Dissemination Practices

Draft

Overview

Seed dissemination refers to the processes, strategies, and actors involved in delivering certified seeds to farmers. The aim is to ensure timely access to high-quality seeds, encourage the adoption of improved varieties, and enhance agricultural productivity. Various programs, including government initiatives, humanitarian interventions, value chain development programs, and private-sector initiatives, influence seed dissemination practices in Nigeria.

Challenges such as late delivery, poor infrastructure, and limited awareness continue to hinder the effectiveness of seed dissemination, especially in rural areas.

Government

Government's Role in Seed Dissemination
- Acts as a regulator, facilitator, and operator in seed distribution.
- Collaborates with private sector and development organizations to expand seed access.

Subsidy & Support Programs
- Implements input vouchers and direct subsidies to reduce seed costs for farmers.
- Focuses on staple crops like maize, rice, and millet to enhance food security.

Emergency Seed Distribution
- Works with development partners to distribute seeds during crises (e.g., disasters, conflicts).
- Stabilizes agricultural production and supports rural livelihoods in vulnerable regions.

Public Sector Involvement
- Uses public seed agencies and research institutes to produce and distribute seeds.
- Supports extension services to educate farmers on certified seed benefits and agronomic practices.

Infrastructure Development
- Invests in seed hubs, warehouses, and transportation to improve distribution networks.
- Ensures certified seeds reach remote and underserved farming communities.

Regulatory Oversight
- Establishes and enforces seed quality standards to prevent counterfeit seeds.
- Conducts inspections, testing, and monitoring of seed distribution channels.

Partnerships with Private Sector & Agro-Dealers
- Works with agro-dealers to decentralize seed availability in rural areas.
- Strengthens seed dissemination through collaboration with value chain programs.

The government plays a pivotal role in seed dissemination through large-scale programs aimed at improving food security and farmer livelihoods.

Humanitarian and Food Security Programmes

Role in Seed Dissemination
- Supports vulnerable populations, including displaced persons and food-insecure households.
- Ensures access to quality seeds to restore agriculture and stabilize livelihoods.

Direct Seed Distribution
- Procures and distributes certified seeds in crisis areas, ensuring supply continuity.
- Prevents planting delays in regions affected by conflicts or natural disasters.

Seed Fairs & Market-Based Approaches
- Provides farmers with vouchers to buy seeds from local suppliers, supporting local markets.
- Balances relief efforts with sustainable, market-driven solutions.

Farmer Training & Capacity Building
- Educates farmers on identifying certified seeds and adopting proper planting techniques.
- Maximizes the impact of distributed seeds through improved farming practices.

Support for Local Seed Systems
- Engages community-based seed producers and cooperatives to enhance seed availability.
- Strengthens local economies and promotes the use of locally adapted varieties.

Collaboration & Partnerships
- Works with governments, private seed companies, and international organizations.
- Aligns humanitarian efforts with national agricultural goals for broader impact.

Challenges & Evolving Strategies
- Addresses market distortions and logistical difficulties in remote areas.
- Adopts hybrid models combining free distribution with subsidized sales or voucher programs.

Humanitarian programs focus on restoring food production in crisis-affected regions and addressing food insecurity among vulnerable populations.

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Seed Dissemination Practices

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Value Chain Development Programmes

Role in Seed Dissemination
- Strengthens agricultural value chains by connecting farmers with certified seeds.
- Enhances linkages between seed producers, distributors, processors, and farmers.

Seed Distribution Networks
- Partners with seed companies, agro-dealers, and seed hubs to improve access.
- Addresses logistical challenges and ensures timely delivery to remote areas.

Demonstration Plots & Farmer Awareness
- Showcases improved seed varieties in real farming conditions and conducts field days and training to promote adoption.

Structured Partnerships
- Facilitates outgrower schemes where processors provide certified seeds to farmers.
- Ensures stable supply chains and guaranteed markets for farmers.

Financial Support Mechanisms
- Works with financial institutions to offer subsidies, prepayment, and cost-sharing options.
- Reduces financial barriers to certified seed adoption.

Capacity Building
- Trains farmers on certified seed usage and sustainable farming practices.
- Equips agro-dealers and distributors with skills in seed handling and marketing.

Market-Oriented Approach
- Prioritizes crop varieties that address food security and market demand.
- Promotes public-private partnerships and monitoring systems for sustainability.

Challenges & Solutions
- Tackles logistical inefficiencies, inconsistent seed quality, and market distortions.
- Emphasizes market-based approaches and stronger regulatory frameworks.

These programs aim to enhance specific crop value chains by facilitating access to certified seeds for targeted farmers.

Processors and Aggregators

Role in Seed Dissemination
- Strengthens the seed value chain by ensuring farmers access certified seeds.
- Enhances agricultural productivity and sustainability.

Seed Procurement & Quality Assurance
- Sources certified seeds from trusted suppliers and conducts germination tests and quality checks.
- Uses standardized, tamper-proof packaging for traceability and authenticity.

Seed Distribution Networks
- Collaborates with farmer groups, agro-dealers, and local organizations.
- Bypasses third-party distributors to improve efficiency and accountability.

Demonstration Plots & Farmer Education
- Showcases improved seed varieties under real farming conditions.
- Organizes field days and interactive sessions to encourage adoption.

Structured Partnerships & Outgrower Schemes
- Provides certified seeds, technical support, and guaranteed markets to contracted farmers.
- Ensures a steady supply of raw materials for processing industries.

Financial Support Mechanisms
- Offers subsidies, prepayment options, and flexible credit arrangements.
- Helps smallholder farmers transition from traditional grain seeds to improved varieties.

Capacity Building & Training
- Trains farmers, agro-dealers, and extension officers on seed handling and sustainable practices.
- Supports long-term adoption of certified seeds.

Challenges & Solutions
- Addresses seed quality inconsistencies, logistical inefficiencies, and market distortions.
- Advocates for transparent procurement, robust monitoring, and market-driven sustainability.

Processors and aggregators facilitate seed dissemination primarily within contract farming arrangements and structured supply chains.

Seed Companies

Role in Seed Dissemination
- Ensures farmers access high-quality certified seeds, strengthens the seed value chain and boosts agricultural productivity.

Seed Production & Quality Assurance
- Collaborates with research institutions to develop high-yield, pest-resistant seed varieties.
- Conducts germination tests and quality checks to ensure viability.

Seed Packaging & Standardization
- Uses tamper-proof packaging to enhance traceability and prevent adulteration.
- Provides seeds in varied quantities to meet farmer needs and build trust.

Seed Distribution Networks
- Partners with agro-dealers, seed hubs, and community organizations for efficient last-mile delivery.
- In some cases, directly distributes seeds to minimize inefficiencies.

Demonstration Plots & Awareness Campaigns
- Uses on-field demonstrations and field days to showcase the benefits of improved seed varieties & drive farmer adoption.

Structured Partnerships & Outgrower Schemes
- Supplies certified seeds to farmers contracted by processors and aggregators.
- Ensures consistent supply chains and farmer access to quality seeds.

Financial Support Mechanisms
- Provides subsidies, prepayment options, and flexible credit arrangements.

Capacity Building & Training
- Trains farmers, agro-dealers, and extension officers on seed usage, storage, handling and sustainable farming.

Challenges & Advocacy Efforts
- Faces logistical inefficiencies, inconsistent seed quality, and market distortions from free seed distributions.
- Advocates for policy improvements to strengthen quality control and regulatory frameworks.

Seed companies form the backbone of the formal seed dissemination system, ensuring certified seeds reach farmers through diverse channels.

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Seed Dissemination Practices

Draft

Seed Dissemination Strategies

Following engagements with stakeholders across the seed sector, five strategies are predominantly deployed by stakeholders in the Nigerian seed sector to disseminate seeds.

Direct Distribution
Free or subsidized seeds delivered through government, NGOs, or humanitarian programs.

Agro-Dealer Networks
Retail agro-dealers ensure seeds are accessible to farmers in remote areas.

Contract Farming
Processors supply seeds to farmers under contract arrangements.

