

Are vegetables foods or just the sauce?

Jill M. Ferry¹, Annet Itaru², Lydiah M. Waswa², M. Gracia Glas¹, Daisy Alum³, Margaret Kabahenda³, Irmgard Jordan¹

¹Justus Liebig University Giessen, Germany; ²Egerton University, Nakuru, Kenya; ³Makerere University, Kampala, Uganda



Summary and Conclusion

- FGD with farm families confirmed that a variety of vegetables may be available and accessible either through own production or the market during February to June 2019.
- Convenience in preparation, sensory characteristics and dietary side effects of vegetables influence selection and consumption of available vegetables.
- Participants had mixed information about the nutritional value of dark green leafy vegetables.
- More than 12 green leafy vegetables were classified as poor man's food and associated with poverty. They were rather considered as "sauce" with low economic value.

Background

- Adequate consumption of fruits and vegetables reduces risk for non-communicable diseases.
- Fruits and vegetables are characterized by high micronutrient and vitamin content as well as high content of bioactive plant components.
- The objective of this study was to learn about the perception and attitudes towards vegetables to better understand willingness to plant and consume vegetables at household level.



Impression of a Focus group discussion

Material and Methods

- Study region**
- Kapchorwa District, Uganda
 - Teso South Sub-county, Kenya
- Study group**
- 24 Focus group discussions in 8 villages (4 per country)
 - Farm families: men and women; youth
- Data collection**
- Seasonal calendar
- February 2019**
- (February to June 2019)
 - Perceptions and attitudes towards vegetables
- Data analysis**
- Structured content analysis performed with MAXQDA 2018



Vegetable availability and potential source (Example)

Excerpt of vegetable list and its sources

Dark green leafy vegetables	Kenya	Uganda
Spider plant (<i>Cleome gynandra</i>)	✓	✓
Collard (<i>Brassica oleracea</i>)	✓	✓
Amaranth (<i>Amaranthus hybridus</i>)	✓	✓
Cowpea leaves (<i>Vigna unguiculata</i>)	✓	(✓)
Pumpkin leaves (<i>Cucurbita moschata</i>)	(✓)	X
Black night shade (<i>Solanum nigrum</i>)	✓	✓
Spinach (<i>Spinacia oleracea</i>)	(✓)	(✓)
Bean leaves (<i>Phaseolus vulgaris</i>)	(✓)	✓
Malabar Spinach (<i>Basella Alb</i>)	✓	(✓)
Wild growing vegetable varieties	✓	✓



Mixed dark green leafy vegetables

- Available at home and at the market
- Only available at home or forest
- Only available at the market
- X = unavailable
- ✓ = available
- (✓) = limited availability

Personal preferences of vegetables

		Kenya			Uganda		
		Youth	Fathers	Mothers	Youth	Fathers	Mothers
Method of preparation	The method of preparation impacts the taste and the preference for a vegetable. "It is tasty but it has to be mixed with Cowpea leaves." (FGD1_Kenya p.6 449 - 500)	✓	✓	✓	✓	✓	✓
Convenient preparation	The convenient preparation is a reason for the preference of a vegetable. "It cooks faster and has water which is good for the body." (FGD3_Uganda p.5 28 - 30)	X	X	X	X	✓	✓
Sensory characteristics	The preference or dislike of a vegetable is explained due to its taste, texture or smell. "They are bitter but nice." (FGD6_Uganda p. 6 7 - 9)	✓	✓	✓	✓	✓	✓
Season	The season in which the vegetable is harvested impacts the preference. "Sukuma wiki are sweet during the rainy season and have a bitter taste during the dry season due to dry spell." (FGD_Kenya_1 p.6 868 - 989)	✓	X	✓	X	X	X
Side effects	The side effects caused by the consumption of a vegetable determines if it is tasty or not. "...bitter and irritates the throat" (FGD2_Kenya p.6 1051 - 1113)	✓	✓	✓	✓	✓	X

Values of dark green leafy vegetables

Nutritional value	The participants mentioned the nutritional value of dark green leafy vegetables. "Black night shade is considered to contain all vitamins" (FGD7_Uganda p. 13 28 - 32)	X	✓	✓	✓	X	X
Medicinal value	The participants mentioned possible therapeutic applications of dark green leafy vegetables. "Sun hemp – its bitterness cures malaria." (FGD2_Kenya p.15 947 – 975).	✓	✓	X	X	✓	✓
Body functions	The participants emphasized a positive effect of dark green leafy vegetables on the body functions. "Greens add blood and make the bones strong." (FGD3_Uganda p. 13 42 - 43)	✓	✓	✓	✓	✓	✓
Poor man's food	The vegetables were associated as poor man's food. "Because one doesn't need money in order to get these foods." (FGD6_Kenya p. 11 256 - 316)	✓	✓	✓	✓	✓	✓

✓ = mentioned during a FGD; X= not mentioned during a FGD

Consortium:



The project is funded by:

