



Learning from a Seed System Security Assessment in Bauchi State, Nigeria

May 28th, 2026



ISSD

Africa

SEED SYSTEM SECURITY ASSESSMENT

NINGI AND SHIRA
LOCAL GOVERNMENT AREA,
BAUCHI STATE, NIGERIA



SEED SYSTEM SECURITY ASSESSMENT

1 of 83

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Seed System Security Assessment Ningi and Shira Local Government Area, Bauchi State, Nigeria

Connie Formson, Jerome Jonah, Mohammed Jada, Louise Sperling, Sagir Hanafi (2026). Seed System Security Assessment in Ningi and Shira Local Government Area of Bauchi state, Nigeria. Produced by Oxfam Novib.



Housekeeping



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Webinar is in English only



Today's speakers



Connie Formson
Seed Systems and
Markets Advisor
Oxfam Novib



Jerome Jonah
Scientific Officer,
Seed Systems
WCA-ICRISAT



Mohammed Jada
Project Officer,
Crop Diversity
Oxfam Nigeria



**Dr. Osho-Lagunju
Bankole**
Assistant Director,
Seed Certification
**National Agricultural
Seeds Council (NASC)**



Dr. Ibidun Adetiloye
Desk officer, National
Variety Release Committee
**National Centre for
Genetic Resources and
Biotechnology
(NACGRAB)**





Seed System Security Assessment (SSSA)

Ningi and Shira Local Government Area, Bachi State, Nigeria

28 May 2026

CONNIE FORMSON
OXFAM NOVIB

JEROME JONAH
ICRISAT

MOHAMMED JADA
OXFAM IN NIGERIA



Outline of session

1. Seed System Security, methodology and process taken in Nigeria
2. Country context and Acute Seed security findings
3. Chronic Seed Security Findings
4. Conclusions and Recommendations

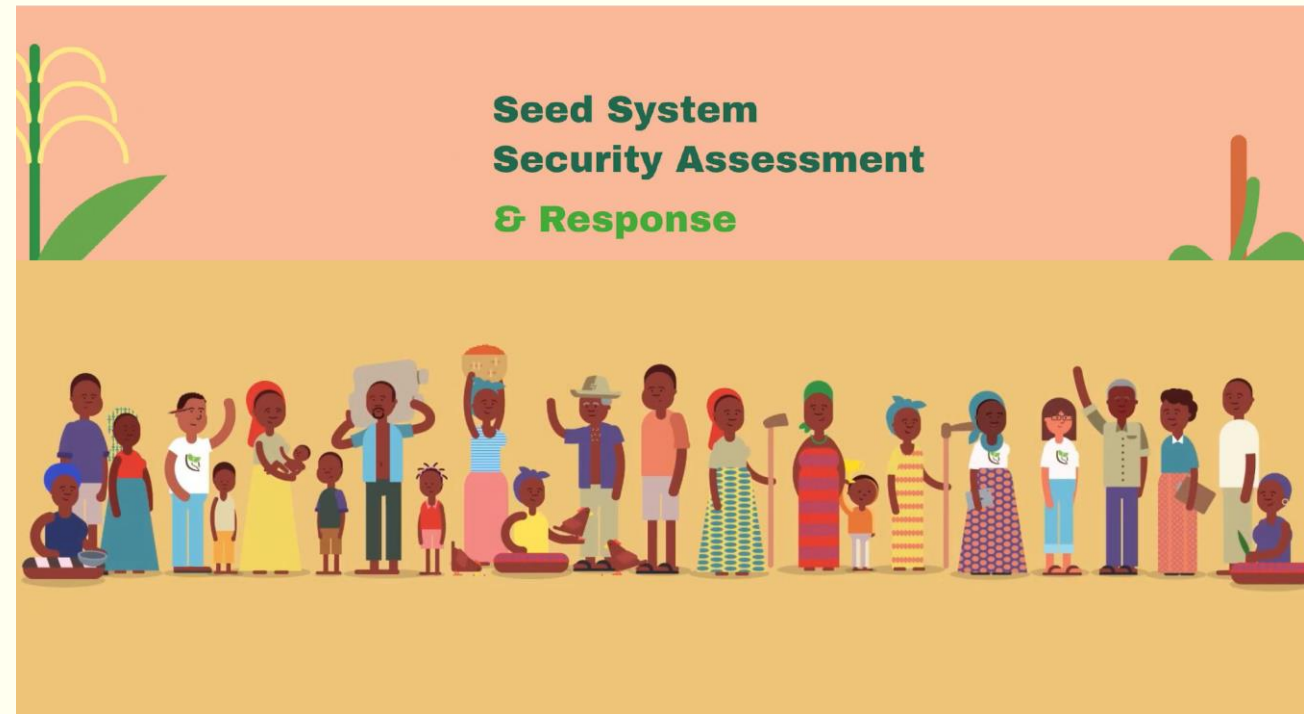
What and WHY of a SSSA

WHAT

- Rapid assessment of functioning of seed systems in terms of seed availability, access, and quality.

WHY:

- To diagnose constraints and opportunities, especially during crises or chronic stress.
- Supports development of sustainable and resilient seed systems



Source: SeedSystem.org

CROP DIVERSITY FOR FOOD SECURITY PROJECT

Strengthening Seed Systems. Building Resilience. Improving Lives.



PROJECT OVERVIEW

Funded by the former USAID and implemented by a consortium of CIMMYT, Oxfam, and ICRISAT, this pilot project strengthens seed system resilience in Mali and Nigeria, addressing the interconnected challenges of climate change, biodiversity loss, and insecurity.

By promoting access to diverse, climate-resilient crop varieties and improving local seed systems, the project empowers smallholder farmers in fragile and climate-affected contexts.



APPROACH

Using the Farmer Field School (FFS) approach adopted by Oxfam Novib, the project enhances farmer knowledge, experimentation, and collective action.

Key interventions include:

- **Participatory Variety Selection (PVS):** To identify and adopt climate-adapted crops.
- **Seed Production and Marketing (SPM):** To strengthen community-based seed availability and income generation.



PROJECT DETAILS

🕒 **Timeframe:** October 2022 – September 2025

💰 **Funder:** Former USAID

🤝 **Consortium:** CIMMYT (Lead), Oxfam, ICRISAT

📍 **Countries:** Mali and Nigeria



ABOUT THE PILOT

To date the pilot has demonstrated strong farmer engagement, improved adoption of improved varieties, increased incomes from seed enterprises, and strengthened social cohesion among communities, contributing to resilience and localized peacebuilding.

PROJECT COUNTRIES



PROJECT SITES

MALI

👥 **13**

Farmer Field School (FFS) communities



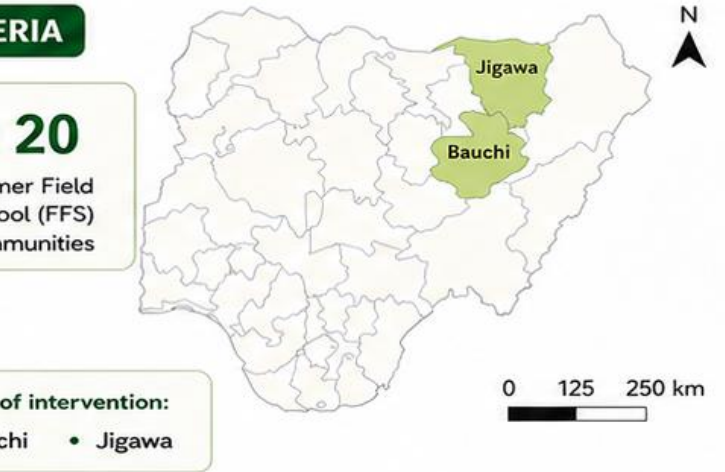
Regions of intervention:

- Koulikoro
- Ségou
- Sikasso
- Kayes

NIGERIA

👥 **20**

Farmer Field School (FFS) communities

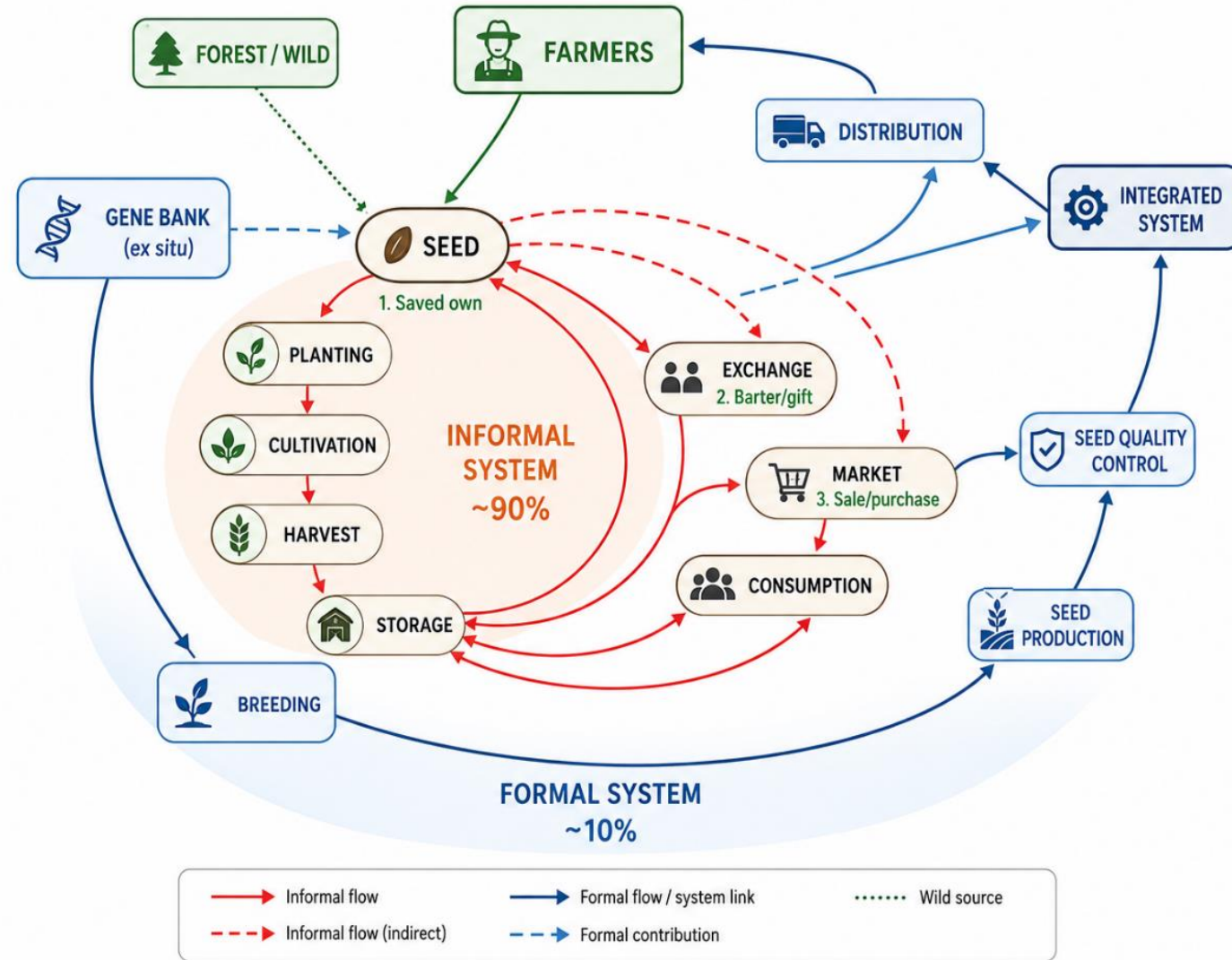


States of intervention:

- Bauchi
- Jigawa

Context: “cascading crisis” of insecurity, climate change and risk of biodiversity loss.