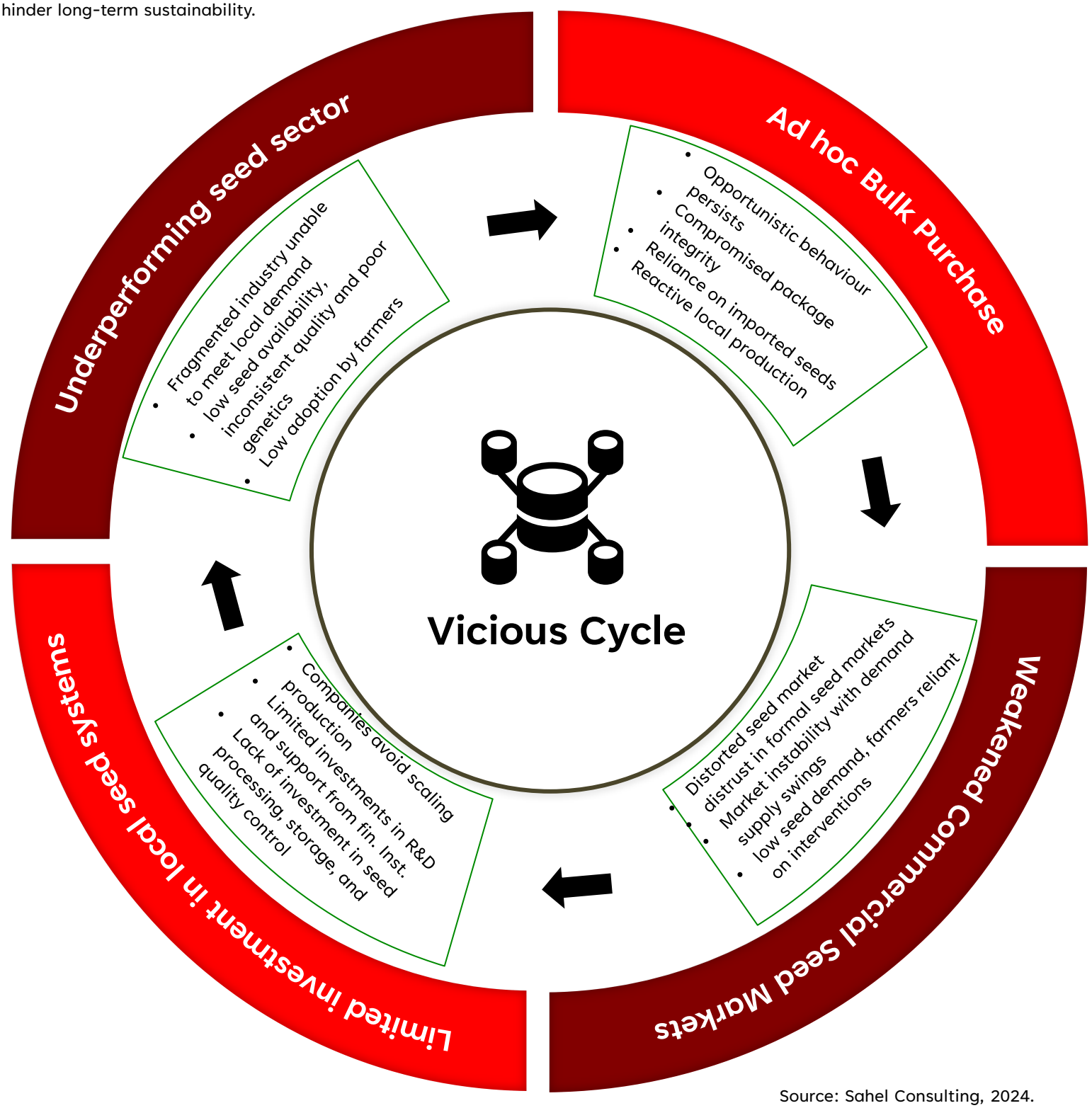
Demonstration Farms
Showcase improved seed varieties and agronomic practices to build farmer confidence.

Farmer Training
Extension services, radio campaigns, and field visits educate farmers on certified seed benefits.

Vicious Cycle

Vicious Cycle of the Current Institutional Markets System

The Nigerian seed system is caught in a vicious cycle of inefficiencies that reinforce poor outcomes for farmers, seed producers, and the agricultural sector. This cycle is driven by interrelated challenges that disrupt market dynamics, limit access to quality seeds, and hinder long-term sustainability.



Source: Sahel Consulting, 2024.

Vicious Cycle

Draft

Vicious Cycle of the Current Institutional Markets System

The cycle comprises interconnected challenges, including ad hoc bulk purchasing practices, weakened commercial seed markets, limited investment in local seed systems, and a fragmented industry struggling to meet sectoral demands. These factors collectively create systemic barriers to the development of a robust and sustainable seed market.

Ad hoc Bulk Purchase

The cycle begins with opportunistic and short-term bulk seed purchases, often characterized by:

- **Opportunistic Behavior:** Purchasers prioritize immediate availability over quality, resulting in compromised procurement practices.
- **Integrity and Quality Concerns:** Inconsistent seed quality due to irregular procurement processes and inadequate quality control.
- **Reliance on Imports:** A heavy dependence on imported seeds limits the development of local production capacities.
- **Reactive Production Practices:** Local seed producers operate reactively, struggling to align with unpredictable market demands.
- These practices disrupt market stability and undermine the incentive for local seed companies to invest in scaling their operations.

Weakened Commercial Seed Markets

The unpredictability of seed procurement impacts the commercial seed market by:

- **Market Instability:** Fluctuating demand and supply imbalances lead to market distortions.
- **Low Seed Demand:** Farmers often exhibit limited adoption of improved seed varieties, partly due to inconsistent supply and trust issues.
- **Reliance on Interventions:** The market becomes dependent on government or donor-driven interventions, inhibiting organic growth and private sector investment.

Limited Investment in Local Seed Systems

The weakened market and uncertain demand create a challenging investment climate, leading to:

- **Limited Scaling of Production:** Seed companies avoid scaling up operations due to unpredictable market conditions.
- **Investment Gaps:** Critical areas like research and development (R&D), infrastructure, and quality control receive insufficient funding.
- **Quality Management Deficiencies:** Inadequate investment in seed processing, packaging, storage, and quality control further compromises seed quality and market competitiveness.

The lack of investment perpetuates inefficiencies within the seed system, maintaining the sector's dependence on external inputs and interventions.

Underperforming Seed Sector

These challenges culminate in an underperforming seed sector characterized by:

- **Fragmented Industry Structure:** The sector struggles with coordination, leading to inefficiencies in meeting market demands.
- **Low Seed Quality and Availability:** Inconsistent seed quality and supply chain weaknesses reduce market confidence.
- **Poor Extension and Adoption:** Limited adoption of improved varieties by farmers due to poor extension services and a lack of awareness.

Breaking the cycle

Breaking the seed sector's vicious cycle requires a coordinated approach to balance supply and demand, stabilize markets, and boost local investment. Aligning policy, market incentives, and capacity-building can transform the sector into a proactive, competitive system that drives agricultural productivity and food security.

Reforming Ad Hoc Bulk Purchase Practices

- **Establish Transparent Procurement Systems:** Implement standardized procurement protocols emphasizing quality and consistency.
- **Promote Long-Term Contracts:** Encourage institutional buyers to enter long-term agreements with seed companies, providing stability and predictability for local producers.
- **Quality Assurance Mechanisms:** Introduce stringent quality control standards and certification processes to ensure seed integrity.
- **Reduce Import Dependency:** Develop incentives for sourcing locally produced seeds, reducing market reliance on imported seeds.

Strengthening Commercial Seed Markets

- **Market Development Initiatives:** Support the creation of robust seed distribution networks to stabilize supply and demand.
- **Farmer Education Programs:** Increase awareness of the benefits of improved seeds through extension services and demonstration plots.
- **Enhance Market Linkages:** Facilitate connections between seed producers, agro-dealers, and farmers to improve market efficiency.
- **Supportive Policy Environment:** Advocate for policies that promote a competitive and transparent seed market, reducing dependency on external interventions.

Boosting Investment in Local Seed Systems

- **Incentivize R&D Investment:** Provide grants, subsidies, or tax incentives to seed companies investing in research and development of new varieties.
- **Public-Private Partnerships (PPPs):** Foster collaborations between government, development partners, and private seed companies to share risks and enhance innovation.
- **Capacity Building:** Develop technical and managerial skills within seed companies to improve production, processing, and quality control practices.
- **Improve Infrastructure:** Invest in storage, processing, and distribution infrastructure to reduce post-harvest losses and maintain seed quality.

