

Swaziland preliminary qualitative results on seed situation assessment

*FAO Workshop
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Presentation Outline

- Background
- Key informants
- Seed Aid Actors
- Agro-input dealers
- Seed growers
- Local markets
- Focus groups

Background

- Drought versus grains – timely access to required quantities and quality
- Swaziland depends on seed imports from South Africa, Namibia and Zimbabwe, particularly hybrid seeds
- Seed institutional environment is guided by the Plant Control Act (1981), Seed and Plant Varieties Act (2000) and Plant Varieties Regulations (2002)
- The movement of seed in the SADC tends to be constrained by institutional processes such as crop variety release, seed certification and quality assurance, and phytosanitary and quarantine systems

Unit of analysis	Key informant s	Focus groups	Seed growers	Agro- input dealers	Seed aid actors	Local markets	Total
Required sample	12	8	8	12	4	12	56
Actual Sample	5	6	1	4	1	7	24

Key informants

Top three most important crops across all regions

Shiselweni	Manzini	Hhohho	Lubombo
Main crop			
Maize	Maize	Maize	Maize
Mung beans	Cowpeas	Cowpeas	Sugar beans
Sugar beans	Sugar beans	Sugar beans	Sugarcane
Food			
Maize	Maize	Maize	Maize
Sugar beans	Sugar beans	Sugar beans	Sugar beans
Sweet potatoes	Sorghum	Sorghum	Sugarcane
Income			
Maize	Sugar beans	Cowpeas	Maize
Sugar beans	Cowpeas	Sugar beans	Sugar beans
Mung beans	Mung beans	Sorghum	Sugarcane

Top three most important crops across the Agro-ecological zones (AEZs)

Low veldt

High veldt

Dry middle veldt

Main crop		
Cotton	Maize	Maize
Sorghum	Sugar beans	Sugar beans
Maize	Rice	Sorghum
Food		
Maize	Sweet potatoes	Maize
Sorghum	Sugar beans	Sugar beans
Sweet potatoes	Sorghum	Sorghum
Income		
Sorghum	Sugar beans	Groundnuts
Cotton	Groundnuts	Sugar beans
Sweet potatoes	Rice	Sorghum

Seed supply and security

Agro dealers:

- Farm chemicals
 - AGC Pty
 - VNH Agri-vets
 - Swaziland Agricultural Supplies (SAS)
 - Khuba Traders
 - C4 Agri
- Seed is imported through Pannar and Farm chemicals
- **Seed grower** – Tshala Seeds Enterprise (Sibheva)
- **Disasters and affected groups**
 - Crisis/disaster – drought and hail storms
 - Most vulnerable groups – female and child-headed farming households

Seed Aid Actors

- **World Vision**, Swaziland
- They commenced the distribution of seed aid in 2015, sourcing seed from local traders and agro-input dealers
- The expenditure was R800 000 in 2015 and decreased to R450 000 in 2016
- Only two regions have benefited – Manzini and Lubombo
- In 2015, 16 tonnes of sorghum and 4 tonnes of maize were distributed to 2 000 households

	2015	2016	%change
No of beneficiaries	2 000	1 041	- 48%
Quantity (tons)	20	7.4	- 63%
Project value (R)	800 000	450 000	- 44%

