

Improving nutrition and health status of Tanzanian children through improved complementary foods

Yasinta Muzanila¹, Wanjiru Gichohi², Seetha Anitha², Patrick Okori²

¹Sokoine University of Agriculture, ²International Crops Research Institute for the Semi-Arid Tropics

Challenges & Study objective

- ✓ Prevalence of stunting in Dodoma (45.2%) is higher than the national average (35.0%).
- ✓ Tanzania Food and Nutrition Centre recommends support to community-based programs to ensure optimal and appropriate complementary feeding practices.

Main study objective: To improve the nutrition status of children 6-23 months through improved complementary foods that utilize locally available cereals and legumes.

Introduced technologies

- ✓ Nutritious complementary food formulations (**Table 1**).
- ✓ Nutrition education (**Table 1**).
- ✓ Improved food safety focusing on aflatoxin contamination (**Fig 1**).
- ✓ Proper Post-harvest crop handling methods (**Fig 1**)

Evidence

- ✓ Prevalence of underweight and wasting reduced by consumption of improved nutritious complementary food (**Table 2**)
- ✓ Improved household dietary diversity (**Table 2**)
- ✓ Improved food safety (**Fig 1**)
- ✓ Increased proportion of mothers using proper Post-harvest crop handling methods (**Fig 1**) which improves nutrition & health as well as socio economic development.
- ✓ Complementary food promotes utilization of pigeon pea which ultimately rumps up local consumption and reduces overdependence on export markets(**Table 1**) .

Approaches of taking the technologies to scale

- ✓ Direct training to household caregivers ($n=300$).
- ✓ Facilitation of caregivers to give mother to mother training ($n=300$).
- ✓ Field days ($n=600$) and Agricultural Shows ($n=1000$).



Plate 1: Nutrition education session in Kongwa, Kiteto

Partners



We thank farmers and local partners in Africa RISING sites for their contributions to this work. We also acknowledge the support of all donors which globally support the work of the CGIAR centers and their partners through their contributions to the [CGIAR system](#)



This poster is licensed for use under the Creative Commons Attribution 4.0 International Licence. September 2018

Table 1. Complementary food composition

Ingredients	Food Group	Quantity	Nutrient category
Maize	Cereal	273 g	Carbohydrate
Finger Millet	Cereal	273 g	Ca, Fe, Mg & Zn
Soya bean	Legume	273 g	Protein
Pigeon pea	Legume	181 g	Protein
Amaranth	Green leafy vegetable	50 grams	Fe & Zn
Carrot	Vitamin A rich vegetable	50 grams	Vitamin A
Iodized Salt	Condiments	For taste	Iodine
Vegetable Oil	Fats and Oil	A table spoon	Fat

Table 2. Improved child nutritional status

SI Indicator	Nutrition Education in Complementary Food Recipe Preparation		
Human (Nutrition)	Baseline	Endline	% Change
Dietary diversity (number of food groups consumed)	2	5	+150
Underweight (%)	20	0	-100
Stunting (%)	31	31	-
Wasting (%)	7	0	-100

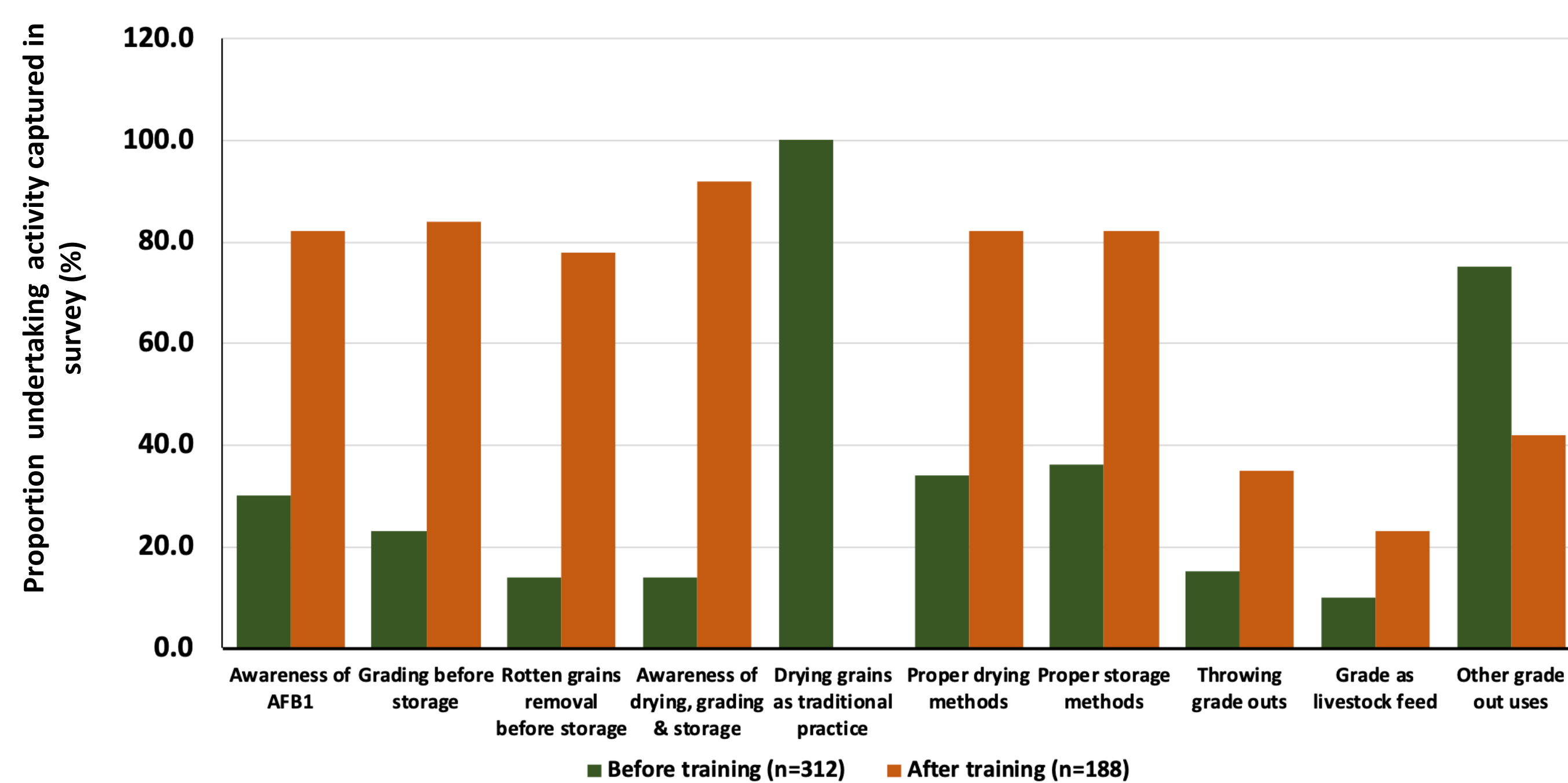


Fig 1: Changes in farmer knowledge, attitude, and practice (KAP) awareness on AFB₁

Proposals for the future

- ✓ Integration of education and health sectors to scale out strategies.
- ✓ Widen scope of agencies involved particularly development agencies.