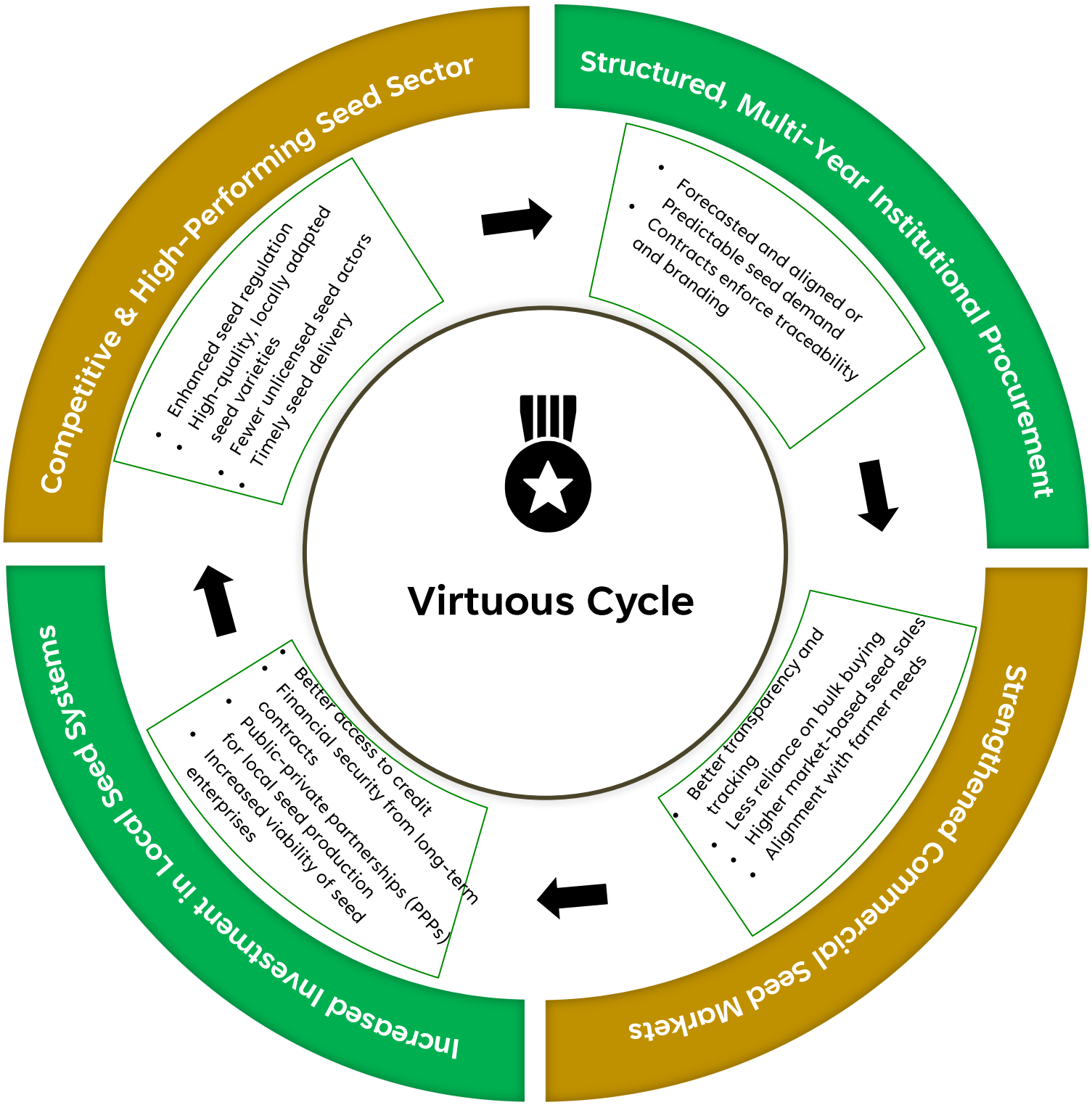
Revitalizing the Seed Sector Performance

- **Industry Coordination:** Establish seed sector platforms or alliances to improve communication, knowledge sharing, and coordination among stakeholders.
- **Regulatory Frameworks:** Strengthen regulatory oversight to ensure compliance with quality standards and reduce market fragmentation.
- **Supportive Extension Services:** Provide tailored support to farmers, focusing on adoption techniques, agronomic practices, and post-harvest management.
- **Monitoring and Evaluation:** Implement systems to track sector performance, identify gaps, and continuously refine strategies.

Virtuous Cycle

Virtuous Cycle of Institutional Markets System

A market-driven seed system creates a cycle where quality seeds increase farmer trust and sales, leading companies to invest in better varieties. This virtuous cycle makes the system more responsive to farmer needs while maintaining high standards.



Source: Sahel Consulting, 2024.

Virtuous Cycle

Virtuous Cycle of Institutional Markets System

The Nigerian seed system can transform into a virtuous cycle that creates positive outcomes for farmers, seed producers, and the agricultural sector. This self-reinforcing cycle drives market efficiency and sustainable growth through interconnected improvements.
High-quality seed production leads to better yield/produce for the farmers, which increases trust in certified seeds. As farmers see improved yields, they become more willing to purchase seeds through market channels rather than rely on institutional bulk buying. This shift encourages seed companies to focus on farmer needs and local adaptation.
With more market-based sales, seed companies invest in better production and distribution systems. This leads to improved transparency, tracking, and timely delivery. Enhanced regulation reduces unlicensed producers and seed actors, further building farmer confidence in the formal seed system.
As the market matures, seed companies become more responsive to farmer demands, developing locally adapted varieties that perform well in specific contexts. This creates a sustainable cycle where quality drives demand, and demand drives further quality improvements and market efficiency.

Structured, Multi-Year Institutional Procurement

- **Forecasted and Aligned Demand:** Establishing predictable seed demand through well-planned forecasting mechanisms.
- **Contractual Agreements:** Implementing multi-year contracts that promote seed traceability, branding, and accountability.
- **Reduced Market Volatility:** Structured procurement mitigates the risks of market swings and encourages long-term investments by seed producers.

Increased Investment in Local Seed Systems

- **Better Access to Credit:** Facilitate financial support for seed companies through partnerships with financial institutions.
- **Risk Reduction through Long-Term Contracts:** Provide financial security to seed companies, enabling them to scale operations.
- **Public-Private Partnerships:** Strengthen collaboration between government, development partners, and private sector actors to enhance production capacity.
- **Support for Local Enterprises:** Build capacity and create a conducive environment for local seed production enterprises to thrive.

Strengthened Commercial Seed Markets

- **Enhanced Transparency and Tracking:** Implement systems that monitor seed quality and market transactions to build trust.
- **Market-Based Seed Choices:** Shift from bulk-buying practices to tailored procurement aligned with farmer needs.
- **Improved Market Efficiency:** Reduces distortions in the seed market, promoting stable supply and demand dynamics.

Competitive & High-Performing Seed Sector

- **Enhanced Seed Regulation:** Improve regulatory frameworks to ensure high-quality seeds reach farmers.
- **Adoption of Improved Varieties:** Fewer varieties, but with higher quality and adoption rates, leading to increased agricultural productivity.
- **Timely Seed Delivery:** Streamlined operations and robust distribution networks ensure seeds reach farmers when needed.

Recommendations

Procurement

Institutional players can ensure reliable access to high-quality seeds, strengthen seed company capacity, and promote sustainable market growth—ultimately enhancing agricultural productivity and resilience through these recommendations in seed procurement.

Adhere to guiding principles for Seed Aid

The guiding principles for effective seed aid provide a framework for stakeholders to enhance the efficiency of seed procurement, ensuring timely access to quality seeds. Adhering to these principles promotes best practices in planning, sourcing, distribution, and monitoring to strengthen agricultural resilience and food security.

Long-term procurement contract

Long-term seed production contracts can boost capacity and promote sustainable market growth. Milestone-based payment agreements, with funds disbursed upon verified completion, ensure accountability, and strengthen the monitoring process.

Seed company experience

Seed companies in intervention programs should have at least 3 - 5 years of experience and consistent production capacity to ensure expertise and high-quality seed supply. This standard will help to promote reliability, enhance intervention efficiency, and strengthen the seed value chain.

Inclusion of financial institution in procurement

Including financial institutions in the seed procurement process will enhance accountability and help establish checks and balances. It will also foster relationships that build seed companies' credibility, improving their ability to secure funding beyond the intervention period.

Code of conduct for seed procurement

There should be a code of conduct for seed procurement agreed to by all stakeholders involved in seed procurement. They should also be a multistakeholder task force to monitor and ensure compliance to agreed code of conduct.

Audit and penalties

Continuous audits of the seed procurement process should cover both financial management and seed quality. Parties found guilty of financial mismanagement or supplying poor-quality seeds should face appropriate sanctions to ensure accountability and maintain trust in the system.

Seed Sourcing

There is a need to enhance transparency, traceability, and accountability in seed sourcing. These recommendations aim to foster trust in seed quality, improve regulatory compliance, and ensure efficient distribution and better support for farmers and stakeholders across the seed system.

Seed Tracking - traceability

Seed production and sourcing should be integrated with a digital seed tracking platform to ensure real-time monitoring of seed availability for locally produced varieties – the seed tracker can be leveraged for this. This system will enhance transparency, enable efficient inventory management, and allow stakeholders—such as farmers, suppliers, and policymakers—to make informed decisions based on up-to-date seed

Local presence of seed importers

Seed importing companies should establish a local presence to enhance distribution, customer service, and regulatory compliance. Partnerships with local seed companies promote shared responsibility, knowledge exchange, and business growth, improving seed quality and fostering trust with farmers and stakeholders.

