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Sorghum the Crop of Yesterday,Today and Tomorrow

S. Simunji

Golden Valley Agricultural Research Trust (Zambia)

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**Sorghum the crop of
Yesterday, Today
and
Tomorrow.**

Sorghum crop



Cultural Tour

Ku-omboka
Ceremony of the
LOZI People



ZAMBIAN PROVINCIAL MAP

MAP BY PETER JONES ©



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King Lewanika of the Lozi People



Photo taken in 1902

Current King (Lubosi) & Wife



Photo taken in 2009

THE ROYAL BADGE CALLED THE “NALIKWANDA”
APPROACHING THE HARBOUR



SPECTATORS AT LIMULUNGA HARBOUR



Nalikwanda arriving at Limulunga Harbour



Zambian President (center) & the Lozi King



End of Cultural Tour

“I have seen much in my travels, learned more than ever I could say.” – Sirach 34: 11

Common names of sorghum

- English:** Sorghum, Chicken corn, Guine corn
- India:** Jola, jowar, jowa, cholam, durra, shallu, bisinga
- East Africa:** Mtama, shallu, feterita
- West Africa:** Great millet, guinea corn, feterita
- U.S.A:** Sorghum, milo, sorgo, sudan grass
- Middle East:** Milo
- China:** Kaoliang
- Burma:** Shallu
- Sudan:** Durra, feterita
- RSA:** Kafir corn
- Egypt:** Durra
- Zambia:** Mailamucheme, makonga, mabele, chiganigani

Sorghum and Climate Change

1. Day length: Day length neutral & photosensitive types
2. Rainfall: 600 – 1,500mm
3. Altitude: 900 – 1,700m
4. Temperature: 23 – 32°C
5. Soil Type: Light, well – drained loams
Sensitive to acidic soils
6. Root systems: Extensive & Deep rooted
7. Photosynthetic Activity : Efficient

Sorghum as a crop of Today and Tomorrow:

As a crop for climate change adaptation

1. Moderate input requirements .
2. Easy to grow
3. Fast growth rate
4. Highly responsive to Improved management
5. Drought tolerance
6. Widely adapted
7. Easily extract nutrients from poor soils
8. Fit well in many Tillage systems, crop Diversification programs and cropping patterns

Sorghum the rich food

Carbohydrates	70%	High
Protein	8 – 15%	
	Mean = 9%	Average

Fat	3.4%	Average
Vitamin A	21 RE	Average
Ash	1.5%	Low
Phosphorus	368mg	High
Iron	5.7mg	Average
Calcium	21mg	Average
Potassium	220mg	Average
Amino Acid Profile	Poor	
Micro Nutrients	Excellent	

Sources: various

Local Uses of sorghum

- Sweet stalk
- Popping
- Shelters, Roofs, Fencing
- Seed, Grain for home use
- Fencing, Roofing, Firewood, mats, toys making

Value addition

- Grain for poultry - meat, egg sales
- Grain for Feedlots - meat, meat products, milk, hides sales
- Leaf forages and fodder - meat, milk, meat products, hides sales
- Grain for food and feed
- Grain for brewing - liquor sales
- Stalks for Biofuels - fuel sales
- Stalks as beddings in poultry and mushroom rearing
- Commercial grain and seed sales
- Grain and seed Exports

- *Care: Hydrocyanic Acid poisoning in Cattle

Challenges and Opportunities

1. Lack of suitable varieties should not be used as an excuse by the industry. Researchers should work closely with the end- users to develop suitable varieties.
2. Lack of improved seed and lack of information. This is a vexing problem that needs immediate attention. Whereas the advantages of improved varieties are known to farmers, the seed of the same is not available. Various NGOs and other institutions are now engaged in this exercise in an attempt to avail seed to the needy

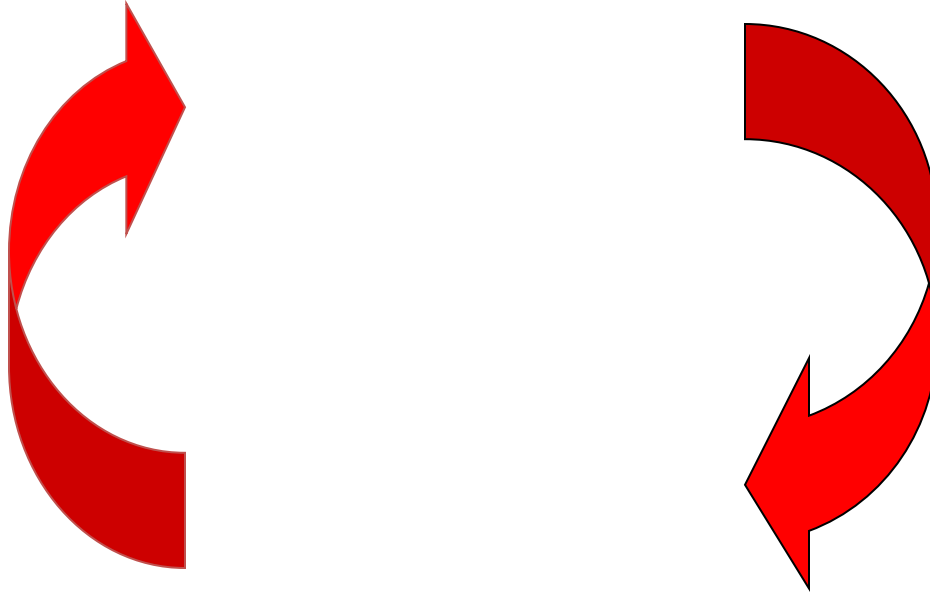
Challenges and Opportunities Cont'd

3. Lack of processing technologies. The unreliable supply of quality sorghum on the market deserves attention from all stakeholders. Those in a position to utilise the grain often use this as an excuse to shun it for other cereal grains.
4. In the initial stages, there is need for commercial end-users to engage into contract grower schemes. This will assist in building confidence in the market rather than it is a one- time market offer.

