



**Capacity Development Training Report  
for  
Commercial Seed Entrepreneurs  
in  
Nigeria and Ghana**

## Training Scope in Nigeria

The scope of the capacity development sessions involves profiling yam farmers across project locations in Abia, Benue, Edo, Enugu, Niger, and Oyo identified by seed company partners and other PROSSIVA Yam Leadership to evaluate their priorities and capabilities in becoming Certified Seed Entrepreneurs. Based on the identified gaps, customized training modules were developed, covering key areas such as understanding the Yam Seed System in Nigeria, the fundamentals of operating as a Certified Seed Entrepreneur, essential personal characteristics of successful entrepreneurs, and Good Agronomic Practices (GAP) for Seed Yam Production. The training schedule and agenda were collaboratively developed with the International Institute of Tropical Agriculture (IITA) team.

The Sahel team facilitated the business training sessions, while the IITA team provided technical training on Good Agronomic Practices. The training sessions also featured active participation from the National Agricultural Seed Council (NASC) regional officers, who guided regulatory compliance and field certification guidelines.

The training in Nigeria was attended by the Sahel team, IITA, and the PROSSIVA Project representatives, as highlighted below:

### **Sahel Team Representative:**

- Paschal Adikaibe

### **IITA Team Representatives:**

- Dr. Beatrice Aighewi – Abuja Station Manager
- Dr. Daniel Aihebhoria – Agronomist

### **PROSSIVA Team Representatives:**

- Prof. Morufat Balogun – Project Lead
- Mr. Muhammed Adesina – Marketing Officer
- Mr. Olusola Bodunde – Project Administrator

Additionally, the training date, language of engagement, engagement approach, and training modules are highlighted below:

**Training Date:** 9<sup>th</sup> June – 5<sup>th</sup> July 2024.

**Language of Engagement:** English, Pidgin, Hausa, Igbo, and Yoruba.

**Engagement Approach:** We implemented a two-day training strategy for this activity. On the first day, the Sahel Team facilitated a business development training on managing a successful seed yam business in Nigeria. The second day was dedicated to “Good Agronomic Practices” in seed yam production, with practical training sessions led by the IITA Team. This approach ensured farmers acquired the business and technical skills required for successful certified seed yam production. In total, **447** participants attended the training sessions across various locations in Nigeria.

**Modules:** Understanding the Yam Seed System in Nigeria, Fundamentals of Operating as a Seed Entrepreneur, Personal Characteristics of a Successful Entrepreneur, and Good Agronomic Practices for Seed Yam Production.

The table below highlights the training schedule across all the project locations:

**Table 1: Training Schedule and the Number of Participants**

Partner	Seed Company Representative	Location (State)	Date of Engagement	Number of CSE Participants
GoSeed	<ul style="list-style-type: none"> <li>Mr. Julius Taiwo</li> <li>Mr. Babatunde</li> </ul>	Edo	10 <sup>th</sup> – 11 <sup>th</sup> June	29
Nwabudo Agro Seeds and Input Company Limited	<ul style="list-style-type: none"> <li>Ms. Precious Nwabudo</li> </ul>	Abia	13 <sup>th</sup> – 14 <sup>th</sup> June	30
Strategic Seeds	<ul style="list-style-type: none"> <li>Mr. Samuel</li> </ul>	Enugu	17 <sup>th</sup> – 18 <sup>th</sup> June	53
Umudike Seeds	<ul style="list-style-type: none"> <li>Ms Ene Okachi</li> </ul>	Benue	20 <sup>th</sup> – 21 <sup>st</sup> June	33
GoSeed	<ul style="list-style-type: none"> <li>Mr. Julius Taiwo</li> <li>Mr. Babatunde</li> </ul>	Benue	20 <sup>th</sup> – 21 <sup>st</sup> June	30
Da-Allgreen	<ul style="list-style-type: none"> <li>Engr. Francis Danlami</li> </ul>	Niger	23 <sup>rd</sup> – 24 <sup>th</sup> June	35
Da-Allgreen	<ul style="list-style-type: none"> <li>Engr. Francis Danlami</li> </ul>	Kaduna	23 <sup>rd</sup> – 24 <sup>th</sup> August	15
GoSeed	<ul style="list-style-type: none"> <li>Dr Mercy Diebiru-Ojo</li> <li>Mr. Julius Taiwo</li> <li>Ms. Magdalene Osakwe</li> </ul>	Oyo	26 <sup>th</sup> June – July 4 <sup>th</sup>	222

The table below highlights the NASC representatives who also participated in the training across the locations:

Partner	Name	Location (State)	Contact Number
National Agricultural Seed Council	Mr. Stephen Unugbe	Edo	08034502466
	Mr Igwe Daniel	Abia	07038867175
	Mr Ukpe Kingsley	Enugu	08038898554
	Mr James Tersur	Benue	08161228066
	Mr Adeyemo David	Niger	08134956387
	Mr Segun Ibiteyo	Oyo	08068213439

### Demo Plots Establishment

During the technical training, the IITA team and the CSEs (Community Seed Entrepreneurs) established demonstration trials at all locations. Together with the training participants, they planted 500 pieces of Kpamyo variety foundation seed yams at each site, using a Lead Farmer's field as the demonstration site. The lead farmer will maintain the field, while Community Research Supervisors (CRS) and other PROSSIVA partners will conduct monitoring visits to provide technical support as needed. Also, the NASC regional officers were present during the field establishment to monitor the planting activities.

