

# Progress Report Collaborative Seed Programme

Programme under the Nigeria-Netherlands Seed Partnership  
Reporting Period: 1 January 2024 - 31 March 2025

M.H. Thijssen, C. Agbara, Z. Bello and M. Schaap





# Progress Report Collaborative Seed Programme

Programme under the Nigeria-Netherlands Seed Partnership  
Reporting Period: 1 January 2024 - 31 March 2025

M.H. Thijssen<sup>1</sup>, C. Agbara<sup>2</sup>, Z. Bello<sup>2</sup> and M. Schaap<sup>1</sup>

With contributions from B. Osho-Lagunju<sup>3</sup>, A. Subedi<sup>1</sup>, A. Abdulkadir<sup>4</sup>, H. de Putter<sup>5</sup>, S. Adigun<sup>6</sup>, J. Bonnand<sup>1</sup>, I. Puppa<sup>2</sup>, W.S. de Boef<sup>1</sup>, O. Osundiya<sup>3</sup>, F.S. Okelola<sup>3</sup>, L. Piñan González<sup>7</sup>, I. Adetiloye<sup>8</sup>, E. Etudor<sup>2</sup> and E. Umoelin<sup>2</sup>

1 Wageningen Social & Economic Research

2 Sahel Consulting Agriculture & Nutrition Ltd.

3 National Agricultural Seed Council

4 Ahmadu Bello University

5 Wageningen Plant Research

6 Seed Entrepreneurs Association of Nigeria

7 Naktuinbouw

8 National Centre for Genetic Resources and Biotechnology

This project was carried out by Wageningen Social & Economic Research and partners and was financed by the Embassy of the Kingdom of the Netherlands in Nigeria, through the Dutch Ministry of Foreign Affairs.

Wageningen Social & Economic Research  
Wageningen, June 2025

---

REPORT  
2025-A012

---

Thijssen, M.H., Agbara, C., Bello, Z. and M. Schaap, 2025. *Progress Report Collaborative Seed Programme; Programme under the Nigeria-Netherlands Seed Partnership. Reporting Period: 1 January 2024 - 31 March 2025.* Wageningen, Wageningen Social & Economic Research, Report 2025-A012. 40 pp.; 0 fig.; 6 tab.

Report developed with contributions from: B. Osho-Lagunju, A. Subedi, A. Abdulkadir, H. de Putter, S. Adigun, J. Bonnand, I. Puppa, W.S. de Boef, O. Osundiya, F.S. Okelola, L. Piñan González, I. Adetiloye, E. Etudor and E. Umoelin

In its final phase, the Collaborative Seed Programme (CSP) accelerated Nigeria's seed sector transformation through seven interlinked topics aligned with the National Seed Road Map. Highlights include training and deployment of Licensed Seed Inspectors, strengthening decentralized seed quality assurance. Participatory research and farmer training improved adoption of quality seed and good agronomic practices for tomato and cabbage, supported by extension materials and curriculum integration. Seed companies expanded reach through training and field demonstrations, engaging over 13,000 farmers. Research on institutional markets informed recommendations for reforming seed procurement and dissemination. The national seed platform, now institutionalised under NASC, became a hub for knowledge exchange. Nigeria's accession to UPOV now enables international recognition of breeders' rights. Innovations in the variety release process are embedded in draft guidelines to improve efficiency. As CSP concludes, it leaves a legacy of innovation, stronger institutions, and lasting partnerships that will continue to shape Nigeria's seed sector.

Key words: Nigeria, seed sector development

**CSP partners:**



Cover photo: Young farmers at Karfi Community, Kura LGA of Kano state, attending the harvest field event on sweet corn. Photo by Zahraden Ahmed, Royal Blue Contractors

---

This report can be downloaded for free at <https://doi.org/10.18174/694564> or at <http://www.wur.eu/social-and-economic-research> (under Wageningen Social & Economic Research publications).

© 2025 Wageningen Social & Economic Research

P.O. Box 88, 6700 AB Wageningen, The Netherlands, T +31 0317 48 48 88, E [info.wser@wur.nl](mailto:info.wser@wur.nl), <http://www.wur.eu/social-and-economic-research>. Wageningen Social & Economic Research is part of Wageningen University & Research.



This work is licensed under a Creative Commons Attribution-Non Commercial 4.0 International License.

© Wageningen Social & Economic Research, part of Stichting Wageningen Research, 2025

The user may reproduce, distribute and share this work and make derivative works from it. Material by third parties which is used in the work and which are subject to intellectual property rights may not be used without prior permission from the relevant third party. The user must attribute the work by stating the name indicated by the author or licensor but may not do this in such a way as to create the impression that the author/licensor endorses the use of the work or the work of the user. The user may not use the work for commercial purposes.

Wageningen Social & Economic Research accepts no liability for any damage resulting from the use of the results of this study or the application of the advice contained in it.

Wageningen Social & Economic Research is ISO 9001:2015 certified.

Wageningen Social & Economic Research Report 2025-A012 | Project code XM-BAC-7-PPR-4000003981

---

# Contents

|           |   |           |
|-----------|---|-----------|
| <b>1</b>  | <b>Reporting Details</b>  | <b>6</b>  |
| <b>2</b>  | <b>Key Project Data</b>   | <b>7</b>  |
| <b>3</b>  | <b>Executive Summary</b>  | <b>8</b>  |
| <b>4</b>  | <b>Introduction</b>   | <b>10</b> |
| <b>5</b>  | <b>Results and Outcomes</b>   | <b>15</b> |
| <b>6</b>  | <b>Sustainability</b>   | <b>26</b> |
| <b>7</b>  | <b>Risks</b>  | <b>28</b> |
| <b>8</b>  | <b>Institutional/Organisational Development and Human Resources</b> | <b>29</b> |
| <b>9</b>  | <b>Finance</b>  | <b>30</b> |
| <b>10</b> | <b>Lessons Learnt</b>   | <b>31</b> |
|           | <b>Appendix 1 Indicators and targets</b>                            | <b>32</b> |
|           | <b>Appendix 2 Risks and mitigation strategies</b>                   | <b>36</b> |
|           | <b>Appendix 3 Lessons learnt by CSP topic</b>                       | <b>39</b> |



# 1 Reporting Details

---

|                       |  |
|-----------------------|--|
| Reporting period      | 1 January 2024 – 31 March 2025 <sup>1</sup>  |
| Reporting manager     | Marja Thijssen, Programme leader   |
| Reporting institution | Wageningen University & Research (WUR), Wageningen Social & Economic Research <sup>2</sup> |
| Date                  | 31 May 2025  |

---

---

<sup>1</sup> The programme was granted a five-month no-cost extension, with the official closing date on 31 March 2025. This report covers progress in 2024 and 2025 including the no-cost extension period.

<sup>2</sup> Note that Wageningen Centre for Development Innovation and Wageningen Economic Research merged on 1 January 2025 to form a new institute: Wageningen Social & Economic Research.

---

## 2 Key Project Data

|                             |   |
|-----------------------------|---|
| Project title               | Collaborative Seed Programme (CSP) under the Nigeria-Netherlands Seed Partnership (NNSP)  |
| Current project phase       | Fourth full project year (2024), plus 5 months no-cost extension (first 3 months of 2025) |
| Project launch              | 01-11-2020  |
| Closing date                | 31-03-2025, including a 5-month no-cost extension   |
| Budget for reporting period | € 1,522,025 a)  |
| Overall budget              | € 3,449,593 b)  |

Notes: a) Excluding contingencies of 87,027 euros; b) Based on new approved budget of 3,536,620 euros, excluding contingencies of 87,027 euros.

---

## 3 Executive Summary

### **a. Main results or progress towards achieving results, lessons learned and conclusions**

In the final implementation period of the Collaborative Seed Programme (CSP), the programme continued to work towards the sustainable transformation of Nigeria's seed sector through seven interlinked topics. Each topic aligns with a strategic innovation pathway from the National Seed Road Map (NSRM) and has made considerable progress in embedding innovations and strengthening institutional capacities. The programme emphasised sustainability, digital transformation, inclusive policy reform, and adaptive management, with targeted efforts to build local ownership and capacity for continuity beyond CSP.

*Decentralised seed quality assurance (SQA)* finalised the piloting of three third-party, localised certification models: direct, agency-led, and company-led. The in-house company model emerged as the most feasible for scaling. The team also completed Standard Operating Protocols (SOPs) for tomato and potato, institutionalised potato field inspection via Seed Tracker, and expanded training for Licensed Seed Inspectors (LSIs). While maize and rice forms were uploaded to Seed Tracker, their field use is scheduled post-CSP. Institutional bottlenecks around digital ownership emphasised the importance of the National Agricultural Seed Council (NASC) investing in its own ICT infrastructure.

*Extension on seed and cultivation practices* deepened its focus on participatory action research, addressing adoption barriers through farmer good agronomic practices, trials and data collection along the seed value chain. Based on findings, the team developed a broad range of dissemination tools including Hausa-language guides, videos on good agronomic practices, and radio campaigns. A sustainability workshop concluded the topic with a consensus on decentralised extension models anchored in local agro-dealers and trained lead farmers. CSP training is now integrated into Ahmadu Bello University's (ABU) B.Agric FPT curriculum to improve agricultural education.

*Seed company marketing and promotion* supported Nigerian and Nigerian-Dutch seed company partnerships through training in business planning, digital marketing, and on-farm demonstrations. Over 13,000 farmers registered as visitors of the demo plots during and beyond the field days. The topic team also completed a seed entrepreneur assessment that informed capacity-building strategies and business-to-business matchmaking. The promotion of quality seed adoption was enhanced by campaigns combining social media platforms and live field events.

*Institutional markets* concluded a sensitive sector study that explored how institutional seed procurement by public, private, and NGO actors, and projects affects market development. Despite political sensitivities, the study gained traction among seed sector stakeholders, leading to the agreement on the need of development and implementation of guidelines for seed procurement, dissemination and marketing. Stakeholders expressed strong interest in establishing a coordination unit for institutional markets, though continued follow-up beyond CSP is necessary to anchor reforms.

*Seed sector platform* was further institutionalised under NASC leadership, with a dedicated team trained to coordinate and manage platform events. Five webinars were hosted, two of which highlighted CSP innovations in seed adoption and variety release; the third webinar was the closing webinar highlighting achievements of all topics. The platform's rebranding as a national forum has positioned it as a central knowledge-sharing mechanism, now also used by other initiatives like BASICS II and HortiNigeria. The launch of the NSRM dashboard further contributed to strategic coordination and visibility. In addition, the topic focused on building the institutional capacity of the Seed Entrepreneurs Association of Nigeria (SEEDAN).

---

*Plant Variety Protection (PVP)* achieved key milestones with Nigeria officially joining UPOV in March 2025. Despite delays due to elections, the supporting regulatory framework is now in place, and awareness-building among stakeholders has continued. A youth-focused PVP bootcamp was launched, while capacity-building and collaboration with regional and global actors strengthened the foundation for long-term functionality of the PVP system. NASC now hosts a fully equipped and well-capacitated PVP office.

*Variety release* successfully piloted five key innovations, including the use of ECOWAS guidelines and TRICOT methodology, which are now embedded in the revised variety release guidelines (final draft stage). Adaptive management played a central role in adjusting processes with the National Centre for Genetic Resources and Biotechnology (NACGRAB) and the National Variety Release Committee and aligning innovations with institutional realities. While the digital rollout of the registration process is still pending final guideline approval, strong foundations have been laid for continuation.

Across all topics, CSP invested significantly in institutional capacity strengthening. Support was provided to organisations such as NASC, SEEDAN, NACGRAB, ABU and the National Root Crops Research Institute (NRCRI), and the National Horticultural Research Institute (NIHORT) to ensure that the tools, guidelines, and systems introduced by the programme can be sustained and scaled. A highlight was the high-level study visit to the Netherlands, which facilitated alignment and commitment among Nigerian national seed sector leadership.

The final reporting period also reinforced key lessons around managing policy innovation in politically sensitive environments, the importance of participatory approaches for uptake, and the need for flexible, adaptive implementation strategies. These lessons have been captured by each topic (Appendix 3) and synthesised at programme level in Section 10.

As CSP concludes, it leaves behind a legacy of innovation, strengthened partnerships, and institutional capacity that will continue to shape Nigeria's seed sector. The programme's collaborative model, grounded in shared Nigeria–Netherlands leadership, has fostered trust, ownership, and alignment among key actors. While not all processes could be completed within the programme's timeline, the foundations laid are strong. With an active community of seed sector practitioners and institutional buy-in, CSP's contributions will continue to support the transformation of Nigeria's seed sector well beyond its life cycle.

#### **b. Main steering implications for the next reporting period**

N/A

---

## 4 Introduction

### **a. Description of project and intervention strategy**

The Collaborative Seed Programme (CSP) brings together Nigerian and Dutch seed sector stakeholders with the aim to enhance the performance of the Nigerian seed sector. The programme seeks to attain its overarching goal to 'Improve farmers' access to and use of quality seed of improved varieties to sustainably increase agricultural productivity'. The outcomes areas are addressing the four seed sector functions of service delivery, market development, governance and regulation:

1. Enhanced capacity of the seed sector to provide high-quality, inclusive and differentiated services to seed producers and seed value chain actors (seed services)
2. Enhanced efficiency, fairness and transparency of seed value chains and seed markets (seed markets)
3. Enhanced coordination, alignment and accountability among different seed stakeholders (sector coordination)
4. Enhanced rules and systems that govern seed markets, production systems, service delivery and coordination (sector regulation).

