



Key Baseline Indicators

Deliverable No: 1.5 Technical brief on key indicators

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Objective: Establish a set of key indicators that can serve as baseline for assessing impacts of InnovAfrica project on ecology, food and nutritional quality and socio-economic conditions of smallholder farmers

Baseline Indicators

<i>Maize/millet/sorghum- legume cropping systems</i>			
Key indicators	Ecological	Food & nutrition	Socio-economic
Grain yield (kg/ha)	X		
Organic carbon (%)	X		
% of N ₂ O-N emission reduced	X		
Dietary diversity (No/day/week)		X	
No. of meals per day (seasonal)		X	
No. of months food stock lasts		X	
% of income from crop and crop residue sales			X
Gross margin (US\$/ha)			X
No. of people aware/using technology			X

<i>Brachiaria forage - Livestock production systems</i>			
Key indicators	Ecological	Food & nutrition	Socio-economic
Crop biomass (ton/ha)	X		
Root biomass (g/m ²)	X		
Milk yield (Litre)		X	
% of availability of milk		X	
% of consumption of produced milk		X	
Income from Brachiaria sale (US\$/ household)			X
Income from milk sale (US\$/head)			X
No. of people aware/using the technology			X



Farmers planting Brachiaria forage seedlings in the field (Photo: RAB, Rwanda)

Innovative institutional approaches including MAPs, ISDS and Agro-dealers

Key indicators	Ecological	Socio-economic
Quality seed produced (kg)	X	
Seed availability (%)		X
Access to quality seeds (%)		X
Seed quality (%)		X
Suitability of variety (%)		X

Extension & Advisory Services: PIP, VKC including smart phones, FPRTs and F2FE

Key indicators	Ecological	Socio-economic
No. of crops cultivated and/or livestock raised	X	
No. of land management practice	X	
No. of farmers accessing ICT-based knowledge		X
No. of men & women farmers visiting VKC		X
No. of farmers with a vision /farm plan		X

Expected Impacts

Ecological Impact

- Crop & livestock yields increased
- Soil fertility improved
- Contribution to N2O-N emissions reduction
- Quality seeds available
- Greater climate resilience
- Increased biomass productivity

Food & nutrition impacts

- More proteins (legumes)
- More vitamin A (e.g. orange maize)
- More micronutrients (Fe fortified millets)
- Improved nutrition
- Improved food security

Socio-Economic impacts

- Knowledge access increased
- Adoptions increased
- Innovations capacity increased
- Improved market access
- Livelihoods improved
- Income increased

Key Messages

- Indicators should be SMART i.e. simple, measurable, achievable, realistic and trackable.
- In total, the key base-line impact indicators are 9 for ecological, 5 for food & nutritional quality, and 13 for socioeconomic impacts, and their monitoring methods have been suggested.
- Local indicators and/or proxy indicators will be used, where ever possible.

REFERENCES

- Dechassa N, Tesfai M, Nagothu US, Ghimire S, Nyagumbo I, Wosten H, Westengen O, Kessler A and Hundessa F (2018). Technical brief on key indicators (*Del 1.5*)
- <http://www.innovafrica.eu/>



This project is funded from the European's Union H2020 research and innovation programme under Grant Agreement No. 727201