Channels through which Farmers Source Seed in Nigeria



Note: Illustrative figure depicting procurement of seeds via formal, informal, and intermediary systems, adapted from global seed system models but localized for Nigeria's agro-ecological context: Almekinders & De Boef (2000).

essential elements of seed security

Parameters	Definition
Availability	Sufficient quantity of seed of adapted crops is within reasonable proximity (spatial availability) and in time for critical sowing periods (temporal availability)
Access	People have adequate income or other resources to purchase or barter for appropriate seeds
Seed Health / Quality	Seed is healthy: good physical, physiological and sanitary quality
Variety Suitability / Quality	Varieties are adapted, meet farmers' preferences (men and women) and are market-acceptable

Resilience: Seed security (all four features) is achieved **in both *good and bad cropping seasons***. Particular shocks may affect each of the features in different ways.

Seed System Problems and Appropriate Responses

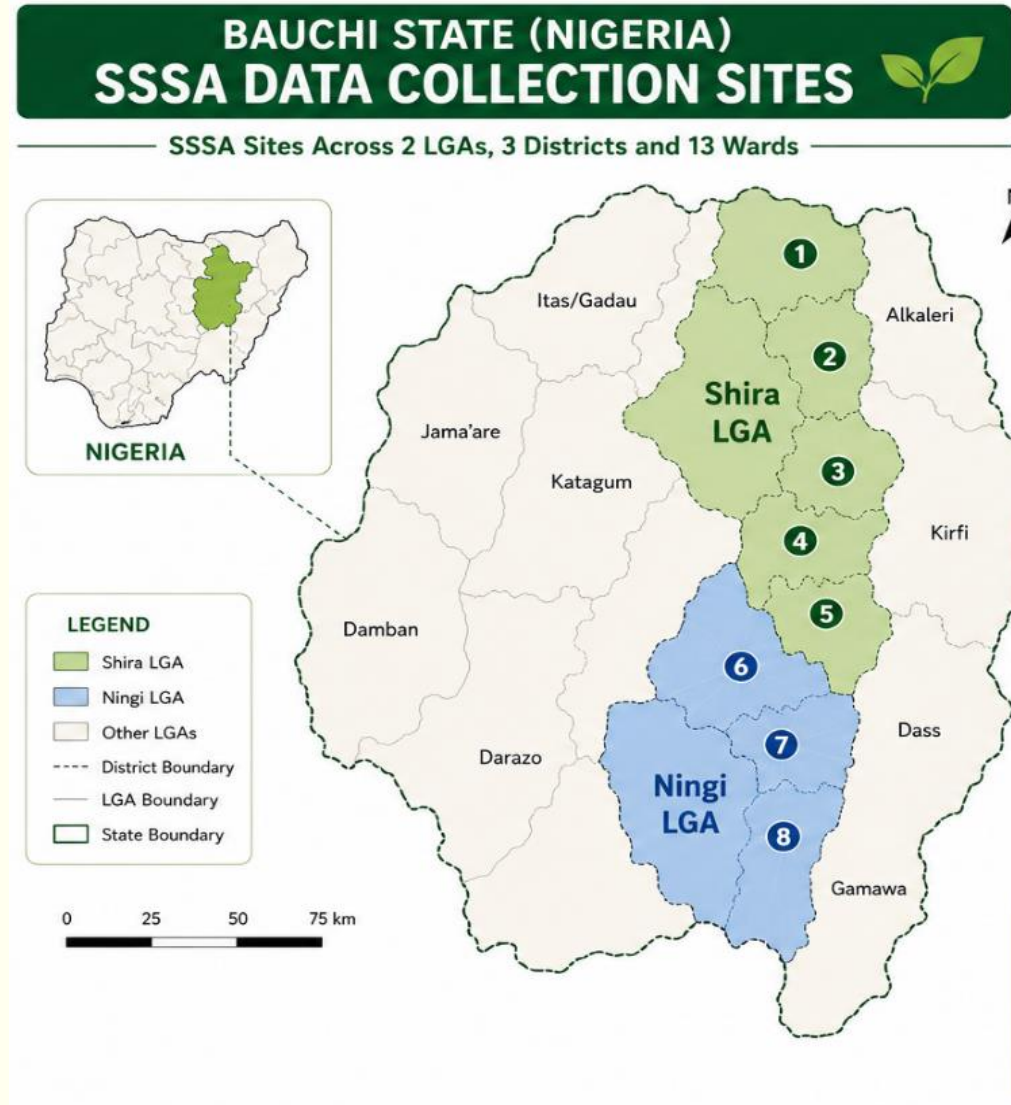
Component	Acute (Short-Term) Responses	Chronic (Long-Term) Responses
Availability	Local seed procurement & timely distribution; support rapid market restocking; targeted fairs for adapted crops	Strengthen CBSP and farmer groups; improve market connectivity & seasonal stocking; support EGS → certified flows into rural areas
Accessibility	Seed fairs, Seed vouchers or cash transfers to overcome immediate purchasing barriers; waive transport fees	VSLA/credit schemes; small seed packs; inclusive market strategies; gender-responsive outreach to reduce normative barriers
Seed Quality (Health)	Distribute clean/treated seed; basic quality screening at fairs/DSD	Training on selection, germination tests, storage, and purity; promote hermetic storage; link CBSP to NASC guidance
Varietal Suitability	Prioritize adapted, farmer-preferred varieties in emergency procurement/fairs	Participatory varietal selection (PVS); diversify varietal portfolios; facilitate diffusion through markets and social networks

The CONTEXT and Process

Overview of SSSA Methodology

Timing: 24-30 July 2025

Sites: Shira & Ningi LGA



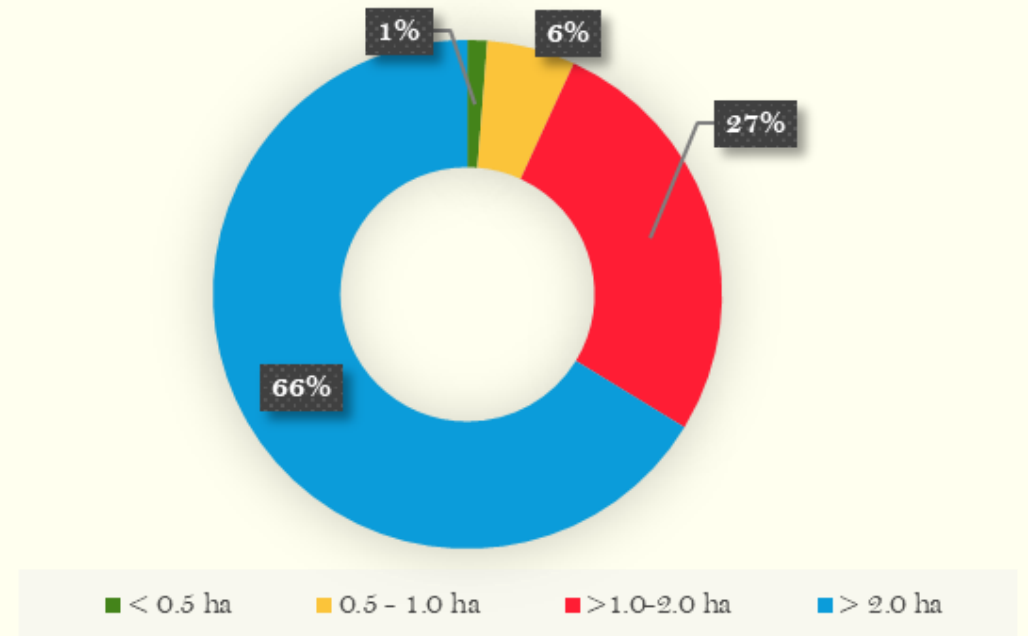
SSSA SITES					
SHIRA LGA (13 COMMUNITIES)					
	District	Ward	Communities		
1	Disina	Disina A	Disina, Sambuwal & Bidis		
2		Disina B	Sawi, Abisa, Adamami		
3	Shira	Shira	Shira, Nassarawo		
4		Yana	Yana		
5		Ziggau	Ziggau		
6		Faggo	Faggo		
NINGI LGA (7 COMMUNITIES)					
	District	Ward	Communities		
7	Ari	Jangu	Gada		
8	Nasaru	Nasaru A	Nasaru		
		Balma	Balma		
10	Burra	Burra	Kafin & Ringya		
SSSA SITES SUMMARY					
📍	State: Bauchi	🏛️ 2 LGAs	👤 3 Districts	📊 13 Wards	👥 20 Communities
	<ul style="list-style-type: none"> • Shira LGA: 13 Communities • Ningi LGA: 7 Communities 				

Respondent Demographics

Household Demographics

Feature	Description	Sample
Type of household	Adult headed	96%
	Child headed	3%
	Grandparent	1%
Sex of household Head	Male	93%
	Female	7%
Average age of household head	Age	43
Average size of household	# of people	13
Migration Status	Resident	99
	Displaced	1

Area cultivated by household



Respondent Demographics

Key crops - crops named most frequently as '*most important*' by households

2024/ 25 season		2025/ 26 Season	
Crop	% of HHs	Crop	% of HHs
sorghum	88%	Rice	86%
Rice	87%	sorghum	74%
Millets	43%	Millets	43%
Maize	34%	Maize	31%
Sesame	11%	Groundnut	13%

Data Collection Methods

Data collection Tools	Sample size	Description
Secondary data collection and analysis		Government reports, Academic and research reports, NGO reports, Grey literature
Household survey	160 (80 per site)	Random selection
Focus Group Discussions	Total 5 <ul style="list-style-type: none"> ▪ 3 mixed ▪ 2 Women only 	Mixed Ziggau, Balma, Kafin Lemu. Women only Abisa, and Ringya village.
Seed/ Grain trader interviews	12	Interviews were held with: Large Traders (1) Local traders (9) Seed Producers (2) Agro processor: Non were found in the LGA
Farmer interviews	10	Covered: key crops, varieties, seed quality, prices and distance to markets
Key Informant interviews	5	NGOs (CARE), NASC, BSADP, ICRISAT, IITA