2015

Mkhiweni

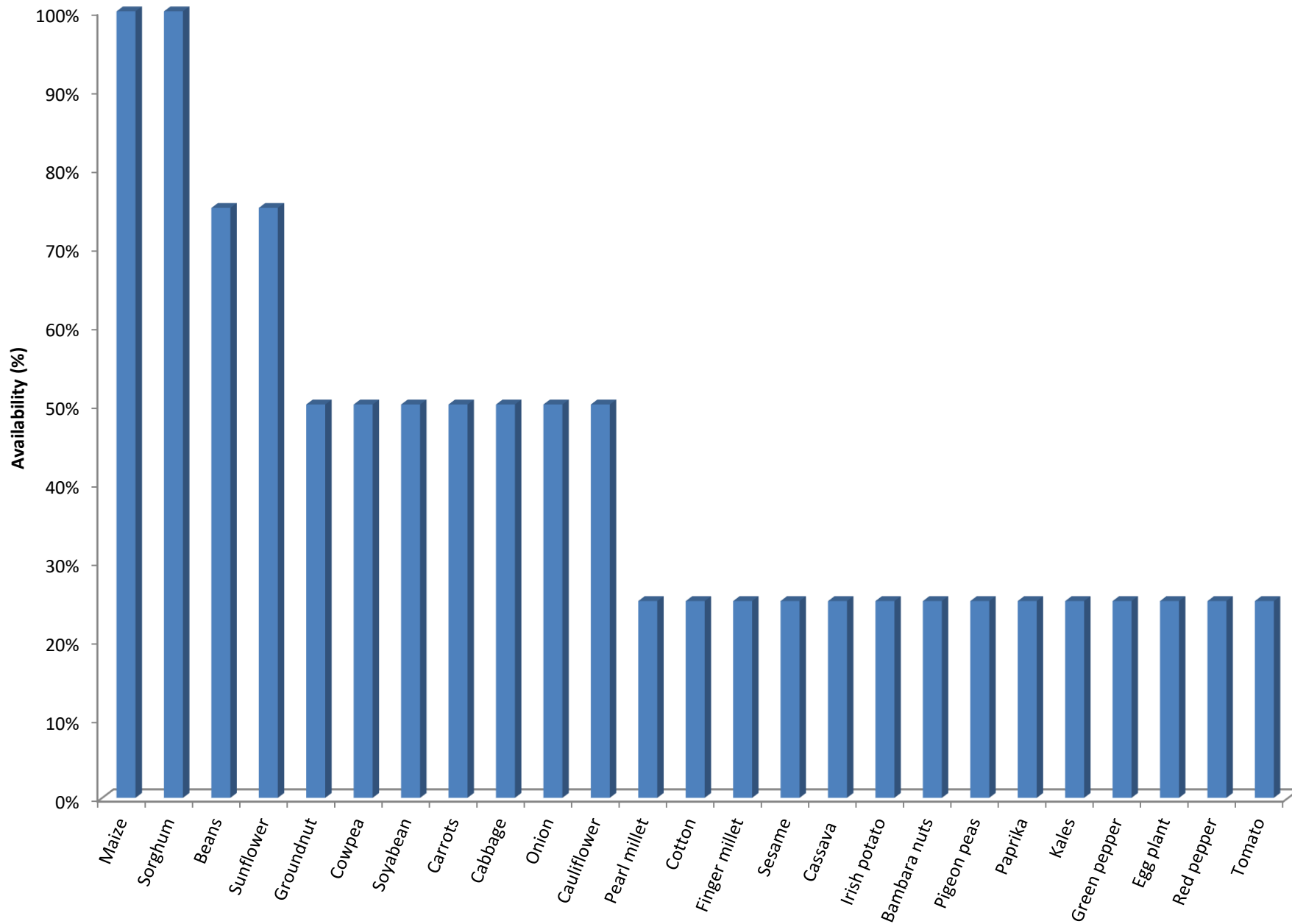
Upolonjeni and Shiwula

Supply (tonnes)	Manzini	Lubombo	Total
Sorghum (Ns 5511)	11	5	16
Maize (Ro 413)	3	1	4
Total	14	6	20

Agro-input dealers

- Agro-input dealers play a major role in ensuring the accessibility of seeds and other agricultural inputs by farmers
- They are situated in Manzini and Shiselweni

Inputs supplied	Farm chemicals	AGC Pty	C4 suppliers	Khuba traders
Crop seed	✓	✓	✓	✓
Vegetable seed	✓		✓	
Pasture seed	✓			✓
Agro-chemicals	✓	✓	✓	✓
Fertilizers	✓	✓	✓	✓
Hand tools	✓		✓	✓
Animal ploughs	✓			✓
Jab planters	✓			✓
Sprayers	✓	✓	✓	✓
Animal drugs	✓		✓	✓
Animal feeds	✓	✓	✓	✓
Other equipment	✓	✓	✓	
Other (specify)	Irrigation		Fencing, irrigation & pumps	12

