

WAGENINGEN

End of Project Report Collaborative Seed Programme

Programme under the Nigeria-Netherlands Seed Partnership

Reporting Period:1 November 2020 - 31 March 2025

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The Collaborative Seed Programme (CSP) was a four-year initiative under the Nigeria-Netherlands Seed Partnership. It focused on eight of the 22 strategic topics identified in Nigeria's National Seed Road Map (NSRM). Implemented by a Nigerian-Dutch consortium, CSP addressed systemic weaknesses in seed quality assurance, adoption of quality seed and improved varieties through extension and promotion. It established a national seed sector platform and proposed reforms in institutional seed procurement. CSP also facilitated national progress in plant variety protection and significantly streamlined the variety release process. The programme catalysed critical stakeholder engagement and laid a strong foundation for future scaling. Its work strengthened technical and organisational capacity, fostered collaboration, and positioned Nigeria to develop a more inclusive, responsive, and sustainable seed sector that improves farmers' access to quality seed of improved varieties. CSP was supported by the Embassy of the Kingdom of the Netherlands.

Key words: Nigeria, seed sector development

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CSP partners:





















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Cover photo: Farmers in Northern Nigeria with one of the improved cabbage varieties that has been promoted in the CSP topic "extension on seed and cultivation practices" Photo by Ilesanmi Pupa.

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Executive Summary

The Collaborative Seed Programme (CSP) was launched to support implementation of Nigeria's National Seed Road Map (NSRM), a strategic framework aimed at transforming the country's seed sector. The NSRM identifies 22 priority topics grouped across six core seed system domains. CSP focused on eight of these topics, addressing systemic challenges and piloting solutions to improve seed quality, availability and use, marketing, regulation, and sector coordination. Implemented between 2021 and 2025 by a Nigerian-Dutch consortium, CSP built local capacity, supported innovation, and strengthened collaboration among public, private, civil society, and knowledge institutions to enhance farmers' access to quality seed of improved varieties.

Under Decentralised seed quality assurance, CSP supported the training and deployment of over 50 Licensed Seed Inspectors (LSIs), while digital tools like Seed Tracker were expanded to additional crops. These efforts improved flexibility, efficiency, and farmer confidence in certified seed systems.

In Extension on seed and cultivation practices, participatory research and farmer training promoted improved tomato and cabbage varieties and good agronomic practices, supported by guides, videos, and university curriculum integration. Studies on improved variety adoption and seed quality along the value chain provided insights for scaling.

Through Seed company marketing and promotion, CSP strengthened companies' capacity in demos, farmer outreach, and communication. New tools - such as demo guides, marketing templates, and digital strategies (e.g., social media, SMS) - were introduced. Collaboration and knowledge-sharing among companies also improved.

The Institutional markets topic focused on reforming how seed is procured and disseminated in large-scale government and humanitarian programmes. Stakeholder research and validation processes led to broad support for seed procurement guidelines and the idea of a dedicated service provision unit.

The Seed sector platform was established during CSP and subsequently institutionalised under NASC's leadership. It has become a central mechanism for stakeholder dialogue, coordination, and knowledge exchange, anchoring engagement across multiple CSP topics.

The Alignment of donor interventions topic mapped all seed-related donor and development activities, highlighting fragmentation and opportunities for improved coordination. Although donor alignment proved politically sensitive, the topic influenced related work under institutional markets and the seed platform.

CSP contributed to major progress in *Plant variety protection*, with Nigeria's accession to UPOV 1991 in 2025. National awareness of breeder rights improved, PVP tools were introduced, and local stakeholders, including NASC and NACGRAB, took steps to operationalise the system and ensure long-term sustainability.

For Variety release, CSP supported innovations that dramatically improved efficiency. Key reforms included the use of ECOWAS guidelines, acceptance of breeder data, use of the TRICOT approach for on-farm variety performance, and digitalisation of processes. These changes reduced release timelines and improved responsiveness to seed company and farmer needs.

Together, these eight topics contributed to a more resilient, inclusive, and high-performing seed sector in Nigeria. CSP helped shift stakeholder mindsets, catalysed institutional reforms, and strengthened both technical and organisational capacity. The programme has laid a strong foundation for scaling innovations across additional NSRM topics and regions. With continued commitment, Nigeria is well-positioned to build on CSP's legacy and ensure that all farmers have access to quality seed of improved and adapted varieties, critical for sustainable agricultural transformation.

Collaborative Seed Programme and 1 **Partnership**

National Seed Road Map of Nigeria

Nigeria's seed sector has long faced systemic challenges, including limited access to quality seeds, low adoption of improved varieties, weak enforcement of regulations, and poor coordination among actors. Recognising that a vibrant seed sector is foundational to achieving national food security and agricultural transformation, the

"Plant the right seed, feed an entire

H.E. President Bola Ahmed Tinubu's Action Plan for a Better Nigeria

National Agricultural Seed Council (NASC), with support from partners, initiated the development of the National Seed Road Map (NSRM). The Road Map was developed through intensive stakeholder engagement, which led to the identification and prioritisation of 22 interlinked topics; it was published in 2020.1 The NSRM topics represent the most pressing constraints and opportunities in the sector and span the entire seed value chain, from research and variety release to marketing, regulation, and digital innovation. Collectively, they form a strategic framework to quide investments and interventions aimed at building a more resilient, inclusive, and high-performing seed system that ensures sustainable access to quality seed for all Nigerian farmers.

Structure of the NSRM - six seed sector domains

To structure the Road Map and ensure a holistic transformation, the 22 topics were grouped into six innovation domains that reflect the core functions of a well-performing seed sector: Service Provision, Production Systems, Market Development, Revenue Generation and Reinvestment, Coordination and Governance, and Regulation and Management. These domains provide a coherent framework for aligning stakeholder efforts, tracking progress, and identifying synergies across initiatives. The visual representation in Figure 1 provides the ambitions of the interlinked domains, with seed sector transformation reinforcing the need for systemic improvements rather than isolated interventions. By organising the Road Map in this way, stakeholders can better coordinate actions, prioritise investments, and collectively address the root causes of underperformance in Nigeria's seed sector.

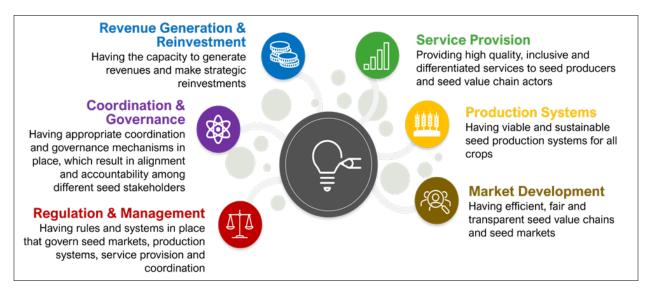


Figure 1 Six seed sector domains

NASC and SEEDAN, 2020. National seed road map for Nigeria. National Agricultural Seed Council and Seed Entrepreneurs Association of Nigeria, Abuja (Link). Note: Due to an attempted hack involving malicious content at the time of reporting, NASC had to temporarily take its website offline. As a result, project output links have been redirected to the Sahel Consulting website.

Collaborative Seed Programme – eight NSRM topics

Each of the 22 topics is designed with a clear ambition, implementation strategy and targets, providing a structured approach to align stakeholder efforts and measure progress over time. The Collaborative Seed Programme (CSP) was launched as a four-year initiative focusing on eight of the 22 topics. These include decentralisation of seed quality assurance (domain service provision), extension on seed and cultivation practices, seed company marketing and promotion, institutional markets (domain market development), the national seed sector platform, donor alignment (domain coordination and governance), plant variety protection, and variety release (domain regulation and management).

Each of the 22 Road Map topics was designed with a clear ambition, implementation strategy, and measurable targets, providing a structured approach to align stakeholder efforts and monitor progress. The Collaborative Seed Programme (CSP) was launched as a four-year initiative that focused on eight of these 22 topics, selected from four of the six NSRM innovation domains:

- · Service Provision:
 - o Decentralisation of seed quality assurance
- Market Development:
 - Extension on seed and cultivation practices
 - o Seed company marketing and promotion
 - o Institutional markets
- Coordination and Governance:
 - Seed sector platform
 - Alignment of donor interventions
- Regulation and Management:
 - Plant variety protection
 - o Variety release

CSP served as a vehicle for piloting innovations, building capacity, and strengthening collaboration between public organisations, private entities, civil society and farmer organisations, and knowledge institutes. It generated evidence and momentum for scaling transformative practices, contributing to the programme's overarching goal of improving farmers' access to and use of quality seed of improved varieties to sustainably increase agricultural productivity; see Figure 2.

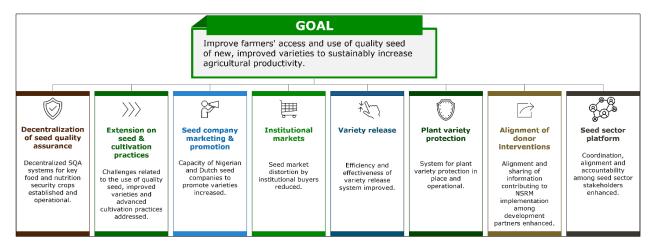


Figure 2 CSP goal, topics and ambitions

The CSP partnership

The CSP is implemented by a consortium comprising Wageningen University & Research (WUR) -Wageningen Social & Economic Research (formerly WCDI), Sahel Consulting Agriculture & Nutrition Ltd (Sahel Consulting), Plantum, and Naktuinbouw. These partners work closely with key Nigerian institutions including NASC, Seed Entrepreneurs Association of Nigeria (SEEDAN), National Centre for Genetic Resources and Biotechnology (NACGRAB) and Ahmadu Bello University-Institute for Agricultural Research (ABU-IAR). Each CSP topic is led by a Nigerian and a Dutch organisation, and topic teams also include other stakeholders relevant to the topic area; see Table 1. Sahel Consulting and Wageningen Social & Economic Research jointly coordinate and facilitate the overall programme. CSP is funded by the Embassy of the Kingdom of the Netherlands (EKN) in Nigeria and operates under the Nigeria-Netherlands Seed Partnership, one of the flagship initiatives of SeedNL.