This hands-on approach was designed to strengthen the participants' understanding and promote adopting best practices in seed yam production. The Lead Farmers' contact details, the date of field establishment for the Demonstration plots, and their locations are presented in the table below:

State	Location	Lead Farmer's Name	Phone Number	Date of Establishment
Edo	Uromi	Pst. Joseph	08056347570	16 <sup>th</sup> June 2024
	Irrua	Dr. Awe Oluwafemi	08033924824	24 <sup>th</sup> June 2024
Abia	Amakama	Mr. Daniel Sunday	08072667233	14 <sup>th</sup> June 2024
Enugu	Enugu North	Mrs. Ogochukwu Ugwu	08066855287	18 <sup>th</sup> June 2024
Benue	Buruku	Mrs. Chichi Ngufan	09014782161	21 <sup>st</sup> June 2024
Niger	Niger	Alh. Ibrahim Magaji	07039773551	25 <sup>th</sup> June 2024
Oyo	Lanlate**	Mr. Remi Balogun	07033352284	3 <sup>rd</sup> July 2024
Oyo	Okeho**	Mr. Ade Biodun	07048726282	4 <sup>th</sup> July 2024

*\*\* 250 Seed yam tubers were provided for farmers in Lanlante and Okeho.*

### Seed Yam Demand Projection for CSEs in Nigeria

Following the profiling and training of potential CSEs and establishment of demo plots, the CSEs expressed interest in purchasing seed yams from private seed companies for further multiplication and sales. Therefore, the Sahel team interacted with the trained farmers to understand and estimate their demand for high-quality seed yam.

The table below shows the estimated demand for seed yam for the commercial seed entrepreneurs who participated in the business training in Nigeria.

Country	Location (State)	Number of Potential CSEs	Estimated Seed Demand (Kg)	Seed Company Partner
Nigeria	Abia	30	1,708	Nwabudo Seeds
	Benue	63	3,587	Umudike/GoSeed
	Edo	27	1,651	GoSeed
	Enugu	53	3,018	Strategic Seeds
	Niger	35	1,993	Da-Allgreen
	Oyo	189	12,642	GoSeed
	Kaduna	15	0	Da-Allgreen
Total Demand (Estimate)			~ 20 Tons	

### Key Underlying Assumptions

- An average CSE in Nigeria is willing to start with **1 plot**, which is **600SQM**.
- The total seed yam demand estimated for Nigeria will be **67 Kg** per farmer using the 100,000-plant population density per hectare.
- The total market demand for the CSEs in Nigeria is approximately **18 Tons** of seed yam, assuming 75% of the CSEs will purchase seed yam when it becomes available.

- *An additional 10% of farmers not part of the training may be willing to purchase seed yam when it becomes available.*

## Training Scope in Ghana

The scope of the capacity development sessions involves profiling yam farmers across project locations in Savanna, Oti, and Northern, identified by seed company partners, to evaluate their priorities and capabilities in becoming Certified Seed Entrepreneurs. Based on the identified gaps, customized training modules were developed, covering key areas, such as understanding the Yam Seed System in Ghana, fundamentals of operating as a seed entrepreneur, and good agronomic practices for seed yam production. The training schedule and agenda were collaboratively developed with the International Institute of Tropical Agriculture (IITA) team.

The Sahel team facilitated the business training sessions, while the IITA team provided technical training on Good Agronomic Practices. The training sessions also featured active participation from the Plant Protection and Regulatory Services Directorate officers, who guided regulatory compliance and field certification guidelines.

The training in Ghana was attended by the Sahel team, IITA, and the PROSSIVA Project representatives, as highlighted below:

### **Sahel Team Representative:**

- Paschal Adikaibe

### **IITA Team Representatives:**

- Dr. Beatrice Aighewi – Abuja Station Manager
- Dr. Daniel Aihebhorla – Agronomist

### **PROSSIVA Team Representatives:**

- Prof. Morufat Balogun – Project Lead
- Mr. Muhammed Adesina – Marketing Office

**Date:** 15<sup>th</sup> July – 31<sup>st</sup> July 2024

**Language of Engagement:** English, Dagbani, Komkomba, and Twi.

**Engagement Approach:** We implemented a two-day training strategy for this activity. On the first day, the Sahel Team facilitated a business development training on managing a successful seed yam business in Nigeria. The second day was dedicated to “Good Agronomic Practices” in seed yam production, with practical training sessions led by the IITA Team. This approach ensured farmers acquired the business and technical skills required for successful certified seed yam production. We had a total of **217** participants across the training locations in Ghana.