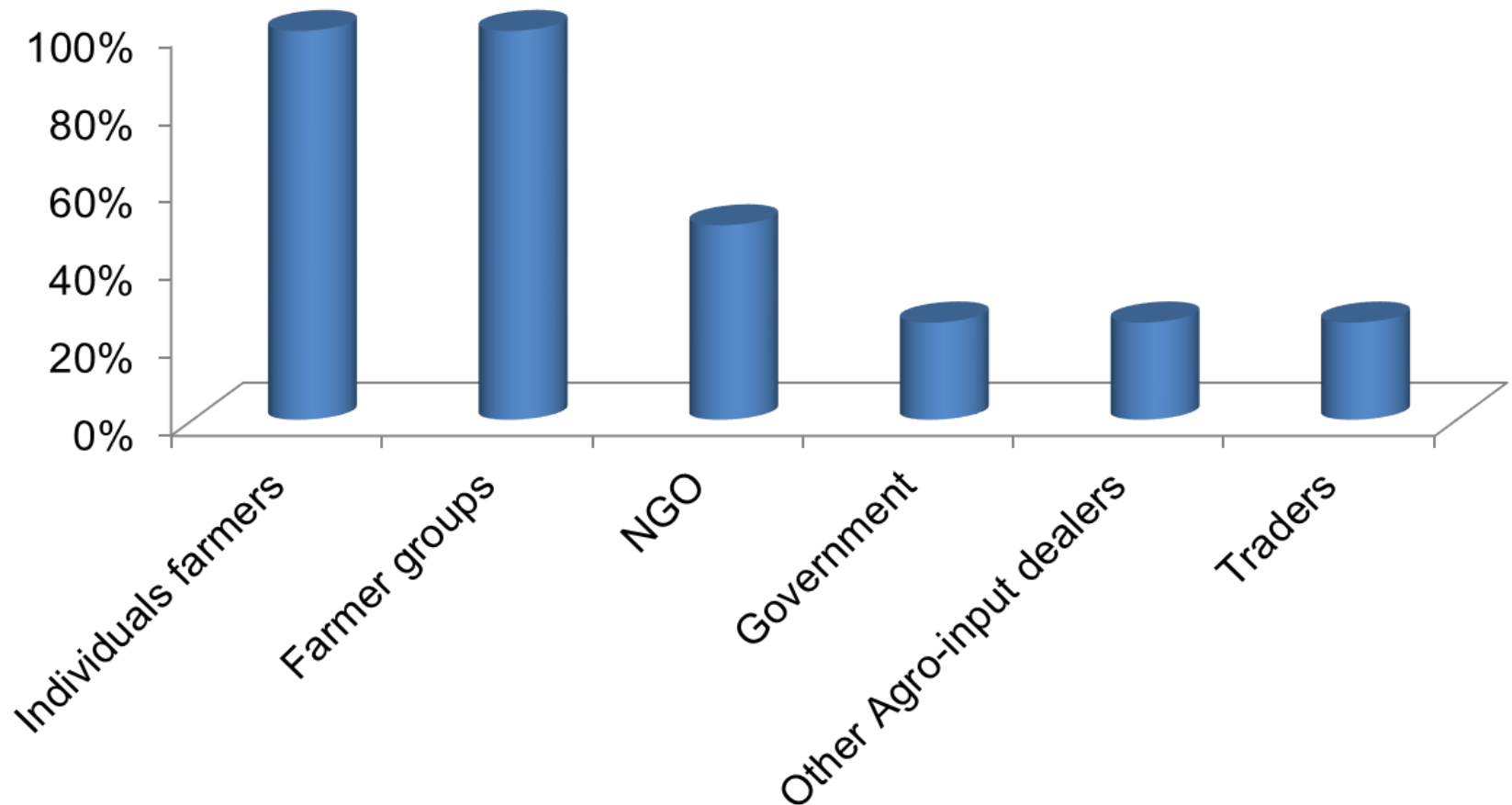


Maize	Sc 411	Pan 53	Pan 413
Common packing (in kg)	10	10	10
Packing material (make observation)	Polythene bag	Plastic	Plastic bag
Current price (ZAR)	380	380	360
Price at planting (ZAR)	380	380	360
Price one before planting (ZAR)	380	380	360
Quantity (ton) in stock now	6	4	2
Quantity (ton) commonly bought by farmers	120	100	50
Quantity (ton) sold during planting season	120	100	50
Months of highest sales	Sept-Dec	Oct-Dec	Sept-Oct
Main supplier	SeedCo	Pannar	Pannar
Location of the supplier	Manzini	Manzini	Manzini