Table 1 CSP partners

CSP Topic	Nigerian partners	Netherlands partners
1. Decentralisation of seed quality assurance	NASC, NAQS, SEEDAN, NARIS, CGIAR, Sahel Consulting	WUR
2. Extension on seed and cultivation practices	ABU-IAR, NAERLS, EWS-KT, Sahel Consulting	WUR
3. Seed company marketing and promotion	SEEDAN, Seed companies, Sahel	WUR, Plantum, Seed companies
4. Institutional markets	Sahel, NASC, SEEDAN, Seed companies, Development partners	WUR
5. Seed sector platform	NASC, SEEDAN, Sahel Consulting and all others	WUR, Plantum, EKN
6. Alignment of donor interventions	Sahel Consulting, Development partners	WUR, EKN
7. Plant variety protection	NASC, NACGRAB, SEEDAN, NARIs, Seed companies and others	Naktuinbouw, Plantum, WUR
8. Variety release	NACGRAB, NARIs, NASC, Seed companies and others	WUR, Plantum, Seed companies, Naktuinbouw

Note: For each topic, the first Nigerian and the first Dutch partner listed are the respective leads.

The current document

Over the course of the programme, four annual progress reports were developed to document and communicate results, highlight challenges, and guide further implementation. The final report covered the no-cost extension period through March 2025. All reports were published and are publicly accessible through the IATI database (Link).

This current report presents a synthesis of CSP achievements over the full project duration. Chapter 2 is dedicated to the eight CSP topics. Each topic chapter includes a summary of achievements, a concise narrative of implementation, key results, challenges, current and future impact, uptake and scaling potential, synergies with other CSP topics, and lessons learned. In addition, short stories highlight noteworthy activities and successes. These chapters aim to provide stakeholders with a clear and comprehensive understanding of what has been accomplished under each topic, and what opportunities remain for further strengthening Nigeria's seed sector.

2 Key Achievements

2.1 Decentralised seed quality assurance

A key milestone under this topic has been the establishment of a functional decentralised seed certification system, with Licensed Seed Inspectors (LSIs) now actively inspecting fields. Pilots of third-party certification models identified the in-company model as most suitable for scaling. The Standard Operating Protocols (SOPs) for potato and tomato certification were finalised, while the Seed Tracker system expanded to include additional crops. Digital forms were created for rice, maize, and potato, with the latter successfully used in field inspections. Collectively, these efforts have improved the efficiency and flexibility of seed quality assurance, making the system more responsive to the needs of different crops and seed producers.

Ambition

Decentralised seed quality assurance systems for key food and nutrition security crops established and operationalised.

Key results

- Seed Tracker expanded to include digital inspection forms for rice, maize, and potato; potato form tested and in use
- Seed production managers trained to facilitate digital inspection processes using Seed Tracker
- SOPs for potato and tomato developed; potato SOP fully deployed and used in the field
- "LSI schemes are transforming the face of seed certification in Nigeria, bringing these services closer to the clientele."
- Dr Ishiak Khalid, Former DG NASC
- Study visit to Kenya and the Netherlands organised, providing exposure to international quality assurance systems, guiding the design of the LSI system in Nigeria
- Operational guidelines developed to support LSI inspections
- 51 new LSIs onboarded and bifurcated guidelines developed for rice, maize, and potato inspection for ease of reference use of LSIs
- Training conducted for LSIs and NASC staff on potato and tomato disease diagnostics
- · Pilots of third-party certification models conducted; in-company model identified as most effective and preferred by stakeholders
- A costing model developed to support sustainable implementation of the LSI system

Selected resources

- · Short CSP movie 'Innovations in seed quality assurance to increase farmers' access to quality seed in Nigeria' (Link)
- FMARD and NASC, 2022. Seed potato inspection and certification guideline (Link)
- FMARD and NASC, 2024. Tomato (Solanum lycopersicum) seed certification standard operating procedure.
- NASC et al., 2023a. Guidelines and manual for maize seed certification for NASC authorised agents in Nigeria (Link)
- NASC et al., 2023b. Guidelines and manual for rice seed certification for NASC authorised agents in Nigeria
- NASC et al., 2023c. Guidelines and manual for potato seed certification for NASC authorised agents in Nigeria (Link)

Challenges

Implementation faced delays due to reliance on external stakeholders for Seed Tracker ownership and associated technical challenges, underscoring the importance of NASC-led digital autonomy. Insecurity also disrupted field pilots in some areas, limiting full deployment of inspection models.

"The use of Seed Tracker for potato inspection by LSIs was something we once thought only possible in the developed world; but here in Jos, Plateau State, Nigeria, we've made it a reality, thanks to CSP."

Mr. Lomak Yakubu, Production Manager, Fruit and Veggies Global Ltd.

Uptake and scaling

Interest in LSIs and third-party certification models has grown significantly among seed companies. Several external projects are exploring the expansion of Seed Tracker to additional crops, while NASC continues to promote broader adoption of decentralised certification practices.

Current and future impact

Currently, LSI models are operational in pilot companies, with trained inspectors actively conducting field inspections. Awareness is increasing, and more seed companies are expressing readiness to join the decentralised quality assurance system. This indicates a growing maturity in sector operations and an ability to formally certify crops like tomato and potato that were previously underserved.

"The LSI company model is the way to go. Companies now understand the importance of building strong internal quality assurance systems, which in turn improves seed quality and ensures that farmers get the best value for their money."

Hassan Yohana Lassa, Chief Executive Officer, Boom Seeds Ltd.

In the future, third-party seed certification is

expected to become fully institutionalised, enabling higher volumes of certified seed to reach farmers. This will improve quality seed availability and reliability, contributing to national food security and seed sector resilience. Standardised, cost-effective certification systems will support both regulatory oversight and private sector engagement, reinforcing trust in Nigeria's seed sector.

Synergy with other CSP topics

	Decentralised SQA
Seed sector platform	Played a crucial role in creating awareness and mobilising stakeholder support for both Seed Tracker and LSI implementation.
Variety release	The successful registration of new tomato varieties under the updated release guidelines enables practical application of the tomato SOP developed through this topic.

Three key lessons learnt

Capacity building is essential for effective implementation of the Seed Tracker and optimal performance of LSIs - Strengthening technical skills and operational understanding is critical. Training should enable stakeholders to effectively apply the tool and modality within the seed quality assurance system.

Integrating LSI models with other system improvements enhances sustainability and efficiency - Combining the LSI model with regulatory and digital monitoring systems improves efficiency, data accuracy, and decision-making in seed certification and distribution.

NASC must take full ownership of its ICT infrastructure for long-term system viability and control -Sustainability depends on NASC investing in in-house expertise, system upgrades, and cybersecurity to ensure control and reliability of digital systems.

"Decentralising seed quality assurance has long been seen as a solution to dwindling manpower, which made field inspections cumbersome, costly, and delayed. CSP made this a reality. We piloted several models and, against all odds, identified the most efficient one for Nigeria."

Dr Osho Lagunju Bankole, NASC, CSP topic co-lead

Topic leads

- Dr Osho-Lagunju Bankole, NASC
- Dr Abishkar Subedi, Wageningen Social & Economic Research

Box 1: Piloting third-party seed inspection

In recent years, the demand for seed quality assurance in Nigeria has outpaced the capacity of government field inspectors. This challenge called for a bold shift: the introduction of third-party seed inspection through Licensed Seed Inspectors (LSIs). With support from CSP, NASC embarked on a groundbreaking journey to test and refine LSI models tailored to the Nigerian seed sector.

We piloted three models across the country: the direct model, where independent LSIs operated under NASC supervision; the agency model, which engaged organisations like Extension Africa to provide inspection services to seed companies; and the company-led model, where trained internal staff within seed companies were authorised to conduct inspections. We assessed each approach for its operational feasibility, scalability, and cost-effectiveness, with pilot partners including SeedCo Nigeria, Value Seeds, and Premier Seed.

The company-led model emerged as the most promising. "Having an in-house field inspection staff makes our work easier," indicated a representative from Premier Seed. "It encourages companies to improve internal quality control systems." Through this model, companies became more proactive, investing in staff training and systems improvement. Meanwhile, the agency and direct models provided critical flexibility for small-scale producers and regions where company capacity is still developing. Importantly, we trained all LSIs, regardless of model, to use the Seed Tracker, ensuring consistency and digital traceability in the inspection process.

The pilots demonstrated that third-party inspection is not only feasible in Nigeria, it is vital. The ability to tailor models to company size and structure has strengthened trust in certification while relieving pressure on public resources. As the pilots move toward consolidation and scaling, Nigeria is laying the foundation for a decentralised, responsive, and professional seed certification system, one that could serve as a model across the continent.





Photos: Training of LSIs in Kano, May 2024 Photo credit: Osho-Lagunju Bankole.

2.2 Extension on seed and cultivation practices

This topic combined action research and farmer training to promote improved tomato and cabbage varieties, quality seed, and better cultivation practices among over 350 farmers. Practical demonstrations helped farmers adopt Good Agronomic Practices (GAP) and achieve higher yields. Two complementary studies, one on adoption challenges and another on seed quality along the value chain, provided critical insights for scaling. Awareness campaigns in five LGAs helped spread findings more widely. Finally, the topic fostered stronger stakeholder collaboration, setting the stage for more effective, farmer-focused extension systems and laying a foundation for future research and service delivery improvements.

Ambition

Challenges related to the use of quality seed, improved varieties and advanced cultivation practices addressed.