**Modules:** Understanding the Yam Seed System in Ghana, Fundamentals of Operating as a Seed Entrepreneur, and Good Agronomic Practices for Seed Yam Production.

The table below highlights the training schedule across all the project locations:

Partner	Representative	Location	Date of Engagement	Number of CSE Participants
CRI	<ul style="list-style-type: none"> <li>Dr. David Appiah-Kubi</li> </ul>	Ashanti Region	15 <sup>th</sup> – 17 <sup>th</sup> July	
Hikma	<ul style="list-style-type: none"> <li>Mr. Abdul Rahim</li> <li>Mr. Yakubu Ibrahim</li> <li>Ms. Alhassan Ruhia</li> </ul>	Northern Region	20 <sup>th</sup> July	
SARI	<ul style="list-style-type: none"> <li>Dr. Kwabena Darkwa</li> </ul>	Savannah Region	22 <sup>nd</sup> – 23 <sup>rd</sup> July	
Iribov	<ul style="list-style-type: none"> <li>Mr. Francis Biliwa</li> </ul>	Northern Region/Oti Region	20 <sup>th</sup> – 21 <sup>st</sup> July	
SARI	<ul style="list-style-type: none"> <li>Dr. Kwabena</li> <li>Mr. Ibrahim</li> </ul>	Northern Region	30 <sup>th</sup> July	

Hikma/SARI	• Mr. Abdul Rahim	Northern Region	31 <sup>st</sup> July	
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The table below highlights the PPRSD representatives who also participated in the training across the locations:

Partner	Name	Location (Region)	Contact Number
<b>Plant Protection and Regulatory Services Directorate</b>	Ms. Anita Kubi-Appiah	Ashanti	+233243487609
	Esther Linda Quartey	Salaga – Savannah	+233243882595
	Mohammed Hardi Diouf	Yendi – N/Region	+233242346465
		Grubi – Oti Region	
		Bimbilla – N/Region	
		Tamale – N/Region	

### Demo Plots Establishment

The IITA team and the CSEs established demonstration trials during the technical training at all locations. Together with the training participants, they planted 500 pieces of Asiedu variety foundation seed yams at each site, using a Lead Farmer's field as the demonstration site. The lead farmer will maintain the field, while the Community Research Supervisors (CRS) and other PROSSIVA partners will conduct monitoring visits to provide technical support as needed. Also, the PPRSD officers were present during the field establishment to monitor the planting activities.

This hands-on approach was designed to strengthen the participants' understanding and promote adopting best practices in seed yam production. The lead farmers' contact details, the date of field establishment for the Demonstration plots, and their locations are presented in the table below:

Region	Location	Lead Farmer's Name	Phone Number	Date of Establishment
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Ashanti	Asempanaye	Mr. Yaw Dakova	0557089350	16 <sup>th</sup> July 2024
Northern	Bioyili	Alh. Mutaka Muhammed	0249887628	19 <sup>th</sup> July 2024
Northern	Tamalgu	Mr. Adam Ibrahim	0209681040	20 <sup>th</sup> July 2024
Savannah	Salaga	Mr. Shaibu Draman	0545804668	23 <sup>rd</sup> July 2024
Northern	Yendi	Mr. Ibrahim Faruk	0241259755	26 <sup>th</sup> July 2024
Oti	Grubi	Ms. Donkor Esther	0599775286	29 <sup>th</sup> July 2024
Northern	Bimbilla	Mr. Ibrahim	0249861224	30 <sup>th</sup> July 2024

### Seed Yam Demand Projection for CSEs in Ghana

Following the profiling and training of potential CSEs and establishment of demo plots, the CSEs expressed interest in purchasing seed yams from private seed companies for further multiplication and sales. Therefore, the Sahel team interacted with the trained farmers to understand and estimate their demand for high-quality seed yam. The table below shows the estimated seed yam demand:

Location (State)	Number of Potential CSEs	Estimated Seed Demand (Kg)	Seed Company
Ashanti	40	1,594	CRI
Tamalgu	29	1,594	Hikma
Salaga	41	2,278	SARI
Yendi, Sheini and Kpassa	37	2,107	Iribov
Grubi	32	1,708	Iribov
Bimbilla	38	2,164	SARI
TOTAL		11044 (11 tons)	

### Underlying Assumption

- An average CSE in Ghana is willing to start with **1 Plot**.