The programme takes a systemic approach for sustainably addressing key challenges in the seed sector and works in alignment with the National Seed Road Map (NSRM) of Nigeria.<sup>3</sup> In 2024 and 2025, the CSP worked on seven topics outlined as Strategic Innovation Pathways (SIPs) in the NSRM; these SIPs, including topic ambitions, guide the intervention strategies taken in the CSP. Note that topic number 6, i.e. Donor alignment, was closed in 2022. Table 1 provides a short description of the eight initially elaborated topics.

---

<sup>3</sup> 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.

**Table 1** CSP topics

| Topic   | Short description   |
|---|---|
| 1. Decentralisation of seed quality assurance (SQA) | The topic seeks to develop consolidated, effective, and sustainable seed quality assurance systems covering different crops and provide services to different types of seed entrepreneurs. In addition, the topic seeks to develop and implement specific seed quality assurance standards and protocols for root and tuber crops, and vegetables.  |
| 2. Extension on seed and cultivation practices      | The topic focuses on action research looking into challenges related to the use of quality seed, improved varieties and advanced cultivation practices. Based on the research results, extension messages are developed to promote adoption and bring about change in food and nutrition security and the sustained livelihoods of farmers. The topic intends to stimulate worthwhile investment in the use of quality seed. It focuses on vegetable crops. |
| 3. Seed company marketing and promotion             | The topic seeks to increase seed companies' structural investment in marketing and promoting quality seed of improved varieties. This would result in increased farmer awareness and enhanced willingness to pay for quality seed of improved varieties. It also supports the establishment of variety demonstrations for field and vegetable crops.  |
| 4. Institutional markets                            | This topic aims to create a market-driven, dynamic, and functioning seed sector that operates sustainably with minimal government, NGO, and project subsidies. If interventions are made, they should promote accountability and sustainability without distorting seed markets. Topic implementation is closely linked to the alignment of donor interventions, as donors are key actors in institutional markets.   |
| 5. Seed sector platform                             | The topic supports the development of a structured and functional national seed sector platform, which brings together key seed sector stakeholders from government, civil society, knowledge institutes and industry to: convey seed sector insights; facilitate dialogue; clarify and consolidate roles and responsibilities; and support collaboration. The platform promotes a collaborative and sector-driven implementation of the NSRM.              |
| 6. Alignment of donor interventions                 | The topic seeks to increase coordination and alignment among donor and development organisations in the seed sector for strategies and activities within the framework of the NSRM.   |
| 7. Plant variety protection (PVP)                   | The topic seeks to facilitate the implementation and wide adoption of the Plant Variety Protection Act, build country PVP capacity and develop an operational PVP system in accordance with the UPOV System that supports the growth of the seed sector.  |
| 8. Variety release                                  | The topic seeks to increase efficiency and transparency in variety release procedures with a more realistic cost-benefit ratio, and enforce ECOWAS harmonisation on variety release to support private sector investment.   |

The CSP is being implemented by a consortium of Wageningen University & Research (WUR)-Wageningen Social & Economic Research (formerly Wageningen Centre for Development Innovation), Sahel Consulting Agriculture & Nutrition Ltd (Sahel Consulting), Plantum and Naktuinbouw, in close collaboration with the key partners Wageningen Plant Research (WPR), National Agricultural Seed Council (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). Partners have divided roles in leading topic teams, established for each of the eight topics; these teams include additional stakeholders from other organisations. Wageningen Social & Economic Research and Sahel Consulting are responsible for programme coordination and facilitation. The programme is funded by the Embassy of the Kingdom of the Netherlands (EKN) of Nigeria. CSP operates under the umbrella of the Nigeria-Netherlands Seed Partnership, which is one of the flagships of SeedNL.<sup>4</sup>

<sup>4</sup> Find CSP's partnership approach highlighted in the CSP movie 'Partnerships transforming the seed sector in Nigeria'. ([Link](#)).

---

## **b. Review of follow-up measures taken since the last reporting period**

In its final year, as indicated as steering implications in the previous progress report, the programme prioritised completing innovations pilots to transform regulatory processes, effectively implementing and embedding digital solutions and proven technologies, raising stakeholder awareness of the NSRM and programme reforms, building capacity among key sector actors, and planning strategically for sustainability. Find below reflections and review of specific actions taken based on issues mentioned in the 2023 progress report:

### *Finalise ongoing field pilots for the topics Decentralised SQA and Variety release:*

The *Decentralised SQA* topic piloted three private certification models: direct, agency-led and company-led. After a full-season test run, evaluations showed that the in-house company inspection model was the most practical and ready for adoption. This model has been recommended to SEEDAN for wider scaling. The Seed Tracker pilot for potato was successful and has been institutionalised for seed field inspection. While rice and maize forms were uploaded onto the Seed Tracker, their full use remains pending and is expected post-CSP.

For the *Variety release* topic, five innovations were successfully piloted: (i) use of Economic Community of West African States (ECOWAS) guidelines; (ii) use of breeding data; (iii) use of Distinctness, Uniformity and Stability (DUS) data from third countries; (iv) optional conduct of Value for Cultivation and Use (VCU) trials for vegetables; and (v) Triadic Comparisons of Technologies (TRICOT) for on-farm performance evaluation. All pilots were completed as planned. Additional innovations include identification of the collaborative reference organisation; clearer role definitions (registrar, secretariat, committees); updated committee composition; a defined notification process; and cost indications. These have all been incorporated into the updated variety release guidelines (now at final draft stage), ensuring sustainability and wider adoption.

### *Finalise digital solutions:*

Regarding *Decentralised SQA*, the potato form was successfully uploaded to the Seed Tracker and used in a full inspection pilot. Forms for maize and rice were also developed and uploaded, but field use was not achieved; they are now ready for use in the upcoming season. Progress was delayed by institutional hurdles, particularly the reluctance of the International Institute of Tropical Agriculture (IITA) to transfer ownership of the Seed Tracker to NASC. This issue was not anticipated at the programme's outset. The experience underscores the need for NASC to invest in its own ICT infrastructure, including in-house technical capacity, system upgrades and cybersecurity.

The seed portal, with dedicated sections on *PVP* and *Variety release*, was officially launched during SeedConnect in November 2024. Although tested, it is not yet in operational use. For PVP, implementation was delayed due to the government transition and the pending gazette of supporting regulations, which has now been completed. Similarly, digitising the variety registration and release process could not be finalised, as it depends on the approval of the revised guidelines, currently in final draft stage. Further institutional alignment is still required to clarify shared responsibilities for DUS testing between the PVP and variety release systems, an important step in shaping the digital process moving forward.

### *Active dissemination of innovations and technologies improving farmers' quality seed adoption:*

Over the past reporting period, the *Extension on seed and cultivation practices* team actively disseminated action research results to extension agents and farmers, going beyond initial plans, in response to stakeholders' demand. Materials developed included tomato and cabbage production guides in English and Hausa, videos on good agronomic practices, and both pre-recorded and live radio programmes to reach wider rural audiences. Awareness campaigns were conducted in five LGA centres, and training manuals were handed over to ABU for integration into staff and student training. Multistakeholder workshops supported knowledge exchange, and a final sustainability workshop in February 2025 brought together key actors, including state agencies, seed companies, and universities, to agree on a decentralised extension model led by agro-dealers and trained lead farmers, helping to lay the groundwork for continued support to farmers beyond CSP.

### *Increase awareness of the national seed road map:*

The launch of the NSRM dashboard helped renew attention for the road map itself. To support broader awareness and understanding, NSRM brochures were developed and widely distributed. The full NSRM document and dashboard are publicly accessible via the NASC website.

---

*Institutionalise the seed sector platform:*

NASC management has confirmed its intention to continue the seed sector platform beyond the CSP. Throughout the past project period, NASC, Sahel Consulting and WUR worked closely together to build the capacity of a dedicated NASC team to manage the platform efficiently. This team has demonstrated its readiness through the successful organisation and facilitation of multiple webinars. The platform was rebranded to reflect its role as a national forum for all seed sector stakeholders, creating a space for sharing, learning, and collaboration. Other projects, such as BASICS II and HortiNigeria, have also begun using the platform to host webinars and share their experiences, reinforcing its value as a sector-wide engagement tool.

*Use the platform to present CSP innovations:*

During the reporting period, four webinars were organised under the seed sector platform, two of which focused specifically on CSP innovations. The webinar on *Adoption of quality seed for food security* was organised with the CSP Extension team, while the session on *Impact of innovations in Nigeria's variety release system* was organised in collaboration with the Variety release team. The other two webinars provided a platform for the BASICS II and HortiNigeria projects to share their innovations (see paragraph above). An additional webinar was held on 15 May 2025 to officially close CSP and highlight the achievements across all CSP topics. CSP contributions were also prominently featured at SeedConnect 2024, including panel discussions on *Fostering sustainable institutional markets in Nigeria* and *Perspectives for strengthening farmer- and community-managed seed systems*. In addition, CSP topic leads participated as panellists in several other sessions, contributing insights and highlighting innovations from across the programme. Widely sharing and discussing CSP outputs supported inclusivity in sector transformation efforts.

*Implement an adaptive management approach for policy topics:*

For the topic of PVP, the team successfully navigated two key challenges through persistent follow-up and strategic engagement. A significant development was the resolution of the court case filed by the Registered Trustees of Health of Mother Earth Foundation (HOMEF) against Section 43(2) of the PVP Act, which was ruled in favour of the Nigerian PVP Office in 2024. Although the general elections delayed the formal signing of the Instrument of Accession to UPOV, this milestone was achieved in March 2025, with Nigeria officially becoming the 80th member of UPOV as of 27 March.

Meanwhile, the Variety release team continued its adaptive management approach, actively engaging stakeholders on the progress and refinement of innovation pilots. Close collaboration with management of NACGRAB and the National Variety Release Committee (NVRC) contributed to the development of updated variety release guidelines (now in final draft stage), which incorporate the major innovations piloted under CSP. These experiences reaffirm the need for careful navigation of policy-oriented topics, i.e. balancing ambition with flexibility, overcoming institutional hurdles, and seizing strategic opportunities as they arise.

*Build the capacity of national institutions:*

Over the past reporting period, CSP placed strong emphasis on building the capacity of national institutions to implement the innovations and reforms introduced through the programme. Support focused on both strategic development and operational capacity strengthening, tailored to the needs of each topic and partner organisation (see Section 5a for topic-specific details). Highlights included strategic support to SEEDAN leadership; training seed company staff on innovations in seed quality assurance, PVP and variety release; and training seed company staff on seed business development and planning. The programme also supported the National Root Crops Research Institute (NRCRI) and the National Horticultural Research Institute (NIHORT) in developing institutional strategies to integrate PVP and variety release innovations. A dedicated NASC team received targeted training to continue managing the seed sector platform as a national platform for sharing, learning and collaborating on seed sector transformation. In the area of seed quality assurance, licensed seed inspectors and seed companies were trained on the Seed Tracker, the new SOPs for potato and tomato, and decentralised inspection protocols. To reinforce alignment and shared vision, CSP organised a high-level study visit to the Netherlands for the leadership of NASC, NACGRAB, NVRC, and SEEDAN, strengthening collaboration around national seed sector priorities.

---

### c. Relevant context changes and their potential impact

Several contextual developments influenced the implementation and focus of CSP activities during the reporting period. These shifts presented both challenges and opportunities across the various topics.

Macroeconomic factors, notably the depreciation of the Naira and rising inflation, significantly increased the cost of agricultural inputs, including quality seed, fertilisers, and pesticides. This raised the operational costs of activities such as variety demonstrations organised under the *Seed company marketing and promotion* topic, and also affected the affordability of quality seed for smallholder farmers. In response, the *Extension on seed and cultivation practices* team promoted strategies like bulk purchasing through agro-dealer partnerships. However, these approaches proved difficult to scale in practice.

Market instability and security concerns also shaped project activities. Volatile vegetable prices, such as price drops for tomatoes and cabbage during peak harvests, combined with insecurity in LGAs like Giwa, disrupted market access and reduced profitability for farmers. In response, the *Extension* topic expanded its scope to include post-harvest training, enabling farmers to preserve and sell produce during off-peak periods. Furthermore, economic literacy sessions, including cost-benefit analyses, and microloan pilots for seed purchases were introduced.

From a regulatory perspective, adjustments in government policies on seed certification and distribution created a need for seed companies to stay informed and compliant. CSP responded by organising targeted information sessions, such as the seed company workshop hosted by the *Seed sector platform* team, to ensure stakeholders remain aligned with new processes and regulations.

Within the seed sector itself, changes in institutional roles continued to evolve. Under the topic *Decentralised SQA*, the introduction of the Licensed Seed Inspector (LSI) model transformed company seed production managers into seed field inspectors/quality assurance auditors; these individuals adapted well to the new responsibilities. The new SOP for potato, combined with its integration into the Seed Tracker, enabled the production and certification of seed potato, which was broadly welcomed by stakeholders.