Key results

- Nine action research projects were implemented across 5 LGAs in Kaduna State, testing improved tomato and cabbage varieties, seedling techniques, and cultivation practices such as mulching, media mixes, and tray-based nursery raising
- Good Agronomic Practices (GAP) training was delivered to over 350 farmers in two phases, resulting in greater adoption of improved cultivation methods and yield-enhancing
- A formal adoption study revealed key barriers to uptake of improved technologies, including the perceived high cost of quality seed, need for complementary inputs, and riskavoidant attitudes among farmers
- "I was already using this variety before, but during the training, I learned better ways to grow it, especially how to raise the nursery, apply fertiliser, and manage diseases. That made me more serious and encouraged me to continue."
- Iliya Ibrahim, Farmer, Participant in focus group discussion
- A study on seed handling and quality along the supply chain found generally good germination rates, while highlighting variation in practices and the need for better handling awareness
- Extension materials including production guides in English and Hausa, posters, bulk SMS messages, and eight training videos were developed and disseminated to support farmer learning and practice
- · Awareness campaigns and field events were organised in 5 LGA centres, featuring live radio programmes, farmer interactions, and on-site distribution of guides and materials
- · Collaboration with East-West Seed Knowledge Transfer (EWS-KT) helped strengthen farmer training quality and expanded outreach
- · Partnerships were built with 28 organisations, including public agencies, cooperatives, CBAs, and agrodealers, many of which have adopted the action research recommendations
- Training manuals were handed over and integrated into the B.Agric curriculum at ABU, Zaria, promoting sustainability in extension education
- Multi-stakeholder workshops in Kano and Kaduna strengthened coordination between farmers, extension agents, researchers, and market actors, laying the foundation for a more collaborative extension model

Selected resources

- Short CSP movie 'Innovations to promote farmers' use of quality seed for vegetables in Northern Nigeria'. (Link)
- · Cucchi, 2023. Challenges to adoption of high-quality seeds of modern tomato varieties in Northern Nigeria; Implication for extension (Link)
- De Putter et al., 2024. Seed handling along the seed supply chain and its effect on germination. (Link)
- EWS-KT et al., 2021a; 2024a; 2021b; 2024b. Crop guide tomato (Link to English version; Link to Hausa version) and Crop guide cabbage (Link to English version; Link to Hausa version)

 Links to GAP videos: Introduction by the topic lead (<u>Link</u>); compost making (<u>Link</u>); preparing seed trays or nursery beds (Link); sowing seeds (Link); maintaining seedlings (Link); hardening off (Link); transplanting (<u>Link</u>); success story: women entrepreneurship in seedling raising (<u>Link</u>)

Challenges

External challenges beyond the control of stakeholders included rising inflation, market price volatility, and unpredictable weather, which discouraged farmer investment in improved practices. Additionally, early misinterpretation of agronomic practices by some farmers led to initial crop losses, highlighting the need for sustained field support and follow-up training to reinforce adoption and ensure long-term impact.

Uptake and scaling

The extension materials developed under the programme, including guides, videos, and training manuals, will remain accessible to farmers, extension agents, and other stakeholders for continued use. ABU has formally adopted the manuals into its B.Agric curriculum, ensuring future agricultural professionals are trained in best practices. Radio programmes aired during the project were recorded and will be rebroadcast in other states to broaden outreach. Building on this foundation, the methods and lessons from tomato and cabbage interventions offer strong potential for scaling to other crops and regions.

"When I chose Padma [tomato variety], people laughed at me. They said it was too expensive and had few seeds, unlike Rio Grande or Grafton. But I didn't listen. After the harvest, they were surprised. They said I used magic ('ka yi tsafi') because I got such a good yield. Now, they want to try it too."

Garba Tambaya, Key Farmer, Soba

Current and future impact

Farmers who participated in the programme are increasingly adopting quality seed of improved tomato and cabbage varieties, reducing their reliance on low-performing traditional varieties. Training and demonstration activities have enhanced their understanding of good agronomic practices, including seedling management, fertilisation, and pest control. These gains are already translating into better farm-level decision-making and higher productivity. The programme has also strengthened the capacity of local stakeholders to support farmers with practical knowledge and tools, fostering a more informed and capable agricultural community.

"The seeds we got through this project gave us double the yield. Before, we used to harvest five baskets of tomatoes, but now we get ten. This makes us very happy. We are really seeing the difference."

Isa Shuaibu, Lead Farmer, Bizara Community, Zaria

Looking ahead, the outcomes of the action research are expected to drive broader uptake of improved varieties and quality seed. As successful results are demonstrated in more communities, adoption will likely increase, supported by growing availability and affordability of quality seed. With continued application of best practices in soil management, plant spacing, irrigation, and disease control, farmers will achieve more resilient and productive systems, contributing to food security and higher incomes across the vegetable-growing regions.

Synergy with other CSP topics

	Extension on seed and cultivation practices
Seed company marketing and promotion	Collaborated to engage farmers by providing access to quality seed and improved cultivation techniques through joint training efforts. Supported the extension of action research findings via demonstration plots and targeted dissemination through social media platforms. Partnered in the seed awareness campaign conducted across five LGAs, enhancing farmer outreach and visibility of quality seed options.

Three key lessons learnt

Intensive training and follow-up improve farmer adoption – One-off sessions proved insufficient for complex practices like seedling production and pest management. Phased retraining (e.g., in Kudan and Sabon-Gari LGAs) boosted adoption by 40%, showing that repeated, hands-on support is critical.

Participatory approaches are more effective than top-down methods – Interactive formats such as workshops and radio call-ins facilitated engagement and built trust. Co-developing materials with farmers and involving community leaders increased relevance and reach.

Short project duration limits assessment of long-term change - Behavioural shifts, such as consistent use of certified seed, often require multiple seasons. Interim indicators were used, but follow-up assessments with local partners are needed post-project.

Topic leads

- Prof. Aisha Abdulkadir, Ahmadu Bello University
- Herman de Putter, Wageningen Plant Research

Box 2: From fragile harvests to flourishing fields: A tomato and cabbage transformation

Tomato and cabbage are key vegetables in the Nigerian diet, yet traditional varieties and outdated cropping practices often result in water damage, pest infestations, and low yields. Through the Extension on seed and cultivation practices topic under the CSP, farmers were introduced to improved varieties of both crops, along with hands-on training in improved agronomic practices to boost productivity and reduce post-harvest losses.

Farmers learnt techniques such as proper spacing, staking of tomato plants to prevent soil contact, and optimising airflow to reduce disease. These methods, tested in local conditions, proved highly effective. The improved tomato varieties resisted spoilage and maintained firmness, while cabbage produced heavier, pesttolerant heads.

To increase reach, demonstration plots were set up where lead farmers hosted peers to observe the results firsthand. The economic and practical benefits were clear, prompting strong interest in adopting the new methods and accessing more quality seed.

"This tomato seed is much better than anything we've used," said one lead farmer. "It grows thicker and resists spoilage. People keep asking me where to get the seed of it. And the cabbage flowers strongly with fewer pest issues." Another added, "We even had excellent results during the wet season. Staking helped the tomatoes ripen naturally on the plant. For cabbage, the new spacing method gave us healthier, heavier heads. These are major improvements."

Thanks to these innovations, farmers are now better equipped to grow market-ready vegetables year-round. This improves food security, increases incomes, and raises the bar for vegetable production in their communities.



Photo: Training on tomato seedling raising

Photo credit: Sahel Consulting.

Box 3: Keeping seeds alive: how handling across the supply chain affects seed quality in Nigeria

A recent study under the CSP reveals that seed quality in Nigeria's vegetable sector remains high, but not without vulnerabilities. Researchers assessed tomato and cabbage seed samples collected from distributors, agro-dealers, and farmers in Kano and Kaduna, testing germination rates and storage practices to identify critical points where seed viability can be compromised.

The results are promising: most seeds, particularly those from companies like East-West Seed, Hazera, and Enza Zaden, showed strong germination rates across the chain. However, notable drops occurred when seeds were stored at ambient temperatures or exposed to sunlight, common at the agro-dealer and farmer levels. For instance, germination of the tomato variety Padma dropped to 47% at one agro shop, far below the recommended 90% threshold.

The challenges lie less in knowledge and more in infrastructure. Many actors, especially agro-dealers, understand the importance of cool, dry storage but lack the facilities, such as air-conditioned rooms or refrigerators, to maintain optimal conditions. Farmers, meanwhile, often store seeds for future seasons under unknown temperature and humidity levels, which can accelerate deterioration, especially after seed packages are opened. Importantly, the study highlights knowledge gaps in seed storage, demand forecasting, and seed regulation compliance. These gaps risk undermining progress in Nigeria's growing vegetable sector.

This research underscores the need for broader training and practical support for seed chain actors. Germination testing at local levels, improved packaging, and cold chain logistics could go a long way in preserving seed viability. Ultimately, ensuring high-quality seed reaches farmers in good condition is essential for productivity and farmer trust in improved varieties.







Photos: Seeds stored in agro-dealer shops and a farmer's home under varying conditions Photo credit: Sahel Consulting.

2.3 Seed company marketing and promotion

Efforts under this topic have supported a gradual shift in how seed companies approach marketing and promotion. Increased emphasis has been placed on structured demonstration activities, with companies reporting the use of visitor documentation, target-setting, and outreach tools such as radio jingles and SMS, approaches that were previously uncommon. Capacity-building sessions contributed to improved skills in managing demo plots, using social media, and developing promotional content. A noticeable change has also been observed in the level of collaboration among companies, with more emphasis on shared learning and coordinated efforts. These developments have contributed to more consistent and targeted seed marketing practices.

Ambition

Capacity of Nigerian and Dutch seed companies to promote varieties increased.

Key results

- Capacity of 9 Nigerian seed companies and 5 Nigerian-Dutch distributor partnerships strengthened through tailored support in seed marketing and promotion
- 57 improved varieties showcased through demos in Kano and Kaduna (29 field crops, 28 vegetables)
- · Variety demos systematically combined with good agricultural practices training for participating farmers
- 23 seed entrepreneurs assessed through a business development assessment to inform capacity-building and B2B matchmaking
- Four-day business management training conducted as an exit strategy, strengthening operational capacity of partner seed companies

"Seed companies need to keep showing farmers the value of quality seeds of improved varieties through regular demo plots. If they don't, the yield gap will not decrease. Seeing is believing, and showing it in the field is still the best way to drive adoption and boost productivity."