Stakeholders and Data collection Team

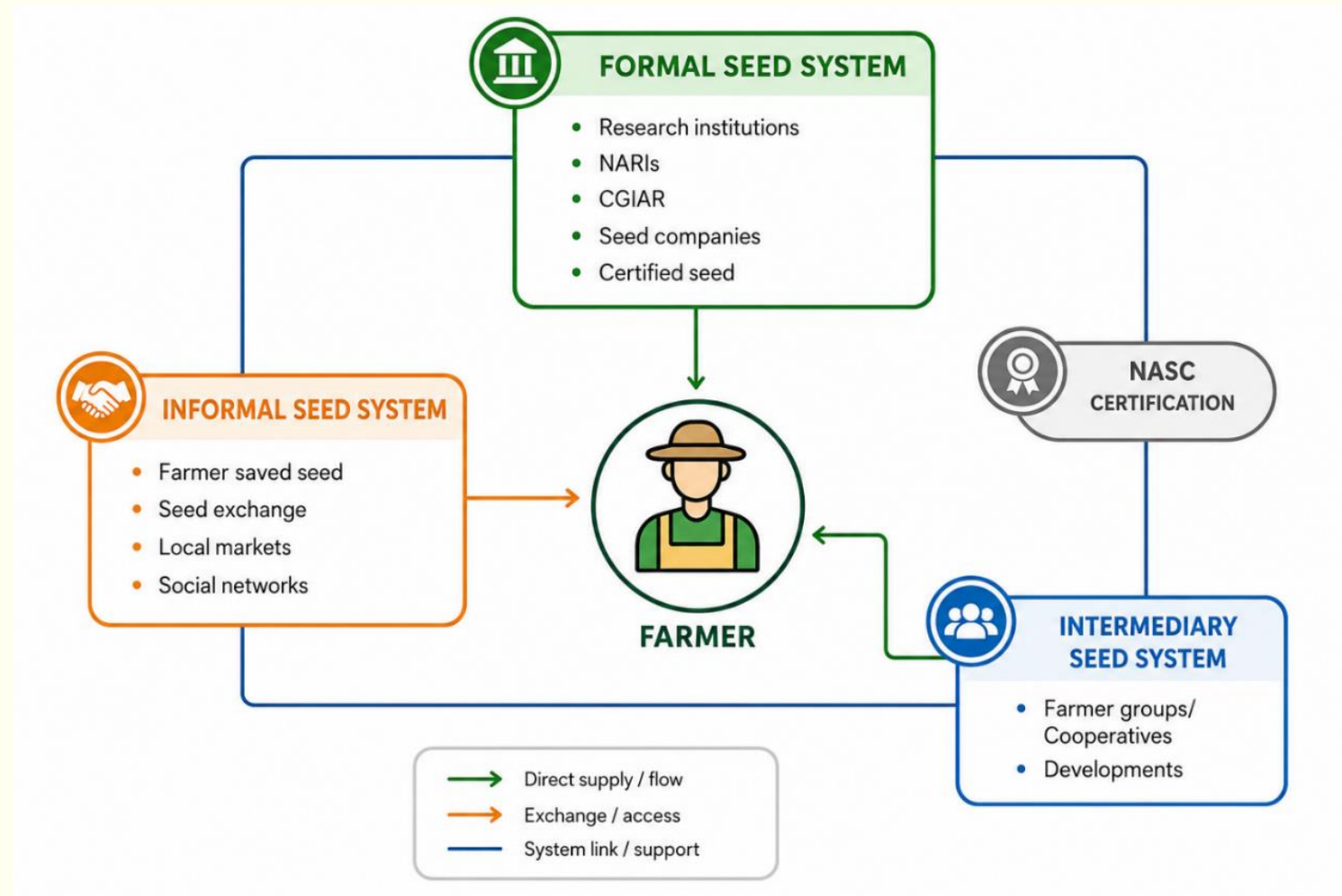


Name	Organization/Community
Connie Formson	OXFAM Novib
Henry Ushie	OXFAM
Mohammed Jada	OXFAM
Yetunde Adeyoola	OXFAM
Jerome Jonah	ICRISAT
Iliyasu Shu'aibu	BSADP
Mohammed Ahmad Ya'u	NASC
Ado Bawa	BSADP
Khamilu Lawan Faggo	BSADP
Bilyaminu Isa	Sawi
Khadija Bala Dawisu	Ziggau
Khamisu Abdullahi	Unguwan Jakin
Fatima Aminu	Kafin Lemu
Naziru Umar	Mele
Hafsatu Haruna	Taura
Madalla Dauda	Care Nigeria
Abdullahi Isa Mohammed	COOPI
Hanafi Sagir	NACGRAB

**SSSA for Ningi and Shira LGA,
Bauchi State, Nigeria**

Country context

The Seed System in Nigeria

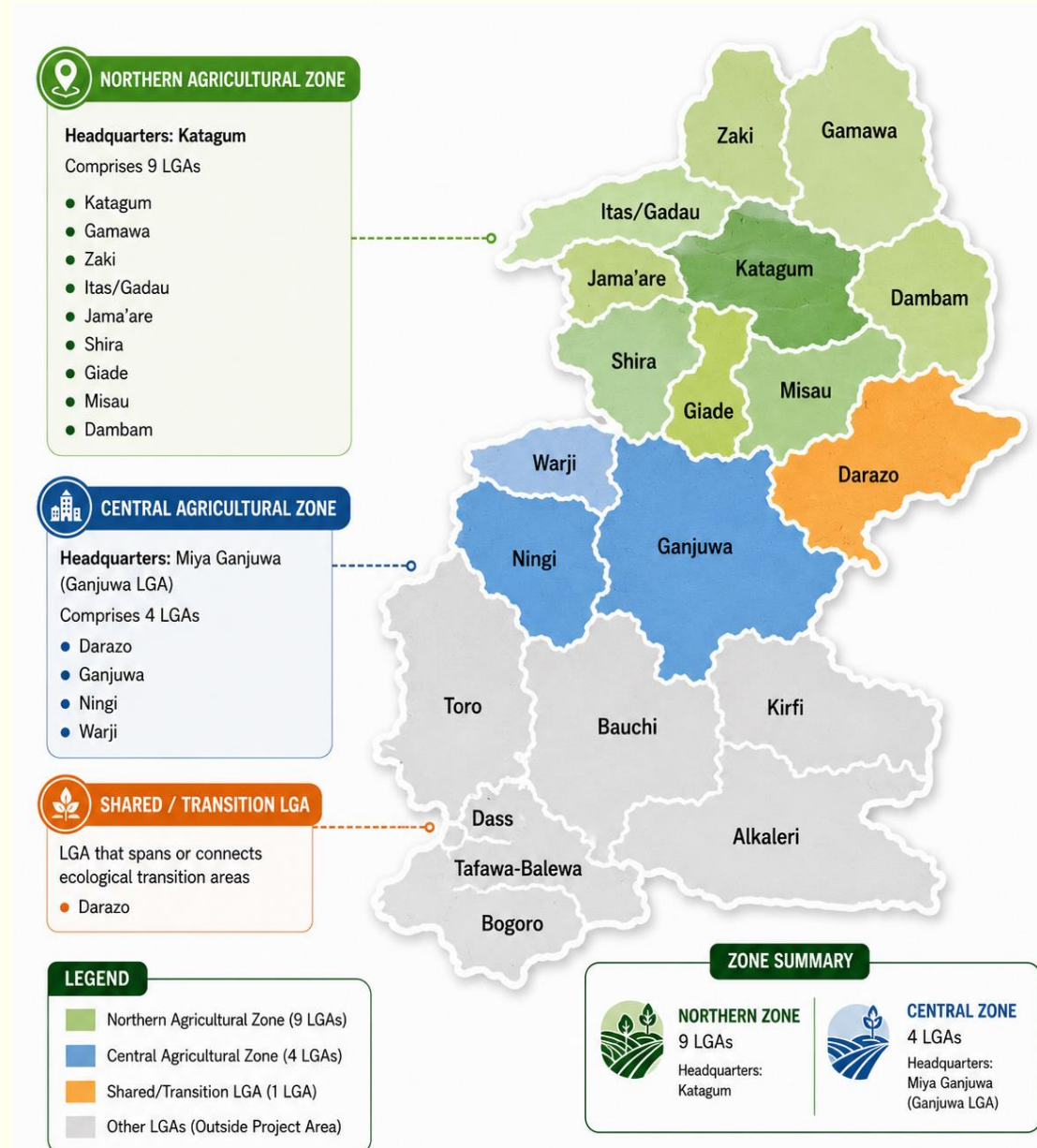


Agro-Ecological Context and key challenges (Bauchi State, Nigeria)

- Agriculture employs >60% of labour force and is largely subsistence-based.
- **Production Systems:** Mixed farming-crops (millet, maize, sorghum, rice, groundnut) + livestock

Key Challenges:

- Farmer-herder conflicts → crop destruction & displacement
- Banditry/kidnapping → reduced mobility & market access
- Low investment in inputs due to insecurity
- Disrupted value chains and rising food insecurity



Policy Context



CROPS PROMOTED THROUGH CBSP IN NIGERIA



Groundnut



Yams



Cassava



Cowpea



Ginger



Cocoyam



Potatoes



Millet



Rice



Maize



Sorghum



Soybean



Sesame

Several of these are key staples in the **Shira and Ningi LGAs** covered by this assessment.

1

Acute seed security findings 2024 (Present) and 2025 (Next) seasons.

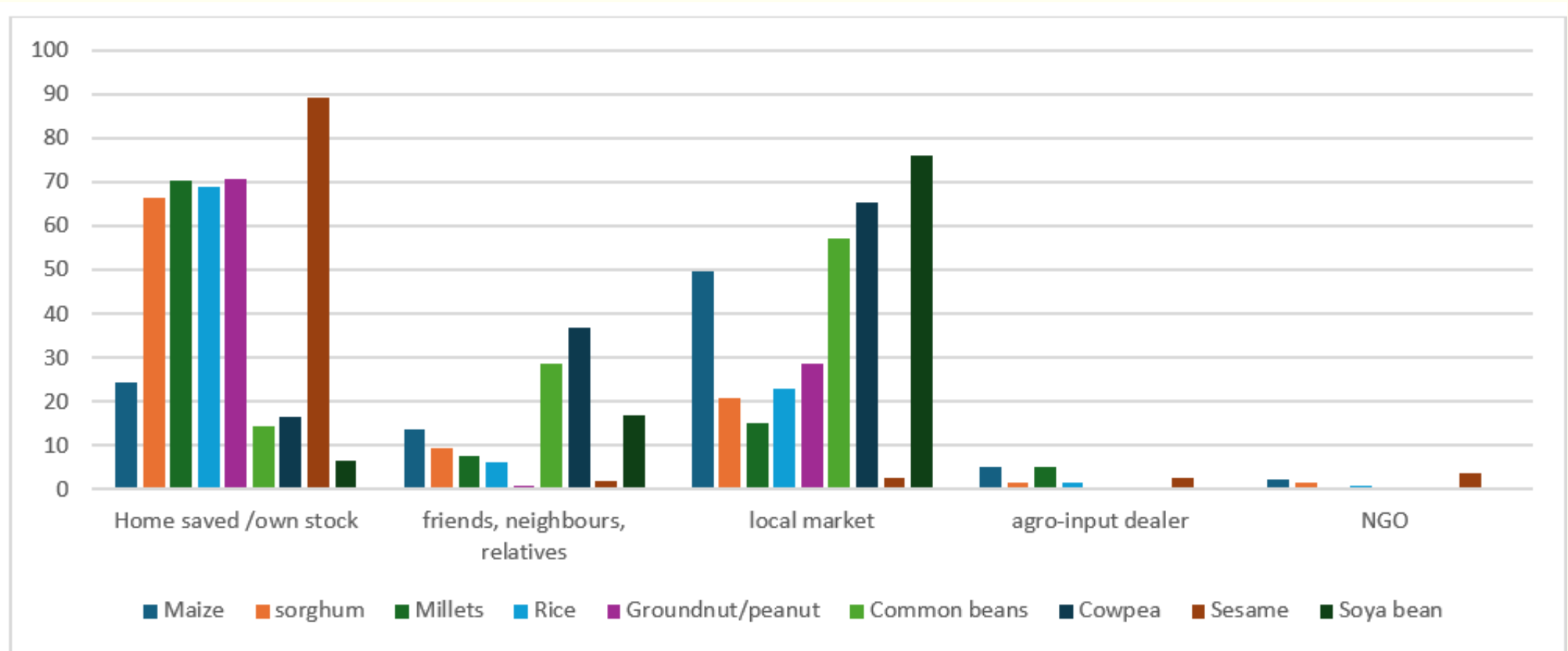
Acute Seed Security Findings

Assessment of short term (acute) seed security addressed the issue of:

1. How farmers source their seed.
2. Are farmers planting MORE or LESS?
3. Are farmers stressed?

FARMERS SEED SOURCES IN THE 2024 SEASON

Farmers' seed sources in Shira and Nigi LGA for the current season (2024)- % of total



98 % of seed from informal sector
Very little seed from the formal sector
Crops from market were cowpea, common beans and maize