Package integrity

Seed packaging should be durable, tamper-proof, and clearly labeled with essential details such as seed type, batch number, expiration date, company name, and logo. This ensures product integrity, prevents damage or contamination, and promotes transparency and traceability, fostering farmer confidence in the quality and authenticity of the seeds.

Preference for local seed companies

Preference for seed companies that produce locally and have seed production fields registered digitally on the regulatory databases can participate in institutional markets.

Dissemination

A clear dissemination plan and diverse distribution channels ensure broad access and timely seed delivery. Assigning delivery responsibility to seed companies enhances transparency, accountability, and trust, ensuring farmers receive high-quality seeds efficiently.

Has to have a clear extension plan

A comprehensive dissemination plan should be developed at the outset of the seed procurement process to ensure clear communication and stakeholder engagement throughout all stages. This plan should outline how information on procurement decisions, timelines, distribution methods, and seed availability will be shared with relevant stakeholders, including farmers, suppliers, and policymakers. Establishing this plan early helps create transparency, builds trust, and ensures that all parties are well-informed and aligned to support efficient and effective

Formal and informal distribution channels should be involved

It is essential to utilize both formal and informal seed dissemination channels—such as Community-Based Seed Producers (CBSPs), agro-dealers, and other key stakeholders—to ensure broad and efficient seed distribution. Seed companies should be responsible for delivering seeds to farmers, mitigating the risks associated with transportation and ensuring timely, secure distribution. This approach enhances accessibility, strengthens the distribution network, and promotes accountability, ultimately ensuring that farmers receive high-quality seeds in a reliable and efficient manner.

Recommendations

Governance

Inclusive planning and a dedicated Governance Unit enhance transparency, collaboration, and accountability, ensuring accurate demand forecasting, quality assurance, and equitable seed distribution for a stronger institutional seed system.

Planning meeting

Seed procurement planning meetings should involve all key stakeholders—farmers, seed companies, distributors, agro-dealers, and policymakers—to ensure inclusive decision-making and accurate demand forecasting. These meetings should focus on creating a collective plan to meet demand efficiently and equitably. To ensure transparency and fairness, participants in the planning process should be excluded from bidding or contracting decisions, fostering trust and accountability.

Governance and Coordination

A Governance and Coordination Unit should oversee seed procurement and distribution by setting quality standards, accrediting suppliers, ensuring compliance, and promoting transparency. It will also expand local participation, align market agreements, discourage short-term fixes, and coordinate demand and supply planning to stabilize seed markets.

Monitoring and Evaluation

The Governance and Coordination Unit should oversee seed procurement and distribution by monitoring compliance, evaluating suppliers, enforcing agreements, and conducting audits to address risks. It should also set performance indicators and feedback systems to drive continuous improvement, transparency, and accountability.

Authority to enforce compliance and penalties

Governance units must have authority to impose penalties and enforce compliance to agreed code of conduct.

Cross-Cutting Recommendations

Technology adoption, stakeholder collaboration, and sustainable funding models are essential for effective seed procurement, supply, and dissemination, ensuring a resilient and sustainable institutional seed system.

Leverage Digital Solutions

Utilize digital tools for market information, quality assurance, and connecting stakeholders along the seed value chain.

Encourage Stakeholder Collaboration

Promote regular dialogues among government, private sector, farmers, and development partners to align goals and resources.

Sustainable Funding Models

Develop funding mechanisms that attract both public and private investments, ensuring long-term sustainability of interventions.

Future Directions for Institutional Seed Markets

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Framework for Sustainable Seed Interventions

A strategic framework addressing seed sector challenges has been developed through stakeholder engagement. The approach optimizes institutional performance, strengthens seed supply chains, ensures quality standards, and improves farmer accessibility through collaborative, farmer-centric solutions that prioritize environmental and economic sustainability.

1. **Strengthening Institutional Structures** Through capacity building and policy reform programs that address market distortion and support healthy procurement practices.
2. **Promoting Farmer-Centric Approaches** Via leveraging on local networks (cooperatives) and education programs to drive inclusion.
3. **Enhancing Seed Quality and Efficient Logistics** Implement robust assurance mechanisms and improve storage and transportation systems to prevent delays and maintain seed integrity during dissemination.
4. **Public-Private Partnerships (PPP)** Foster collaborations between institutional buyers and private sector players to bridge gaps in seed supply, marketing, and innovation.
5. **Sustainable Financing Mechanisms** Develop funding models, such as subsidies, credit schemes, or grants, to ensure the affordability and accessibility of quality seeds.

Guiding Principles for Good Seed Aid

Emergency seed aid, originally intended to help farmers recover from disasters quickly and sustainably, has evolved into a large-scale intervention. However, challenges such as repetitive aid in some regions and assumptions about seed needs have led to calls for more effective practices. To address these issues, the Ten Guiding Principles (10P) were developed to improve seed security responses. These principles are designed for policymakers, program managers, field staff, and others involved in seed system programming.

Guiding Principles of Good Seed Aid

01 **Seed System Security Assessment (SSSA)**
Assess seed security problems among diverse groups (e.g., men, women, displaced). Identify specific constraints related to availability, access, seed health, and variety suitability. Assess both formal and informal seed channels, considering acute and chronic stress.

02 **Response Type**
Choose interventions that directly address identified seed security problems. For example, if seed availability is an issue, direct distribution may be appropriate; if access is the problem, cash or voucher-based responses could be better suited.

03 **Goal of the Intervention**
Design interventions with clear goals, aligned with farmers' immediate needs. Goals should go beyond basic production to include nutrition, income, and farming system resilience.

04 **Context**
Ensure that seed interventions match the local context, considering factors like gender, social exclusion, and conflict. Interventions must be demand-driven and avoid harm to existing systems.

05 **Timeliness**
Ensure timely delivery of seeds so farmers can plant during their normal planting periods. Late seed aid can compromise production and waste resources.

06 **Market-based Assistance**
Support market functions rather than undermining them. Market-based assistance, including vouchers and cash transfers, can provide immediate relief while encouraging long-term market sustainability.

07 **Crop and Variety Choice**
Select crops and varieties that suit local conditions and farmer preferences. Avoid introducing untested varieties in emergencies and prioritize self- or open-pollinated varieties over hybrids.

08 **Seed Quality**
Ensure seed quality meets minimum standards for physical, physiological, and health aspects. Manage seed quality throughout procurement, transport, storage, and distribution.

09 **Farmers' Choice**
Provide farmers with choices among crop and variety options to meet diverse needs. Facilitate access to different seed channels, ensuring a range of options for both commercial and subsistence farmers.

10 **Feedback at Multiple Key Stages**
Build monitoring and evaluation mechanisms into the intervention design. Gather feedback from farmers and suppliers at key stages, including after implementation and at the end of the cropping season. Track cumulative effects and budget for ongoing evaluations.

Source: Mercy Corps & SeedSystem. (2022). *Ten Guiding Principles for Good Seed Aid* . Retrieved from www.issdafrica.org

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Scenario

Scenario

This scenario represents a process flow for an international consortium looking to carry out seed intervention in Nigeria.

An international donor agency plans to implement a seed intervention in Nigeria to support local farmers, improve food security, and strengthen the resilience of the local seed system. To ensure transparency, efficiency, and alignment with global best practices, the agency adopts a comprehensive, multi-stakeholder approach.

Needs Assessment and Planning

Objective: Engage all key stakeholders—farmers, seed companies, agro-dealers, community-based seed producers (CBSPs), distributors, and policymakers—in forecasting seed demand and developing a distribution plan to ensure timely and equitable seed access.
Best Practice: To avoid conflicts of interest, individuals involved in planning are prohibited from participating in bidding or seed contracting.

Governance and Coordination

Purpose: Provide strategic oversight and coordination for effective seed intervention management.
Key Responsibilities:
- Define and enforce seed quality standards.
- Accredit suppliers and ensure compliance.
- Expand local participation in seed markets.
- Monitor procurement and distribution transparency.
- Prevent short-term interventions that disrupt local systems.
- Align demand planning and supply forecasting to avoid shortages or surpluses.

Procurement and Supplier Selection

Purposeful selection of seed companies for procurement and supply of seeds based on the following criteria
- Operational Experience: Seed companies must have at least four years of operational experience.
- Production Capacity: Companies should produce at least 50% of the seed order size to demonstrate reliability.
- Local Presence and Labeling: Importers must establish a local office and clearly display their company name on seed packaging to enhance traceability and accountability.

Digital Seed Tracking System

Purpose: Utilize a digital platform to track seed availability in real-time, ensuring transparency and efficient inventory management.
Benefits:
•**Transparency:** Stakeholders have real-time access to seed availability data.
•**Informed Decision-Making:** Enables farmers, suppliers, and policymakers to plan more effectively.
•**Improved Inventory Management:** Reduces the risk of seed shortages or overproduction.