Digital transformation is gaining traction in rural areas, opening up new possibilities for market engagement and outreach. However, this also highlighted a need for improved digital literacy among farmers and seed companies. The *Seed company marketing and promotion* topic supported seed companies and distributors by equipping them with the skills to leverage social media and digital platforms to reach new markets.

Sensitive political dynamics were especially relevant in the *Institutional markets* topic. While stakeholders supported the study, initial reluctance to share data or critique subsidy programmes was observed, stemming from concerns about potential repercussions. To address this, CSP ensured anonymity and confidentiality and successfully utilised platforms such as SeedConnect and ISSD Africa to encourage open dialogue.

At the federal level, attention to farmer- and community-managed seed systems has increased, driven in part by the leadership of the Vice President and the Federal Minister of Agriculture and Food Security (FMAFS). This growing momentum aligns with a Dutch/LVVN-supported initiative focused on developing a national agenda for this area. The project's white paper includes a strategic innovation pathway addressing the conservation and sustainable use of plant genetic resources, with specific attention to the recognition of farmers' varieties.

Finally, changing climate conditions affected planting seasons in several regions. The *Seed company marketing and promotion* team supported seed companies in adopting climate-smart strategies within their production, distribution, and marketing processes, helping to future-proof operations against increasingly erratic weather patterns.

# 5 Results and Outcomes

## a. Description of activities, planned and results (outcomes and outputs) or progress towards achieving results, including indicators measured against baseline and target values

Below we summarise the achievements per topic, organised according to the above indicated outcome areas for sector development (service provision, seed markets, sector coordination, sector regulation). For each topic we indicate the strategies and selected key outputs, as well as the two lead organisations and topic leads. Progress measured against indicators is given in Appendix 1.

### Enhanced capacity for quality service provision

**Table 2** Topic update service provision

| Topic name:        | Decentralisation of seed quality assurance  |
|--------------------|---|
| Envisaged outcome: | Decentralised SQA systems for key food and nutrition security crops established and operational   |
| Achieved outcome:  | Decentralised and partially digitalised seed quality assurance systems for key food and nutrition security crops have been strengthened and operationalised, including the engagement of third parties in what was previously a fully publicly managed service <sup>5</sup>   |
| Strategy 1:        | Scaling Seed Tracker to maize and rice  |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Monitoring of Seed Tracker use for reporting on potato fields</li> <li>• Potato fields registered and inspected using the Seed Tracker</li> <li>• Seed company registration forms for rice and maize developed and uploaded</li> <li>• Inspection forms for rice and maize designed and uploaded</li> <li>• Operational challenges between NASC and IITA affecting Seed Tracker use have been resolved</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• The potato form was successfully used for a complete pilot inspection</li> <li>• Inspection forms for maize hybrids were developed and uploaded</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• Field use of rice and maize inspection forms was not conducted, though forms are ready for deployment this season</li> </ul> |
| Strategy 2:        | Developing Standard Operating Protocols (SOPs) for tomato and potato  |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Potato SOP document completed (in collaboration with the International Potato Center [CIP and GIZ]; and printed and circulated<sup>6</sup></li> <li>• Tomato SOP document completed<sup>7</sup></li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• Bifurcated guidelines for potato were printed and actively used during the season</li> <li>• Guidelines were also distributed more broadly as general certification guidelines in Nigeria</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• The tomato SOP was not field-tested, as no major tomato seed production fields were established during the period</li> </ul>  |

<sup>5</sup> Topic approach and achievements are highlighted in the CSP movie 'Innovations in seed quality assurance to increase farmers' access to quality seed in Nigeria'. ([Link](#)).

<sup>6</sup> FMARD and NASC, 2022. Seed potato inspection and certification guideline. ([Link](#)).

<sup>7</sup> FMARD and NASC, 2024. Tomato (*Solanum lycopersicum*) Seed Certification Standard Operating Procedure. ([Link](#)).

| <b>Topic name:</b>                  | <b>Decentralisation of seed quality assurance</b>  |
|-------------------------------------|--|
| Strategy 3:                         | Piloting Licensed Seed Inspectors (LSIs)   |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>Guidelines revised (bifurcated) to support practical use by LSIs</li> <li>26 Licensed Seed Inspectors trained in Kano (May 2024)</li> <li>Pilots implemented with Extension Africa (third-party) and three seed companies</li> <li>On-field training of LSIs conducted in Zaria (June 2024)</li> <li>Economic model developed for the agency-led LSI pilot</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>Seed company-led model successfully completed one full season of field inspections</li> <li>The model was adopted by other seed programmes under sister projects</li> <li>Stakeholders rated the seed company model as the most preferred approach</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul> |
| Topic leads and their organisations | Dr. Osho Bankole, NASC and Dr. Abishkar Subedi, Wageningen Social & Economic Research  |

## Enhanced efficiency and transparency of seed markets

**Table 3** Topics update seed markets

| <b>Topic name:</b> | <b>Extension on seed and cultivation practices</b>   |
|--------------------|--|
| Envisaged outcome: | Challenges related to the use of quality seed, improved varieties and advanced cultivation practices addressed.  |
| Achieved outcome:  | Selected key challenges related to quality seed, improved varieties, and advanced cultivation practices have been addressed through action research involving over 350 farmers, complemented with studies looking at challenges in adoption and seed quality along the seed value chain. Findings were disseminated via awareness campaigns across five LGAs in Kaduna State. Initial insights have been gained into the sustainability and effectiveness of extension methods. <sup>8</sup>   |
| Strategy 1:        | Formulation and implementation of action research projects on challenges related to the use of quality vegetable seed and advanced cultivation practices   |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>Conducted Good Agronomic Practices (GAP) training for farmers across 5 Kaduna LGAs – Phase 1 (March 2024) and Phase 2 (June/July 2024)</li> <li>Partnered with East-West Seed Knowledge Transfer (EWS-KT) to enhance re-training delivery; farmers demonstrated improved skills following the sessions</li> <li>Conducted a survey on seed handling practices along the value chain and germination tests on collected seed samples, revealing better-than-expected seed quality across vendors<sup>9</sup></li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul> |

<sup>8</sup> Topic approach and achievements are highlighted in the CSP movie 'Innovations to promote farmers' use of quality seed for vegetables in Northern Nigeria'. ([Link](#)).

<sup>9</sup> De Putter et al, 2024. Seed handling along the seed supply chain and its effect on germination. ([Link](#)).

|                                     |  |
|-------------------------------------|--|
| <b>Topic name:</b>                  | <b>Extension on seed and cultivation practices</b>   |
| Strategy 2:                         | Dissemination of action research results to extension and farmer communities   |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Tomato and cabbage production guides developed and distributed in English and Hausa<sup>10,11</sup></li> <li>• Awareness campaigns held in five LGA centres, including guide distribution and stakeholder engagement</li> <li>• Radio content produced and aired, including both recorded and live programmes</li> <li>• Multi-stakeholder workshop (November 2025) connected farmers, extension agents, researchers, and market actors<sup>12</sup></li> <li>• Eight GAP training videos developed, covering key practices and a success story on women's entrepreneurship<sup>13</sup></li> <li>• Training manuals handed over and integrated into the B.Agric FPT curriculum at ABU, Zaria</li> <li>• Stakeholder workshop on sustainable extension held in Kano (February 2025)</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• Additional extension materials, i.e. GAP videos, radio content, and training resources, developed in response to stakeholder demand</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>   |
| Topic leads and their organisations | Prof. Aisha Abdulkadir, ABU-IAR and Herman de Putter, WPR  |
| <b>Topic name:</b>                  | <b>Seed company marketing and promotion</b>  |
| Envisaged outcome:                  | Capacity of Nigerian and Dutch seed companies to promote varieties increased   |
| Achieved outcome:                   | The capacity of nine Nigerian companies and five Nigerian distributors linked to Dutch companies to promote improved varieties has been strengthened through training in seed marketing and promotion, establishment of variety demonstrations, organisation of field days, and use of social media campaigns. Additionally, Nigerian companies and distributors were assessed for performance and capacities to inform future activities, including business-to-business matchmaking. <sup>14</sup>   |
| Strategy 2: <sup>15</sup>           | Support implementation of variety demos combined with GAP by Nigerian and Dutch companies  |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Supported 9 Nigerian field crop companies and 5 Nigerian distributors of Dutch seed companies (Royal Blue, Seed Forth Agro, Value Seeds, Boom Seed, Tecni Seed) with 5 demo plots each across Kano and Kaduna</li> <li>• Demonstrated 2 new vegetable varieties in 2024/25, totalling 57 varieties throughout the programme (29 field crops, 28 vegetables)</li> <li>• Delivered GAP training at all demo plots and field days across participating communities</li> <li>• Conducted regular follow-up visits to demo sites and seed companies to ensure implementation quality</li> <li>• Reached 13,700 farmers through demos and field days in 2024/25, and 35,651 farmers over the full programme period</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• Conducted a seed entrepreneurs assessment with 23 companies (16 involved in seed production and trade; 7 involved in seed trade only) to raise awareness, identify capacity needs, and foster business-to-business linkages between Nigerian and Dutch seed actors<sup>16</sup></li> <li>• Delivered a four-day training on seed business management, equipping companies with tools for operational efficiency, innovation, and long-term sustainability<sup>17</sup></li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul> |

<sup>10</sup> EWS-KT et al., 2021; 2024. Crop guide tomato ([Link to English version](#); [Link to Hausa version](#)).

<sup>11</sup> EWS-KT et al., 2021; 2024. Crop guide cabbage ([Link to English version](#); [Link to Hausa version](#)).

<sup>12</sup> CSP, 2024a. Highlights from the extension on seed and cultivation practices multistakeholder workshop. ([Link](#)).

<sup>13</sup> Links to the videos: Introduction by the topic lead ([Link](#)); compost making ([Link](#)); preparing seed trays or nursery beds ([Link](#)); sowing seeds ([Link](#)); maintaining seedlings ([Link](#)); hardening off ([Link](#)); transplanting ([Link](#)); success story: women entrepreneurship in seedling raising ([Link](#)).

<sup>14</sup> Topic approach and achievements are highlighted in the CSP movie 'On-farm demos to connect seed companies and farmers in Northern Nigeria' ([Link](#)).

<sup>15</sup> Note that strategy 1, i.e. design modality for variety demos, was completed in 2023.

<sup>16</sup> Bonnand et al., 2024. Nigerian seed entrepreneurs assessment. ([Link](#)).

<sup>17</sup> CSP, 2024b. Managing seed business for profitability, impact and growth. Seed business management training workshop report. ([Link](#)).

|                                     |   |
|-------------------------------------|---|
| <b>Topic name:</b>                  | <b>Seed company marketing and promotion</b>   |
| Strategy 3:                         | Disseminate results of the use of quality seeds, improved varieties and good agricultural practices   |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Field demonstrations effectively highlighted the benefits of improved varieties over local ones through direct farmer observation</li> <li>• Collected and documented farmer feedback on the distinct characteristics of each demonstrated variety<sup>18</sup></li> <li>• Supported seed companies in promoting improved varieties through social media and other channels<sup>19</sup></li> <li>• Identified a need for better tools among seed companies to measure social media reach and assess impact on target audiences</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>  |
| Topic leads and their organisations | Stephen Adigun, SEEDAN and Johann Bonnand, Wageningen Social & Economic Research  |
| <b>Topic name:</b>                  | <b>Institutional markets</b>  |
| Envisaged outcome:                  | Seed market distortion by institutional buyers reduced  |
| Achieved outcome:                   | Insights and analysis of the structure of institutional seed markets and the impact on the seed sector and seed systems; and insights on strategies to address these at the level of seed procurement, seed production and supply, and seed distribution. Major awareness, particularly among seed sector stakeholders, on the need to come to common guidelines for institutional seed markets   |
| Strategy 1:                         | Assessment of institutional markets   |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Completed assessment study on the roles and practices of institutional players and seed companies<sup>20</sup></li> <li>• Held a stakeholder validation workshop (May 2024)</li> </ul>   |
| Strategy 2:                         | Development and dissemination of policy briefs for seed business-friendly procurement strategies  |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Coordinated international exchange to launch of ISSD Africa's new phase on 'Seed and the Humanitarian-Development-Peace Nexus' in Addis Ababa (April 2024)</li> <li>• Organised session on institutional markets at SeedConnect (November 2024)</li> <li>• Coordinated sessions in international exchange event with related programmes (ISSD Africa - HDP Nexus, February 2025)<sup>21</sup></li> <li>• Produced a consolidated policy brief on institutional market dynamics and procurement<sup>22</sup></li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• Broad stakeholder support emerged for establishing a dedicated service unit to link institutional buyers and seed companies</li> <li>• Institutional actors recognised the need for formal procurement and dissemination guidelines for seed procurement, dissemination, and marketing</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• Broader awareness among major humanitarian and government institutions remains limited; engagement to date focused primarily on seed sector stakeholders</li> <li>• Original plan for four separate briefs was streamlined into one consolidated brief and visual</li> <li>• Consultations took place as planned, but their outcomes were integrated into the study and brief, rather than published separately</li> </ul> |
| Topic leads and their organisations | Chinedu Agbara, Sahel Consulting and Dr. Walter de Boef, Wageningen Social & Economic Research  |

<sup>18</sup> Bonnand et al., 2025. Seed company marketing and promotion under the Collaborative Seed Programme (2022–2024). ([Link](#)).