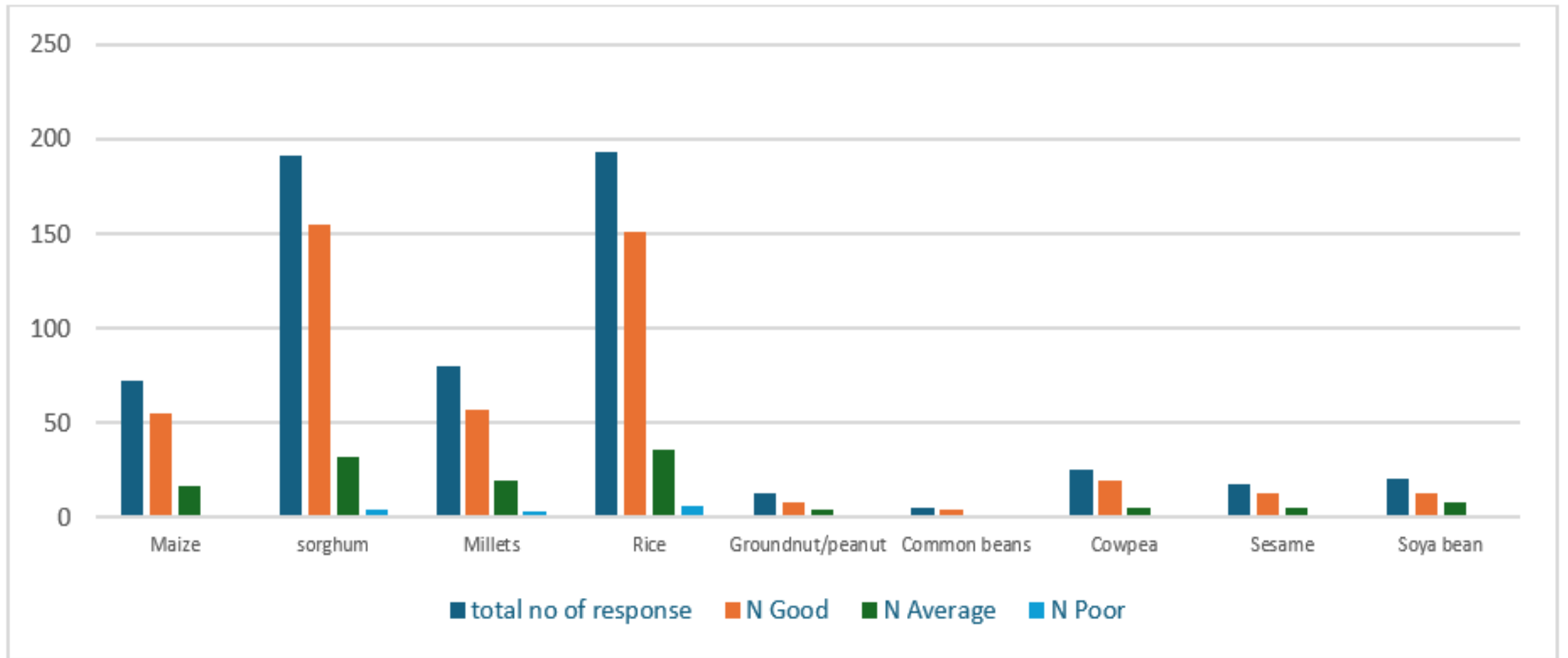
FARMERS PRODUCTION AND ASSESSMENT OF SEED QUANTITY AND YIELD IN THE 2024 SEASON

Farmers sowing amounts for the 2024 season-did they plant MORE, LESS or SAME?

Crop	Number of HHs	% of HHs			Change sowing quantities for all growing the crop average % change
		MORE	SAME	LESS	
Maize	54	42,6	44,4	13,0	63,83
Sorghum	141	40,4	38,3	21,3	38,19
Millets	68	45,6	26,5	27,9	15,34
Rice	139	46,8	36,0	17,3	65,56
Groundnut/peanut	11	54,5	18,2	27,3	71,21
Common beans	3	33,3	0,0	66,7	
Cowpea	14	35,7	57,1	7,1	44,64
Sesame	18	22,2	61,1	16,7	-2,30
Soya bean	17	58,8	29,4	11,8	30,00
TOTAL-all crops	465	43,4	37,0	19,6	45,30

Except for sesame, farmers planted the same amount as normal or more, indicating an overwhelmingly positive upward trend.

Farmers assessment of yield in the 2024 season



77 % of farmers evaluated their overall yield as **Good** and 21 percent as **Average**
Farmers were very positive about yield from sorghum, millet, rice and maize

Farmers assessment of seed quality in the current season (2024)

Crop	N total	Quality of seed used?					
		N			%		
		Good	Average	Poor	Good	Average	Poor
Maize	72	61	11	0	84.7%	15.3%	0.0%
sorghum	191	166	25	0	86.9%	13.1%	0.0%
Millet	80	72	8	0	90.0%	10.0%	0.0%
Rice	193	166	25	2	86.0%	13.0%	1.0%
Groundnut/peanut	13	11	2	0	84.6%	15.4%	0.0%
Common beans	5	5	0	0	100.0%	0.0%	0.0%
Cowpea	25	22	3	0	88.0%	12.0%	0.0%
Sesame	18	18	0	0	100.0%	0.0%	0.0%
Soya bean	21	18	3	0	85.7%	14.3%	0.0%
TOTAL-all crops	618	539	77	2	87.2%	12.5%	0.3%

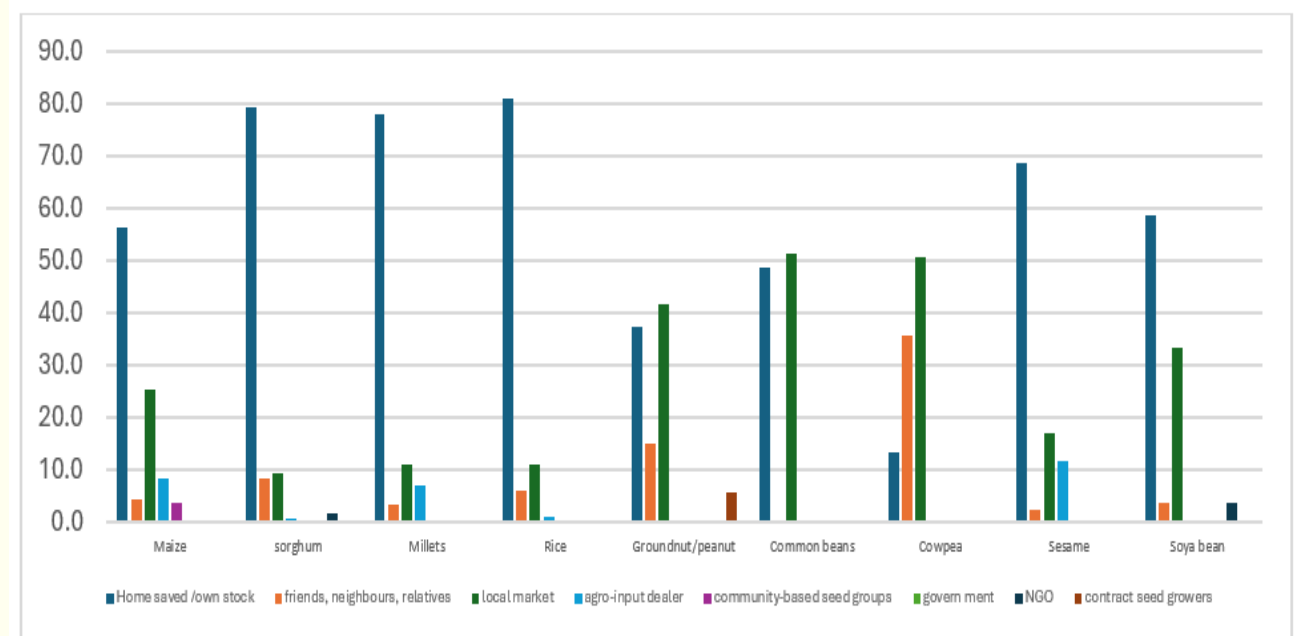
Farmers were generally happy and positive about the quality of seed sourced for all channels and for all crops.

FARMERS SEED SOURCES AND QUANTITIES PLANTED IN THE 2025 SEASON

Seed (percent) planted and sources used by farmers in Ningi and Shira during the 2025/26 season

Crop	Total kg sowed	% of Total							
		Home saved /own stock	friends, neighbours, relatives	local market	agro-input dealer	community-based seed groups	government	NGO	contract seed growers
Maize	1324,8	56,5	4,5	25,5	8,5	3,8	0,6	0,2	0,6
Sorghum	3976,7	79,4	8,6	9,4	0,8	0,0	0,0	1,9	0,0
Millet	1375,3	78,0	3,5	11,0	7,0	0,0	0,5	0,0	0,0
Rice	23517,2	81,1	6,0	11,2	1,1	0,0	0,0	0,6	0,0
Groundnut/ Peanut	1282,4	37,3	15,1	41,7	0,0	0,0	0,0	0,0	5,8
Common beans	136,2	48,6	0,0	51,4	0,0	0,0	0,0	0,0	0,0
Cowpea	83,8	13,4	35,8	50,7	0,0	0,0	0,0	0,0	0,0
Sesame	154,5	68,7	2,6	17,0	11,7	0,0	0,0	0,0	0,0
Soya bean	319,3	58,7	3,9	33,3	0,0	0,0	0,0	3,9	0,0
TOTAL-all crops	32169,9	77,4	6,6	13,3	1,6	0,2	0,0	0,7	0,3

Planned/Actual seed sources in Shira and Nigi LGA for the current season (2025)



Good harvest with 77% of seed from farmers' own stock

2025 season informal seed system remained a primary source of seed

Farmers sowing amounts for the current season (2025)-MORE, LESS or SAME as usual?

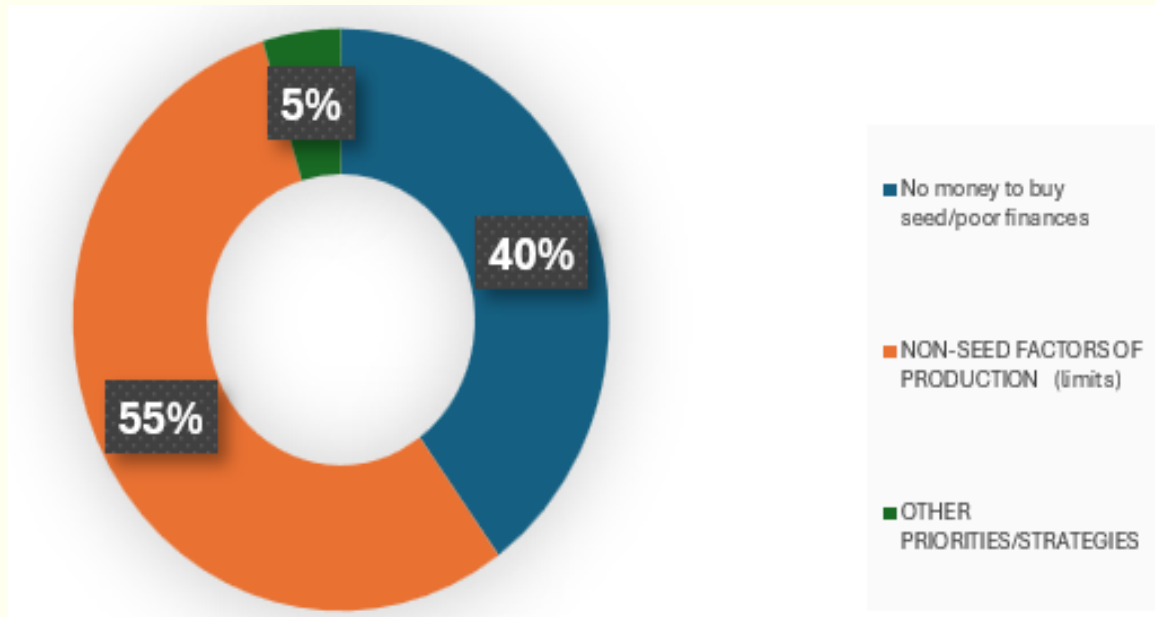
Crop	Number of HHs	% of HHs			Change sowing quantities for all growing the crop
		MORE	SAME	LESS	average % change
Maize	49	42.9	32.7	24.5	64.84
Sorghum	118	59.3	20.3	20.3	80.47
Millets	69	34.8	33.3	31.9	10.26
Rice	138	55.8	17.4	26.8	121.92
Groundnut/peanut	21	66.7	14.3	14.3	217.80
Common beans	13	7.7	7.7	84.6	-31.52
Cowpea	12	50.0	41.7	8.3	22.57
Sesame	18	22.2	27.8	50.0	-12.13
Soya bean	20	60.0	25.0	15.0	55.03
TOTAL-all crops	458	50.0	23.4	26.6	77.09

Positive second season across all crops-continued upward trend in production-an overall increase of 77 %

