



Food and Agriculture Organization
of the United Nations

2019 Rain Season Crop Yield
Assessment Report



BACKGROUND

In the 2019 rainy season (May-September, 2019);

- FAO supported 97, 400 households (681 800 people) which constitute 35% female and 65% male.
- The households supported include 28% returnees, 49% from the host communities and 23% IDPs living within the communities.
- FAO provided seeds of cereals (maize, millet and sorghum), pulses (cowpea, groundnut and sesame) and vegetables (okra and amaranth) plus fertilizer to improve households' food and nutrition security. The composition of the kit received by each HH is as follows



In Kit 1, each farmer will receive one (1) type of cereal grain, and may choose from either Maize, Millet or Sorghum. Along with the cereal grain chosen, farmers will also receive Cowpea Seed and a 25 kilogram bag of fertilizer.

Additional Inputs for Female Farmers



Women farmers may be given supplementary kits, with two possible options. They include;

Kit 2 - Vegetable Seed (okra and amaranthus) and a 25 kilogram bag of fertilizer;

Kit 3 - Groundnut Seed or Sesame Seed and a 25 kilogram bag of fertilizer.

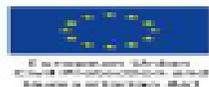
Detailed Description of Kits

Crop	Variety	Amount per HH in kg
KIT 1 CEREAL (either millet, sorghum or maize + cowpea + fertilizers)		
Sorghum	SAMSORG 41 (ICSV 400)	8
Millet	SOSAT C 88	8
Maize	SAMMAZ 27 (EVDT 99 W STR)	10
Cowpea	IT89 KD-288	10
Fertilizer	N:P:K 15-15-15	25
KIT 2 VEGETABLES		
Okra	NHAR 47-4	0.10
Amaranth	NGAC-003	0.08
Fertilizer	N:P:K 15-15-15	25
KIT 3 CASH CROP (either Groundnut or Sesame with fertilizers)		
Ground nut	SAMNUT-24	10
Sesame	Ex-Sudan	1.5
Fertilizer	N:P:K 15-15-15	25



Food and Agriculture Organization of the United Nations

Supported by:



Sida

Funded by the European Commission



Government of Ireland



Belgium

partner in development





INTRODUCTION

Rainy season crops harvest was undertaken between September and November 2019. To determine yields obtained by beneficiaries, FAO undertook crop yield assessment in selected locations across the three states.

OBJECTIVES

The objectives of the assessment are to;

- Estimate average yields of crops produced during the 2019 rainy season programme in Borno, Adamawa and Yobe states; and
- Determine crop output from FAO supported beneficiaries.

Methodology



Food and Agriculture Organization
of the United Nations

- Eleven LGAs were randomly selected from the three states including Numan, Gombi, Michika in Adamawa; Askira/Uba, Chibok, Jere, Kaga, Konduga in Borno and Damaturu, Fune, Geidam in Yobe.
- Data collection was conducted at the time of crop harvests between October and December 2019.
- Sample plots were identified from FAO beneficiaries and non-beneficiaries as control.

Crop yields were determined using the processes explained below:

- Sample plots were identified through random selection of beneficiaries' farms. Plots of 10m x 10m (100m square) were marked demarcated using polygon method.
- Produce from the sample plots were separately harvested, allowed to dry and threshed. The produce is then weighed to determine dry weight using measuring scale.

Findings

- ***Average yields of crops produced during the 2019 rainy season***
- The cowpea (10kg) seeds provided is sufficient to cover one-third ($1/3$) of a hectare, while millet (8kg) and sorghum (8kg) are sufficient to cover one hectare. The 10kg maize provided is adequate to cover half an hectare.



Figure 1 shows the average yield obtained from seeds received by FAO beneficiaries and non-beneficiaries. Results indicate overall average yields (Table 1) from FAO beneficiaries were higher than for non-beneficiaries for all crops. State wise analysis however, shows groundnut yield from non-beneficiaries was higher in Adamawa state with average yields of 0.35 and 0.5 MT respectively.