<sup>19</sup> Find links to social media training materials here: Social media marketing training for seed companies ([Link](#)); Mastering quality pictures and crafting compelling messages for social media marketing ([Link to Module 1](#); [Link to Module 2](#)); Making good pictures with your mobile phone ([Link](#)).

<sup>20</sup> CSP, 2025a. Mapping institutional seed markets in Nigeria. ([Link](#)).

<sup>21</sup> CSP et al., 2025. Report and key outcomes: Increasing the effectiveness of emergency seed programming in humanitarian contexts in Nigeria. International Conference in Abuja, Nigeria; 17-18 February 2025 ([Link](#)).

<sup>22</sup> 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](#)).

## Enhanced sector coordination and accountability

**Table 4** Topic update sector coordination

| Topic name:        | Seed sector platform  |
|--------------------|---|
| Envisaged outcome: | Coordination, alignment and accountability among seed sector stakeholders enhanced  |
| Achieved outcome:  | A seed sector platform has been established and is operational, serving as a valued mechanism for awareness creation and knowledge exchange on key issues and innovations in the Nigerian seed sector. A seed dashboard has been developed, is fully operational, and is now owned by NASC, providing a mechanism to track progress in seed sector development in alignment with the National Seed Road Map ambitions. A strategy development process for SEEDAN has been initiated, and its management capacities have been strengthened to represent and support Nigeria's private seed sector  |
| Strategy 1:        | Establishment of a functional national seed sector platform   |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>Held five national platform meetings on key sector topics: <ul style="list-style-type: none"> <li>Adoption of quality seeds for food security (March 2024)</li> <li>Innovations in variety release and their impact (July 2024)</li> <li>Cassava seed systems - BASICS II approach (December 2024)</li> <li>Transforming horticulture seed systems (March 2025)</li> <li>Contributions of CSP to the national seed road map (May 2025)</li> </ul> </li> <li>Co-organised two SeedConnect sessions (November 2024) <ul style="list-style-type: none"> <li>Fostering sustainable institutional markets in Nigeria</li> <li>Strengthening farmer- and community-managed seed systems</li> </ul> </li> <li>Organised two in-person core group meetings (May and December 2024)</li> <li>Completed and launched the NSRM dashboard at SeedConnect (November 2024)<sup>23</sup></li> <li>Trained NASC staff (November 2024) and partner organisations (December 2024) on dashboard use and management</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>NASC committed to continuing platform meetings beyond CSP</li> <li>35 NASC staff and 12 partner organisations trained on dashboard data capture and use</li> <li>Publicity and sensitisation materials developed for broader NSRM visibility</li> <li>Advocacy visit to variety release team conducted to secure institutional support for dashboard adoption (January 2025)</li> <li>The approach inspired replication; e.g., the Ethiopia Seed Partnership began developing a similar seed dashboard</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul> |
| Strategy 2:        | Strengthen the professional capacity of SEEDAN  |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>Conducted and published a needs assessment of seed association members<sup>24</sup></li> <li>Delivered in-depth training for SEEDAN management, led by Dr. Mulemia Maina (Agri-Experience; May 2024)</li> <li>Supported SEEDAN and NASC management participation in a study visit to the Netherlands (September 2024)</li> <li>Trained 52 seed company representatives on seed business and sector regulation (November 2024)</li> <li>Held follow-up capacity-building training for SEEDAN leadership with the same international expert (November 2024)</li> <li>Supported the seed association in developing and launching the SEEDAN website<sup>25</sup></li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>18 SEEDAN executives trained, which is well above the planned 10</li> <li>SEEDAN successfully reunified with ARSCON (Association of Registered Seed Companies of Nigeria), strengthening sector representation and cohesion</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul>  |

<sup>23</sup> WUR et al., 2024. Nigerian seed roadmap dashboard. State of the Nigerian seed sector, 2023. ([Link](#)).

<sup>24</sup> NASC, 2024. Seed company survey: Providing directions for SEEDAN's future ([Link](#)).

<sup>25</sup> Find the website of SEEDAN here: <https://www.seedan.org/>.

| <b>Topic name:</b>                  | <b>Seed sector platform</b>  |
|-------------------------------------|--|
| Strategy 3:                         | Organise studies on prioritised topics of the National Seed Road Map   |
| Outputs:                            | <p><i>Planned but not achieved:</i></p> <ul style="list-style-type: none"> <li>Terms of Reference were developed and published for two NSRM studies: (i) Seed company professionalisation and specialisation; and (ii) Financial services and products for seed businesses. Despite multiple tender rounds, no sufficiently strong proposals were received, and the studies were not implemented.</li> </ul> <p><i>Outputs achieved instead:</i></p> <ul style="list-style-type: none"> <li>Implemented and published a needs assessment of seed association members; see above</li> <li>Developed a concept note to revisit the NSRM for horticultural seeds, approved by EKN Abuja to guide future investments</li> <li>Conducted horticultural seed focus group discussions and interviews (April–May 2024); final report completed and published in 2025<sup>26</sup></li> </ul> |
| Topic leads and their organisations | Dr. Osundiya Olusegun, NASC and Dr. Marja Thijssen, Wageningen Social & Economic Research  |

## Enhanced seed regulatory systems

**Table 5** Topics update regulation

| <b>Topic name:</b> | <b>Plant variety protection</b>   |
|--------------------|---|
| Envisaged outcome: | System for plant variety protection in place and operational  |
| Achieved outcome:  | An improved awareness of PVP has been created at various levels. A PVP system has been established, including a functioning PVP office at NASC, trained NASC staff, appropriate regulations, and UPOV membership granted. Regarding DUS testing, the capacity of selected NASC and research staff has been strengthened, and a testing system has been established. Further investment is needed to fully operationalise these efforts, ensuring a steady flow of newly protected varieties and increased investment in variety development   |
| Strategy 1:        | Raising awareness of stakeholders on PVP  |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>Maintained stakeholder engagement through events, trainings, and communications via the PVP website and social media</li> <li>Contributed to capacity development events organised by the WIPO Nigeria Office</li> <li>Instrument of Accession signed by President Bola Ahmed Tinubu and officially deposited with UPOV in Geneva (27 February 2025)</li> <li>Nigeria officially became the 80th member of UPOV on 27 March 2025</li> <li>Organised the first PVP youth boot camp, training 25 young undergraduates, graduates, and entrepreneurs (February 2025)</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>Nigeria successfully completed its accession to UPOV, a key milestone in PVP system development, building momentum and visibility at national and international levels</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>N/A</li> </ul> |
| Strategy 2:        | Setting up the Plant Variety Protection (PVP) office  |
| Outputs:           | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>Completed the seed portal with a dedicated PVP section; officially launched at SeedConnect (November 2024)<sup>27</sup></li> <li>Conducted three virtual training sessions for PVP office staff</li> <li>Supported a study visit to the Netherlands for the PVP office management team (September 2024)</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>The portal has been tested and is ready to receive applications for variety protection; the office is awaiting its first submission</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>First applications for variety protection were not received during the programme period, due to delays in government transitions and finalisation of regulatory tools. Submission is expected post-programme</li> </ul>   |

<sup>26</sup> Tidjani et al., 2025. Horticulture seed sector strategic priorities for Nigeria. Final draft. ([Link](#)).

<sup>27</sup> Find the PVP section of the seed portal here: <https://nigseedportal.ng/Pvp.aspx>.

|                                     |   |
|-------------------------------------|---|
| <b>Topic name:</b>                  | <b>Plant variety protection</b>   |
| Strategy 3:                         | Develop capacity on Distinctiveness, Uniformity and Stability (DUS) testing   |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Trained over 30 staff from NASC, research institutes, the Variety Release Committee, and seed companies on DUS testing</li> <li>• Held two online sessions to analyse and discuss results from the DUS training data</li> <li>• Five staff members completed UPOV's distance learning course on plant breeders' rights (PBR)</li> <li>• Maintained reference varieties and updated the electronic variety database</li> <li>• Built a photo database of variety collections for tomato, maize, and pepper</li> <li>• Established cultivation protocols for DUS trials and stored them within a Quality Management System</li> <li>• Developed strategic plans for NRCRI and NIHORT to effectively implement PVP and innovations in variety release</li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• Created a comprehensive photo database to complement the variety description database</li> <li>• Implemented a Quality Management System to institutionalise DUS/PBR knowledge and processes</li> <li>• Developed detailed strategic plans for NRCRI and NIHORT to address institutional gaps and support national implementation of variety release reforms and PVP</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• N/A</li> </ul>  |
| Topic leads and their organisations | Dr. Folarin Okelola, NASC and Laura Piñán González, Naktuinbouw   |
| <b>Topic name:</b>                  | <b>Variety release</b>  |
| Envisaged outcome:                  | Efficiency and effectiveness of variety release system improved   |
| Achieved outcome:                   | The revised and updated guidelines for variety release and registration submitted for approval and endorsement by the national variety release committee includes various procedural innovations that will result in an increased efficiency, effectiveness and transparency of variety release including reduced costs, shorter and fairer processes, which will encourage international and domestic seed companies and breeders to register and release varieties and thereby increase farmers access to a wider productive and adapted portfolio of varieties <sup>28</sup>   |
| Strategy 2: <sup>29</sup>           | Conduct variety release innovation pilots   |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Piloted variety registration using innovations on ECOWAS, use of breeding data, optional VCU for vegetables, and TRICOT for on-farm performance evaluation</li> <li>• Supported the release of 9 vegetable varieties, 5 maize varieties, and 2 cassava varieties using the above mentioned innovations</li> <li>• Drafted national listing criteria for existing non-registered vegetable varieties</li> <li>• Organised an exchange visit to the Netherlands for NVRC members (September 2024)</li> <li>• Held a TRICOT learning workshop (October 2024) with IITA, NRCRI, and stakeholders to explore its role in variety testing, registration and release</li> <li>• Convened a focus group (October 2024) and multi-stakeholder workshop (December 2024) on farmer and community-managed seed systems and farmers' role in variety registration and genetic resource conservation</li> <li>• Held an innovation and SOP evaluation workshop (November 2024)</li> <li>• Reviewed the National Variety Release and Registration Guidelines, integrating piloted innovations</li> <li>• Conducted a stakeholder workshop (February 2025) to present and validate the revised guidelines</li> <li>• Incorporated stakeholder inputs and submitted the draft for discussion and endorsement by the Crops Technical Sub-Committee and National Committee</li> <li>• Developed strategic plans for NRCRI and NIHORT to enhance implementation of PVP and innovations in variety release</li> <li>• Published a white paper on Farmer and Community-Managed Seed Systems, with three innovation pathways including one on farmer variety recognition and registration<sup>30</sup></li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• Advanced the guideline review to the endorsement stage</li> <li>• Developed strategic institutional plans for NRCRI and NIHORT to address capacity and regulatory gaps, aimed at proper implementation of PVP and revised procedures for variety release</li> <li>• Integrated TRICOT as a recognised model for on-farm variety testing in the national guideline</li> <li>• Proposed streamlined registration for vegetable varieties with proven market presence, without further trials</li> <li>• Raised awareness and initiated recognition of farmer varieties and farmer-managed seed systems within formal registration processes</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• Costing of the full variety release and registration process for RTBs and vegetables remains pending; while updated guidelines for grain crops are completed, further adaptation is needed for RTBs and vegetables to ensure cost transparency for all crop groups</li> </ul> |

<sup>28</sup> Topic approach and achievements are highlighted in the CSP movie 'Innovations in variety release in Nigeria to increase farmers' access to new varieties' ([Link](#)).

<sup>29</sup> Note that strategy 1, i.e. conduct baseline study and hold verification workshops, was completed in 2021.

<sup>30</sup> De Boef et al., 2025. Farmer- and community-managed seed systems: inputs for a Nigerian agenda. ([Link](#)).

| Topic name:                         | Variety release  |
|-------------------------------------|--|
| Strategy 3:                         | Implement Digital Solution to variety release  |
| Outputs:                            | <p><i>Outputs achieved:</i></p> <ul style="list-style-type: none"> <li>• Conducted developer–user engagement meeting for training and feedback (May 2024)</li> <li>• Held a variety release and PVP portal user testing session (August 2024)</li> <li>• Completed and launched the digital seed portal with a section on variety release at SeedConnect 2024; full integration of the end-to-end process is still pending<sup>31</sup></li> </ul> <p><i>Exceeded expectations:</i></p> <ul style="list-style-type: none"> <li>• The digital portal is expected to be used for submission of variety release applications and dossiers starting in 2025</li> </ul> <p><i>Planned but not yet achieved:</i></p> <ul style="list-style-type: none"> <li>• Full operationalisation of the digital variety release process is pending finalisation of the revised guidelines; this is planned for a next phase</li> <li>• Alignment between PVP and variety release processes for DUS testing and institutional responsibilities still requires further inter-institutional coordination, which is critical to the design of an integrated digital system</li> </ul> |
| Topic leads and their organisations | Dr. Ibidun Adetiloye, NACGRAB and Dr. Walter de Boef, Wageningen Social & Economic Research  |

## b. Unintended positive and negative effects of the intervention

### Unintended positive effects

The CSP recorded a number of positive developments beyond the intended scope of its activities, reflecting growing stakeholder interest and momentum for sustainability.