Ilesanmi Pupa, Sahel Consulting, CSP technical expert

- Increased use of digital tools such as social media, radio jingles, and SMS for marketing and farmer outreach
- Introduction of visitor documentation and outreach targets (e.g., number of farmers reached, number of demos) into demo planning and implementation
- · Strengthened collaboration among seed companies, with increased knowledge sharing and joint learning initiatives
- · Companies reported improved ability to plan and monitor marketing efforts, contributing to increased visibility and reach of quality seed

Selected resources

- Short CSP movie 'On-farm demos to connect seed companies and farmers in Northern Nigeria' (Link)
- Bonnand et al., 2024. Nigerian seed entrepreneurs assessment (Link)
- Bonnand et al., 2025. Seed company marketing and promotion under the CSP (2022-2024) (Link)

Challenges

Implementation of demonstration plots faced several external and internal challenges. Security concerns in certain regions led to the abandonment of some sites due to safety threats. Rising inflation significantly increased the costs of establishing and maintaining demonstration plots, placing additional strain on seed companies' budgets. Furthermore, changes in the

"The CSP project's training and workshops on Seed Business Management, social media marketing, and promotion have significantly strengthened our staff's capacity across operations, project, and financial management. It has improved performance in planning, budgeting, and aligning our company's values and vision across the Management, Operations, and Marketing departments."

Shehu Shitu Mohammed, Royal Blue Contractors Nigeria Limited

management and replacement of key staff within some seed enterprises disrupted continuity and delayed planned marketing and promotional activities.

Uptake and scaling

At the final workshop, participating seed companies demonstrated strong commitment to sustaining and scaling their marketing and promotional efforts. They pledged to continue the use of demonstration plots as a proven strategy for showcasing seed performance and building trust among farmers and stakeholders. In addition, companies expressed their intention to apply knowledge gained from CSP-supported training, particularly in areas such as social media marketing, bulk SMS outreach, the seed business model canvas, and effective business management. These tools will help them expand their reach, strengthen customer engagement, and tailor their products and services to better meet the needs of local farming communities.

"Investing in seed marketing and promotion is essential for success. Seed entrepreneurs must fully embrace these strategies, as they are critical to achieving their business goals and realising the full potential of their seed enterprises."

Stephen Adigun Oludapo, Secretary of SEEDAN and CSP topic co-lead

Current and future impact

Seed companies are increasingly combining demonstration plots with digital marketing tools such as social media and bulk SMS to promote improved seed varieties. This approach boosts visibility and builds farmer confidence through real-world evidence of performance. Business-to-business partnerships, particularly with Dutch-affiliated international firms, are enhancing access to advanced technologies and higher-quality seed.

Lead farmers involved in demonstration activities benefit from commission-based sales, creating income opportunities and supporting wider adoption. As more farmers use high-quality seeds and improved cultivation practices, yields and incomes are rising. These gains are expected to scale further, strengthening the competitiveness of local seed companies and contributing to a more resilient and commercially vibrant seed sector in Nigeria.

Synergy with other CSP topics

	Seed company marketing and promotion
Extension on seed and cultivation practices	The topic has established a structured approach for showcasing newly released crop varieties, particularly vegetables, which aligns with the <i>Extension on seed and cultivation practices</i> topic and supports the broader goal of enhancing adoption of improved varieties across Nigeria.
Variety release	The topic supported the work on variety release by creating a practical framework for showcasing newly released crop varieties, especially vegetables, through demonstration plots, helping to accelerate adoption and farmer awareness. In turn, improvements in the variety release process enabled seed companies to access and promote a broader range of high-performing varieties.
PVP	Progress in PVP provided the legal assurance needed for domestic seed companies to invest in new variety development, and for international seed companies to introduce new germplasm for showcasing and commercialisation in Nigeria.

Three key lessons learned

Building agro-dealer and extension agent capacity is vital for effective outreach - Training these key intermediaries is essential for spreading information about quality seed. Field events showcasing variety performance and involving trained agents help transfer knowledge effectively to farmers.

Simple, visual materials work best for farmer engagement - Farmers respond better to practical content than to complex scientific explanations. Using videos, posters, and practical demonstrations during events improves understanding and uptake of messages.

Public-private partnerships can bridge gaps in seed adoption efforts - Collaborative models, like CSP's PPP approach, provide seed entrepreneurs with a clear framework to pursue their business goals while supporting wider farmer access to quality seed.

Topic leads

- Stephen Adigun, Seed Entrepreneurs Association of Nigeria
- Johann Bonnand, Wageningen Social and Economic Research

Box 4: From margins to markets; women leading change in northern Nigeria

In the rural communities of Bunkure and Kura LGAs, vegetable farming was traditionally dominated by men. Women were largely limited to staples like rice and maize, constrained by financial barriers, minimal training, and poor access to quality inputs. This began to change when Royal Blue Contractors (RBC) Nigeria Limited, through the CSP project, introduced a focused approach to inclusion.

In December 2022, RBC launched demonstration field days tailored to women farmers. These events showcased high-yielding varieties such as Sugar King sweetcorn, Diva tomato, Prema onion, and Sweet Sangria watermelon. In addition to promoting improved varieties, the sessions delivered practical training in irrigation, plant spacing, and the use of fertilisers like Urea Deep Placement (UDP) and Urea Super Granules (USG), enabling women to adopt modern, productive practices with confidence.

Beyond skills training, RBC prioritised leadership and empowerment. Two women, Khadija Ahmad and Amina Abdullahi, quickly emerged as champions. With continued support, they became facilitators, input agents, and mentors, encouraging other women to join the vegetable value chain. Their growing influence helped challenge traditional norms, opening space for women in commercial agriculture.

To support financial inclusion, RBC partnered with the 2SCALE project to establish Village Savings and Loan Associations (VSLAs). Khadija now chairs the Bunkure Royal VSLA, while Amina leads the Alkhairi Manoma Mata VSLA in Karfi. These platforms enabled members to access credit, purchase quality inputs, grow surplus produce, and invest in their farms.

Finally, RBC facilitated direct market access to the Yan-kaba market in Kano, where women sold vegetables at profitable prices. What began as training has become a catalyst for transformation, elevating women as business owners, community leaders, and drivers of rural economic growth.





Photos: Amina Abdullahi and Khadija Ahmad Photo credit: Royal Blue Contractors.

Box 5: Planting the seeds of business success; insights from seed business training

Running a seed business goes far beyond producing and selling seed: it requires vision, strategic planning, and the ability to adapt to market demands. This was the central message of a four-day intensive training led by Dr John MacRobert of the Seed Systems Group under the CSP. The sessions aimed to equip seed entrepreneurs with practical business tools for long-term sustainability.

A core highlight was the Seed Business Model Canvas, a simple yet powerful framework for defining value propositions, customer segments, revenue streams, and operations. For many participants, it was the first time they had mapped out their business strategies in such a structured and visual way.

Financial planning was another key focus. Dr MacRobert introduced the profit-first model, which helps businesses forecast production costs, set smart prices, and manage seasonal cash flow challenges. With the time lag between seed production and sales, this model offered participants a practical approach to income stability and financial resilience.

Marketing strategies were also explored. Dr MacRobert emphasised that seed companies should move beyond traditional selling and develop farmer-focused messaging. Digital tools like social media, bulk SMS, and short video demonstrations were highlighted as effective ways to engage farmers, build trust, and extend market reach.

Participants found the training highly relevant and immediately applicable. A representative from Afri Agri Products Ltd. noted how it challenged them to rethink their planning approach, while Boom Seeds Ltd. shared plans to integrate new tools into their customer engagement strategy. As these companies return to their communities, they carry not only knowledge but renewed confidence to build stronger, more farmer-responsive businesses, marking a true turning point in their entrepreneurial journey.



Photo: Participants of the seed business management training, July 2024 Photo credit: Sahel Consulting.

Box 6: Lead farmers bringing quality seed closer to home

Yusuf Haliru Bichi and Talatu Idris are two standout lead farmers whose work under CSP's Seed company marketing and promotion topic illustrates how community-based leadership can close the gap in access to quality seed and agronomic knowledge.

Yusuf Haliru Bichi, a farmer hub manager in Mazara, Bichi LGA, has always seen agribusiness as more than a livelihood—it's a calling. With support from the CSP, Yusuf expanded his operations and took on the role of lead farmer across five LGAs in Kano State: Bunkure, Kura, Makoda, Tofa, and Minjibir. He oversaw demonstration plots showcasing high-yielding, drought-tolerant, and disease-resistant varieties such as Sugar King sweetcorn and Satyajit tomato. During field days, he trained farmers in improved techniques, including the use of Urea Super Granules (USG) and Urea Deep Placement (UDP), to enhance soil health and nutrient efficiency.

As word spread, Yusuf's role as an agro-dealer grew. Farmers from neighboring communities sought his guidance on input sourcing, nursery management, and harvesting practices. Through the CSP, he strengthened both his agribusiness and his ability to serve as a reliable source of innovation for the farming community.

Talatu Idris, a hub manager with the Syngenta Foundation and certified agro-dealer in Bunkure LGA, was equally instrumental during the 2022-2023 dry season. She managed four demo plots featuring Marvel hot pepper, Prema onions, Sugar King sweetcorn, and Diva tomato. Beyond the plots, Talatu trained farmers in key agronomic practices like spacing, mulching, staking, and fertiliser application.

Talatu also became a champion for women's inclusion in agriculture, mentoring women into value-added roles and building their technical and entrepreneurial skills. Her thriving nursery business now supplies hybrid seedlings to farmers across the region.

Together, Yusuf and Talatu embody the impact of local leadership—connecting farmers to quality seed, practical knowledge, and new opportunities for better livelihoods.





Photos: Yusuf Haliru Bichi and Talatu Idris Photo credit: Royal Blue Contractors.

2.4 Institutional markets

This topic elevated institutional seed markets to national attention by engaging stakeholders in an inclusive process of research, consultation, and policy dialogue. Despite early sensitivities, extensive engagement led to broad agreement on the need for procurement and dissemination guidelines, and the creation of a service provision unit. A multi-phase study revealed systemic inefficiencies and helped shift mindsets across public, private, and development actors. Participation in SeedConnect and the ISSD Africa Conference further reinforced institutional markets as a critical area for reform, laying the foundation for long-term improvements in seed system coordination, transparency, and market access.

Ambition

Seed market distortion by institutional markets reduced.

Key results

- · Completed a comprehensive assessment of institutional seed market roles, practices, and stakeholder dynamics in Nigeria
- Held a national stakeholder validation workshop to review findings and refine recommendations (May 2024)

"Proper planning is required before the government procures seeds, and procurement should be intentional even before the need arises. Linkages and information flow should be ensured, stakeholders should not work in silos."