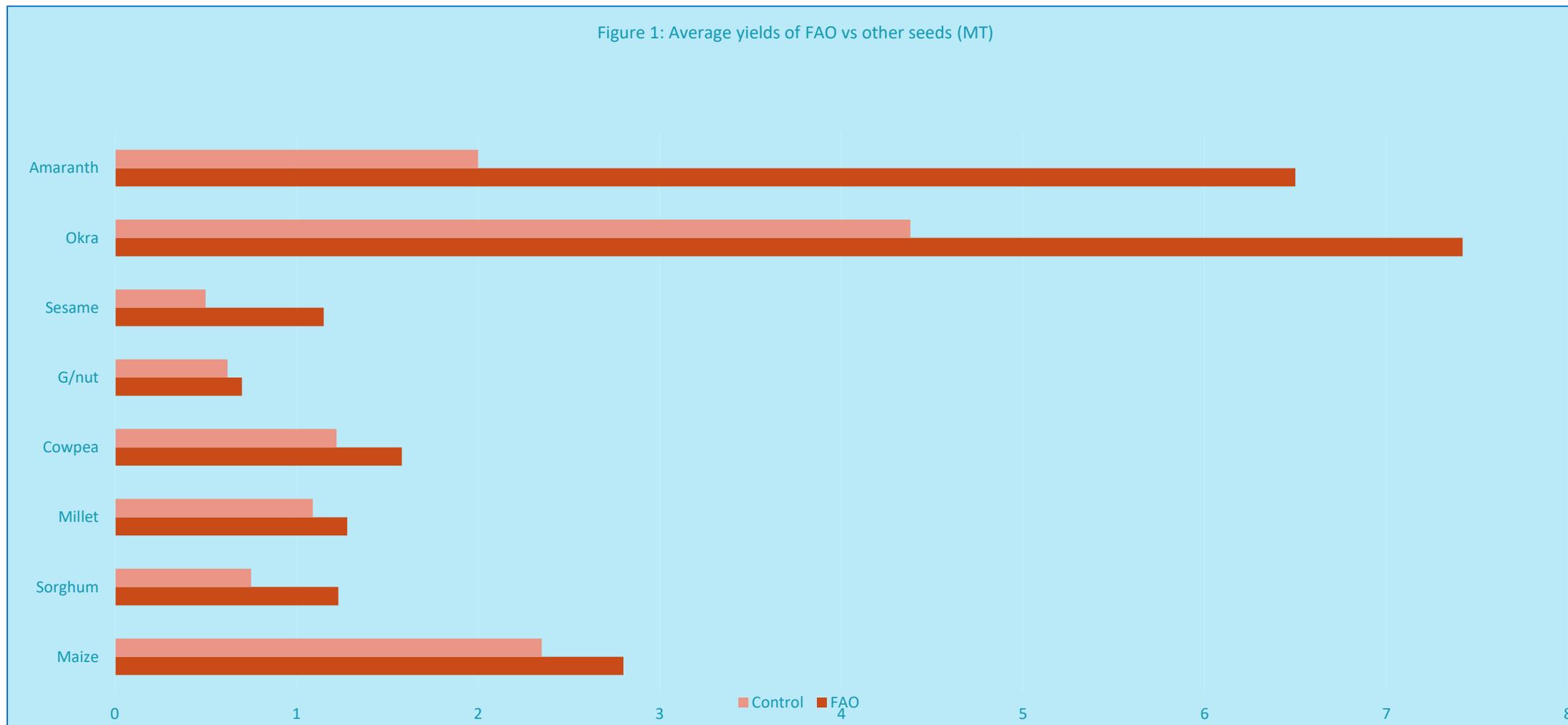




Table 1: Average Crop Yields per State (MT)

Crop	Borno		Adamawa		Yobe		Average		Difference	% Difference
	FAO	Control	FAO	Control	FAO	Control	FAO	Control		
Maize	3.31	2.51	2.3	1.56	NA	NA	2.8	2.35	0.5	+16
Sorghum	NA	NA	NA	NA	1.23	0.75	1.23	0.75	0.48	+39
Millet	1.55	0.98	NA	NA	1.0	1.2	1.28	1.09	0.19	+15
Cowpea	1.82	1.65	1.2	1.0	1.72	1.01	1.58	1.22	0.36	+23
G/nut	0.8	0.7	0.35	0.5	0.96	0.66	0.70	0.62	0.08	+11
Sesame	1.02	0.5	0.7	NA	1.72	NA	1.15	0.5	0.65	+57
Okra	9.62	5.45	NA	NA	5.22	3.31	7.42	4.38	3.04	+41
Amaranth	6.5	2.0	NA	NA	NA	NA	6.5	2.0	4.5	+69

Conclusion

- From the findings above, it can be concluded that crop yields from FAO-supported seeds are higher than their non-FAO counterparts. In the same vein, beneficiaries were able to produce various quantities of food from the seed support they received from FAO.

Recommendations

- Based on the findings of the assessments, the following recommendations were made:
- Planting date and climate variability to be factored in the data collection tools.
- Distribution of inputs especially cereals should be timely, at most early June to ensure uniform crop establishment.
- Extension services on proper crop management and integrated pest management needs to be strengthened to ensure better crop performance.
- The fertilizer given is for micro-dosing. Hence farmers need to be trained on the technology.