Distribution Strategy

Channels: Utilize both formal and informal distribution networks, including CBSPs, agro-dealers, and distributors, to ensure broad seed access.
Accountability: Seed companies should take full responsibility for delivering seeds to farmers, reducing transportation risks and ensuring timely, secure distribution.
Visual Aid: A distribution network map or flow diagram illustrating seed movement from suppliers to farmers through various channels.

Expected outcomes
Improved Transparency: Enhanced traceability and visibility of seed procurement and distribution processes.
Stronger Local Seed Market: Increased participation of local players in seed markets to promote sustainability.
Timely Access to High-Quality Seeds: Farmers receive seeds on time to maximize agricultural productivity.
Efficient Procurement and Distribution: Coordinated demand planning and supplier accreditation ensure fairness and efficiency.

Call to Action

The Cost of Inaction

- Crop Production GDP (2023): $52.6 billion (20.4% of Nigeria's GDP)[1]
- Value of Seed Market: $496 million[2]
- Access to Quality Seeds: 20% of farmers[1]
- Investment required in the seed system (by 2030): $750 million[3]

Despite the substantial investments in the Nigerian seed sector over the years, only one-fifth of Nigerian farmers currently have access to quality seeds. With $750 million required in investments by 2030 to enhance the seed system, traditional seed intervention approaches must be reimagined to expand access to quality seed across Nigeria's farming communities.

1. *Nigerian Bureau of Statistics, 2023 Report*
2. *Voice of Nigeria, 2025*
3. *Economic Confidential, 2025*

References

Consulted

- Anchor Borrowers' Programme Guidelines (2016). Central Bank of Nigeria. §Business News Nigeria. Anchor Borrowers Programme shows CBN's agric financing misstep.
- CBN archives. Monthly Average Exchange Rate of the Naira §Compendium and Fact-sheet on Seeds for Agricultural Transformation In Nigeria: 1975-2021, NASC 2022 §CSP Seed Company Assessment, 2024.
- Early Generation Seed Study Summary. de Boef, W., Huisenga, M., Atwood, D., Mennel, J., Dassel, K., Prabhala, P., Weddle, J., Anderson, K. and Taintor, M., 2015.
- Economic Confidential. Nigeria Needs N130bn Yearly Investment In Seed Production. Retrieved in February 2025 from https://economicconfidential.com/2019/04/n130bn-yearly-investment-seed-production/
- FAO. (2020). State of Food and Agriculture Report. Food and Agriculture Organization of the United Nations
- https://issdafrica.org/wp-content/uploads/2020/02/seed-sector-review-nigeria-assessment-report_final.pdf
- https://tomatojos.net/about-tomatojos/
- Mercy Corps & SeedSystem. (2022). Ten Guiding Principles for Good Seed Aid
- Nairametrics. House of Reps orders probe into N1.12 trillion Anchor Borrowers' Program
- Nigerian Bureau of Statistics, 2023 Report
- Nigerian Seed Entrepreneurs Assessment Report. Johann Bonnand, Ilesanmi Pupa, Edima, Etudor, Chinedu Agbara, Stephen Adigun, Walter S. de Boef and Marja H. Thijssen
- The African Seed Access Index (TASAI) Nigeria Country Report 2024.
- Voice of Nigeria. Nigeria's Seed Market Now Worth Over 400billion Naira. Retrieved in February 2025 from https://von.gov.ng/nigerias-seed-market-now-worth-over-400billion-naira-nasc-boss/

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Appendix

Organisations consulted during this study

Various organisations, both international and Nigerian, participated in a series of discussions and interviews on the Institutional Markets component of the Collaborative Seed Programme.

Institutional Markets Inception Workshop
- **Date:** June 21, 2023
- **Location:** Abuja

Institutional Markets Validation Workshop
- **Date:** May 9, 2024
- **Location:** Abuja

Seed Connect Conference
- **Date:** November 26, 2024
- **Session title:** "Fostering a Sustainable Institutional Market in Nigeria"

ISSD Africa Conference
- **Dates:** February 17-18, 2025
- **Session title:** "Strengthening Nigeria's Institutional Seed Markets: Validation of the CSP Nigeria Study"

The organisations involved in these engagements are as follows:

Nigerian Organisations	
Government	Federal Ministry of Agriculture and Food Security (FMAFS)
	Farm Input Supply Services Department, FMAFS
	National Agricultural Growth Scheme-Agro Pocket (NAGS-AP)
	National Agricultural Seeds Council
	Nigeria Incentive-Based Risk Sharing System For Agricultural Lending (NIRSAL, Plc)
Private Sector	GICE Agro Sciences LTD
	National Agricultural Input Dealers Association (NAIDA)
	Nigeria Agro Input Dealers Association(NAIDA)
	Nigerian Economic Summit Group (NESG)
	Nuru Nigeria
	Sahel Consulting Agriculture and Nutrition limited.
	Seed Entrepreneurs Association of Nigeria (SEEDAN).
	SIA Farms
	Tomato Jos
Knowledge /Research Institute	Agricultural Research Council of Nigeria (ARCN)
	Norwegian refugee Council
Seed Companies	Boom Seeds Limited
	Da-Allgreen Seeds
	Evergreen seeds
	Nagari Seeds
	Tecni Seeds Limited
	Value Seeds Limited
International Organizations	
CGIAR	Harvest Plus- International Food Policy Research Institute (IFPRI).
	International Crop Research Institute for Semi-Arid Tropics (ICRISAT).
Government	European Union (EU)
	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Society for International Cooperation)-GIZ
Humanitarian	Anglican Board of Mission (ABM)
	United States Agency for International Development (USAID)
NGO	Alliance for Green Revolution in Africa (AGRA).
	International Fertilizer Development Center (IFDC)
	Sasakawa Africa

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Case Study

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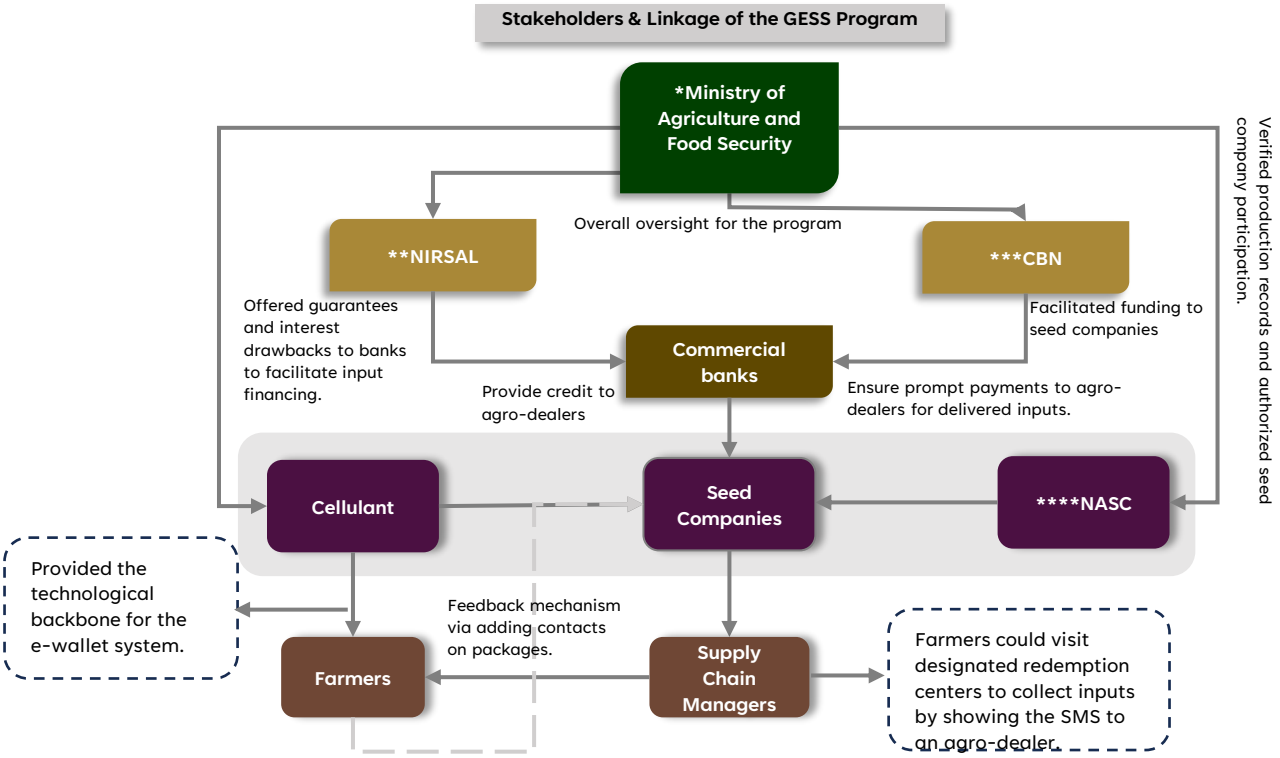
Growth Enhancement Support Scheme (GESS)

GESS was a transformative initiative aimed at enhancing agricultural productivity and improving the livelihoods of smallholder farmers in Nigeria. The program leveraged technology and institutional partnerships to streamline the distribution of farm inputs, such as seeds and fertilizers, and address long-standing inefficiencies in the agricultural value chain.