Ebiarede Zidafamor, NASC

- · Produced a consolidated policy brief outlining strategic reforms for seed procurement, dissemination, and marketing
- Organised a dedicated session on institutional markets during SeedConnect 2024, elevating the topic to national prominence
- · Contributed to international policy dialogue by coordinating related sessions at the ISSD Africa Conference 2025
- Through all workshops and dialogues, secured broad stakeholder endorsement for establishing a dedicated service unit to link institutional buyers with seed companies
- Built consensus among institutional actors on the need for formal procurement and dissemination
- · Positioned institutional markets as a priority reform area, recognised in national and international seed system discussions

Selected resources

- CSP, 2025a. Mapping institutional seed markets in Nigeria (<u>Link</u>)
- CSP, 2025b. In Brief: Recommendations to strengthen Nigeria's institutional seed markets. Learning from a multistakeholder study in support of the National Seed Roadmap of Nigeria (Link)

Challenges

Addressing the complexities of institutional markets proved challenging, as the topic was closely tied to entrenched political and economic interests. Stakeholders were initially reluctant to acknowledge systemic shortcomings, often insisting the existing framework was sound. To overcome this resistance, we adopted a methodical approach, maintaining open dialogue and sharing evidence-based research that highlighted inefficiencies. Through persistent engagement and strategic use of data, we gradually shifted perceptions and opened space for constructive conversations on needed reforms.

Uptake and scaling

Uptake and scaling are expected through pilot programmes that test alternative approaches to institutional seed procurement and dissemination. These pilots will provide vital evidence to inform systemic improvements. A key next step is the development of comprehensive guidelines for seed interventions. Successful scaling will require strong leadership, stakeholder engagement, and a flexible

"Reliance is not resilience. We still have a long way to go in building a resilient seed system that is capable of providing for itself."

Meseret Getahun Terefe, Mercy Corps, Ethiopia

framework that allows for adaptation, implementation, and continuous learning—ensuring institutional markets evolve into more coordinated, transparent, and impactful systems.

Current and future impact

There has been considerable traction toward addressing the challenges of institutional markets, as stakeholders increasingly agree on the need for change and reform in procurement and dissemination processes. This growing consensus reflects a positive shift in mindset and has laid the foundation for more structured and coordinated approaches.

Stakeholders have reached a significant milestone by committing to develop comprehensive policy frameworks for seed intervention. This collaborative effort is expected to lead to a more accountable and strategic approach to institutional seed markets, improving transparency, coordination, and the effectiveness of seed procurement and distribution systems.

Synergy with other CSP topics

	Institutional markets
Seed sector platform	The Seed Sector Platform topic supported SEEDAN's capacity building and strategy development. Given the importance of institutional markets to SEEDAN's seed company members, this topic presents a valuable area for future engagement and strategic focus within the association.

"Seed companies need investments from investors to increase their capacity to meet the growing demands. However, some seed companies do not understand the basics of seed business, mainly demand forecasting and production planning. Investment in this area is another way to empower seed companies."

Stella Thomas, Tecni Seeds

Three key lessons learned

Sustained dialogue is essential for sensitive, politically complex topics - Building trust and securing stakeholder buy-in requires ongoing engagement, especially when addressing institutional reform and market governance.

"There is need to seek buy-in of all market actors to see the need for improvement. There should also be clear guidelines on how to deal with institutional seed market challenges."

Dr Samason Afolabi, Premier Seed Ltd.

Seed aid principles offer a strong foundation for

more constructive institutional market interventions - The 10 guiding principles for seed aid can inform the development of shared guidelines for institutional seed interventions, fostering collaboration and transparency.

Stakeholders support the creation of a governance and coordination unit - There is broad consensus on the need for a dedicated structure to steer institutional seed market activities and ensure effective alignment across actors.

Topic leads

- · Chinedu Agbara, Sahel Consulting
- Walter de Boef, Wageningen Social & Economic Research

Box 7: Strengthening institutional seed markets: Turning evidence into action

On 9 May 2024, the CSP held a national workshop to validate findings from its landmark study on Nigeria's institutional seed markets. The workshop marked a key turning point, bringing together stakeholders from government, private seed companies, development partners, and farmer organisations to scrutinise the study's findings and chart a way forward.

The study, which assessed procurement practices, market dynamics, and regulatory gaps, revealed persistent challenges: fragmented coordination, inefficient procurement systems, and policy distortions caused by ad hoc subsidies. Stakeholders acknowledged these issues and offered additional insights, particularly on the need for stronger quality control, clearer procurement quidelines, and better alignment between seed buyers and suppliers.

Beyond validation, the workshop provided a platform for shared reflection on needed reforms. Stakeholders emphasised the importance of streamlining procurement processes, reinforcing the regulatory role of the National Agricultural Seeds Council (NASC), and improving collaboration between institutional buyers and seed companies. There was broad recognition that shifting away from subsidy-driven approaches toward a more competitive, market-oriented system would strengthen efficiency, transparency, and long-term sustainability in Nigeria's seed sector.

Following the workshop, the study team integrated stakeholder recommendations into the final report, which now serves as a blueprint for reform. Key proposals include enforcing procurement standards, adopting digital tracking systems, and improving regulatory oversight to ensure quality and accountability.

With the study now completed, stakeholders are preparing for the dissemination phase, during which key findings and policy recommendations will be shared with decision-makers and industry actors. The validation workshop played a vital role in refining the study's direction, ensuring that the proposed interventions reflect real-world challenges and opportunities in Nigeria's institutional seed markets. The next phase will focus on translating these insights into tangible reforms to strengthen the seed sector's long-term viability.





Photos: A cross-section of participants at the Institutional markets study validation workshop; and group working session in the same workshop

Photo credit: Sahel Consulting.

Box 8: Rethinking emergency seed aid: From dependency to resilience

For years, Nigeria has relied on emergency seed aid to support farmers affected by crises such as conflict, flooding, and drought. While this assistance provides short-term relief, it often reinforces dependency and weakens local seed systems. This was the central message of the CSP-Nigeria & ISSD Africa Conference, where stakeholders came together to explore more sustainable approaches.

One key concern raised was the long-term impact of free seed distribution. When farmers receive repeated handouts, local seed businesses suffer, and market demand declines. Over time, this discourages investment, disrupts supply chains, and undermines the development of a resilient seed sector. Quality control was another issue, with emergency programmes often bypassing regulatory checks, leading to the distribution of poor-quality seed or poorly adapted varieties.

Beyond market disruption, repeated aid appears to shift farmer behaviour. Research from Premier Seeds revealed that once subsidies end, many farmers hesitate to purchase seeds, revealing a worrying erosion of long-term seed-buying habits.

Conference discussions emphasised the need for market-driven alternatives. Promising models include seed vouchers, seed fairs, community-led seed production, and targeted subsidies. These approaches preserve farmer choice, support local businesses, and build long-term resilience.

A key recommendation was the development of a code of conduct for seed aid, guided by an independent body to ensure that interventions align with national seed system goals. NASC has pledged to lead this conversation and foster a more coordinated response.

Ultimately, the shift from dependency to resilience requires collective effort. By reinforcing Nigeria's formal and community-based seed systems, stakeholders can ensure farmers have reliable, year-round access to quality seed, whether in times of crisis or stability.





Photos: Conference voting session and group photograph

Photo credit: Sahel Consulting.

2.5 Seed sector platform

The national seed sector platform has emerged as a central knowledge-sharing mechanism in Nigeria's seed sector. Under NASC leadership, the platform facilitated inclusive dialogue, fostered collaboration between public and private actors, and advanced innovations across the seed value chain. Sixteen platform meetings were held, complemented by core group sessions. The successful development and institutionalisation of the NSRM dashboard provided an evidence-based tool for tracking progress. The NSRM was also revisited to explore challenges and potential innovation pathways for horticultural seeds. SEEDAN, Nigeria's private seed industry association, saw its leadership strengthened through strategic planning and targeted training, ensuring more effective sector representation and engagement.

Ambition

Coordination, alignment and accountability among seed sector stakeholders enhanced

Key results

- Sixteen quarterly seed platform meetings convened stakeholders to address key sector challenges and opportunities
- Regular seed core group and platform secretariat meetings sustained dialogue and collaboration
- The NSRM framework and dashboard were developed and hosted on the NASC website, enhancing transparency and monitoring
- · The National Seed Roadmap was revisited to identify challenges and innovation opportunities in the horticultural seed sector
- The seed platform was institutionalised under NASC with a trained coordination team
- SEEDAN's management was trained in strategic planning and advocacy in 2024
- A study visit to the Netherlands involving NASC, SEEDAN, NACGRAB and NVRC management enabled learning from international best practices
- Seed regulatory trainings for seed companies covered PVP, variety release, and seed quality assurance
- The platform attracted use by initiatives such as BASICS II and HortiNigeria
- SEEDAN's role was further strengthened through external donor support

Selected resources

- WUR et al., 2024. Nigerian seed roadmap dashboard. State of the Nigerian seed sector, 2023. (Link).
- NASC, 2024. Seed company survey: Providing directions for SEEDAN's future. (Link)
- Website of SEEDAN: https://www.seedan.org/
- Tidjani et al., 2025. Strengthen horticultural seed systems in Nigeria: Strategic priorities. Final draft. (<u>Link</u>)

Challenges

Initial stakeholder engagement was constrained by the COVID-19 pandemic, necessitating a transition to virtual formats. While challenging at first, the adoption of online webinars ultimately proved effective and well-received. In parallel, efforts to carry out in-depth studies under the NSRM were delayed due to difficulties in securing suitable consultants. As a practical alternative, the team conducted two focused studies: one assessed SEEDAN's performance and member needs, and the other explored challenges and opportunities for strengthening Nigeria's horticultural seed system. These adjustments ensured continued knowledge generation and strategic insight despite initial setbacks.

Uptake and scaling

NASC has committed to institutionalising the seed platform as a permanent knowledge-sharing structure. A trained internal team now manages its activities. The NSRM dashboard offers strategic visibility and coordination, while the platform's rebranding has led other programmes and actors to adopt similar models. SEEDAN's strengthened capacity positions it as a more influential industry voice, with donor-backed support further enabling its growth.