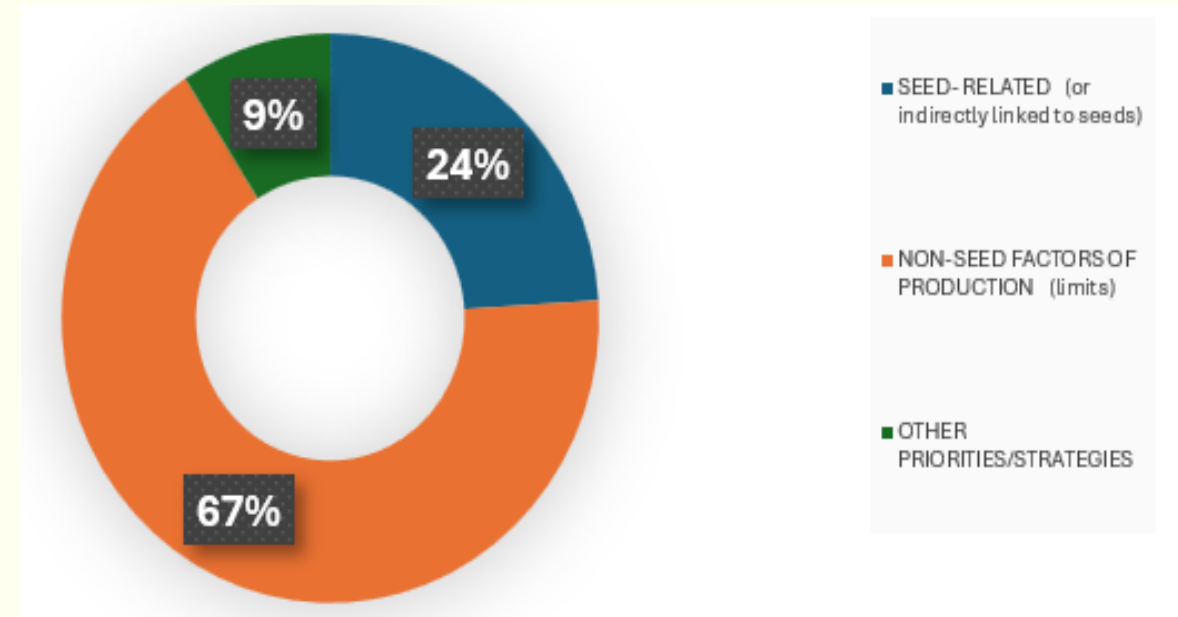
73 % planned to maintain or increase the amounts planted in the 2025 season

REASONS WHY FARMERS PLANTED MORE, LESS OR THE SAME IN THE 2024 AND 2025 SEASONS

Why farmers planted LESS than normal in the 2024 season



Why farmers planted LESS than normal in the 2025 season



“No money for seed” and insufficient land were two top reasons why farmers planted less in both seasons

Reasons farmers gave for planting LESS than normal in the 2024 season

- Farmers' reasons **both seasons** suggests lack of purchasing power and primarily non seed related factors.

The top 3 reasons farmers planted **LESS both seasons**:

- No money for seed
 - lack of land
 - Insufficient labour
- 2025 = 66% of farmers planted less for non-seed related reasons

Reasons	N	% of responses
SEED- RELATED (or indirectly linked to seeds)		
<i>Seed availability</i>		
No seed available in market	0	0,0%
No seed/cuttings available from neighbours	0	0,0%
<i>Seed access</i>		
No money to buy seed/poor finances or seed too high	34	37,8%
<i>Seed quality</i>		
Seed available is not good quality or the variety is not liked	0	0,0%
Sub-total: seed-related	34	37,8%
NON-SEED FACTORS OF PRODUCTION (limits)		
No/insufficient labour	15	16,7%
Illness/health problems	0	0,0%
No/insufficient land or land not appropriate/sufficiently fertile	21	23,3%
Lack of tools/tractor/ other machinery to farm	3	3,3%
Plant pests/diseases make production not possible	0	0,0%
Animals/predator make production not possible	0	0,0%
Lack (availability) of other inputs: controlled water supply/irrigation or fertilizer	7	7,8%
Poor weather/rainfall	1	1,1%
Insecurity (e.g. theft)	0	0,0%
<u>Poor quality</u> of agricultural NON-Seed inputs (herbicides, pesticides, insecticides, etc)	5	
High cost of NON seed inputs	0	0,0%
Sub-total: Factors of Production	52	57,8%
OTHER PRIORITIES/STRATEGIES		
Markets for crop or crop products not well-developed	0	0,0%
Other priorities than agriculture (e.g. have shop)	1	1,1%
Changing Crop priorities or changing agricultural practices	3	3,3%
Other	0	0,0%
New farming methods allow lower seeding rate	0	0,0%
Sub-total: Other priorities/strategies	4	4,4%
TOTAL	90	100,0%

Reasons farmers gave for planting MORE than normal in the 2024 season

- **Both seasons:** Non-seed related factors main reasons for planting more !

Top reasons farmers planted **MORE** were:

- More land
- More labour
- More money to buy seed/price seed low
- Having an especially good variety

Reasons	N	% of responses
SEED- RELATED (or indirectly linked to seeds)		
<i>Seed availability</i>		
More seed available due to good harvest	3	1,5%
More seed available due to free seed	2	1,0%
<i>Seed access</i>		
More money to buy seed or seed price low	16	8,0%
got credit or coupon to buy seed	0	0,0%
<i>Seed quality</i>		
Have especially good seed or good variety	21	10,6%
Sub-total: seed-related	42	21,1%
NON-SEED FACTORS OF PRODUCTION (opportunities)		
Good/increased labour	28	14,1%
Feeling strong/healthy	0	0,0%
Have more land/more fertile land	97	48,7%
Have tools/tractor, other machinery to help farm	0	0,0%
Have access to irrigation, fertilizer or other inputs (for example, stakes)	0	0,0%
Good weather/rainfall	11	5,5%
Good security (peace has arrived; less theft)	0	0,0%
Sub-total: Factors of Production	136	68,3%
OTHER PRIORITIES/STRATEGIES		
seeking enhanced income/ well-developed or new markets for crop or crop products	6	3,0%
seeking food security / have decided to give more priority to agriculture	14	7,0%
changed crop profiles or priority to certain crops	0	0,0%
re-sowing due to stress (e.g. poor soils/ low germination rate)	0	0,0%
Other	1	0,5%
Sub-total: Other priorities/strategies	21	11%
TOTAL	199	100,0%

SUMMARY Acute Seed Security Findings

No ACUTE stress found in Ningi and Shira LGA for 2024 and 2025 seasons!

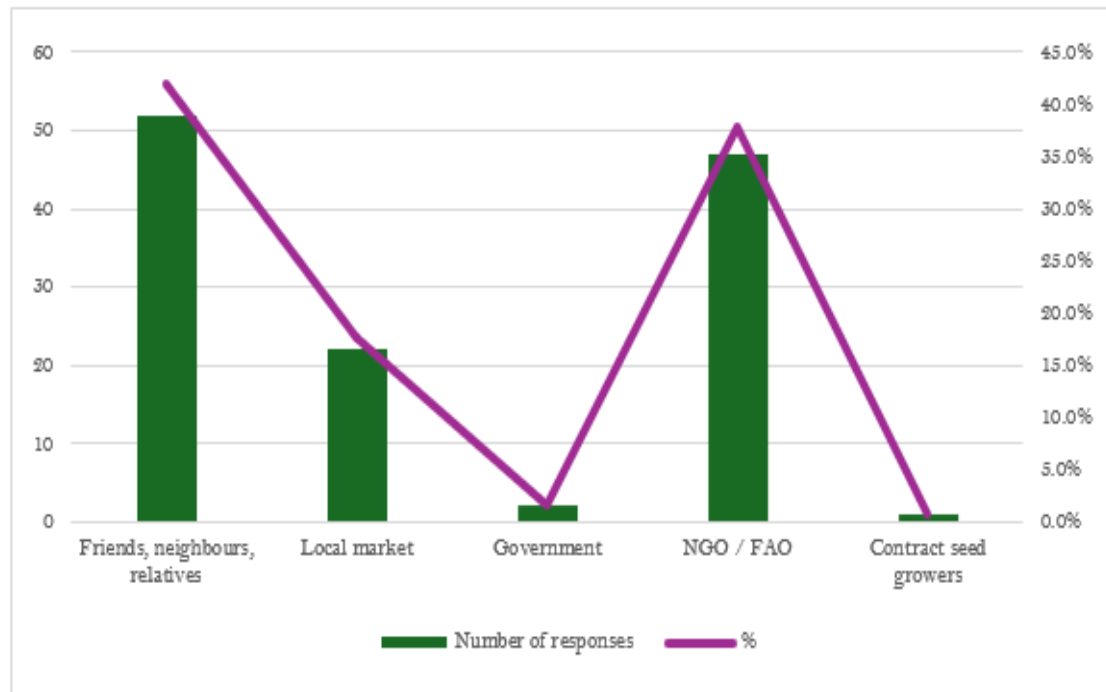
- **Seed system not under stress in the 2 seasons:** 98% of the seed came from the informal sector in both seasons-only 2% was sourced formally.
- **Key constraints are non-seed related:** Farmers planted less due to lack of money, land, and labour (both seasons).
- **Upward production trends:** Upward trend in planting quantities in both seasons - overall 77% increase across all crops (2025).
- **Farmers satisfied with yield and quality:** 87% rated the seed quality as good across all crops (2024). No farmers rated quality as poor.

2

Chronic seed systems concerns,
and emerging opportunities.

SEED SOURCING TRENDS: ACCESS TO NEW VARIETIES

Sources of new varieties obtained by farmers in the past 5 years



- Past 5 years 48 % of households obtained new varieties
- Social networks were the main source of these new varieties

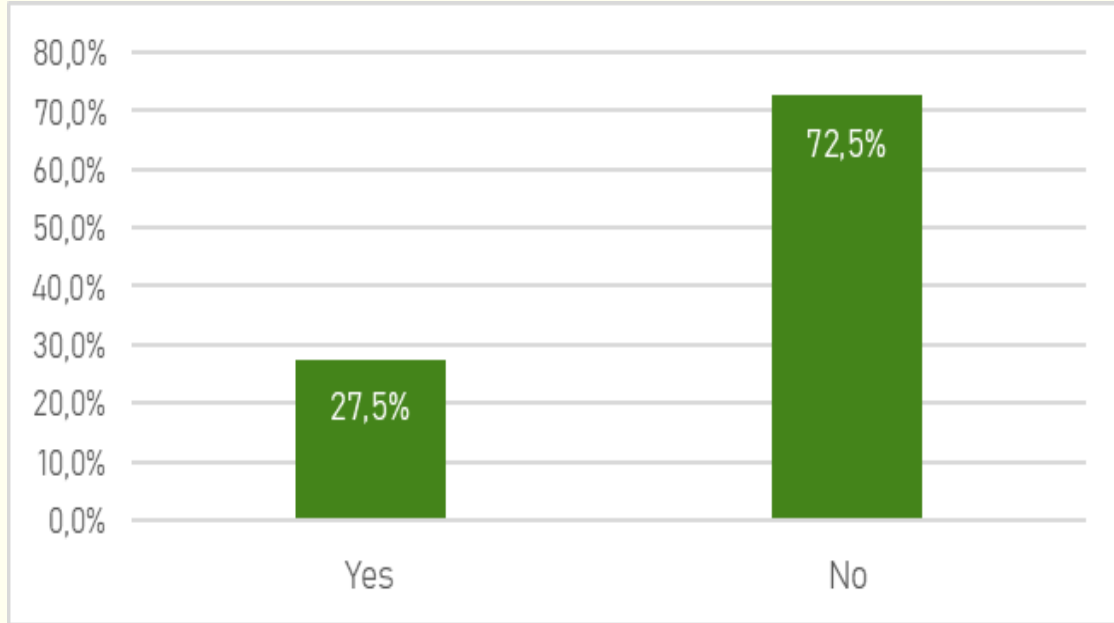
Did farmers obtain new varieties past 5 years?