*The Federal Ministry of Agriculture and Food Security (FMAFS), formerly known as The Federal Ministry of Agriculture and Rural Development (FMARD)
**Nigeria Incentive-Based Risk Sharing System for Agricultural Lending
***Central Bank of Nigeria
****National Agricultural Seed Council

Key features of the GESS:

E-Wallet Voucher System

- **Mobile technology** to improve input accessibility and track distribution.
- A shift from paper-based voucher systems, reducing fraud and bottlenecks.
- Farmers received inputs directly without interference from intermediaries.

Gradual Cost-Sharing Model

- Seeds were initially distributed **free of charge.**
- Subsequently, farmers began contributing 10% of the seed cost.
- Fertilizer subsidies were set at 50%, reducing costs for farmers.

Tripartite Agreement

- GESS operated through a tripartite partnership;
- **FMARD -** Policy direction and program oversight.
- **CBN -** Financial disbursement and credit facilitation
- NIRSAL – risk mitigation strategies and financial guarantees.

Challenges and Lessons Learned:

➢ The automated redemption records faced disruptions due to **poor network coverage**, necessitating manual data entry. Despite the integration of supply chain managers, some agro-dealers still **lacked adequate seed storage** knowledge, which affected seed quality. The use of **inappropriate seed varieties** in certain regions led to suboptimal yields and backlash from farmers.

Impact and Outcomes:

Pre-GESS, **annual seed production in Nigeria was less than 10,000 tons.** By the end of the program, **seed production had increased to 70,000 tons.**

GESS introduced **variety mapping**, a practice that matched seed varieties to appropriate agro-ecological zones to improve yield potential.

The number of seed companies increased to **110** from only 11 companies at the commencement of the program.

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Seed Intervention by NURU Nigeria

Nuru Nigeria is a locally-led development organisation focused on enhancing agricultural productivity and food security among vulnerable and conflict-affected populations in northeastern Nigeria. The organisation promotes sustainable livelihoods and community resilience by facilitating access to quality inputs, training on climate-smart and regenerative farming practices, and strengthening market systems for long-term impact.

Seed Procurement and Selection

- Farmers play an active role in determining seed preferences.
- Soil testing is conducted to identify suitable crops for the soil type.
- Seed procurement involves certified seed companies to ensure quality.
- Rigorous processes like germination tests and quality checks ensure only the best seeds are distributed.

Distribution

- Seeds are packaged in 25KG bags for farmers, adhering to standardized specifications.
- Distribution is managed directly by Nuru Nigeria without third-party involvement.
- Farmer groups collaborate in the distribution process to ensure equitable access.

Monitoring and Evaluation

- Continuous monitoring occurs during planting, growth, and harvest stages.
- Demonstration plots in communities showcase the advantages of improved seed varieties versus local varieties.
- Training sessions for farmers on certified seed identification and crop management enhance sustainability.

Sustainability Measure

- Training and empowering youth within communities to serve as extension officers.
- Farmers are connected to seed and fertilizer suppliers for self-reliance post-intervention.
- Emphasis on using locally available resources like compost and improved storage methods.

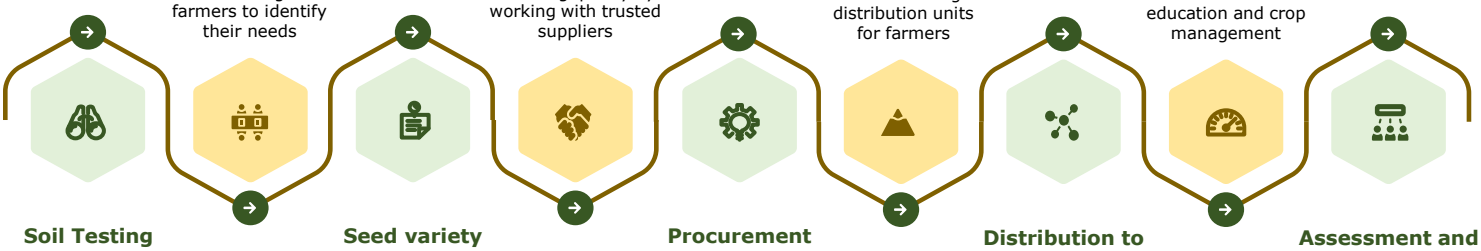
Contractual and Financial Model

- Vendors are paid in tranches: 50% post-supply, 30% after germination confirmation, and 20% after a 21-day evaluation period.
- A 20% retention policy ensures accountability and quality; suppliers replace defective seeds.
- Collaborations with research institutions ensure high standards in procurement.

Challenges and Policy Advocacy

- Granular challenges in seed storage and consistency in seed quality.
- Advocacy for policy changes such as banning pre-treated fungicides and improving market system integrity.
- Partnerships with organizations like NAIC and SON for standardized practices and systemic improvements.

Seed Intervention Process Flow



Soil Testing
Evaluating soil for suitability to crops

Community Engagement
Collaborating with farmers to identify their needs

Seed variety Identification
Choosing the best seeds for specific soils and communities

Seed Company Selection
Ensuring quality by working with trusted suppliers

Procurement and Quality Checks
Rigorous tests for germination and quality

Packaging (25kg bags)
Standardizing distribution units for farmers

Distribution to Farmers
Direct delivery without third-party involvement

Monitoring and Training
Continuous farmer education and crop management

Assessment and feedback
Evaluating results and gathering insights for improvement

Key Insights

- Farmer-Centric Approach: Active engagement of farmers in decision-making strengthens adoption and relevance.
- Quality Control: Multi-layered checks ensure seed quality and enhance farmer trust.
- Sustainable Development: Capacity building and leveraging local resources promote long-term impact.
- Policy and Systemic Advocacy: Intervention focuses on creating structural changes for a resilient agricultural system.

Case Study

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Norwegian Refugee Council (NRC) Seed Intervention in Plateau State

The NRC Jos Seed Intervention program is a targeted initiative aimed at improving agricultural productivity and food security among displaced and vulnerable populations in the state. The program fosters sustainable livelihoods and strengthens local resilience by providing quality seeds, training on climate-smart farming practices, and access to essential resources.

Beneficiary Selection:

- Needs assessments are conducted to identify displaced populations and vulnerable farmers
- Beneficiaries must access land and necessary resources to utilize the **FREE** seeds effectively.

Distribution Mechanism:

- Seeds are procured from **certified seed companies.**
- Seeds are subjected to **germination tests** before distribution.
- Direct delivery to SHF
- Farmers receive packaged seeds in **standard quantities** (e.g., 5kg, 10kg).

Sustainability plans:

- Push for **backward integration**, so drive the transition from free seed distributions to subsidized schemes.
- Train farmers in climate-smart agricultural practices and promote farmer-led seed production initiatives.

Policy Actions:

- **Improve Coordination:** Establish a **National Seed Planning Committee** with representatives from government, private sector, and research institutions. Develop a unified seed intervention blueprint to synchronize efforts.
- **Enhance Quality Control:** Implement stringent monitoring mechanisms during seed procurement and distribution.
- **Foster Stakeholder Engagement:** Ensure the inclusion of private seed companies, farmers, and regional agricultural programs in planning processes.
- **Build Sustainable Market Systems:** Transition from free seed distributions to subsidized schemes to maintain market integrity. Push farmers to become seed producers, fostering local ownership and reducing long-term dependency.

Stakeholder Involvement in Seed Interventions

	Government	Private Sector	Agricultural Programs
Current	50%	20%	30%
Projected	40%	30%	30%

Recommendations

- **Improve Coordination:** Establish a **National Seed Planning Committee** to develop and implement a unified seed intervention blueprint to synchronize efforts across regions and agencies.
- **Enhance Quality Control:** Implement stringent monitoring and quality assurance mechanisms by strengthening the capacity of regulatory bodies, such as the National Agricultural Seeds Council (NASC).
- **Foster Stakeholder Engagement:** Include private seed companies, farmers, and regional agricultural programs in planning processes to enhance inclusivity and efficiency.
- **Build Sustainable Market Systems:** Transition from free seed distributions to subsidized schemes to maintain the integrity of the seed market.