"CSP has really helped to strengthen the seed sector as Nigeria works toward sustainable food security. NASC is now better positioned as the national seed regulator. The support from the Netherlands has been very valuable and made a big impact."

Arc Kabir Ibrahim FNIA, National President, All farmers Association of Nigeria

Current and future impact

The platform has significantly improved collaboration between public institutions and the private seed sector. It has enabled joint planning, fostered trust, and created space for co-creation and policy dialogue, outcomes that were previously difficult to achieve.

Looking ahead, the platform model is gaining traction at state and regional levels. Subnational governments and neighboring African countries are now exploring similar coordination structures, webinars, and dashboard tools. Nigeria's experience is setting a benchmark for how coordinated governance can accelerate seed sector transformation.

Synergy with other CSP topics

	Seed sector platform
All CSP topics	The seed sector platform offers a shared space for alignment, learning, and strategic coordination, enabling dissemination of innovations of all other topics
All CSP topics	The NSRM dashboard supports sector-wide monitoring and evidence-based planning for the 8 CSP topics and all other topics of the roadmap $\frac{1}{2}$

Three key lessons learned

Cross-sector collaboration drives seed sector development – Breaking institutional silos and fostering inclusive dialogue among government, private sector, researchers and farmers is essential. Innovation emerges from leveraging diverse perspectives and collective expertise.

Effective sector transformation is guided by evidence - Policies, interventions and actions must be grounded in rigorous studies. Data-driven approaches help move beyond assumptions and enable informed, targeted interventions.

Inclusive platforms enable sustainable progress - True participation requires more than consultation. All voices, including smallholder farmers, innovators and policymakers, must have space to co-shape the future of the seed sector.

"The Seed sector platform has provided a structure through which the key seed sector topics are organised in a structured way, to be regularly discussed by seed sector actors. This has brought further articulation and interrogation of the specific industry challenges. In addition, and more importantly, this has provided an opportunity to explain the various interventions that are being undertaken in response to the challenges. The Platform is set up in a such a way that the key actors can openly discuss the topics through the regular webinar series allowing for clarity, transparency, and purpose."

TASAI 2025

Topic leads

- Dr Osundiya Olusegun, NASC
- Dr Marja Thijssen, Wageningen Social & Economic Research

Box 9: Tracking progress: The Nigerian seed sector dashboard

The Nigerian Seed Roadmap Dashboard is a powerful tool developed to monitor and guide the transformation of Nigeria's seed sector. Anchored in the National Seed Roadmap (NSRM), the dashboard tracks performance across 22 key topics grouped under six core functions, including service provision, production systems, market development, revenue generation, coordination, and regulation.

The dashboard is built on expert-defined indicators, aligned with the ambitions set out in the NSRM. These indicators are scored annually by national seed sector experts and validated through the Seed Sector Platform convened by NASC. Scores range from 5 to 100, reflecting progress toward clearly defined targets.

The 2023 results show mixed performance. While improvements were noted in decentralising seed quality assurance, professionalising seed companies, and tackling counterfeit seed, other areas like extension services, institutional markets, seed import/export, and financial services for seed businesses remain underperforming. The dashboard highlighted persistent bottlenecks such as limited coordination, weak market incentives, and the need for tailored financial products.

What sets this tool apart is its ability to make complex sectoral data accessible. It offers a visual and evidencebased reference for policymakers, practitioners, and donors, helping identify priority reforms and align interventions. NASC manages the dashboard and updates it annually to track trends, ensure accountability, and foster sector-wide dialogue.

In short, the NSRM dashboard is more than a scorecard: it's a mechanism to support collaboration, guide investment, and accelerate progress in ensuring Nigerian farmers have timely access to quality seed.



Photo: Nigeria seed sector dashboard: Performance in 2023

Source: WUR et al., 2024.

Box 10: Strengthening the voice of Nigeria's private seed sector

A strong national seed association is essential for representing private seed entrepreneurs and coordinating collective efforts to improve seed quality, access, and policy influence. The Seed Entrepreneurs Association of Nigeria (SEEDAN) faced persistent challenges in fulfilling this role effectively. To address these, the CSP facilitated two capacity-building workshops in May and November 2024. The workshops were led by Mulemia Maina, Managing Director of Agri Experience Ltd, who brings extensive experience in training and coaching seed associations across Africa.

The first workshop focused on redefining SEEDAN's mission and governance structures, while tackling critical sector issues such as access to finance, limited knowledge exchange, and weak distribution systems. A major outcome was the proposal to merge with the Association of Registered Seed Companies of Nigeria (ARSCON), creating a more unified and representative body for the private seed sector.

In the follow-up workshop, SEEDAN evaluated its progress and prioritised three reform areas: finance, knowledge sharing, and seed marketing and distribution. The association began exploring partnerships with banks, NGOs, and government agencies to improve financing, with plans for a dedicated microfinance initiative. Strategies to enhance public awareness and strengthen grassroots distribution were also developed, including collaborations with extension agents and media outreach.

A strategic action plan was finalised, supported by clear Key Performance Indicators (KPIs) to track leadership and organisational progress. Additionally, SEEDAN launched a new website to improve member engagement and visibility: www.seedan.org.

These efforts mark a turning point for SEEDAN, positioning it to lead a more unified, innovative, and impactful private seed sector, crucial for advancing agricultural productivity and food security in Nigeria.





Photos: Participants of the trainings in May and November 2024 Photo credit: NASC.

2.6 Alignment of donor interventions

This topic developed a comprehensive mapping report of donor and development partner interventions in Nigeria's seed sector, highlighting areas of overlap, fragmentation, and missed opportunities for synergy. The report, shared with the Nigerian Agriculture Donor Working Group and through the Seed Sector Platform, generated strong interest. However, while donors and development partners acknowledged the value of alignment, discussions revealed reluctance among to move toward more coordinated efforts, due in part to concerns over legitimacy and a desire to retain organisational visibility. As a result, the topic was not taken forward independently, and related discussions continued under the Institutional markets and Seed sector platform topics.

Ambition

Alignment and sharing of information contributing to NSRM implementation among development partners enhanced.

Key results

- · Completed a comprehensive donor mapping report based on interviews with 16 donors active in Nigeria's seed sector; the report mapped direct and indirect interventions across 22 NSRM topics, including climate adaptation and environmentally sustainable food systems, and outlined donor focus in terms of crops and regions
- Presented and discussed the donor mapping report with stakeholders during a seed sector platform webinar, where several donors also participated as panelists
- Facilitated continued engagement of donors and development partners through participation in subsequent seed sector platform meetings
- Engaged donors and development partners through the Institutional markets topic, contributing to discussions on seed procurement and dissemination guidelines and the potential establishment of a service provision unit.

Selected resources

Agbara et al., 2022. Mapping of donor activities in the seed sector within the NSRM framework (<u>Link</u>)

Challenges

Achieving alignment among international donors proved challenging, as the topic intersected with broader political and institutional dynamics. Many stakeholders were hesitant to question the existing coordination structures, which they perceived as adequate. Additionally, donor agencies often design seed interventions based on national priorities, geopolitical interests, and internal mandates, limiting the scope for harmonised action. These complexities ultimately constrained progress and led to the topic's discontinuation as a standalone effort.

Uptake and scaling

Following this programme, the momentum built under the Institutional markets topic, as a continuation of this work, needs to be sustained. Stakeholders involved in seed interventions, including seed procurement and dissemination, increasingly recognise the importance of coordination and alignment to maximise impact. There is now a stronger shared awareness that fragmented efforts limit effectiveness, and that strategic collaboration offers a pathway to more efficient and scalable solutions.

Current and future impact

N/A

Synergy with other CSP topics

	Donor alignment
Institutional markets	The Institutional markets topic built on the stakeholder engagements initiated under the <i>Donor alignment</i> topic, continuing discussions around coordination and shared approaches to seed procurement and dissemination.
Seed sector platform	The platform served as a central communication and feedback mechanism, engaging donors and development partners, and facilitating continuous stakeholder involvement. It helped maintain visibility and awareness of programme activities across all topics.

Three key lessons learnt

Political economy challenges undermine alignment efforts - Deep-rooted political and institutional interests, both among donors and recipient organisations, created reluctance to question existing frameworks, limiting momentum for coordinated seed sector interventions.

Fragmentation limits coordination and impact - Donors implement overlapping seed sector projects in isolation, with no dedicated mechanism for coordination. High-level platforms like the ADWG proved too broad for effective sector-specific alignment, leading to missed opportunities for synergy and shared learning.

Shifting focus can still deliver results - When broad donor alignment proved difficult, efforts were redirected through related topics. This adaptive approach led to practical outcomes, such as agreement on seed procurement guidelines and service coordination mechanisms.

Topic leads

- · Chinedu Agbara, Sahel Consulting
- Dr Walter de Boef, Wageningen Social & Economic Research

Box 11: When donors align, farmers thrive

For years, many of us working in Nigeria's seed sector have noticed a pattern: donors came in with good intentions, launching various seed interventions, but too often, these efforts operated in silos. Each donor had their own objectives, timelines, and ways of working. Instead of building on each other's work, projects overlapped or competed. As a result, real, coordinated progress in the seed sector was slow.

With support from the CSP, we tried to change that. We began by mapping donor-funded seed interventions across the country and reaching out to major players, local and international alike, to find ways to align our goals. We discovered that many were facing similar challenges but were not always talking to each other. Some stakeholders hesitated to acknowledge systemic issues, and because donor priorities are often shaped by international politics and institutional mandates, it was not easy to get everyone on the same page.

Eventually, we realised that while full donor alignment was not possible at that time, we could pivot to areas where collaboration was already gaining momentum, like institutional markets and the seed sector platform. Through this shift, we were able to get stakeholders to agree on key practical actions: the need for clear seed procurement and dissemination guidelines, and the establishment of a service provision unit to help institutional buyers navigate the seed system.

The lesson? Even when the original path proves difficult, progress is still possible if we adapt and stay focused on shared goals. The donor alignment effort showed us that with the right information and persistent engagement, we can surface deeper issues in the seed sector, and still find smart, achievable entry points for reform. It's a reminder that systems change takes time, but with collaboration and flexibility, we can keep moving forward.