Crop	Number of instances varieties were introduced	Still sowing?
		%
Maize	12	91.7%
Sorghum	42	83.3%
Millet	5	100.0%
Rice	54	75.9%
Groundnut/peanut	4	100.0%
Cowpea	2	100.0%
Sesame	5	100.0%
Soya bean	1	100.0%
TOTAL-all crops	126	82.5%

83 % of farmers still sow new varieties obtained especially for rice and sorghum

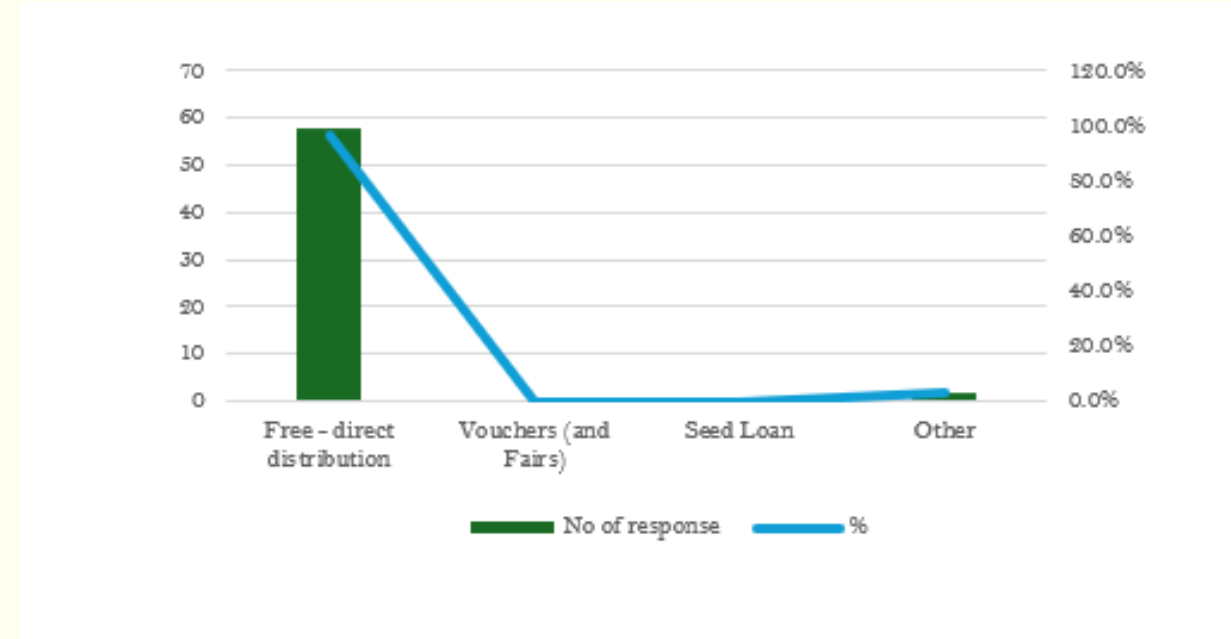
Seed Aid going into Ningi and Shira Local Government Area

Seed Aid obtained in the Last 5 years



- 28 % of farmers indicated they received seed aid in the last 5 years

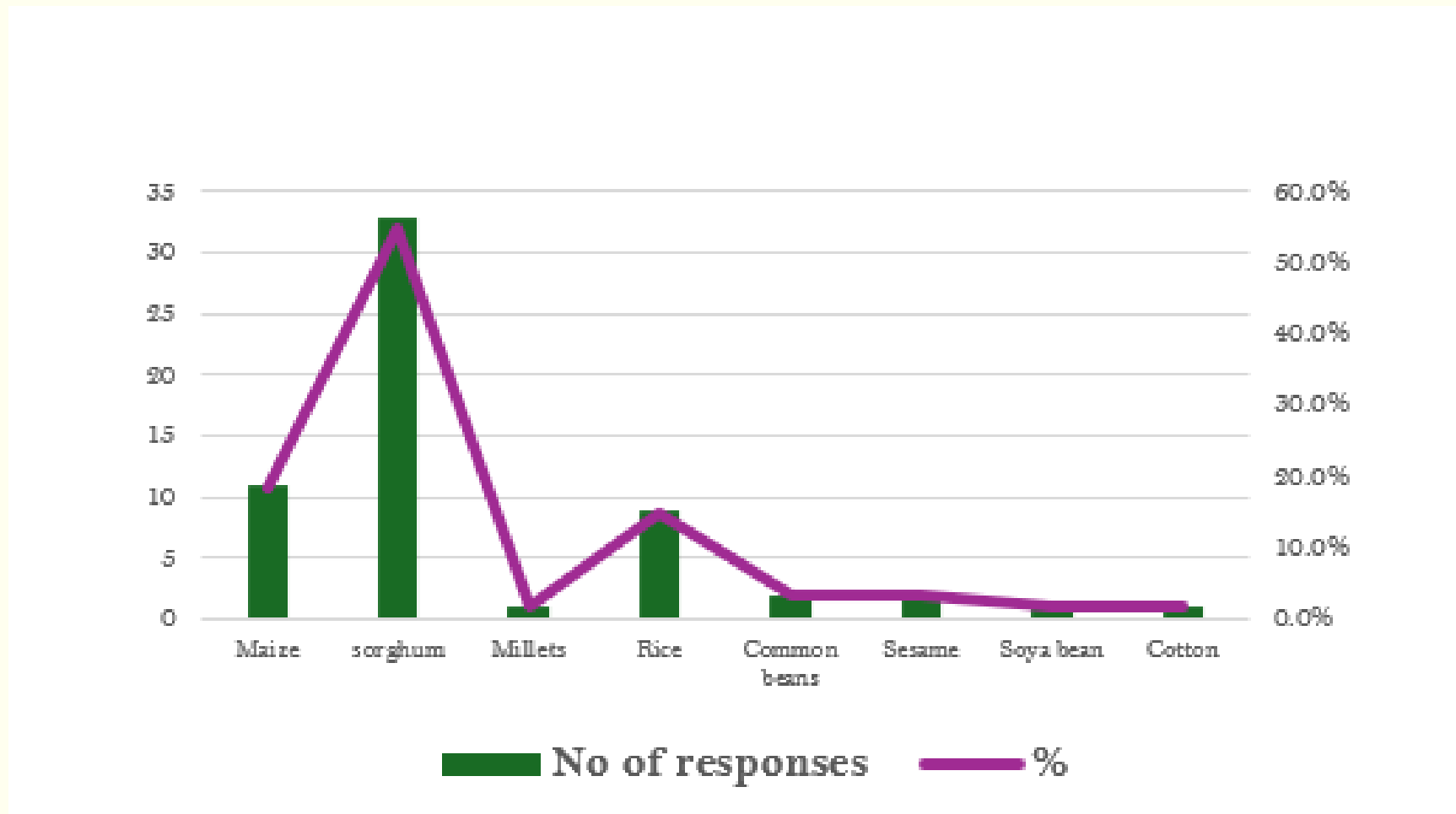
Mode of Seed Aid distribution in Ningi and Shira LGA



- 92% of seed aid received was from NGOs in the form of direct distributions

Ningi and Shira LGA are relatively self-contained with little or no reliance on external seed sources

Crop for which Seed Aid was provided in Ningi and Shira LGA

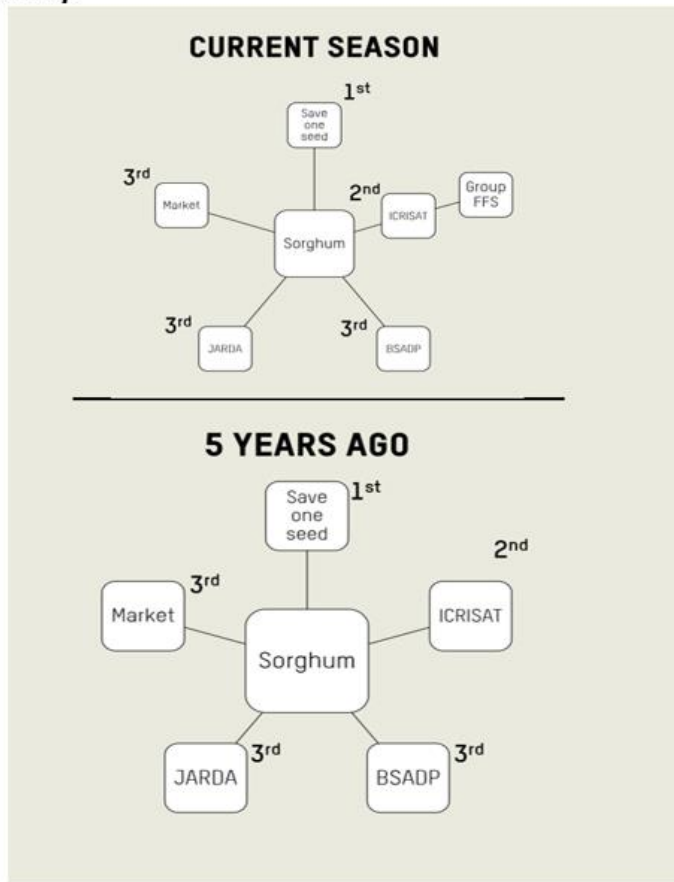


Top 3 seed aid crops were sorghum, maize and rice

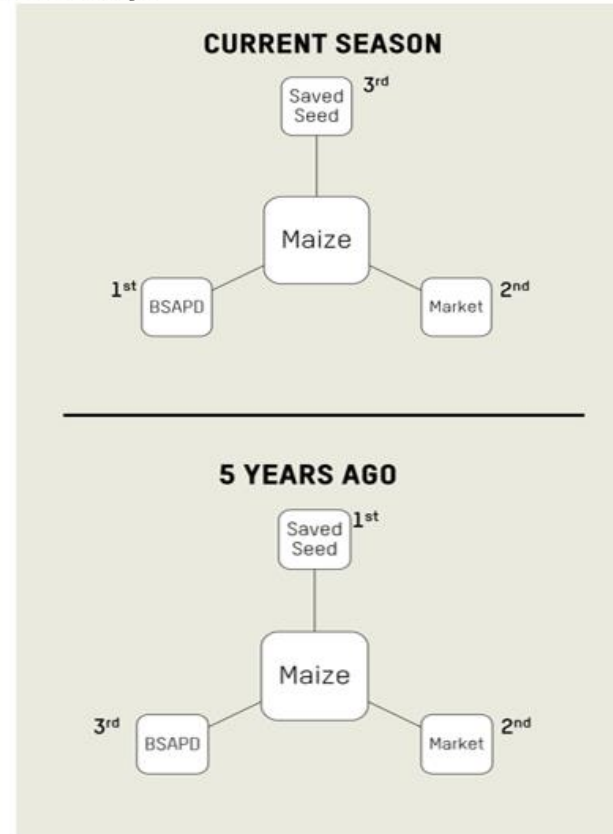
Mapping Community Seed Sources: Seed sources of key crops over time

Seed mapping 3 most important crops in Balma (Ningi LGA)-current season and 5 years ago