Under the topic *Decentralised SQA*, we were positively surprised by the strong interest from seed companies in the pilot of the third-party in-company seed inspection model. While we planned for a limited-scale pilot, multiple companies proactively requested to join the pilot, and for the model to be scaled up further. This level of interest reflects the growing confidence in decentralised approaches.

Similarly, within the topic *Seed company marketing and promotion*, a large seed company expressed interest in partnering with CSP in 2024. Unfortunately, due to budget constraints and the conclusion of the current programme phase, we were unable to include the company in all planned activities. Nonetheless, this unsolicited interest illustrates the strong visibility and positive reputation of CSP among private sector actors.

In the context of *Extension on seed and cultivation practices*, the establishment of ten seedling nurseries by women farmers as income-generating ventures created jobs for 40 women. This entrepreneurial response was not an intended outcome, but it represents an important achievement in terms of women’s empowerment and community-level economic impact.

Also noteworthy are the testimonials from two seed entrepreneurs under the *Seed company marketing and promotion* topic, who successfully acquired grants due to their enhanced visibility and participation in CSP activities. In addition, the programme’s support has enabled some seed entrepreneurs to explore cross-border market expansion into neighboring countries. These cases highlight the entrepreneurial ripple effects sparked by CSP interventions.

Under the *Institutional markets* topic, what began as a slow-moving process concluded with broad stakeholder consensus on the need to develop and implement guidelines for seed procurement, dissemination, and marketing; as well as the need for the establishment of a dedicated service provision unit to coordinate actors across the institutional seed market space. The strength of this consensus was beyond expectation, laying the groundwork for systemic reform.

<sup>31</sup> Find the variety release section of the seed portal here: <https://nigseedportal.ng/pvreg/>.

---

## Unintended negative effects

While CSP activities largely progressed as planned, a few unintended challenges emerged during the implementation period. These instances offered important learning opportunities and informed course corrections where necessary.

In the topic *Decentralised SQA*, an unforeseen institutional bottleneck emerged regarding the ownership of the Seed Tracker platform. The reluctance of IITA to fully hand over ownership to NASC significantly delayed planned activities under this strategy. This issue, which was not anticipated at the programme's inception, underscores the importance of clearly defined institutional roles and ownership arrangements from the outset of digital innovation processes.

Within *Extension on seed and cultivation practices*, initial misinterpretations of good agricultural practices by some farmers led to early-stage crop losses. Although the situation was quickly resolved through corrective field visits and follow-up training, it highlighted the critical need for continued on-the-ground support and close monitoring to reinforce learning and adoption after initial capacity-building efforts.

Regarding *Institutional markets*, while awareness-raising efforts among stakeholders directly involved in the seed sector were successful, broader awareness among key government and humanitarian actors, which is essential for effective institutional seed procurement and dissemination, remained limited. This points to the need for expanded outreach and engagement beyond the immediate seed sector in future initiatives.

The success and visibility of the *Seed sector platform* also brought about unexpected complications. Several agricultural projects have shown interest in creating similar platforms, rather than collaborating with the existing structure. To safeguard the platform's coherence and institutional value, the team initiated a 'rebranding' process. This included explicitly numbering events (e.g., 'National Seed Sector Platform webinar series Number 16'), and offering space for other projects to share their work within the platform framework, thereby promoting alignment rather than fragmentation.

In the *Plant variety protection* topic, the unexpected legal challenge in 2022 by the Registered Trustees of Health of Mother Earth Foundation (HOMEF) against Section 43(2) of the PVP Act presented a temporary obstacle. The Nigerian PVP Office successfully defended its case in the Federal High Court in Abuja, securing a favorable judgement. Although resolved, this incident highlighted the potential for legal resistance in introducing new regulatory frameworks, and the need for strategic communication and stakeholder engagement.

### c. Progress of the implementation of cross cutting themes, gender, youth and nutrition

Gender equality and youth engagement have continued to receive attention as cross-cutting themes in the CSP, with specific targets embedded across field-based topics. The programme actively pursued inclusive participation through both strategic outreach and practical adaptations.

Under the topic *Decentralised SQA*, the recruitment of LSIs was designed to provide professional opportunities for young people. Over 50 LSIs were onboarded across CSP and related initiatives, all of whom were under the age of 35, surpassing the target of 90% youth involvement. However, the target of 30% female participation proved challenging, with only three women recruited. This shortfall underscores ongoing gender-related barriers in technical roles, particularly in the northern regions.

The topic *Extension on seed and cultivation practices* implemented targeted approaches to reach women farmers and youth. These included the development and dissemination of gender-sensitive, Hausa-language pictorial guides and instructional videos on good agronomic practices (find links in Section 5, Table 3). In the reporting period the team directly engaged 5,680 farmers, including 2,636 women (46%) and 1,653 youth (29%). With these figures, the topic successfully met its gender and youth inclusion targets, while also setting a standard for culturally responsive extension materials.

---

In *Seed company marketing and promotion*, the topic met its targets for gender and youth involvement in agribusiness, as reflected in Appendix 1. Nonetheless, challenges persisted regarding women's participation in field events, particularly due to cultural and religious constraints. In response, seed entrepreneurs were encouraged to develop practical strategies to increase female participation. These discussions promoted forward-thinking solutions and a commitment to more inclusive programming in the future.

Other CSP topics also embraced opportunities to promote inclusion. For example, within the *Seed sector platform*, youth were particularly drawn to the digital and online engagement format, contributing to consistent participation in platform webinars. Moreover, efforts were made to ensure gender balance among speakers and panelists. A notable highlight was the joint CSP–ISSD Africa learning event on *Institutional markets* in February 2025, which was concluded with a woman facilitated and distinguished all-female panel comprising five Nigerian and two African experts.

#### **d. Overall project and visibility**

CSP continued to invest strategically in increasing the visibility of its work, results, and innovations across Nigeria and beyond. Multiple communication channels and events were leveraged throughout the reporting period to showcase programme achievements, engage stakeholders, and build broader awareness and support for systemic change in the seed sector.

##### *Website, social media, newsletters, and flyers*

The CSP website provided information on the programme's structure, thematic areas, partners, key events, and publications. At the conclusion of the programme, key documents were transferred to the Sahel Consulting website.<sup>32</sup> In addition, CSP actively used social media to promote programme milestones and innovations. In this reporting period, three newsletters were published and widely shared among stakeholders. Custom flyers, including a concise summary of the Nigeria Seed Road Map and PVP awareness materials, were distributed at CSP-hosted and external events, enhancing both topic-level and overall programme visibility.

##### *CSP movies*

CSP has developed a series of short films to enhance the visibility of its work. One film highlights the partnership model and the shared leadership between Nigeria and the Netherlands, while the other four focus on selected CSP topics. The films and their respective links are provided below.

- Collaborative Seed Programme: Partnership transforming the seed sector in Nigeria ([Link](#))
- Innovations in seed quality assurance to increase farmers' access to quality seed in Nigeria ([Link](#))
- Innovations to promote farmers' use of quality seed for vegetables in Northern Nigeria ([Link](#))
- On farm demos to connect seed companies and farmers in Northern Nigeria ([Link](#))
- Innovations in variety release in Nigeria to increase farmers' access to new varieties ([Link](#))

##### *Visibility through programme activities*

CSP's own implementation activities continued to serve as effective vehicles for awareness creation. A notable example is the seed entrepreneurship assessment under the *Seed company marketing and promotion* topic. The assessment report was shared with over 200 seed entrepreneurs to raise awareness about the Seed Business Model Canvas and its potential for fostering business-to-business connections locally and internationally. It generated strong interest, particularly among the 23 entrepreneurs who directly participated in the assessments.

Workshops for sharing and validation of study results were organised across topics throughout the reporting period. For instance, in May 2024, the *Institutional markets* team hosted a workshop to present preliminary findings and validate insights with key stakeholders. Find examples for other topics in Section 5a.

---

<sup>32</sup> Find CSP key documents and outputs now at a dedicated space of the website of Sahel Consulting: <https://sahelconsult.com/csp/>

---

### *Seed sector platform and SeedConnect*

The *Seed sector platform* remained a high-impact space for CSP to present its work to a wide and diverse audience. The following were key visibility moments during the reporting period:

- Online webinar (March 2024): Adoption of quality seeds for food security – *Extension* topic in collaboration with IFPRI
- Online webinar (July 2024): Impact of innovations in Nigeria’s variety release system on farmers, companies, and breeders – *Variety release* topic
- SeedConnect (November 2024): Launch of the NSRM dashboard and digital portal on PVP and variety release
- Panel discussions organised by CSP at SeedConnect (November 2024):
  - Fostering sustainable institutional seed markets in Nigeria
  - Perspectives for strengthening farmer and community-managed seed systems
- CSP closing webinar (May 2025): Contributions of the CSP to the national seed road map.

CSP topic leads participated as panelists in additional SeedConnect sessions, including those focused on decentralised SQA, and barriers to quality seed adoption, further consolidating CSP’s reputation as a thought leader in seed systems. CSP also managed a well-frequented exhibition booth at SeedConnect. In addition to presenting programme-wide achievements, selected seed companies showcased their products, further reinforcing CSP’s convening role within the sector.

### *Presentations at other meetings and events*

CSP partners were active contributors at national and international events, presenting key findings and strengthening the programme’s profile. Highlights include:

- The *Decentralised SQA* topic featured prominently at review meetings of BASICS and PROSIVA, and at the OECD Seed Schemes meeting.
- The *Extension* team presented research at ABU-IAR’s annual review meetings and participated in AGRA field days in Kaduna, conducting live demos on seedling production and agronomic practices for over 250 farmers and stakeholders.
- CSP showcased its work and farmer success stories at a major booth during the Agrofood Fair 2024 in Lagos, targeting 3,000+ agribusiness stakeholders.
- In collaboration with HortiNigeria, CSP engaged in a matchmaking event with Dutch seed companies during the HortiFair (March 2024), highlighting capacity development efforts in the *Seed company marketing and promotion* topic.
- CSP co-hosted a national conference with ISSD Africa on emergency seed programming in humanitarian contexts, featuring the institutional markets study and the ‘10 principles of seed aid’.
- The *Seed sector platform* team hosted a physical meeting with 52 seed company representatives to showcase innovations in *Variety release*, *Decentralised SQA*, and *Plant variety protection*.

### *National and international recognition*

Within Nigeria, NASC acknowledged CSP as a flagship initiative. CSP partners, including EKN, Sahel Consulting and WUR, received awards from NASC for their work and engagement. Several CSP’s innovations were shared by Wageningen Social & Economic Research at SeedNL events and have been featured in media stories showcasing the Netherlands’ ‘Dutch Diamond’ collaborative model in Africa. We also invested in a number of visuals presenting key achievements of CSP as one of SeedNL’s flagship programmes. At WUR, one of the two 2024 WUR Impact Awards was granted to the Wageningen Social & Economic Research seed team, bringing further attention to CSP’s contribution to seed sector transformation in Nigeria.

---

## 6 Sustainability

### **a. Measures identified to enhance project sustainability and proposed exit strategy**

The design of the CSP remained grounded in long-term sustainability, with its focus on selected priority topics from Nigeria's NSRM. Each of these topics addressed a critical bottleneck or opportunity in the seed sector, ensuring the programme's relevance and alignment with national development goals.

CSP implementation continued to be structured around Strategic Innovation Pathways (SIPs) as outlined in the NSRM, not only guiding the content of the work but also fostering ownership and continuity through a collaborative leadership model. Each topic was co-led by a Nigerian institution with direct responsibility for the domain and a Dutch partner contributing international expertise and sectoral insight. NASC led topics where it holds institutional mandates, such as *Decentralised SQA*, *Plant variety protection*, and the *Seed sector platform*. ABU-IAR spearheaded the *Extension* topic based on its strong research capacity needed for the action research, and the connection to NAERLS for outreach. SEEDAN, as the national voice of seed companies, led the *Seed company marketing and promotion* topic, while NACGRAB led *Variety release* due to its formal mandate in this topic. Sahel Consulting led the politically nuanced topic of *Institutional markets*.

CSP's methodology for driving sustainable change was deliberate and iterative. The programme followed a stepwise approach: diagnosing systemic challenges, validating these with stakeholders, identifying and adapting proven solutions, piloting in context, evaluating jointly, refining based on evidence, and finally, scaling up with a focus on institutionalisation. This cycle ensured that interventions were context-appropriate, technically sound, and widely supported, even though the cycle could not be finalised up to the scaling phase for all topics within the total programme period.

Capacity development remained a central pillar of CSP's sustainability strategy. Across topics, the programme has invested in strengthening both institutional and individual capacities through a mix of local and international training, mentoring, peer learning, study tours, and embedded learning-by-doing. This multi-layered approach to capacity strengthening supported not only the adoption of innovations but also their integration into the routines and systems of the lead organisations. Find in section 6b some additional information on sustainability and CSP exit organised by topic.

### **b. Description of exit strategy (if applicable)**

The exit strategy of the CSP has been thoughtfully integrated into the design and implementation of each topic. From the outset, the programme adopted a sustainability-oriented approach, ensuring that innovations are embedded within national systems, supported by key institutions, and aligned with the mandates of Nigerian stakeholders. Over the past reporting period, with the programme drawing to a close, topic teams have taken targeted steps to ensure that the results, capacities, and systems developed under CSP continue beyond its lifetime.