Sugar beans	Pan 148	Kranskop	Cap 2000
Common packing	10kg	10kg	10kg
Packing material (make observation)	Polythene/Plastic bag	Polythene bag	Plastic bag
Current price (ZAR)	448.75	350	489
Price at planting (ZAR)	448.75	350	489
Price one before planting (ZAR)	448.75	350	489
Quantity (ton) in stock now	25	60	0
Quantity (ton) commonly bought by farmers	20	40	0.5
Quantity (ton) sold during planting season	20	40	0.5
Months of highest sales	Feb-March	Feb-March	Feb-March
Main supplier	Pannar	Pannar	Cap store
Location of the supplier	Manzini	Manzini	SA

Sorghum	Ns 5511
Common packing	1 kg and 2 kg
Packing material (make observation)	Polythene/plastic bag
Current price (ZAR)	68.75 and 140
Price at planting (ZAR)	68.75 and 140
Price one before planting (ZAR)	68.75 and 140
Quantity (ton) in stock now	30
Quantity (ton) commonly bought by farmers	25
Quantity (ton) sold during planting season	20
Months of highest sales	Oct
Main supplier	Pannar
Location of the supplier	Manzini

Main buyers



Fertilizers

	Urea	Compound (NPK)	LAN
Quantity	5kg, 50kg	5kg, 10kg, 50kg,	5kg, 50kg
Current price (ZAR)	R84, R301	R33, R64, R286	R97, R285
Quantity (ton) in stock now	331	1532	0.5
Average quantity (ton) commonly bought	15	20	25
Quantity (ton) sold during planting season	401	6.1	25
Months of highest sales	June-Dec/Feb-Mar	All year around	All year around
Main supplier	Farm chemicals	Farm chemicals	Farm chemicals
Location of the supplier	Manzini	Manzini	Manzini

Challenges

- Border procedures (institutional factors)
- Lack of soft infrastructure (electronic media or internet for farmers)
- Low sales during drought

Seed growers

Seed production activities

Maize varieties

Variety	Area planted (ha)	Type	Yield (tons/ha)	Quantity in store (tons)	Price per Kg
Zm 521	40	Dry land	68.9	4	R15.40
Zm 523	2 (0.5)	Dry land	0.25	0	R15.40
Zm 309	2	Irrigated land	4.3	2	R11.00

Zm 521 and 309 are planted in Manzini (Mangayana) and Zm 523 is planted in Lubombo

Beans varieties

Variety	Area planted (ha)		Yield (tons/ha)	Quantity in store (tons)	Price per Kg
Kranskop	30 (Lubombo)	20 (Hhohho)	44	20 (from 15 ha)	R38.00
Gadra					R38.00
Nua 45					R38.00

Packaged in 2, 5 and 10 kg bags
Production in Lusip (Lubombo) and Mukhovu (Hhohho) is under irrigation

Challenges

- Fields are inspected by Seed Quality Control (SQC)

Challenges

- Market
- Low internal technical support capacity
- Lack of intellectual property rights protection
- OPVs require proper management
- Show-casing the benefits of using OPVs



Local markets

Major crops sold

- ✓ Maize and beans are major crops sold by local market
- ✓ Agro-input dealers and seed companies are the main suppliers of seeds compared to the farmers

Seed conditioning “quality”

- Sort according to varieties
- Sell grain and seed separately



Price of seeds

Varieties and quantity Current price Price before planting time Price one month before planting time