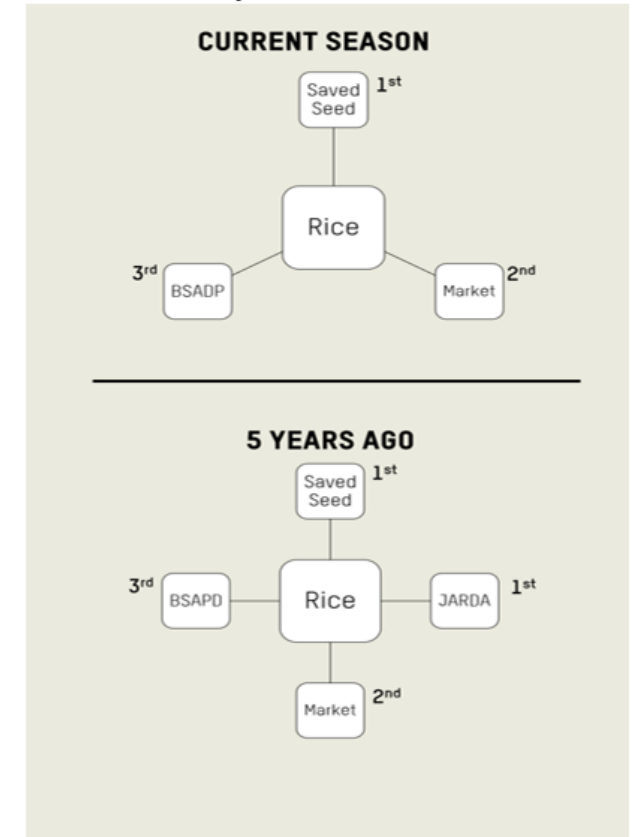
A: Sorghm seed map



B: Maize seed map



C: Rice seed map



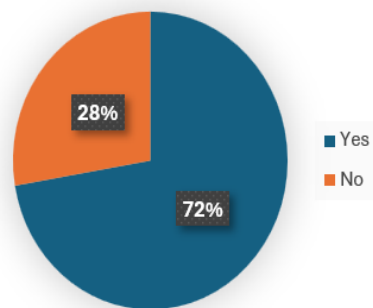
Seed sources in all communities haven't changed much the past five years: home-saved seed, local markets, government

USE OF FARMING INPUTS IN NINGI AND SHIRA LGA

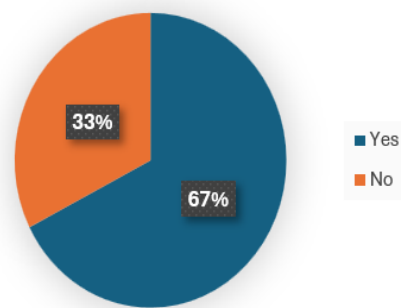
Farmers' use of mineral fertilizer in the 2024 and 2025 seasons

Current/most recent season		Next season	
Yes	93.1%	Yes	88.1%
No	6.9%	No	11.9%
N total	160	N total	160

Farmers use of pesticides in the 2024 season



Farmers use of pesticides in the 2025 season

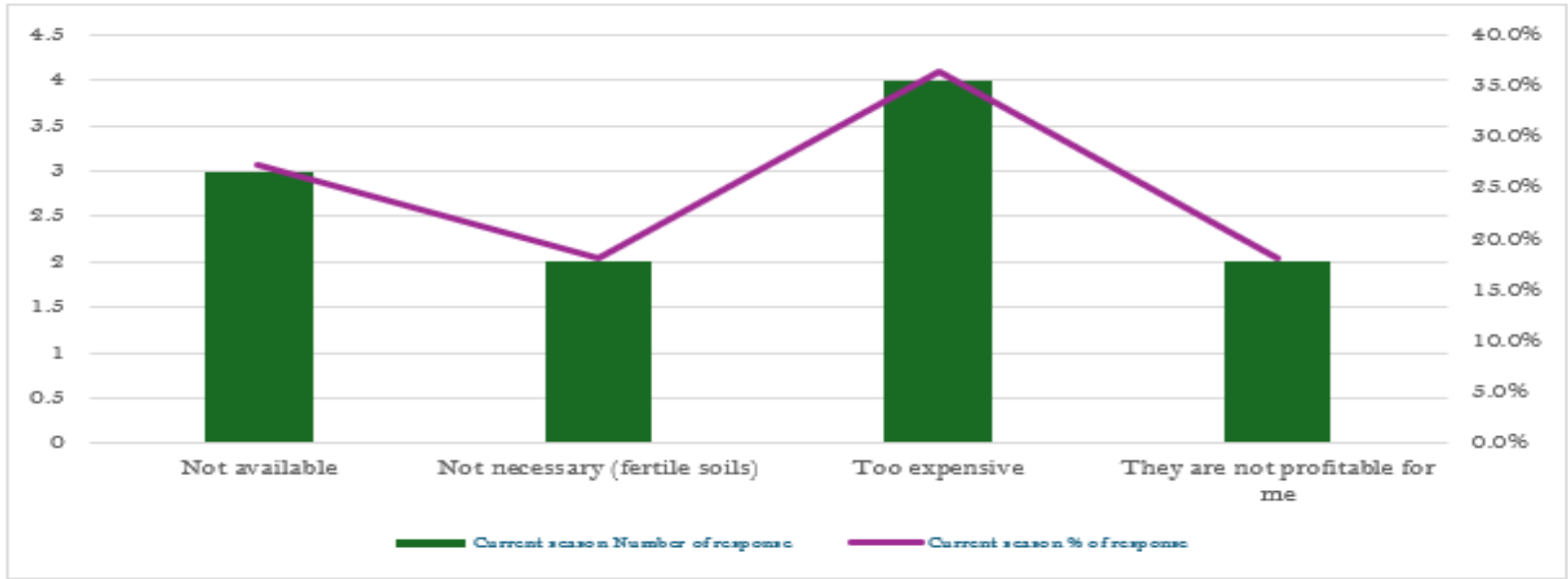


Mode of Seed Aid distribution in Ningi and Shira

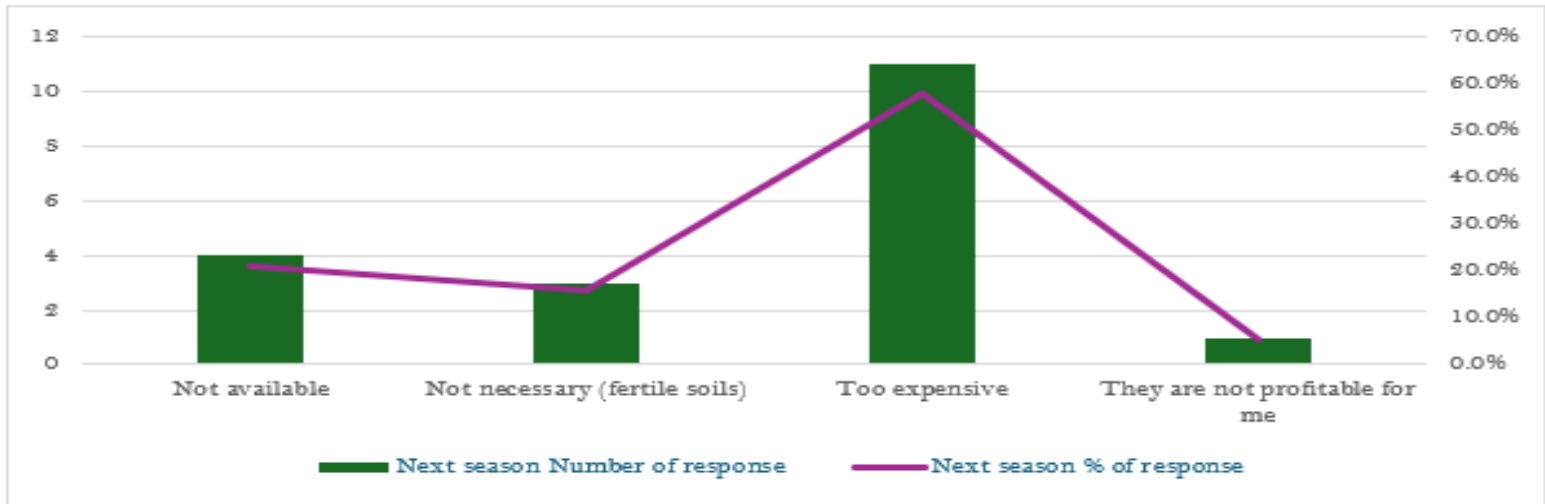
Crop	Current/most recent season		Next season	
	N	%	N	%
Maize	44	13.3%	44	13.9%
Sorghum	87	26.4%	98	30.9%
Millets	45	13.6%	39	12.3%
Rice	134	40.6%	111	35.0%
Groundnut/peanut	2	0.6%	5	1.6%
Common beans	3	0.9%	4	1.3%
Sesame	9	2.7%	10	3.2%
Soya bean	3	0.9%	4	1.3%
TOTAL-all crops	328	100.0%	314	100.0%

Two thirds or more of farmers surveyed use inputs
 For both seasons, most farmers applied inputs to four main crops, rice, sorghum, millet and maize

Reasons why farmer did not use mineral fertilizer in the 2024 season



Reasons why farmer did not use mineral fertilizer in the 2025 season

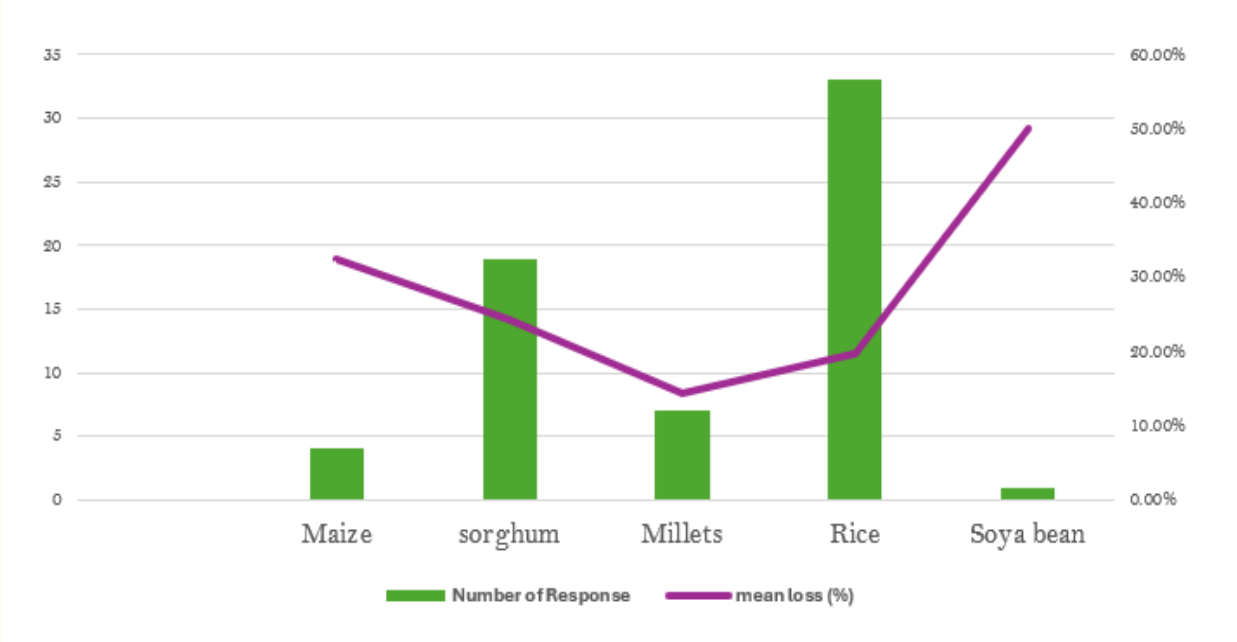


Reasons why farmer did not use mineral fertilizer in the 2024 and 2025 seasons

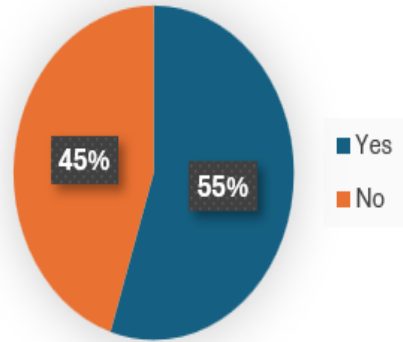
- Top is fertilizer too expensive.
- 2025 season more than half found fertilizer too expensive
- Fertilizers unavailable.
- Not necessary or “profitable” to use fertilizer.