For the topic *Decentralised SQA*, the three topic strategies all established a foundation for continuity. The Seed Tracker system has been scaled to include multiple crops, with usage now mandated for seed companies, many of whom have received training. The two new SOPs for potato and tomato, have been finalised and distributed; the potato SOP is already in use. Moreover, regulatory recognition and uptake of the LSI model, including through parallel initiatives managed by NASC, ensures the continued development of decentralised inspection systems.

Under *Extension on seed and cultivation practices*, the exit strategy focused on institutional anchoring and capacity development. A significant achievement was the integration of training modules on quality seed use and good agronomic practices into ABU's formal degree curriculum. Complementing this, over 1,000 Hausa-language extension materials were printed and distributed, and five pre-recorded radio programmes aired in both Hausa and English to ensure widespread reach. To strengthen local systems, partnerships were formed with agro-dealers, traditional leaders, lead farmers, and Smallgrowr Ltd. A key milestone was a

---

multistakeholder workshop that resulted in consensus around a decentralised extension model, with commitments from seed companies and state agricultural agencies to support post-CSP advisory services.

For *Seed company marketing and promotion*, the team supported seed companies with intensive capacity building on topics such as demo plot management, social media marketing, and seed business planning using the Seed Business Model Canvas. Ongoing mentorship and guidance helped companies refine their promotion strategies, while efforts to foster local marketing networks among seed companies, agro-dealers, and farmers were encouraged to support continued outreach and market engagement.

The *Institutional markets* topic developed a policy brief designed to guide future seed procurement practices across humanitarian and government-led interventions. While stakeholder interest and commitment were evident during consultations, sustained follow-up will depend on future leadership and investment. The topic team has laid the groundwork for reform discussions, but further advocacy and institutional backing will be needed to fully realise its potential.

The *Seed sector platform* has been institutionalised through NASC, which has committed to its continuation as a national coordination and dialogue forum. All webinars are now branded under the 'National Seed Sector Platform' banner. Additionally, SEEDAN has grown stronger through renewed visibility and consolidation, including the reintegration of ARSCON. The association has secured additional funding to further strengthen its services and member support.

In *Plant variety protection*, the successful establishment of a functional PVP Office, the gazetting of relevant regulations, and Nigeria's accession to UPOV form a solid basis for long-term sustainability. The PVP Office is now well-positioned to provide services to local and international breeders seeking protection of their varieties, with national systems and networks firmly in place to support ongoing operations.

The *Variety release Topic* has pursued a multi-pronged exit strategy. The team prioritised the popularisation of successful innovations developed during the programme, which generated strong interest and uptake among various stakeholder groups. Advocacy visits were conducted to institutions with national mandates for key crops to secure commitments that would support the continuation of these interventions beyond CSP. A high-level learning visit to the Netherlands brought together key Nigerian decision-makers, helping to shape a shared vision for a modern, business-enabling seed sector while fostering collaboration among national leaders. In addition, the variety release guidelines were revised and updated to incorporate the tested and approved innovations into standard national procedures.

Collectively, these efforts ensure that CSP's innovations are not isolated interventions, but embedded improvements with institutional ownership, practical uptake, and long-term viability.

# 7 Risks

During programme design, CSP conducted a thorough risk assessment and developed tailored mitigation strategies for each identified risk. These strategies have been reviewed and updated where necessary throughout implementation. A full overview is included in Appendix 2. Table 6 below summarises the key risks and provides observations on the implementation of the corresponding mitigation measures during the current reporting period.

Security risks remain the most significant challenge to CSP implementation. Kano, Kaduna, and Plateau States continue to be classified as 'red zones' by the Government of the Netherlands, advising Dutch nationals against travel. CSP has maintained a system of weekly security briefs shared with partners, providing real-time updates and guidance on safety measures. This approach allowed for agile decision-making and adjustments to activity locations across multiple topics.

**Table 6** Risks and summary on implementation of mitigation strategies

| No. | Risk  | Implementation of mitigation measures   |
|-----|---|---|
| 1.  | Situation of high insecurity in Kaduna State disrupts field-based activities                        | Multiple topics were affected. In <i>Decentralised SQA</i> , activities in Plateau State's Bokkos and Mangu LGAs were halted, and implementation shifted to Jos North. In Kaduna, insecurity delayed the introduction of the Seed Tracker by over a year, before relocating efforts to safer areas like Zaria. The <i>Extension</i> team altered awareness campaigns to avoid high-risk LGAs such as Giwa and Ikara, relying on secure LGAs and partnerships with local security agencies. <i>Seed company marketing and promotion</i> abandoned certain demo sites due to threats. The <i>Institutional markets</i> team required security clearance to conduct farmer interviews. The <i>Variety release</i> team avoided travel to Zaria and in some cases to Ibadan, conducting meetings in Abuja because of travel restrictions for Wageningen Social & Economic Research staff. |
| 2.  | Fraud and corruption undermine project implementation   | Measures implemented; no cases in the reporting period.   |
| 3.  | Non-performance of partners who do not prioritise the project-supported interventions               | Measures implemented; no cases in the reporting period. However, turnover in key staff and changes in management among some seed entrepreneurs required additional follow-up to maintain alignment and momentum.  |
| 4.  | Political economy of the seed sector interferes with project implementation                         | Particularly relevant for the <i>Institutional markets</i> topic. Despite initial sensitivities, stakeholders became increasingly open to discussing system inefficiencies and proposing collaborative solutions.   |
| 5.  | Not sufficiently involving female and young professionals; and not reaching women and youth farmers | Measures implemented. However, ensuring involvement of women farmers requires tailored outreach and continuous attention and support.   |
| 6.  | Farmers are not interested in using quality seed of improved varieties                              | Measures implemented; no unexpected issues.   |
| 7.  | Unclear relationship between SeedNL, the NNSP and the Collaborative Seed Project                    | Measures implemented; fruitful collaboration of the various partners. NNSP underwent an external evaluation; outcomes are pending further clarification.  |
| 8.  | Disruption of field activities due to climatic disruptions  | Weather-related disruptions—including dry spells, droughts, and flooding—occurred sporadically and are beyond programme control. Field teams adapted plans where feasible.  |
| 9.  | Lock down and reduced domestic and international mobility due to COVID-19                           | Not relevant any more.  |

---

## 8 Institutional/Organisational Development and Human Resources

At programme level, CSP is managed jointly by Sahel Consulting (Nigerian lead) and Wageningen Social & Economic Research (formerly WCDI; Dutch lead), in close collaboration with the NASC, which serves as the coordinating agency for the Nigerian seed sector. In addition to leading selected topics, Sahel Consulting and Wageningen Social & Economic Research have continued to provide strategic, technical, and facilitation support across all topic teams. All implementation teams remained stable during the 2024–2025 reporting period, ensuring continuity and alignment in programme delivery.

CSP placed emphasis on internal learning and cross-topic collaboration during its final year. Online learning sessions for topic leads were held every six weeks, providing a platform for two topics per session to present key results and engage the group in reflective discussions. These sessions explored critical questions around change pathways, impact strategies, and opportunities for synergy. In addition, three face-to-face learning events were organised—in May and December 2024, and a final meeting in February 2025—bringing together topic leads for deeper exchange and strategic alignment.

Topic leads have consistently demonstrated the capacity to guide the implementation of their work plans. While the level of activity varied among team members, CSP invested in strengthening the capacities of individuals and institutions involved in its innovation processes. This was achieved through a mix of coaching, targeted training, workshops, and peer exchange opportunities.

CSP invested significantly in training tailored to each topic's needs. For example, under *Decentralised SQA*, LSIs were trained in Kano and Zaria, and seed companies received practical training on the use of the Seed Tracker. In *Extension on seed and cultivation practices*, extension agents and were trained to deliver tailored, gender-sensitive advice and agro-dealers were trained and certified as 'seed champions.' The *Seed company marketing and promotion* topic provided training on seed business management and digital marketing, equipping companies with skills in planning, forecasting, and promoting quality seeds online. These examples illustrate CSP's broader commitment to building sustainable capacities within the seed sector.

In September 2024, CSP facilitated a high-level study tour to the Netherlands, involving leadership from NASC, SEEDAN, NACGRAB, and the NVRC. This exchange aimed to strengthen institutional alignment, deepen insight into innovation processes, and foster shared vision and collaboration among key Nigerian seed sector actors. Notably, management teams from these institutions have been closely engaged throughout the programme, contributing to and benefiting from its development and reform agenda.

Together, these investments in human and institutional capacity have not only supported the implementation of CSP innovations but have also positioned Nigerian seed sector institutions to sustain and build upon the programme's results in the years ahead.

---

# 9 Finance

Presented in a separate document.

---

# 10 Lessons Learnt

Each CSP topic generated valuable lessons over the course of implementation. These have been captured in detail in Appendix 3, covering topic-specific challenges, strategies and innovations. Below, we present eight overarching lessons that cut across the programme and offer insight into what it takes to effectively drive seed sector transformation in Nigeria.

- 1. Stakeholder ownership and engagement are critical to lasting results**

Consistent, transparent communication and the active involvement of stakeholders at every level fostered trust and ownership. Whether through nearly ten workshops under *Variety release* or continuous dialogue on the politically sensitive *Institutional markets* topic, joint decision-making strengthened commitment and increased the likelihood of sustained outcomes.
- 2. Strong partnerships enhance credibility, scale and sustainability**

CSP's collaborative model and shared leadership, i.e. linking Nigerian institutions with Dutch expertise and sector actors, proved fundamental to achieving results. For example, the *Decentralised SQA* and *PVP* topics, demonstrated how collaboration and exchange can anchor reforms in national systems and inspire broader regional influence.
- 3. Capacity building must be tailored; ongoing and multi-level**

One-off training was often insufficient. Repeated, hands-on capacity building, targeting farmers, extension agents, seed inspectors and company staff, was critical to successful adoption. This was evident in *Extension*, *Decentralised SQA*, and *Seed company marketing and promotion*, where follow-up and context-specific content significantly improved results.
- 4. Local adaptation of innovations drives uptake**

Tools, materials and approaches must be relevant to the target audience. For example, Hausa-language pictorial guides developed under the *Extension on seed and cultivation practices* topic, and digital tools like the Seed Tracker in *Decentralised SQA*, proved effective in the current context.
- 5. Innovation thrives in inclusive, cross-sectoral platforms**

The *Seed sector platform* and CSP webinars showed that innovation accelerates when silos are broken and diverse voices, farmers, researchers, private sector and policymakers, can engage in shared learning. Inclusivity is not a 'nice-to-have,' but a driver of transformation.
- 6. Adaptability is essential in complex and evolving systems**

CSP faced disruptions ranging from insecurity to shifting positions. The ability to adapt, as shown in the flexible rollout of innovations in *Variety release* and the agile site changes in *Decentralised SQA*, was key to navigating uncertainty and maintaining momentum.
- 7. Evidence-based approaches are more effective than intuition-led action**

Rigorous research and documentation supported informed decisions, from refining regulatory procedures to piloting system innovations in both *Variety release* and *Decentralised SQA*. Evidence helped align stakeholders, defend positions, and will support future scaling of validated practices.
- 8. Structural transformation takes time and must be supported beyond project timelines**

Some changes, such as increased seed adoption by farmers or institutional reform, unfold over multiple seasons or policy cycles. Topics like *Extension* and *Institutional markets* highlighted the need for long-term partnerships and post-project follow-up to secure lasting impact.