Challenges:

Market Distortion: Free seed distribution programs unintentionally disincentivize farmers from purchasing seeds, undermining the profitability and viability of private seed companies.

Quality Control Issues: The culture of providing free seeds can often encourage quality control issues. Vendors occasionally supply substandard seeds, either due to negligence or attempts to cut costs, which negatively affects agricultural productivity.

Communication Gaps: The lack of effective coordination and communication among key stakeholders, such as the National Seed Council, development partners, and private seed companies, results in inefficiencies and duplication of efforts.

Logistical Constraints: Limited infrastructure and logistical support pose significant challenges to the timely procurement, storage, and distribution of seeds.

Case Study

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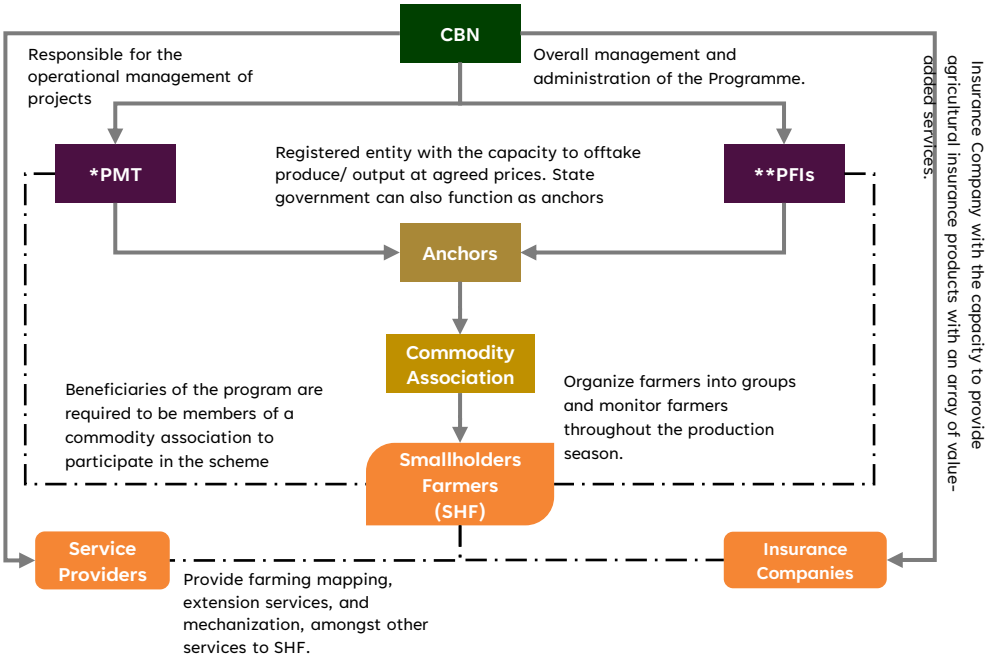
Anchor Borrowers' Programme

The Anchor Borrowers' Programme (ABP) was designed by the **Central Bank of Nigeria (CBN)** to enhance food security, promote backward integration for processing industries, and optimize raw material supply to support the agricultural value chain.

Program Objectives:

The broad objective of the ABP is to create economic linkages between smallholder farmers and processors with a view to increasing agricultural output and ensuring food price stability. The specific objectives include:

I. Increase **banks' financing** to improve agricultural productivity by creating an ecosystem that drives value-chain financing;
II. Reduce the nation's food import bill through **import substitution** and enhanced domestic value addition;
III. Create new generation of farmers through **innovative financing** to support smart agriculture; and
IV. Deepen **financial inclusion** and grow smallholder farmers from subsistence to commercial farming.



*The Project Management Team
**Participating Financial Institutions

By targeting smallholder farmers, the program focuses on providing inputs and services through a structured financing model, fostering productivity, and ensuring market access for farm outputs.

Project Implementation Process:

Farmers Identification: Farmers are registered through recognized commodity associations, and verified using digital systems that check Bank Verification Numbers (BVNs) and credit history.

Economic Production Plan (EOP): Stakeholders convene to determine input requirements and associated costs. CBN ratifies the EOP, ensuring consistent standards.

Input Distribution: Loans are disbursed in-kind (e.g., seeds, fertilizers), not as cash, ensuring funds are strictly utilized for agriculture.

Off-Take Agreements: Farmers' produce is aggregated and sold to off-takers, linking repayment directly to market dynamics.

Key Highlights:

- **₦1.12 trillion** disbursed across **30 states** in Nigeria.
- Approximately **563 anchors** onboarded to carry out off-takers.
- The Program supported over **4.67 million farmers** (directly & indirectly) in the procurement of key agricultural inputs via credit facilities.
- Over **1.4 million hectares of land** cultivated through the scheme.
- Yield per hectare among ABP rice farmers vs non-participants increased by *c.* **42.5%.**
- Inputs for the cultivation & production of **over 16 agricultural products** including cereals (rice, maize, wheat), roots (cassava and yam), and livestock (fishery and poultry).

Challenges:

- **Credit Recovery:** According to data from the CBN, out of the ₦1.12 trillion, only 59.8% (₦670.4bn) has been repaid.
- **Sustainability issue:** The **program** faces sustainability challenges due to a lack of strict adherence to implementation guidelines and insufficient capacity-building for local input production.
- **Quality Control Issues:** The lack of stringent criteria in **anchor selection** has led to significant inconsistency in the quality of input supplies.
- **Dependency on Imports:** Insufficient **local capacity** especially in seed generation and fertilizer manufacturing, has necessitated the import of inputs

Case Study

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National Agricultural Growth Scheme and Agro Pocket (NAGS-AP)

The Federal Ministry of Finance, through the National Agricultural Growth Scheme and Agro Pocket (NAGS-AP), has been advancing Nigeria's wheat production. The program aims to enhance agricultural productivity, support rural economies, and reduce dependence on imported wheat.

Objectives of the Program:

- **Increase Wheat Production**: Enhance domestic production to reduce Nigeria's reliance on imported wheat.
- **Support Farmers**: Provide subsidized inputs to smallholder and medium-scale farmers, improving their productivity and profitability.
- **Strengthen Agricultural Infrastructure**: Leverage irrigation facilities, mechanization, and other resources to support wheat cultivation.
- **Develop Seed Systems**: Build a robust system for producing early-generation seeds (EGS), including breeder, foundation, and certified seeds, essential for sustainable production.

Program Highlights:

The program facilitated the distribution of inputs to **68,389 farmers** (24.42% of the target).

409 redemption centers, and **+118,657 hectares** were redeemed out of the 123,000 hectares targeted representing **96.47%** achieved.

Nigeria currently produces *c.* 126,000 metric tonnes (MT) with the FG setting a target of **+472,000MT** of wheat production.

Farmers receive certified wheat seeds at a **25%** subsidy and fertilizers at a **50%** subsidy.

Strength	Challenge
Comprehensive Planning: Land availability, irrigation facilities, and farmer data were prioritized before implementation.	**Timely Input Distribution:** Delays in seed distribution disrupt planting schedules, leading to missed planting windows and suboptimal yields.
Infrastructure Development: Significant progress in developing irrigation and mechanization infrastructure in wheat-growing regions.	**EGS Development:** Insufficient production of early-generation seeds hampers the availability of quality certified seeds.
Stakeholder Collaboration: Partnerships with research institutes, seed companies, and development organizations.	**Dependence on Subsidies:** Over-reliance on government subsidies creates a false market, limiting private sector participation.
Economic Impact: Reduction in wheat imports, stimulation of rural economies, and enhanced food security.	**Sustainability:** The long-term success of the program hinges on transitioning from government-led interventions to a private sector-driven model.

Case Study

Draft

Tomato Jos Processing Factory

Tomato Jos operates a vertically integrated agribusiness model in Nigeria, combining large-scale tomato farming, an out-grower program for smallholder farmers, and a processing facility to produce high-quality tomato paste for the local market.

Current Model

Entry into the program:

Farmers start by growing maize or preparing farmers for the tomato season.

Graduation to Model Farm Program:

Farmers start by growing maize or preparing farmers for the tomato season.

Year 1-3:

Farmers gain insights into contract farming, group work, and agricultural skills, advancing from basic to intermediate and advanced levels in planting, fertilization, IPM, irrigation, labour management, and record-keeping

7 billion tomatoes harvested

Over the years, Tomato Jos has cultivated and harvested an impressive 7 billion tomatoes, contributing significantly to Nigeria's agricultural output.

$5m

With a $5 million processing facility in **Kaduna**, Tomato Jos is transforming locally grown tomatoes into high-quality, processed products.

350+ partner farmers

Tomato Jos partners with 350 smallholder farmers, equipping them with essential training, resources, and market access.