	CSP Topic	AGRA	BMGF	EKN	EU	FCDO	GiZ	IFAD	ISDB	JICA	NMFA	RF	USAID	WB	WFF
1	Decentralization of Seed Quality Assurance	D	D	D			D	D							
2	Professional Variety Development	D	D												
3	Early Generation Seed Supply	D	D			1	D			D		-1	D		
4	Infrastructural Capacity for Seed Production & Marketing													1	
5	Company Professionalization & Specialization	D	D			1	D	D	1	D			D		
6	Community-based Seed Production	D	D		1	1	D	D			D		D		
7	Revenue Generation for Seed Quality Assurance Services														
8	Financial Services & Products	1													
9	Extension on Seed & Cultivation Practices	D	D	D			D	1	- 1	D		D	D	- 1	
10	Tackling of Counterfeit Seed	D											D		
11	Seed Company Marketing & Promotion	D	D	D	1	1	D		1		1		D		
12	Crop Value Chains & Food Security Policies Stimulating Seed Demand														
	CSP Topic	AGRA	BMGF	EKN	EU	FCDC	Gi	Z IFAI	ISDB	JICA	NMFA	RF	USAID	WB	WFP
13	Seed Distribution Networks	D	D		1	1	- 1	- 1			- 1		D		1
14	Institutional Markets	1	1	- 1			- 1	- 1	1					1	
15	Sector Governance & Coordination	D	D	D										1	
16	Seed Information	D	D												
17	Seed Trade Association														
18	Alignment of Donor Interventions			D											
	pl 137 : 1 p 1 1:	D		D									D		
19	Plant Variety Protection	_													
19 20	Variety Release	D	D	D											
	· ·		D	D			1								
20	Variety Release		D	D			1								
20 21	Variety Release Seed Import		D	D			1								
20 21	Variety Release Seed Import Seed Export		D	D										ı	1

Photos: Snapshot of donor activities within the NSRM framework. Direct (D) and indirect (I) contributions Source: Chinedu et al., 2022.

2.7 Plant variety protection

A key milestone under this topic has been the establishment of a functional PVP system in Nigeria, with the Nigeria PVP Office at NASC now operational and digitally enabled. Nigeria became the 80th member of UPOV in March 2025, granting international recognition to its breeders' rights. Extensive capacity-building initiatives were rolled out, with over 30 professionals trained in DUS testing, while a digital PVP portal was developed and launched. Despite delays in regulatory finalisation preventing the receipt of initial applications, the system is institutionally in place, with strong government commitment, growing awareness, and legal protections laying a solid foundation for sustainability.

Ambition

System for plant variety protection in place and operational.

Key results

- Nigeria became the 80th member of UPOV in March 2025
- A fully functional PVP Office was established at NASC, with trained staff and dedicated infrastructure
- The digital PVP application portal was developed and launched at SeedConnect
- Over 30 stakeholders were trained in DUS testing; six institutions now conduct DUS assessments
- · A Quality Management System and photo database for key crops (tomato, maize, pepper) were developed
- · Strategic plans were created for NRCRI and NIHORT to enhance regulatory capacity
- · Active awareness creation via conferences, social media, and youth training bootcamps
- Legal protection strengthened with the PVP Office winning a landmark Federal High Court case
- PVP and variety release systems were digitally integrated with a shared portal frontend
- NASC participated in international exchanges with UPOV, WIPO, and Naktuinbouw

Selected resources

Plant variety protection portal - Protecting And Conserving The Plant Genetic Resources Of Nigeria (Link)

Challenges

Finalising regulations and institutionalising the digital portal took longer than expected due to leadership transitions and approval bottlenecks. Consequently, the system did not receive PVP applications in 2024/25, and no plant breeders' rights were granted during the reporting period.

Uptake and scaling

Government backing and NASC leadership are ensuring the PVP system's continuity beyond CSP support. More breeders and seed companies are preparing applications, while international engagement and rising private-sector interest position Nigeria as a regional model. Strategic institutional development and awareness campaigns are expected to drive widespread adoption.

"High-quality data from DUS assessments is crucial for both breeders and regulators. It underpins the granting of PVP rights and builds market confidence in high-performing varieties."

"The hands-on nature of the training enabled

us to immediately apply what we learned in the

field. This practical experience is invaluable to

our work in safeguarding the quality and

integrity of the seed sector."

Mrs Olasunkanmi Temitope, NASC

Dr Anthony Job, Head Agronomy and Seed Production, Flour Mills of Nigeria

Current and future impact

"Progress in Nigeria's PVP system goes beyond regulation, it empowers breeders, strengthens the seed sector, and ensures farmers access to better-performing varieties. Its sustainability relies on ongoing collaboration and commitment from all stakeholders."

Dr Folarin Sunday Okelola, Acting Registrar PVP Office, NASC and CSP topic co-lead

Nigeria's UPOV membership has elevated the country's profile in global plant breeding, offering international legal protection for breeders and encouraging private-sector innovation. A dedicated PVP Office and trained personnel are now in place, and digital infrastructure for application processing is live, albeit awaiting regulatory activation. Stakeholder awareness is rising rapidly, backed by strategic communications and national events. Looking ahead, a fully operational PVP system will enable breeders to secure rights and monetise

innovations, attracting more investment in variety development. Strategic plans and DUS testing infrastructure will accelerate variety release, increase certified seed supply, and strengthen farmer access to high-quality, resilient crop varieties. PVP enforcement will also deter seed piracy, boosting confidence and competitiveness in Nigeria's seed sector.

Synergy with other CSP topics

	Plant variety protection
Decentralised SQA	PVP legal protection complements seed quality assurance by safeguarding genetic integrity during production
Extension	Joint campaigns and trainings empower farmers to recognise and demand seed of improved protected varieties
Institutional markets	PVP regulations support the inclusion of protected varieties in public procurement systems
Seed sector platform	Multi-stakeholder engagement through the platform ensured PVP integration in national seed strategies
Variety release	Shared DUS testing infrastructure and a unified digital platform streamline registration and protection

Three key lessons learnt

Sustaining progress requires continued collaboration - The development of the PVP system has relied on strong partnerships. Ongoing engagement of all contributing actors is critical to ensure its long-term success.

Monitoring mechanisms are essential for sustained *progress* – A clear system to track implementation and progress is needed to maintain momentum, deliver on stakeholder expectations, and avoid setbacks.

Success in Nigeria is key for regional credibility -The PVP system in Nigeria serves as a model for other African countries. A failure would reinforce

"The connections established during the Seed Connect Africa Conference have opened doors to international collaborations, paving the way for the introduction of high-quality improved varieties into the Nigerian market."

H.E. Wouter Plomp, former Ambassador, EKN Abuja

opposition narratives, while success can inspire wider adoption across the continent.

Topic leads

- Dr Folarin Okelola, National Agricultural Seed Council
- Mrs Laura Piñán González, Naktuinbouw

Box 12: Building confidence through stronger seed regulation

Until recently, the National Agricultural Seeds Council (NASC) faced critical gaps in its ability to conduct Distinctiveness, Uniformity and Stability (DUS) testing, an essential component of PVP. Without reliable DUS assessments, granting plant breeders' rights was complex, undermining the credibility of the regulatory system and discouraging breeder and investor engagement. This regulatory weakness also contributed to the spread of substandard, uncertified seeds, eroding farmer trust in improved varieties.

Recognising these challenges, CSP launched a targeted effort to strengthen NASC's regulatory capacity. Through practical training, both in Nigeria and abroad, NASC personnel gained hands-on experience in DUS field operations and data management. These efforts equipped the team with the technical skills needed to accurately assess new plant varieties.

The introduction of a quality management system (QMS) further reinforced this transformation, increasing transparency, efficiency, and consistency in regulatory processes. Today, NASC operates at a significantly higher standard. Improved DUS testing procedures have restored confidence among breeders and seed companies, who now rely on NASC assessments aligned with international best practices.

As a result, the presence of counterfeit and substandard seeds is diminishing, and farmers are gaining access to high-performing, reliable varieties that enhance productivity and income. This progress marks a major step toward a more transparent and trustworthy seed sector in Nigeria. Sustaining these gains will require ongoing investment in training, technology, and enforcement, ensuring that Nigeria's regulatory system remains robust and continues to serve as a model across Africa.



Photo: Training on DUS testing

Photo credit: NASC.

Box 13: Protecting innovation, growing markets

For years, private seed companies in Nigeria were reluctant to invest in breeding new varieties. Without legal protection for their innovations, competitors could easily replicate and sell seed of improved varieties without consent. This discouraged research, slowed innovation, and limited the availability of high-quality seed options for farmers.

My Choice Seeds Nigeria Ltd. was among those hesitant to expand its breeding programmes under such uncertain conditions. But the introduction of a national PVP system, and Nigeria's accession to UPOV, marked a turning point. For the first time, private companies could secure exclusive rights to their varieties, ensuring fair returns on investment and protecting intellectual property.

Encouraged by this new legal certainty, My Choice Seeds scaled up its research and development efforts and began preparing formal applications for PVP protection. With confidence in the system, the company shifted its focus toward producing high-quality seeds of varieties tailored to Nigerian farmers' needs. Legal protection has also opened doors to international partnerships and investment, giving companies like My Choice Seeds access to cutting-edge breeding techniques and broader markets.

This transformation illustrates the business potential that a strong PVP framework can unlock. By protecting breeders' rights, Nigeria is encouraging private-sector innovation and strengthening the entire seed value chain, from research and development to quality seed of improved varieties reaching farmers' fields. This will benefit farmers with greater access to reliable, improved varieties, driving productivity and food security. As more companies engage with the system, Nigeria's seed industry is poised for sustainable growth and global competitiveness.

2.8 Variety release

The integration of innovations into the variety release system has significantly improved its efficiency and transparency. Reforms such as the use of ECOWAS guidelines, acceptance of breeder data, and the exemption of vegetables from VCU trials have reduced processing time from 24 to 36 months to just 12. The introduction of Triadic Comparisons of Technologies (TRICOT) offers reliable farmer data as an alternative to on-farm trials, while a digital portal streamlines submissions and reduces paperwork. These changes empower breeders and seed companies to release more varieties, expanding farmers' access to improved options. Collaborative stakeholder engagement has ensured uptake and made the system more responsive to diverse crop needs.