# Appendix 1 Indicators and targets

| Indicator number     | Indicator description  | Baseline | 2021 | 2022   | 2023    | 2024/25 | Target  | Cumulative reach | % reached | Notes  |
|----------------------|--|----------|------|--------|---------|---------|---------|------------------|-----------|--|
| <b>OUTCOME level</b> |  |          |      |        |         |         |         |                  |           |  |
| 1                    | Number of small-scale food producers (SSFP) that progressively <b>decrease the yield gap</b> in Kaduna State | 0        | 0    | 12,968 | 162,664 | 206,242 | 291,800 | 381,874          | 130       | Variety demos field & vegetable crops; extension events; targeted social media Ads |
|                      | female   |          |      | 4,100  | 54,688  | 30,143  | 58,360  | 88,931           | 152       |  |
|                      | male   |          |      | 8,868  | 107,976 | 176,099 | 233,440 | 292,943          | 125       |  |
|                      | <35  |          |      | 4,842  | 4.370   | 206,242 | 90,460  | 129,232          | 143       |  |
| 2                    | Number of small-scale food producers with <b>increased productivity</b> in Kaduna State                      | 0        | 0    | 12,968 | 162,664 | 206,242 | 291,800 | 381,874          | 130       | Similar to indicator 1   |
|                      | female   |          |      | 4,100  | 54,688  | 30,143  | 58,360  | 88,931           | 152       |  |
|                      | male   |          |      | 8,868  | 107,976 | 176,099 | 233,440 | 292,943          | 125       |  |
|                      | <35  |          |      | 4,842  | 4.370   | 206,242 | 90,460  | 129,232          | 143       |  |
| 3                    | Number of small-scale food producers <b>using quality seed</b> in Kaduna State                               | 0        | 0    | 7,781  | 25,157  | 63,769  | 146,190 | 96,707           | 66        | Variety demos field & vegetable crops; extension events; targeted social media Ads |
|                      | female   |          |      | 2,460  | 9,834   | 27,375  | 29,240  | 39,670           | 136       |  |
|                      | male   |          |      | 5,321  | 15,323  | 36,394  | 116,950 | 57,038           | 49        |  |
|                      | <35  |          |      | 2,905  | 9,955   | 18,558  | 45,320  | 31,418           | 69        |  |
| 4                    | Number of small-scale food producers <b>using improved varieties</b> in Kaduna State                         | 0        | 0    | 7,781  | 25,157  | 63,769  | 146,190 | 96,707           | 66        | Similar to indicator 3   |
|                      | female   |          |      | 2,460  | 9,834   | 27,375  | 29,240  | 39,670           | 136       |  |
|                      | male   |          |      | 5,321  | 15,323  | 36,394  | 116,950 | 57,038           | 49        |  |
|                      | <35  |          |      | 2,905  | 9,955   | 18,558  | 45,320  | 31,418           | 69        |  |
| 5<br>Topic 1         | Number of crop specific seed quality assurance protocols in place and used                                   | 1        | 1    | 2      | 1       | 0       | 3       | 4                | 133       | Tomato, potato, rice & maize; but also LSI protocol (last not counted)             |

| Indicator number     | Indicator description   | Baseline | 2021 | 2022  | 2023   | 2024/25 | Target | Cumulative reach | % reached | Notes   |
|----------------------|---|----------|------|-------|--------|---------|--------|------------------|-----------|---|
| <b>OUTCOME level</b> |   |          |      |       |        |         |        |                  |           |   |
| 6<br>Topic 1         | Number of NASC inspectors, third party inspectors and accredited seed quality assurance professionals   | 133      | 133  | 19    | 22     | 10      | 177    | 184              | 104       | 10 additional through ENCIBSS   |
| 7<br>Topic 2         | Number of action research projects on challenges related to the use of quality seed, improved varieties and advanced cultivation practices  | 0        | 1    | 3     | 3      | 2       | 8      | 9                | 113       | 2 new projects started in 2024; seed quality in supply chain; and farmers' capacities               |
| 8<br>Topic 2         | Number of organisations in Kaduna State using recommendations on challenges related to the use of quality seed, improved varieties and advanced cultivation practices resulting from action research projects | 0        | 0    | 15    | 6      | 7       | 20     | 28               | 140       | Additionally: NIRSAL, Sasakawa Africa, Rusraz Nigeria Ltd, KNARDA Kano, AGRA, Propcom+, Smallgrower |
| 9<br>Topic 3         | Number of Nigerian and Dutch seed companies operating in Kaduna and Kano States with improved capacity to promote varieties   | 11       | 11   | 13    | 14     | 14      | 16     | 14               | 88        | 9 Nigerian companies for field crops; 5 Nigerian-NL partnerships for vegetables                     |
| 10<br>Topic 3        | Number of small-scale food producers reached in Kaduna and Kano States through variety promotion by seed companies  | 0        | 0    | 5,876 | 16,075 | 13,700  | 29,000 | 35,651           | 123       | 146 demos and 243 field events with 14 companies/distributors                                       |
|                      | female  | 0        |      | 1,740 | 6,370  | 4,468   | 5,800  | 12,578           | 217       |   |
|                      | male  | 0        |      | 4,136 | 9,705  | 9,232   | 23,200 | 23,073           | 99        |   |
|                      | <35   | 0        |      | 2,194 | 6,361  | 3,987   | 8,990  | 12,542           | 140       |   |
| 11<br>Topic 3        | Number of improved varieties included in seed company operated variety demos in Kaduna and Kano State   |          | 0    | 23    | 32     | 2       | 55     | 57               | 104       |   |
|                      | Field crops   | 0        |      | 23    | 6      | 0       | 25     | 29               | 116       | Total: 13 maize, 7 rice, 4 sorghum, 5 soybean   |
|                      | Horticultural crops   | 0        | 0    | 0     | 31     | 2       | 30     | 28               | 93        | Total: 10 tomato, 5 onion, 2 sweetcorn, 2 cabbage, 3 sweet pepper, 3 hot pepper, 2 cucumber, 1 okra |

| Indicator number     | Indicator description   | Baseline | 2021   | 2022   | 2023   | 2024/25 | Target | Cumulative reach | % reached | Notes  |
|----------------------|---|----------|--------|--------|--------|---------|--------|------------------|-----------|--|
| <b>OUTCOME level</b> |   |          |        |        |        |         |        |                  |           |  |
| 12<br>Topic 4        | Number of seed market interventions by institutional seed buyers in accordance with the good practice guidelines for institutional markets                              | 0        | 0      | 0      | 0      | 0       | 10     | 0                | 0         | Pilots replaced by policy briefs as outputs  |
| 13<br>Topic 5        | Number of dialogues and consultations contributing to NSRM implementation engaging at least 3 different types of stakeholders   | 0        | 12     | 19     | 30     | 44      | 34     | 105              | 309       | Dialogues in context of topic 1 (8), topic 2 (9), topic 3 (3), topic 4 (2), topic 5 (10), topic 7 (5), topic 8 (7); see topic 5 reach document |
| 14<br>Topic 5        | Number of collaborative projects contributing to NSRM implementation agreed upon in the seed sector platform and involving at least 3 types of seed sector stakeholders | 0        | 5      | 18     | 21     | 14      | 55     | 58               | 105       | Additional: see topic 5 reach document   |
| 15<br>Topic 5        | Number of seed sector interventions by different development partners contributing to the NSRM  | 50       | 50     | 3      | 12     | 10      | 70     | 75               | 107       | 10 additional projects; details in topic 5 reach document  |
| 16<br>Topic 7        | Number of organisations capable of and implementing tests for Distinctiveness, Uniformity and Stability (DUS)   | 0        | 0      | 2      | 4      | 0       | 4      | 6                | 150       | NASC, NACGRAB, NIHORT, NCRI, IAR and IAR&T   |
| 17<br>Topic 7        | Number of varieties granted plant breeders rights   | 0        | 0      | 0      | 0      | 0       | 10     | 0                | 0         | Expected to start in 2025  |
| 18<br>Topic 8        | Duration of the process for variety release   | 43       | 43     | 12     | 12     | 12      | 36     | NA               | 100       | 12 months for vegetables, ECOWAS varieties, breeding data available; others between 24-36 months   |
| 19<br>Topic 8        | Average cost to conclude variety release (in US\$)  |          |        |        |        |         |        |                  |           |  |
|                      | Maize   | 15,000   | 15,000 |        | 10,000 | 10,000  | 12,000 | N/A              | 100       |  |
|                      | Rice  | 27,000   | 27,000 |        |        |         | 21,600 | N/A              | 0         | Removed rice as pilot crop; other innovations can be used for rice   |
|                      | Tomato  | 12,500   | 12,500 | 10,000 | 10,000 | 10,000  | 10,000 | N/A              | 100       | Costs to be adapted periodically   |

| Indicator number     | Indicator description  | Baseline | 2021 | 2022   | 2023    | 2024/25 | Target  | Cumulative reach | % reached | Notes   |
|----------------------|--|----------|------|--------|---------|---------|---------|------------------|-----------|---|
| <b>OUTCOME level</b> |  |          |      |        |         |         |         |                  |           |   |
| 20<br>Topic 8        | Number of varieties released per crop contributing to food and nutrition security per year   |          |      |        |         |         |         |                  |           | Note that using the innovations also 2 cassava varieties were released in 2024  |
|                      | Maize  | 9        | 9    | 14     | 8       | 14      | 12      | 45               | 375       |   |
|                      | Rice   | 1        | 1    | 1      | 1       | 5       | 5       | 8                | 160       |   |
|                      | Tomato   | 0        |      | 5      | 0       | 0       | 2       | 5                | 250       | Also 2 pepper and 2 corchorus (leafy vegetable) varieties released in 2024  |
| <b>OUTPUT level</b>  |  |          |      |        |         |         |         |                  |           |   |
| 21                   | Number of small-scale food producers <b>directly reached</b> in Kaduna state disaggregated for male/female and age (% <35 yrs)         | 0        | 0    | 6,484  | 145,654 | 186,862 | 109,900 | 339,000          | 308       | Variety demos field & vegetable crops; extension events; targeted social media Ads  |
|                      | female   | 0        |      | 2,050  | 47,904  | 23,039  | 21,980  | 72,993           | 332       |   |
|                      | male   | 0        |      | 4,434  | 97,750  | 163,823 | 87,920  | 266,007          | 303       |   |
|                      | <35  | 0        |      | 2,421  | 57,638  | 54,381  | 34,070  | 114,440          | 336       |   |
| 22                   | Number of small-scale food producers <b>indirectly reached</b> in Kaduna State disaggregated for male/female and age (% <35)           | 0        | 0    | 12,968 | 162,664 | 206,242 | 291,800 | 381,874          | 130       | Farmer-to-farmer extension  |
|                      | female   |          |      | 4,100  | 54,688  | 30,143  | 58,360  | 88,931           | 152       |   |
|                      | male   |          |      | 8,868  | 107,976 | 176,099 | 233,440 | 292,943          | 125       |   |
|                      | <35  |          |      | 4,842  | 4.370   | 206,242 | 90,460  | 129,232          | 143       |   |
| 23                   | Number of Dutch supported interventions in seed sector transformation in Nigeria   | 0        | 11   | 1      | 1       | 17      | 13      | 30               | 231       | Find more information in Topic 5 reach document   |
| 24                   | Number of strengthened seed sector stakeholders within the process of seed sector transformation in Nigeria                            | 0        | 0    | 31     | 11      | 39      | 60      | 82               | 134       | Find more information in Topic 5 reach document   |
| 25                   | Number of reforms/ improvements in seed policies/laws/regulations benefitting at least tens of thousands of small scale food producers | 0        | 0    | 6      | 5       | 3       | 25      | 14               | 56        | 2 guidelines for in-company and service provider LSIs; 1 final draft updated and revised guidelines for registration and release of new crop varieties in Nigeria |

## Appendix 2 Risks and mitigation strategies

In the tables below the risks and mitigation strategies are elaborated, which are also part of the approved CSP proposal, and have at later stages been updated where necessary.

| <b>Risk</b> | <b>1. Situation of high insecurity in Kaduna State disrupts field-based activities</b>  |
|-------------|---|
| Mitigation  | <ul style="list-style-type: none"> <li>• This risk only concerns topic 1-Decentralised SQA, topic 2-Extension and topic 3-Seed company marketing &amp; promotion, which include field-based activities in Kaduna State, Kano State, and in some cases, for topic 1, Plateau State</li> <li>• Work with the staff of local partners who understand the local languages and are fully familiar with the local situation</li> <li>• Through local partners, enlist the buy-in and support of the local community leaders (e.g. traditional leaders) to facilitate the implementation process of project activities</li> <li>• Confer with existing projects in the various locations to establish critical high-risk security areas within each community to inform decision making on the area of intervention</li> <li>• Restrict the work to those LGA's in Kaduna State, Kano State and Plateau State which are considered relatively safe</li> <li>• Follow the safety instructions of EKN Abuja in relation to traveling and working in Kaduna State, Kaduna State and Plateau State; and inform EKN on travel plans of international staff</li> <li>• Host the project field staff in Zaria, which is a generally safe environment; Zaria has good accessibility to both Kaduna State and Kano State and therefore creates some flexibility in planning and operating activities in both states</li> <li>• Plan for field-based activities based on continuous security assessments in Kaduna State, and shift activities to Kano State in case of high security risks in Kaduna State; consult EKN in this process</li> <li>• Sahel Consulting works with a company which develops weekly security briefs which are shared with all key CSP partners; we work according to the advice in these briefs</li> </ul> |
| Likelihood  | Likely (topic 1, 2 & 3)   |
| Impact      | Moderate (topic 1, 2 & 3)   |

| <b>Risk</b> | <b>2. Fraud and corruption undermine project implementation</b>  |
|-------------|--|
| Mitigation  | <ul style="list-style-type: none"> <li>• Each implementing partner must establish or demonstrate the functioning of an anti-fraud and corruption policy; such policies are an integral part of the code of conduct of the project</li> <li>• Establish and agree upon the code of conduct together with all project partners, including clauses on issues like absence of sitting allowances, use of project equipment and project incentives; the code of conduct will become an attachment to partner contracts as well as sub-contracts</li> <li>• Note that in line with government directives, partners like NASC have functional anti-corruption and transparency units, guiding against corruption in public institutes</li> <li>• Establish clear reporting and accounting systems and structures for the project to ensure limited room for fraudulent activities</li> <li>• Annual audit of Dutch lead partner WCDI and Nigerian lead partner Sahel Consulting; final audit of Dutch consortium partner Naktuinbouw</li> <li>• Establish an agile and lean contracting structure, where Sahel Consulting will be responsible for subcontracting partners in Nigeria, based on agreed terms of reference</li> <li>• Provide partners with additional funds only after use of earlier provided funds has been appropriately reported and approved, and transfer funds for activities in smaller and more frequent disbursements</li> <li>• Zero tolerance on corruption with blacklisting and exclusion of partners if such practices occur</li> <li>• Set up a whistle-blower system to enable the team and impacted stakeholders to report any fraudulent activities</li> <li>• Based on the in-depth stakeholder analysis as conducted in the inception phase, invite the appropriate stakeholders to participate in the project's activities</li> <li>• Ask for monthly progress reports and organise regular progress meetings with topic leads to keep track of performance for the different topics</li> <li>• Organise weekly programme management meetings of WCDI, Sahel and NASC; and regular meetings of WCDI, Sahel and EKN to keep track on progress of the programme</li> </ul> |
| Likelihood  | Possible   |
| Impact      | Moderate   |