Challenges and Opportunities Cont'd

5. The Farmer Input Support Programme (FISP) should be extended to other crops such as sorghum. As it is the incentives extended to maize offer an undue advantage against other cereal grains.
6. Generally under funding in agriculture.

HIV and AIDS



Food and nutrition insecurity



Zambia: Sorghum production (Problem of storage)



Opportunities

1. Need to improve the extension messages on the crop and should be encompassing to include agribusiness and financing for the smallholder farmer.
2. Need for varieties that match farmers needs.
3. Need for better feeder roads and marketing infrastructure.
4. Out grower schemes and markets are necessary in the initial stages.
5. Lobby for FISP. The gap between the potential yield and average smallholder grain yields is not acceptable.

Zambia- Varieties

Open pollinated

- Kuyuma
- ZSV – 15
- Sima
- ZSV – 12
- WP – 13

Hybrids

- MMSH – 375
- MMSH – 413
- MMSH – 1324
- MMSH - 125
- FSH – 22 (Forage)

Zambia : Sorghum production training in Kazungula



Sorghum



Sorghum meal



Sorghum day

Field days

Zambia



Lesotho



Botswana



Namibia



Machinery field day



Type of dual purpose chicken

Nacked neck



Dwarf



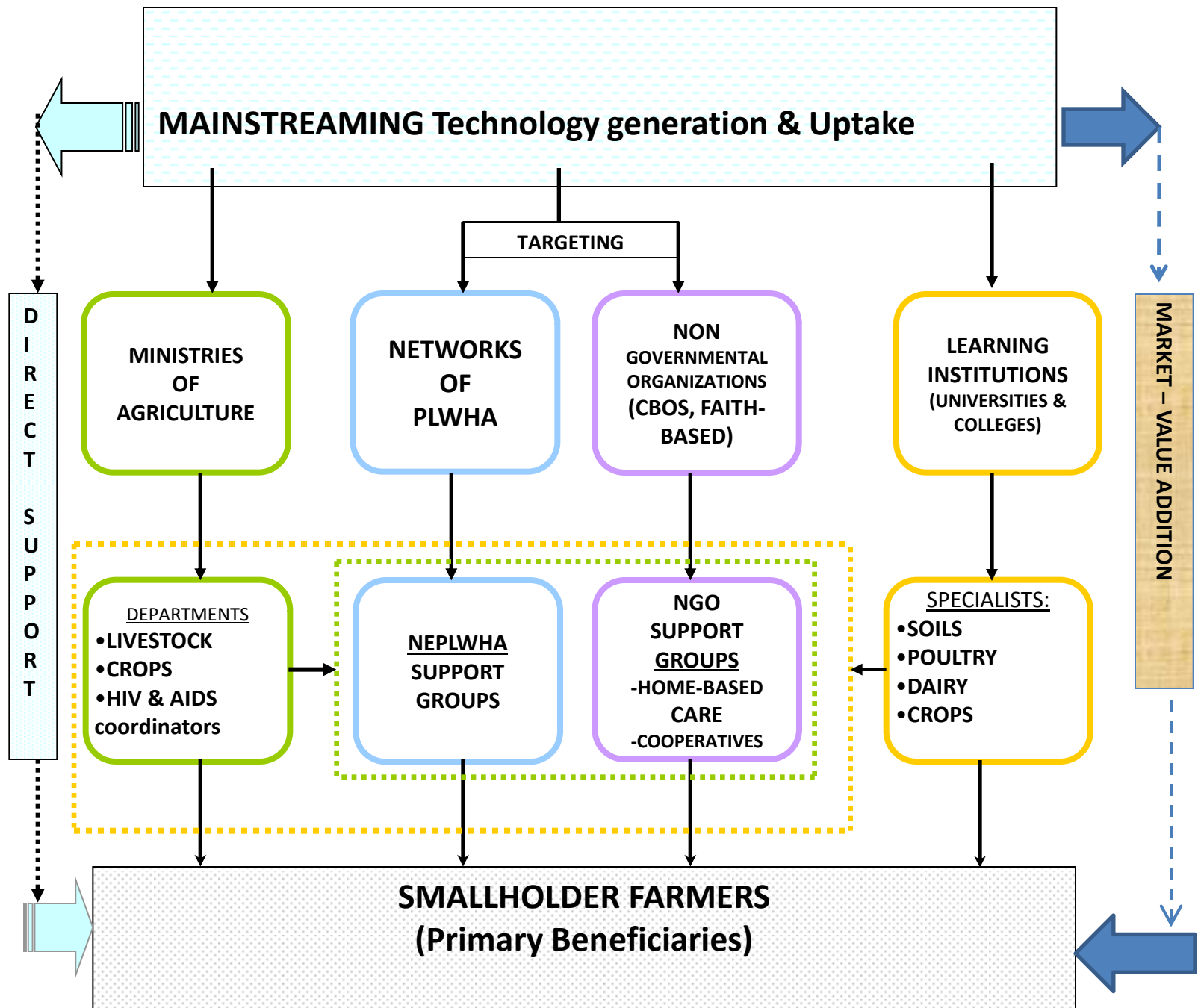
Mixed



Giant

A family that benefited from the 'pass on the gift' at Otse village- Botswana.





“Many people have the right Aim in life, but they never pull the Trigger.” – Rev. M. L. Fauss

**ALL IS WELL THAT
ENDS WELL.**

GOOD LUCKY!!

Thank you