Post Harvest Management and Farmers Storage Losses

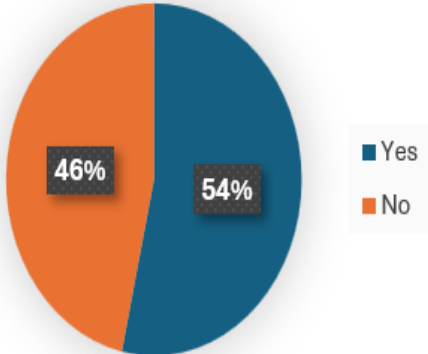
Farmers' storage losses by crop - current season (2024)



Farmers use of storage chemical in the 2024 season



Farmers use of storage chemical in the 2025 season



22 % of farmers reported experiencing storage losses in 2024
More than 50% of farmers in both seasons used/plan to use storage chemicals

Local Market Trader Management Practices of Potential Seed

Local market traders grain/local seed management practices (N=10)

Feature	Ningi and Shira LGA	Average of 10 other SSSA in Africa ⁶¹
Number of traders	10	211
Get grain from specific regions believed to have grain that will grow in local area (adapted)?	60%	80%
Seek out specific varieties to buy (which can be planted)?	80%	75%
Buy from specific growers who are known for high quality seed?	33%	48%
Keep varieties pure—as single variety?	80%	73%
Keep freshly harvested stocks apart?	93%	71%
Grade stocks (which grain/which seed)?	100%	39%
Do germination tests?	7%	10%
Have special storage conditions (to help with seed viability)?	53%	45%
Sort out 'waste' (pebbles, dirt, dust)?	60%	71%
Sort out 'bad grains/seed'-that is broken, or immature, or discolored?	40%	65%
Sell seed and grain separately, at different prices?	40%	43%

Traders displayed good seed management practices in local markets

grain/seed market functioning



- Access is the main constraint-not availability.
- System remains functional under normal conditions but sensitive to:
 - seasonal shortages
 - price spikes
 - quality concerns
- Strengthening local seed systems and crop diversification are critical for reduced risk and improved resilience.

SUMMARY Chronic Seed Security Findings

Chronic stress experienced due to structural vulnerabilities!

- **Static seed system channels:** Availability exists but is uneven, with few new varieties in last 5 year.
- **Low adoption of improved varieties:** Weak diffusion via formal channels, farmers rely predominantly on informal channels.
- **Weak quality assurance:** Despite good trader practices in seed/grain markets.
- **Affordability is a major barrier:** With merge incomes, farmers prioritize non-seed input use over seed (due to cost), constraining adoption.
- **Systemic constraints affect resilience:** 22% storage losses (2024), high dependence on few crops (rice, sorghum, millet, maize), and structural limits (access to credit, extension, resources).



GENDERED DIVISION OF LABOR, ROLES AND ACCESS IN SHIRA AND NINGI, BAUCHI STATE, NIGERIA



1 GENDERED DIVISION OF LABOR AND ROLES



MEN

- Primary decision-makers and asset controllers
- Dominate land ownership and decision-making
- Cultivate staple crops (maize, rice, millet) and control high-value produce
- Trade livestock (sheep, goats) and control assets and income

WOMEN

- Indispensable but often undervalued
- Contribute to planting, weeding, fertilizer application
- Handle post-harvest tasks: processing, storage, and small-scale marketing
- Engage in animal rearing and management
- Contributions rarely recognized on par with men's roles



2 ACCESS TO AND CONTROL OF RESOURCES

LAND OWNERSHIP



Patriarchal systems limit women's right to own land.

Access is insecure, discouraging long-term investments.



ACCESS TO FINANCE



Women face major barriers to credit and loans.

Financial services are designed for men, limiting women's ability to invest and grow.



ACCESS TO INPUTS & TECHNOLOGY



Women lack access to quality inputs, improved technologies, and extension services.

Programs prioritize men, overlooking women as active farmers.



3 CHALLENGES AND CONSTRAINTS FACED BY WOMEN FARMERS

SOCIO-CULTURAL NORMS & RESTRICTIONS

Cultural and religious norms restrict women's mobility and visibility in farming.



ECONOMIC BARRIERS

High input costs and limited access to credit prevent women from scaling up or adopting improved methods.



INFRASTRUCTURE & POST-HARVEST LOSSES

Poor storage, processing, transport and market access lead to significant post-harvest losses and lower incomes.



LIMITED ACCESS TO INFORMATION

Limited information on weather, markets and climate-smart practices weakens decision-making and resilience.



GENDER & DECISION-MAKING

Men dominate decisions on crops, income and resources.

Women have limited say in household and farming decisions.



4 GENDER AND DECISION-MAKING: INFLUENCES ON ACCESS TO QUALITY SEED

BARRIERS TO QUALITY SEED

- Socio-economic constraints and gender norms limit access.
- Men decide which crops to grow and control seed-related decisions.



FINANCIAL CONSTRAINTS

- Lack of money for inputs, business capital or seeds.
- Credit is available to men, not to women.



RELIANCE ON INFORMAL SEED SYSTEMS

Women rely on saved seed and neighbour-to-neighbour exchange.

Strong community sharing compensates for limited market/institutional supply.



LIMITED ACCESS TO IMPROVED VARIETIES

Women want improved and resilient seeds to cope with climate stresses.




































IMPACT

Gender inequalities weaken household resilience and perpetuate seed insecurity in Shira and Ningi.



Recommendations for Action

RECOMMENDATION	KEY ACTIVITIES (EXAMPLES)	TIMELINE
<p>1 STRENGTHEN FARMER-MANAGED SEED SYSTEMS</p> 	<ul style="list-style-type: none">  Test and select the best varieties with farmers (PVS).  Support community seed production groups (legumes, sorghum, millet, maize).  Build skills on seed quality, storage and soil health.  Monitor how new varieties spread in communities. 	 Short to Medium Term (1–3 years)
<p>2 IMPROVE SEED ACCESS AND AFFORDABILITY</p> 	<ul style="list-style-type: none">  Use VSLAs as revolving funds for seed access.  Promote small seed packs (50–100g) to make improved seed affordable.  Establish community seed banks for conservation, bulking and sales.  Pilot seed loan schemes (access now, repay after harvest). 	 Medium Term (2–4 years)
<p>3 STRENGTHEN MARKET LINKAGES</p> 	<ul style="list-style-type: none">  Support FFS groups to register as CBSP/local seed businesses.  Build business skills: labelling, branding, pricing, negotiation.  Promote farmer-to-farmer seed sales and link to buyers/companies. 	 Ongoing, review every 2 years
<p>4 ADDRESS SEED SECURITY AND VULNERABILITY</p> 	<ul style="list-style-type: none">  Introduce resilient and locally adapted varieties.  Focus on improving purchasing power and access.  Ensure seed businesses earn fair profits (~10% above grain price). 	 Medium to Long Term (3–5 years)
<p>5 GENDER AND SOCIAL INCLUSION</p> 	<ul style="list-style-type: none">  Establish women-led farmer field schools with nutrition and income goals.  Use two-in-one FFS: variety testing + nutrition/processing.  Use VSLA groups as entry points for women's participation.  Engage men to support and sustain women-focused initiatives. 	 Short to Medium Term (1–3 years)
<p>6 STORAGE AND POST-HARVEST MANAGEMENT</p> 	<ul style="list-style-type: none">  Train on drying and moisture control before storage.  Promote affordable local storage innovations (e.g., double bagging, jerrycans).  Promote low-cost hermetic storage (e.g., PICS bags, local innovations). 	 Short Term (1–2 years)

Recommendations for Action

Short to medium term

Recommendation	Key Activities
Strengthen Farmer-Managed Seed Systems	Promote participatory variety selection (PVS) for ongoing testing and evaluation by farmers.
	Expand community seed production through FFS.
Gender and Social Inclusion	Establish FFS with nutrition and income-generation goals, creating safe spaces for women
	Build seed interventions around existing women's groups (ex VSLA)
Storage and Post-Harvest Management	Train farmers on post harvest management, promoting affordable, locally adapted storage innovations—especially where improved storage bags are costly or inaccessible.

Recommendations for Action

Medium to Long term

Recommendation	Key Activities
Address Seed Security and Vulnerability	Focus on introducing resilient and locally adapted varieties.
	Build interventions around purchasing power rather than just seed availability to target access constraints.
	Income generation through seed businesses(CBSP).
Improve Seed Access and Affordability	Establish seed banks not only for conservation but also as bulking and sales points.

Recommendations for Action

Continuous

Recommendation	Key Activities
Strengthen Market linkages	Support formal registration, professionalization of FFS groups into CBSP that are strategically linked.
	Support capacity building/business skills development of FFS and CBSP.

REFLECTIONS :
**National Centre for Genetic Resources and
Biotechnology (NACGRAB)**
By: Dr. Ibidun Adetiloye,

NACGRAB: New varieties released for Sudan_Sahel savannah agroecology

Crop	Variety Name	Developing institutions	Outstanding characteristics	Agro-Ecology	Year of registration/ release
Pearl Millet	LCICMV-7	ICRISAT, Sadore, Niger & LCRI, Maiduguri, Nigeria	Panicle with long bristles and excellent for dry season production with fairly high resistance to bird damage. (3.40t/ha)	Sudano Sahelian ecology	2023
Pearl Millet	LCIC MH2	ICRISAT & LCRI, Maiduguri, Nigeria	Early maturity, high grain yield and high zinc. (4.8t/ha)	Sudano Sahelian ecologies	2025
Pearl Millet	LCIC MH3	ICRISAT & LCRI, Maiduguri, Nigeria	High grain yield and high Fe and Zn (4.8t/ha)	Sudano Sahelian ecologies	2025
Pearl Millet	LCIC MH4	ICRISAT & LCRI, Maiduguri, Nigeria	High yielding and high Fe and Zn (4.7t/ha)	Sudano Sahelian ecologies	2025
Pearl Millet	LCIC MH5	ICRISAT & LCRI, Maiduguri, Nigeria	High yielding and high Zn (4.7t/ha)	Sudano Sahelian ecologies	2025
Sorghum	SAMSORG 54	ICRISAT, Nigeria & IAR, Samaru, Zaria	High grain yield and tolerant to striga. (3.7t/ha)	Sudan Savannah	2023
Sorghum	PAC 501	Advanta Seeds Ltd., IAR, Samaru, Zaria	Testa free, earliness and high grain yield (4.6 t/ha)	Sahel , Sudan and Northern Guinea Savanna	2026
Rice	FARO 58	Africa Rice Centre and NCRI	Earliness, high grain yield, good cooking quality, tolerance to lodging. (5t/ha)	Northern and Southern Guinea Savanna, Sudan Savanna	2011
Rice	FARO 59	Africa Rice Centre and NCRI	Earliness, golden grain colour, weed competitiveness and tolerance to lodging. (5t/ha)	Northern and Southern Guinea Savanna, Sudan Savanna	2011
Rice	SG RICE 1	Sun Giant Ltd Off km 11, Hadejia Road Gunduwawa, Kano kano State. & National Cereals Research Institute Badeggi,	High yielding, high milling outturn (70.42%) (9.1t/ha)	Guinea and Sudan Savannah ecologies	2026
Rice	SG RICE 2	Sun Giant Ltd Off km 11, Hadejia Road Gunduwawa, Kano kano State. & National Cereals Research Institute Badeggi,	High yield, good tillering, earliness, salinity tolerance. (8.8 t/ha)	Guinea and Sudan Savannah ecologies	2026

REFLECTIONS :
National agricultural seed council (NAAsc)
By: Dr. Bankole Osho-Lagunju

REFLECTIONS :
**Practical considerations when undertaking
a SSSA**

Practical considerations when undertaking an SSSA

Context: Be clear on the WHY/Objective.

Challenging moments: Data collection, data entry and analysis-remain systematic and trust the process.

Lesson learned: Don't underestimate the capacity needs and budget requirements !

Advice: Hire a consultant/expert, good data manager and good enumerators.



SSSA ONLINE Course

Available At:

- SeedSystem Website: <https://seedsystem.org/assessments-and-e-learning-course/sssa-e-course/>
- DisasterReady: <https://www.disasterready.org/seed-system-security-course>
- ReliefWeb: <https://reliefweb.int/training/4111976/e-course-seed-system-security-assessment-response>

- **Approximately 3-4 hours**



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