| <b>Risk</b> | <b>3. Non-performance of partners who do not prioritise the project-supported interventions</b>  |
|-------------|--|
| Mitigation  | <ul style="list-style-type: none"> <li>• The seed sector review process (2019-2020) has illustrated high competence and interests of key partners</li> <li>• Carefully select non-government project partners with a keen interest in the topic, based on consultation of NASC and Sahel and the in-depth stakeholder analysis conducted in the inception phase</li> <li>• Work with leadership of government service providers to ensure that we have continuity of staff in the implementation of the project</li> <li>• Develop performance-based contracts outlining clear activities and deliverables, and complete payments only after completion of the activities</li> <li>• Develop and implement a project planning, monitoring and evaluation system that keeps track of activities including a warning system in the case of non-performance</li> <li>• Discuss non-performance with partners and replace partners in the case of lack of improvement</li> </ul> |
| Likelihood  | Unlikely   |
| Impact      | Minor  |

| <b>Risk</b> | <b>4. Political economy of the seed sector interferes with project implementation</b>  |
|-------------|--|
| Mitigation  | <ul style="list-style-type: none"> <li>• Implement an in-depth stakeholder analysis during the inception phase, mapping the power and interests, including potential resistance towards change, of Nigerian seed sector stakeholders in general as well as in relation to the different CSP topics</li> <li>• Track and keep key stakeholders and partners informed about the political and economic challenges of the agriculture sector in Nigeria to avert potential economic and political challenges</li> <li>• Enlist the support of the government agencies for the execution of the project</li> <li>• Work according to the National Seed Road Map (NSRM), which has been adopted by government agencies and private sector actors, limiting the impact of political issues on the project</li> <li>• Avoid any political party involvement and entanglement by the project and its implementing partners</li> <li>• Create transparent governance and management structures for the implementation of the project and its sub-projects</li> <li>• Ensure that documentation on project and project topic activities and organisations involved are available within the public domain</li> <li>• Ensure regular reporting to a governing or coordination body for CSP, i.e. the CSP steering committee, in which both Nigerian and Dutch stakeholders are represented</li> </ul> |
| Likelihood  | Unlikely   |
| Impact      | Moderate   |

| <b>Risk</b> | <b>5. Not sufficiently involving female and young professionals; and not reaching women and youth farmers</b>  |
|-------------|--|
| Mitigation  | <ul style="list-style-type: none"> <li>• Include a gender and generational analysis in the baseline</li> <li>• Agree with CSP partners to establish mixed teams for project implementation in terms of gender and generation; report and review team composition annually</li> <li>• In the context of topics 2 and 3, include a clear gender and youth focus in the planning and monitoring of activities such as studies, pilots and meetings, for improving women and youth farmer access to quality seed of improved varieties</li> <li>• Annually report and review achievements of topic 2 in effectively addressing interests of, and topic 3 in reaching women and youth farmers; and in case of non-performance take appropriate actions</li> <li>• Note that impact indicators 1 to 4 are measured at the household level, and cannot be separated by gender and generation; indicators 10, 21 and 22 are disaggregated by gender and generation</li> <li>• Agree with partners to ensure that activities as implemented by the project will not negatively impact the access of women and youth to quality seed of improved varieties (do no harm)</li> <li>• Include a Civil Society Organisation in the project's steering committee</li> </ul> |
| Likelihood  | Possible   |
| Impact      | Minor  |

| <b>Risk</b> | <b>6. Farmers are not interested in using quality seed of improved varieties</b>  |
|-------------|---|
| Mitigation  | <ul style="list-style-type: none"> <li>• Study in topic 2 how to best implement seed and variety promotion within the current cultural setting</li> <li>• Take a non-judgemental approach on where and how farmers source their seed</li> <li>• Focus on those farmers and crops, where the use of quality seed of improved varieties pays off in terms of increased productivity, income and resilience</li> <li>• Work in line with the production system of farmers, for example, also include OPVs for maize or tomato if these continue to be preferred over hybrids</li> <li>• Combine introduction of quality seed of improved varieties with appropriate cultivation practices</li> <li>• Provide farmers with simple economic models to analyse the profitability of using quality seed of improved and if relevant hybrid varieties</li> <li>• Work with local seed companies who know the seed market</li> <li>• Accept that seed markets fluctuate in relation to crop and food markets, and farmers respond to that in their options for purchase of quality seed</li> </ul> |
| Likelihood  | Rare  |
| Impact      | Moderate  |

| <b>Risk</b> | <b>7. Unclear relationship between SeedNL, the NNSP and the Collaborative Seed Programme</b>   |
|-------------|--|
| Mitigation  | <ul style="list-style-type: none"> <li>• During the project's inception phase, discuss with EKN the governing and coordination structure for both the NNSP (EKN in the lead, bringing together Nigerian and Dutch lead organisations of Dutch supported seed and horticulture interventions in Nigeria) and the CSP (WUR, Sahel and NASC in the lead), and clearly define the relationship</li> <li>• Whereas WCDI and partners are responsible for the CSP, EKN will lead the NNSP</li> <li>• During the project's inception phase, elaborate a clear communication and reporting structure among the CSP, the NNSP and SeedNL</li> <li>• WCDI is leading the CSP as well as the Ethio-Netherlands Seed Partnership; these two projects are considered by SeedNL as flagship projects</li> <li>• Engage closely with SeedNL to facilitate sharing of lessons learnt of CSP with Dutch stakeholders</li> </ul> |
| Likelihood  | Rare   |
| Impact      | Minor  |

| <b>Risk</b> | <b>8. Disruption of field activities due to climatic disruptions</b>   |
|-------------|--|
| Mitigation  | <ul style="list-style-type: none"> <li>• This risk only concerns topic 1-Decentralised SQA, topic 2-Extension and topic 3-Seed company marketing and promotion, which include field-based activities in Kaduna State, Kano State, and to a very limited degree, Plateau State</li> <li>• Most activities in the project are targeting system changes in the sector, and thereby the potential impact of climatic disruptions on the performance of the project remains limited</li> <li>• For the activities in topic 1, 2 and 3, give major consideration to varieties that are more drought tolerant and have other traits that improve climate resilience</li> <li>• Promote crop cultivation practices that fit with the current climatic conditions</li> <li>• Accept that climatic disruptions, like too much or too little rain may occur and are beyond our control</li> </ul> |
| Likelihood  | Possible (CSP 1, CSP 2 and CSP 3)  |
| Impact      | Major (CSP1, CSP 2 and CSP 3)  |

| <b>Risk</b> | <b>9. Lock down and reduced domestic and international mobility due to COVID-19 a)</b>  |
|-------------|---|
| Mitigation  | <ul style="list-style-type: none"> <li>• Leverage technology for activities that do not require field visits and in-person meetings, using digital conferencing, zoom meetings, web-based planning, monitoring, evaluation and reporting, etc.</li> <li>• Thus, limit local, national and international travel</li> <li>• Follow the travel guidelines of the Ministry of Foreign Affairs and WUR for international travel</li> <li>• In case of limitations in international travel, discuss with the project team how local partners can take over responsibility for certain activities</li> <li>• Ensure all team members (especially field teams) carry the Federal Government issued letter to enable the free movement of stakeholders in the food and agriculture sector</li> <li>• Advocate for and obtain similar letters from the Kaduna government to enable the free movement of project teams</li> <li>• Engage with stakeholders during the pandemic through online surveys and discussions</li> <li>• Adapt project plan if needed based on online surveys and discussions; inform EKN Abuja accordingly</li> </ul> |
| Likelihood  | Likely  |
| Impact      | Major   |

a) The COVID-pandemic no longer hampers CSP implementation. COVID-19 created new ways of working and new division of responsibilities in programme management and implementation, that have now become common practice. This includes intensive use of online engagement tools and reduced international travel.

## Appendix 3 Lessons learnt by CSP topic

The table below presents the lessons learnt by CSP topic. These topic-specific insights have been synthesised into broader, cross-cutting lessons presented in Section 10 of the report.

| No. | CSP topic                                   | Lessons learned   |
|-----|---|---|
| 1.  | Decentralised SQA                           | <p><i>Continuous sensitisation is crucial to enable full compliance with the Seed Tracker</i> – Ongoing awareness and training are essential to promote adoption and effective use. Regular engagement with producers, regulators, and farmers enhances compliance and strengthens the tool’s impact.</p> <p><i>Capacity building is essential for effective implementation of the Seed Tracker and optimal performance of LSIs</i> – 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.</p> <p><i>Integrating LSI models with other system improvements enhances sustainability</i> – Combining the LSI model with regulatory and digital monitoring systems improves efficiency, data accuracy, and decision-making in seed certification and distribution.</p> <p><i>NASC must take full ownership of its ICT platform for long-term viability</i> – Sustainability depends on NASC investing in in-house expertise, system upgrades, and cybersecurity to ensure control and reliability of digital systems.</p> <p><i>Pilot schemes should be scaled for broader impact</i> – Expanding and institutionalising successful pilots will increase adoption, strengthen compliance, and improve the quality and availability of certified seed nationwide.</p> |
| 2.  | Extension on seed and cultivation practices | <p><i>Intensive training and follow-up improve farmer adoption</i> – 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.</p> <p><i>Participatory approaches are more effective than top-down methods</i> – Interactive formats such as workshops and radio call-ins facilitate engagement and built trust. Co-developing materials with farmers and involving community leaders increased relevance and reach.</p> <p><i>External economic shocks affect technology adoption</i> – Issues like Naira depreciation limited farmers’ ability to invest in quality seeds, despite training. This highlighted the need to pair extension with market linkages and economic resilience strategies.</p> <p><i>Short project duration limits assessment of long-term change</i> – Behavioral 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.</p>  |
| 3.  | Seed company marketing and promotion        | <p><i>Building agro-dealer and extension agent capacity is vital for effective outreach</i> – 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.</p> <p><i>Simple, visual materials work best for farmer engagement</i> – 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.</p> <p><i>Public-private partnerships can bridge gaps in seed adoption efforts</i> – 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.</p>   |
| 4.  | Institutional markets                       | <p><i>Sustained dialogue is essential for sensitive, politically complex topics</i> – Building trust and securing stakeholder buy-in requires ongoing engagement, especially when addressing institutional reform and market governance.</p> <p><i>Seed aid principles offer a strong foundation for more constructive institutional market interventions</i> – The 10 guiding principles for seed aid can inform the development of shared guidelines for institutional seed interventions, fostering collaboration and transparency.</p> <p><i>Stakeholders support the creation of a governance and coordination unit</i> – There is broad consensus on the need for a dedicated structure to steer institutional seed market activities and ensure effective alignment across actors.</p>   |

| No. | CSP topic                | Lessons learned   |
|-----|--------------------------|---|
| 5.  | Seed sector platform     | <p><i>Cross-sector collaboration drives seed sector development</i> – 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.</p> <p><i>Effective sector transformation is guided by evidence</i> – Policies, interventions and actions must be grounded in rigorous studies. Data-driven approaches help move beyond assumptions and enable informed, targeted interventions.</p> <p><i>Flexible governance is key in a dynamic agricultural sector</i> – Static models do not allow dynamic innovation. Seed sector governance should support continuous learning, adaptive planning, and timely policy responses.</p> <p><i>Inclusive platforms enable sustainable progress</i> – 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.</p>                     |
| 7.  | Plant variety protection | <p><i>Sustaining progress requires continued collaboration</i> – 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.</p> <p><i>Monitoring mechanisms are essential for sustained progress</i> – A clear system to track implementation and progress is needed to maintain momentum, deliver on stakeholder expectations, and avoid setbacks.</p> <p><i>Success in Nigeria is key for regional credibility</i> – The PVP system in Nigeria serves as a model for other African countries. A failure would reinforce opposition narratives, while success can inspire wider adoption across the continent.</p>  |
| 8.  | Variety release          | <p><i>Regular stakeholder engagement builds alignment and ownership</i> – 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.</p> <p><i>Documenting processes supports learning and replication</i> – 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.</p> <p><i>Flexibility enables effective response to evolving challenges</i> – 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.</p> |



---

Wageningen Social & Economic Research  
P.O. Box 88  
6700 AB Wageningen  
The Netherlands  
T +31 (0)317 48 48 88  
E [info.wser@wur.nl](mailto:info.wser@wur.nl)  
[wur.eu/social-and-economic-research](http://wur.eu/social-and-economic-research)

REPORT 2025-A012



---

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



---

Wageningen Social & Economic Research  
P.O. Box 88  
6700 AB Wageningen  
The Netherlands  
T +31 (0) 317 48 48 88  
E [info.wser@wur.nl](mailto:info.wser@wur.nl)  
[wur.eu/social-and-economic-research](http://wur.eu/social-and-economic-research)

Report 2025-A012

---

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.