> I have been able to use the money I earned through the **Tomato Jos program** to pay for my children's school fees, start a business to diversify my income, and even build a new house...
>
> My journey began in June 2018... I have gained valuable skills in fertilizer application, integrated pest management, planting, and weeding. With these skills, I am now able to grow maize at yields of over 8 metric tons per hectare... and tomatoes at yields of over 60 metric tons per hectare. I enjoy profit margins above 30% in both crops.

Aisha Mohammed

Key Insights

- **Farmer-Centric Approach:** Active engagement of farmers in decision-making strengthens adoption and relevance.
- **Quality Control:** Multi-layered checks ensure seed quality and enhance farmer trust.
- **Sustainable Development:** Capacity building and leveraging local resources promote long-term impact.
- **Policy and Systemic Advocacy:** Intervention focuses on creating structural changes for a resilient agricultural system.

Contractual farming model: Tomato Jos leases farmland to farmers, provides them with inputs and technical support, and, in return, pays them a percentage of the harvested yield.

Input: Seeds from local companies like Corteva and SeedCo, ensuring quality through a collaborative selection process with farmers via field trials.

Production & Farmland: Tomato Jos owns approximately 500 hectares of farmland, achieving a production yield of **39MT per hectare**—over seven times Nigeria's national average of 5MT per hectare.

Storage & Processing: Tomato Jos manages post-harvest processing and storage, transforming raw tomatoes into paste and other products, which are then sold to customers.

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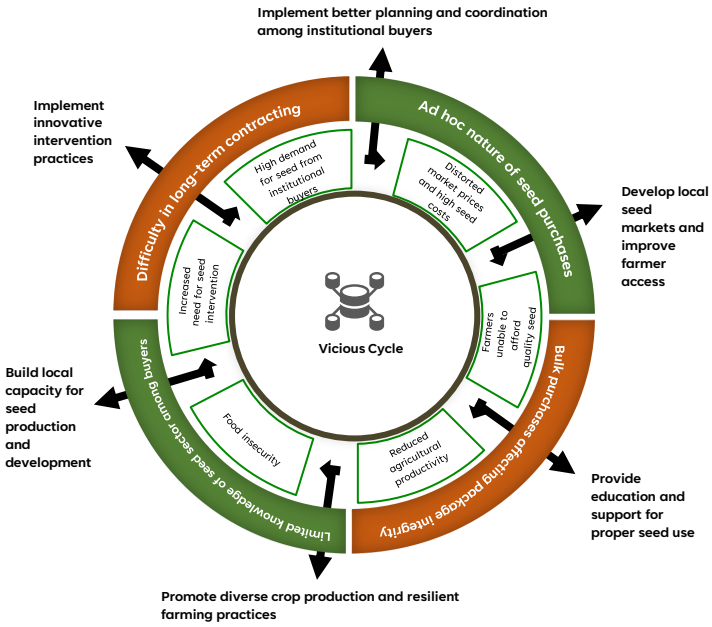
COLLABORATIVE SEEDPROGRAMME Nigeria-Netherlands

Vicious Cycle of the Current Institutional Markets System

The Nigerian seed system is caught in a vicious cycle of inefficiencies that reinforce poor outcomes for farmers, seed producers, and the agricultural sector. This cycle is driven by interrelated challenges that disrupt market dynamics, limit access to quality seeds, and hinder long-term sustainability.



Ad Hoc Procurement	Lack of Long-term Contracts
• Unpredictable bulk orders disrupt supply-demand balance. • Short production timelines lead to overproduction, wastage, or poor-quality seeds. • Farmers lose trust in improved seeds due to inconsistent quality.	• Absence of guaranteed agreements limits investment in scaling production. • Farmers face irregular access to quality seeds, affecting productivity. • Market uncertainty stifles innovation in seed development.
Bulk Purchasing and Repackaging	**Market Distortion**
• Repackaging breaks seed traceability and accountability. • Farmers struggle to verify authenticity, eroding trust in the seed market.	• Many farmers cannot differentiate between certified seeds and grains. • Limited access to training prevents the adoption of high-yield, resilient seed varieties.

These will lead to

Market Distortion
- Free or subsidized seed distributions undermine private sector competitiveness.
- Farmers become dependent on aid, reducing self-reliance and market-driven investments.

Poor Quality Assurance
- Weak regulations allow substandard seeds into the market.
- Low germination rates and mislabeled grains erode trust in certified seeds.
- Lack of stringent quality checks reduces confidence in improved seed varieties.

Dependency and Fragmentation
- Repeated interventions foster reliance instead of resilience.
- Limited outreach prevents broader farmer empowerment.
- Poor coordination among stakeholders leads to inefficiencies and missed opportunities for systemic improvements.

Source: Sahel Consulting, 2024.

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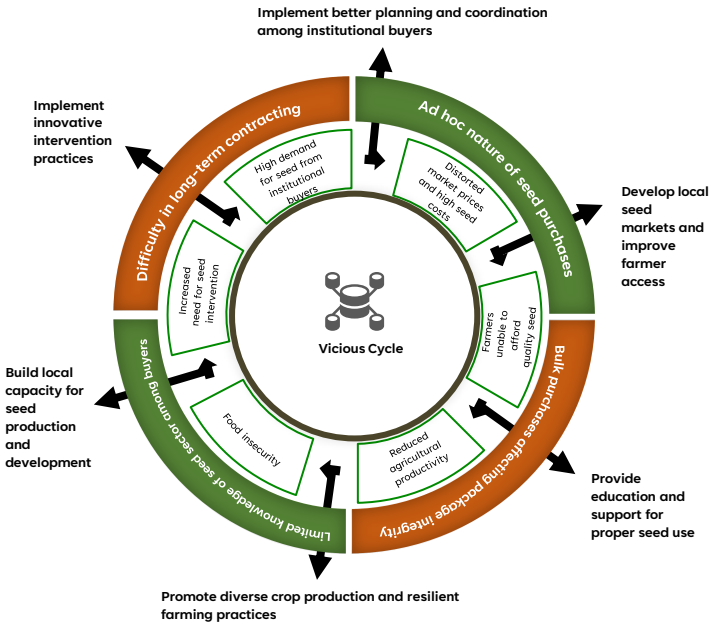

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Call to Action

Framework for Sustainable Seed Interventions

Call to Action

The Cost of Inaction

- Crop Production GDP (2023): $52.6 billion (20.4% of Nigeria's GDP)[1]
- Value of Seed Market: $496 million[2]
- Access to Quality Seeds: 20% of farmers[1]
- Investment required in the seed system (by 2030): $750 million[3]

Despite the substantial investments in the Nigerian seed sector over the years, only one-fifth of Nigerian farmers currently have access to quality seeds. With $750 million required in investments by 2030 to enhance the seed system, traditional seed intervention approaches must be reimagined to expand access to quality seed across Nigeria's farming communities.

1. *Nigerian Bureau of Statistics, 2023 Report*
2. *Voice of Nigeria*
3. *Economic Confidential*

INSTITUTIONAL SEED MARKETS IN NIGERIA

Contributing to the
Nigeria-Netherlands Seed Partnership

ABORATIVE
SEEDPROGRAMME
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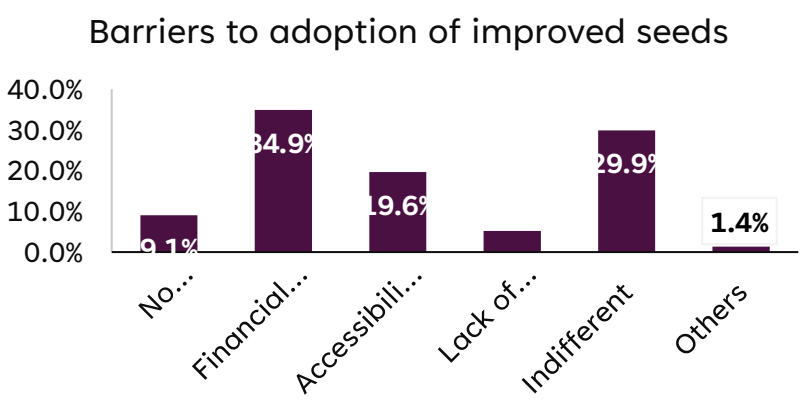
Barriers to Adoption of Improved Varieties

Low adoption of improved seeds is driven by financial constraints, accessibility issues, and farmer skepticism. Targeted interventions addressing affordability, awareness, and distribution are essential for sustainable adoption.



A study by the National Agricultural Seed Council (NASC) revealed barriers to improved seed adoption: 9.1% of farmers perceive no need for improved seeds, 34.9% face financial constraints, 29.9% are indifferent about seed effectiveness, 19.6% struggle with seed accessibility, and 5.2% lack technical knowledge. These findings underscore the need for tailored intervention strategies to ensure sustainable outcomes.

Source: NASC, 2023.

INTRODUCTION