- *The total seed yam demand estimated for Ghana will be **200 Kg** per farmer using the 100,000 plant population density per hectare.*
- *The total market demand for the CSEs in Ghana is approximately **11 Tons** of seed yam, assuming 75% of the CSEs will purchase seed yam when it becomes available.*
- *An additional 10% of farmers not part of the training may be willing to purchase seed yam when it becomes available.*

### Learning Outcomes

- **Improved Technical Skills:** Through the GAP training facilitated by IITA, participants gained comprehensive knowledge of seed yam production, including spacing, planting density, fertilization, cultivation, and harvesting techniques. They understood the importance of purchasing and selling high-quality seed yam tubers and the roles of different actors in an effective seed system in Nigeria and Ghana.
- **Developed Business Skills:** Participants learned the basics of managing a successful seed yam business, including planning, budgeting, cost analysis, and marketing strategies. They now appreciate the importance of record-keeping, financial management, and risk assessment in this business.
- **Increased Motivation for Seed Yam Production:** They are eager to apply their acquired knowledge and skills and are committed to exploring this business opportunity once the seed yam becomes available.

### Key Next Steps

- Monitor the established demonstration plots in the different locations.
- Share the lists of the participants with the seed company partners.
- Invite the CSEs to participate in the Green and Brown Field days across the established fields in Nigeria and Ghana.
- Conduct the next training on the “Marketing of Certified Seed Yam” to ensure continuous capacity development.

## Pictures



in Yendi

Group Picture with the CSEs in Tamalgu



Group Picture with the CSEs in Salaga



Group Picture with the CSEs in Bimbilla



Picture from the GAP Training in Benue

## Appendix

### Methodology for CSE Engagement

Our engagement approach ensures that identification, profiling, onboarding, implementation, and evaluation systems are in place to cater to the development of economically sustainable CSEs.

#### 1. Identification and Profiling of Potential CSEs

Identifying potential Commercial Seed Entrepreneurs (CSEs) is crucial for building a sustainable network. This process involves a thorough market analysis to pinpoint regions with high demand for improved seed varieties and assess the specific needs of smallholder farmers in those areas. Engaging with local farming communities helps identify farmers who can operate as CSEs.

Clear criteria are developed to identify and select farmers based on experience, financial stability, access to land and labour, and the willingness to adopt and promote improved agricultural practices. This systematic approach ensures that capable and motivated individuals and groups are selected, establishing a strong foundation for a sustainable and impactful CSE network. These farmers will be profiled using a list of eligibility criteria co-developed by NASC and Sahel Consulting. The list of eligibility criteria is highlighted below:

- Must have access to resources (land, labour and capital).
- Must acquire foundation seeds or certified seed class 1 or 2 from an accredited EGS entity or private seed company.
- Must have the basic understanding of seed yam production and the ability to apply Good Agronomic Practices (GAP).
- Must be willing to produce and sell high quality seed yam to farmers
- Must be willing to register with the National Agricultural Seeds Council (NASC).
- Must submit a production plan and apply for seed certification to NASC, and the application must be accompanied by payment of a non-refundable fee of N10,000.00 per Applicant.

#### 2. Onboarding of Identified CSEs

The identified and profiled farmers will be onboarded using a comprehensive strategy designed to equip them with the necessary skills, resources, and support to operate profitably in seed yam production and sales. Here is a structured strategy for effectively onboarding commercial seed entrepreneurs:

- i. Needs Assessment: The specific needs and challenges of identified CSEs, including their current capabilities, resources, and gaps in knowledge about improved seed production and business skills, will be evaluated. This needs assessment will inform the development of suitable training modules on managing a successful seed business.
- ii. Capacity Building and Training: the capacity strengthening plan will involve three phases listed below:
  - a. Technical Training: Identified CSEs will be trained on improved seed production techniques, including Good Agronomic Practices (GAP) and highlighting best practices. This will involve periodic workshops, field demonstrations, farmers' field days and hands-on training sessions. Technical backstopping will also be provided to CSEs in their fields to ensure successful operations. This support will include regular field visits to monitor progress, identify challenges, and offer tailored solutions.
  - b. Business Development Training: CSEs will be trained on essential business skills, such as managing a successful seed business as a CSE, production economics, financial management, marketing strategies, stakeholder engagement, etc. This training will be done quarterly to ensure the CSEs' capacity to operate a successful and sustainable seed business is assured.
  - c. Quality Assurance Training: CSEs will be trained on the regulatory requirements of certified seed production and certification processes developed by the National Agricultural Seed Council (NASC) to ensure their seeds meet the required quality assurance. The Sahel team also facilitates the linkage between the CSEs and NASC for field registration and certification.