Maize			
Pan 53: 10kg	R333.98	R353.65	R353.65
5kg	R 195	R 195	R 185
Zm 521: 10kg	R 185	R 185	R 185
Sc 403: 10kg	R 387	R 387	R 387
Sugar beans			
Pan 148: 5kg	R 270	R 270	R 270
Kranskop: 5kg	R 220	R 264	R 220
Nua 45: 5kg	R 200	R 200	R 195
Sorghum			
Ns 5511: 2kg	R 65	R 65	R 65

Quantity of seeds

Crops	Quantity available at the time of the assessment	Quantity sold in the last planting season	Quantity expected to be sold in the coming planting season
Maize	1 315 kg	7 930 kg	20,805 kg
Sugar beans	20 kg	100 kg	450 kg
Potatoes	3 000 kg	20 000 kg	30,000 kg

Focus groups



- Farmers indicated that the agricultural practices have changed over the years

Reasons for changes

- Climate change - lower average rainfall, higher average temperatures, the planting season has shifted backwards due to delayed rainfall, low yields (particularly on dryland), poor grazing land (particularly in communal lands where there is tragedy of commons)

Adaptation/Mitigation strategies

- Shift away from using OPVs to using hybrid seeds that are tolerant to drought and diseases, early maturing and high yielding

Top crops in terms of importance

Regions	Food	Income
Manzini	<ul style="list-style-type: none"> ➤ Maize ➤ Sugar beans ➤ Sweet potatoes 	<ul style="list-style-type: none"> ➤ Maize ➤ Sugar beans ➤ Sweet potatoes
Shiselweni	<ul style="list-style-type: none"> ➤ Maize ➤ Sugar beans ➤ Sweet potatoes 	<ul style="list-style-type: none"> ➤ Maize ➤ Sugar beans ➤ Sweet potatoes
Hhohho	<ul style="list-style-type: none"> ➤ Maize ➤ Sugar beans ➤ Spinach 	<ul style="list-style-type: none"> ➤ Maize ➤ Potatoes ➤ Spinach
Lubombo	<ul style="list-style-type: none"> ➤ Maize ➤ Sorghum ➤ Soybeans 	<ul style="list-style-type: none"> ➤ Cotton ➤ Sunflower ➤ Sweet potatoes

Crops and varieties dynamics

Hhohho	Lubombo	Manzini	Shiselweni
Increased crops in the land area over the last five years			
Maize	Cotton	None	Maize
Potatoes	Sweet potatoes		Sugar beans
Spinach	Sorghum		Sweet potatoes
Decreased crops in the land area over the last five years			
Sweet potatoes	Ground nuts	Sorghum	Cow peas
Ground nuts		Maize	
Sorghum		Sunflower	
Disappeared crops in the land area over the last five years			
Cassava	Sesame	Maize (Sc 709)	Pumpkin
Yams	Pumpkin		
New or emerging crop varieties			
Maize:	Maize:		Maize:
Pan 12	Pan 53	Maize: Sc 701	Pan 53
Pan 53	Zm 521		Ro 413
			Sc 637
			Sugar beans:
			Pan 148
Sc 727			Sweet potatoes:
			Kenya white
			Ligwalagwala

Sources of seeds

Hhohho: Post-crisis

CROP	SEED SOURCE	RANK		AFFORDABILITY
		QUANTITY	DISTANCE	
Maize	Own source	2	Nearer	Did not pay
	Local market	1	Nearer	Expensive
	Government	3	Far in this community	Affordable
	Agro-input dealers	2	Far outside community	Expensive
	friends/neighbours/relatives	1	Nearer	Affordable
Sugar beans	Own source	2	Nearer	Did not pay
	Local market	1	Far in this community	Expensive
	Government	3	Far in this community	Affordable
Sorghum	Agro-input dealers	1	Far outside community	Expensive

Hhohho: Pre-crisis

CROP	SEED SOURCE	RANK		AFFORDABILITY
		QUANTITY	DISTANCE	
Maize	Own source	1	Nearer	Did not pay
	Local market	2	Far in this community	Expensive
	Agro-input dealers	3	Far outside community	Expensive
	friends/neighbours/relatives	1	Nearer	Affordable
Sorghum	Agro-input dealers	1	Far outside community	Expensive
	Local market	2	Far in this community	Expensive
Sugar beans	Local market	2	Far outside community	Expensive
	Agro-input dealers	1	Far outside community	Expensive