Ambition

The efficiency and transparency of the variety release system improved.

Key results

- Reduced time for variety release (from 24-36 to 12 months) using ECOWAS guidelines and optional VCU for vegetables
- · Acceptance of breeder data for 12-month confirmatory trials streamlined the process
- TRICOT methodology approved as an alternative for on-farm trials, piloted with cassava

"Through our partnership with CSP, we've achieved in just four years what would normally take a decade to improve in the variety release system."

Prof. Olusoji Olufajo, Chair NVRC

- · Pilot innovations led to the release of several maize, cassava, and vegetable varieties
- · Exception introduced for releasing vegetable varieties already on the market without further testing
- · Concurrent conduct of some trials for varieties with no prior data and exemptions which reduced the process of such new varieties from 36 months to 24 months
- Development of digital portal initiated to facilitate faster, more transparent submissions
- · Revised guidelines incorporating all innovations prepared for endorsement by the National Variety Release Committee (NVRC)

 Strategic plans developed with the National Root Crops Research Institute (NRCRI) and the National Horticultural Research Institute (NIHORT) to support implementation of innovations

Selected resources

- · Short CSP movie: Innovations in variety release in Nigeria to increase farmers' access to new varieties
- Sahel Consulting, 2021. Crop variety release and registration in Nigeria; Baseline assessment report. CSP (Link)
- Seed sector platform webinar: Impact of innovations in Nigeria's variety release system on farmers, companies and breeders, 16 July 2024 (Link to webinar; Link to PowerPoint slides)
- Plant variety release portal Regulation and oversight for crop variety release and registration (<u>Link</u>)
- De Boef et al., 2025. Farmer and community-managed seed systems: inputs for a Nigerian agenda (Link).

Challenges

"Collaborating with stakeholders has been key to building a more inclusive and transparent variety release system."

> Dr Ibidun Adetiloye, NACGRAB, CSP topic co-lead

Initial resistance from the NVRC was addressed through sustained stakeholder engagement and transparency. Delays in the rice innovation pilots, stemming from a lack of leadership, ultimately led to the discontinuation of rice as a pilot crop. Instead, innovations piloted with the other focus crops will be institutionalised to ensure broader applicability across crops. Development of the

digital portal was initially slowed by the selection of an unsuitable developer, who has since been replaced; further updates are required to align with the finalised variety release guidelines.

Uptake and scaling

Following this programme, the innovations embedded in the revised variety release guidelines are expected to be widely adopted across all crops. Breeders and seed companies are anticipated to benefit from a more predictable, transparent, and efficient release system, fostering a stronger seed industry and expanding the variety portfolio available to farmers.

Current and future impact

The topic has already accelerated the registration of new vegetable varieties, improving

"It was only through the strong, committed leadership of NACGRAB and the chairs of the National Committee that Sahel Consulting and Wageningen Social & Economic Research were able to support and guide the complex multistakeholder process, leading to a variety release system in Nigeria that's faster, less costly and more transparent."

> Chinedu Agbara, Sahel Consulting, CSP programme manager

responsiveness to farmer and market needs. Researchers and breeders are more motivated to develop new varieties with confidence in the streamlined release process. Regular variety release cycles, especially for vegetables, are now being observed, contributing to a more dynamic and responsive horticulture sector.

Going forward, the reformed system is expected to attract greater private sector participation, expanding annual variety registrations and improving market competitiveness. Transparent, standardised, and sciencebased criteria will boost confidence in released varieties. This will enhance farmer adoption, improve crop performance, and contribute to food security and rural livelihoods, ultimately strengthening the seed system and national agricultural resilience.

Synergy with other CSP topics

	Variety release
Plant variety protection	The variety release topic created SOPs and data documentation processes that support DUS testing—a core requirement for PVP—thus directly facilitating the PVP process.
Seed company marketing	This topic raised awareness among seed companies about the benefits of formal variety registration and release, increasing demand for reform and encouraging participation in pilots. Their collaboration with research institutions helped demonstrate the relevance and feasibility of the innovations.
Seed sector platform	The platform served as a key communication and feedback channel for sharing updates on variety release reforms, collecting stakeholder input, and ensuring transparency and buy-in.

Three key lessons learned

Regular stakeholder engagement builds alignment and ownership - Clear, consistent communication through workshops, meetings, and feedback loops helped manage expectations and ensure stakeholder buy-in. Prioritising involvement, through nearly 10 workshops and numerous online sessions, was key to the success of this topic.

Documenting processes supports learning and replication - Systematic recording of SOPs, decisions, and innovations enabled evidence-based reflection and supported wider application. For example, the ECOWAS guideline piloted for one maize variety was successfully reused by others, demonstrating the value of thorough documentation.

Flexibility enables effective response to evolving challenges - Adapting to unexpected challenges, such as the need to adapt vegetable variety trial requirements, was essential. By maintaining a solution-oriented approach and collaborating closely with stakeholders, the team navigated complex issues and advanced needed reforms.

"Working with multiple stakeholders, CSP has been able to tackle challenges and test out new ideas in the variety release system, eventually turning them into lasting improvements. It's a great example of action-research in motion, helping to strengthen the seed sector."

Dr Walter de Boef, Wageningen Social & Economic Research, CSP topic co-lead

Topic leads

- Dr Ibidun Adetiloye, National Centre for Genetic Resources and Biotechnology
- Dr Walter de Boef, Wageningen Social & Economic Research

Box 14: Fast-tracking ECOWAS maize varieties in Nigeria

By Prof. Muyideen Oyekunle, Maize Breeder, IAR Samaru

Before now, getting crop varieties registered in Nigeria, even those already approved in other ECOWAS countries, used to take too long. The process could stretch up to three years and turned out to be costly, mostly because we had to repeat the same long trials again. This delay made it hard for farmers to get access to new, high-performing varieties when they needed them most. With support from CSP that has changed. Together with CSP, we introduced a new trial process that cut the period down to just 12 months. Instead of starting from scratch, we now use existing data from the country where the variety was first registered, and only do limited trials here to confirm it suits our Nigerian conditions.

Piloting this approach, Nigeria has already registered three maize varieties that were previously listed on the ECOWAS regional catalogue. That's a big win for our farmers and for the seed system in West Africa as a whole. This shift matters because it means Nigerian farmers can now get access to improved varieties already available to our neighbors much faster. These varieties bring better yields, stronger resistance, and more profit potential.

It also shows the power of regional cooperation; when we trust and build on each other's work, we all move forward faster. This is a major step toward food security and agricultural growth across Nigeria and the ECOWAS region.





Photos: The maize variety PAC 740 Photo credit: Ibidun Adetiloye.

Box 15: Going digital: A new era for variety release in Nigeria

When we started with CSP, the variety release process in Nigeria was completely manual: paper forms, long queues, endless printing. Everything moved slowly, and it was hard for people to find or share the right information at the right time. But with support from the CSP, we launched a digital portal that has totally transformed the process. For the first time, stakeholders can apply for variety release, submit proposals, and even get approvals, all online. The portal also connects directly to the Plant Variety Protection system, so everything is linked in one place.

This change will make life easier for everyone involved that farmers get the right varieties to plant. It saves time, cuts printing costs, and makes new varieties more visible. Farmers can now browse the portal before planting season to find varieties that suit their environment, and even reach out to the people supplying them. Breeders can spot gaps in variety characteristics that still need work and register their varieties more easily, using data from their breeding work to fast-track the release process.

We're just getting started. From the next variety release meeting, we'll be using the portal fully. As we go, we'll listen to feedback and make adjustments where needed. But this shift is already showing how digital tools can make our seed sector faster, cheaper, and more accessible to everyone. This is a big step forward for Nigeria's agricultural future, and a sign that the seed sector is ready for the next level, so farmers can use better varieties to plant a better and more productive crop, and contribute to food security and prosperity.



Photo: Screenshot digital variety release portal Website: https://nigseedportal.ng/pvreg/.

Reflections and Forward Look 3

Over the course of its implementation, CSP has demonstrated the value of a focused, topic-based approach to seed sector reform. By anchoring its work in eight carefully selected topics from the NSRM, CSP has contributed meaningfully to advancing systemic improvements in Nigeria's seed sector. These gains span technical innovations, regulatory reforms, strengthened institutional capacities, and improved collaboration between public and private actors.

One of the programme's key strengths was its strategic integration with national systems and priorities. Through collaboration with agencies like NASC, NACGRAB, SEEDAN, and research institutions such as ABU-IAR, the programme ensured that its outputs - whether digital tools, policy recommendations, or training curricula - were relevant, locally owned, and built for sustainability. Importantly, CSP served as a vehicle for piloting and refining approaches that can now be scaled across additional topics and regions.

Stakeholder engagement proved central to the programme's progress. Continuous dialogue and co-creation helped to build trust, align perspectives, and generate momentum for reform, even in politically or institutionally sensitive areas like donor alignment or institutional markets. In several instances, stakeholder buy-in evolved into active leadership – as seen in NASC's institutionalisation of the Seed Sector Platform, SEEDAN's internal reforms to strengthen its role as a national seed association, and the National Variety Release Committee's full endorsement of innovations to streamline the release process.

While each topic in Chapter 2 presents its own follow-up priorities, there is also a clear programme-wide need for continued coordination, investment, and learning. The topic teams have laid a strong foundation, but sustained action will be essential to translate pilot successes into national impact. As the seed sector looks ahead, the roadmap, relationships, and results developed under CSP provide an excellent basis for deepening transformation in the years to come.

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The mission of Wageningen University & Research is "To explore the potential of nature to improve the quality of life". Under the banner Wageningen University & Research, Wageningen University and the specialised research institutes of the Wageningen Research Foundation have joined forces in contributing to finding solutions to important questions in the domain of healthy food and living environment. With its roughly 30 branches, 7,700 employees (7,000 fte), 2,500 PhD and EngD candidates, 13,100 students and over 150,000 participants to WUR's Life Long Learning, Wageningen University & Research is one of the leading organisations in its domain. The unique Wageningen approach lies in its integrated approach to issues and the collaboration between different disciplines.

To explore the potential of nature to improve the quality of life



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