Sources of seeds

Lubombo: Pre-crisis

CROP	SEED SOURCE	RANK	QUANTITY	DISTANCE	AFFORDABILITY
Cotton	Local market	1		Far outside community	Expensive
Sorghum	Agro-input dealers	1		Far outside community	Expensive
Sweet potato	friends/neighbours/relatives	1		Far outside community	Affordable

Lubombo: Post-crisis

CROP	SEED SOURCE	RANK	QUANTITY	DISTANCE	AFFORDABILITY
Cotton	Local market	1		Far outside community	Expensive
Sorghum	Local market	1		Far outside community	Expensive
Sweet potato	friends/neighbours/relatives	1		Far outside community	Affordable

Sources of seeds

Manzini: Pre-crisis

CROP	SEED SOURCE	RANK		
		QUANTITY	DISTANCE	AFFORDABILITY
Maize	Agro-input dealers (Farm chemicals)	1	Nearer	Expensive
	Agro-input dealers (Khuba traders)	2	Nearer	Affordable
	Agro-input dealers (SAS)	3	Nearer	Affordable
	Local market	4	Nearer	Affordable
	Government	5	Nearer	Affordable
Sugar beans	Agro-input dealers (Farm chemicals)	1	Nearer	Expensive
	Agro-input dealers (Khuba traders)	2	Nearer	Affordable
	Agro-input dealers (SAS)	3	Nearer	Affordable
	Local market	4	Nearer	Affordable
	Government	5	Nearer	Affordable
Sweet potato	Agro-input dealers	1	Nearer	Affordable

Sources of seeds

Shiselweni – pre crisis

CROP	SEED SOURCE	RANK QUANTITY	DISTANCE	AFFORDABILITY
Maize	friends/neighbours/relatives	2	Far in this community	Affordable
	Agro-input dealers	1	Far in this community	Expensive
Sugar beans	Own source	1	Nearer	Did not pay
	Local market	2	Far in this community	Affordable
	Agro-input dealers	3	Far outside community	Expensive
Sweet potato	friends/neighbours/relatives	1	Nearer	Affordable
	Local market	2	Far outside community	Affordable

Sourcing seed from friends and relatives

Reasons for sourcing seeds from relatives and friends

- Accessibility
- Affordability

Challenges

- Not tested
- Take time to germinate

The pros and cons of the seed sources

Seed source	Pros	Cons
friends/neighbours/relatives	<ul style="list-style-type: none"> • Affordable and sometimes free • Easily accessible • Prices are negotiable 	<ul style="list-style-type: none"> • Poor quality • Low germination • No sufficient quantities • Poor storage conditions
Local market	<ul style="list-style-type: none"> • High yield and early maturity • Drought resistant and good germination 	<ul style="list-style-type: none"> • High prices • Insufficient quantities
Agro-input dealers	<ul style="list-style-type: none"> • Quality guaranteed • They provide free information 	<ul style="list-style-type: none"> • Distance • Prices always increase
Government	<ul style="list-style-type: none"> • Affordable • Sometimes they do not offer what the farmers want 	<ul style="list-style-type: none"> • Deliveries tend to be delayed

Regions	Main varieties		
Shiselweni	Maize	Sugar beans	Sweet potatoes
	Pan 53	Pan 148	Kenyan White
	Sc 413		Ligwalagwala
	Sc 637		
Manzini	Maize	Sugar beans	Sweet potatoes
	Sc 701	Pan 148	Kenyan White
	Pan 53		Ligwalagwala
	Pan 413		
Lubombo	Maize	Sorghum	Cotton
	Pan 53	Pan 8625	Mbalak
Hhohho	Maize	Sweet potatoes	Sugar beans
	Pan 53		Pan 148
	Pan 719	Kenyan White	
	Sc 701	Ligwalagwala	
	Pan 413		

Farmer's production experience



Challenges highlighted by the farmers

- Hybrid seeds are expensive
- Distance to the seed market
- Climate change (Drought)
- Lack of own transport
- Lack of irrigation infrastructure



Thank You

