

DEVELOPING A SEED DASHBOARD

Workshop Measuring Seed Sector Performance
Abidjan, Ivory Coast
26-28 October 2016

RISE-AG Dashboards

- Support measurement of BMGF SHF strategy
- Foster transparency and accountability in agr sector
- Begin to harmonize agricultural measurement across sectors
- Support governments to better diagnose their underlying system challenges by identifying where performance is lacking

Initial Dashboards

- Agricultural Transformation
- Agricultural Productivity
- Livestock
- Fertilizer
- **Seed Systems**
- Extension Systems
- Gender
- Food Security
- Nutrition
- Policy
 - Land (planned)
 - Infrastructure (planned)
 - R&D (planned)

Tanzania: Agricultural Productivity Dashboard

The productivity dashboard indicators capture on-farm productivity among smallholder farmers (defined as operating a holding area of four hectares or less) as it is inclusive productivity growth that will eventually drive faster and larger impacts on national poverty reduction.

Country Data Status		Regional Comparison Values	
Collected and Populated		Min on Left, Max on Right.	
Need to Collect/In Progress		Median	
Unavailable		Tanzania	

DRAFT: Not for external circulation

June 22, 2016

Key Indicators	Latest Value	Trend Over Time	Growth Rate		Country Comparison	Regional Comparison
<div>1. Labor Productivity</div> <div>Annual value of farm output per FTE adult equivalent farm worker.</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	NA		NA	NA		
<div>2. Total Household Income per Capita</div> <div>Total real household income from all sources per household member per year; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$366		59%	12%		
<div>3. Crop Production Income</div> <div>Total annual farm income from crop production; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$458		83%	17%		
<div>4. Livestock Production Income</div> <div>Total annual farm income from livestock production; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$54		20%	4%		
<div>5. Land Productivity</div> <div>Total annual value of crops (staples, cash crops, horticulture, etc.) per hectare of land operated by household (land owned + land rented-in - land rented-out); [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$571		46%	9%		
<div>6. Area-Weighted Cereal Yield</div> <div>Average annual production per unit of planted area of maize, wheat, and rice; yield estimates are from mono-cropped plots only in order to limit area measurement errors; [mean].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	991		NA	NA		
<div>7. Crop Production Cost per Hectare</div> <div>Cost of purchased inputs per unit of land operated by household; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$76		35%	7%		
<div>8. Cost of Crop Production</div> <div>Cost of purchased inputs per dollar of output; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$0.13		-6%	-1%		
<div>9. Cost of Livestock Production</div> <div>Cost of purchased inputs per dollar of output; [median]. Note: value of output does not include value livestock as assets.</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$0.24		-28%	-6%		

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Key Indicators
1. Labor Productivity
Annual value of farm output per FTE adult equivalent farm worker.
Data Source: Living Standards Measurement Study - Integrated Surveys
2. Total Household Income per Household Member
Total real household income from all sources per household member.
Data Source: Living Standards Measurement Study - Integrated Surveys
3. Crop Production Income
Total annual farm income from crop production; [median].
Data Source: Living Standards Measurement Study - Integrated Surveys
4. Livestock Production Income
Total annual farm income from livestock production; [median].
Data Source: Living Standards Measurement Study - Integrated Surveys
5. Land Productivity
Total annual value of crops (staples, cash crops, horticulture, etc.) produced on land owned + land rented-in - land rented-out; [median].
Data Source: Living Standards Measurement Study - Integrated Surveys
6. Area-Weighted Cereal Yield
Average annual production per unit of planted area of maize, wheat, sorghum, and millet cropped plots only in order to limit area measurement errors; [median].
Data Source: Living Standards Measurement Study - Integrated Surveys
7. Crop Production Cost per Hectare
Cost of purchased inputs per unit of land operated by household; [median].
Data Source: Living Standards Measurement Study - Integrated Surveys
8. Cost of Crop Production
Cost of purchased inputs per dollar of output; [median].
Data Source: Living Standards Measurement Study - Integrated Surveys
9. Cost of Livestock Production
Cost of purchased inputs per dollar of output; [median]. Note: value includes depreciation of assets.
Data Source: Living Standards Measurement Study - Integrated Surveys

Labor Productivity

Per Capita Household Income

Crop Production income

Livestock Production Income

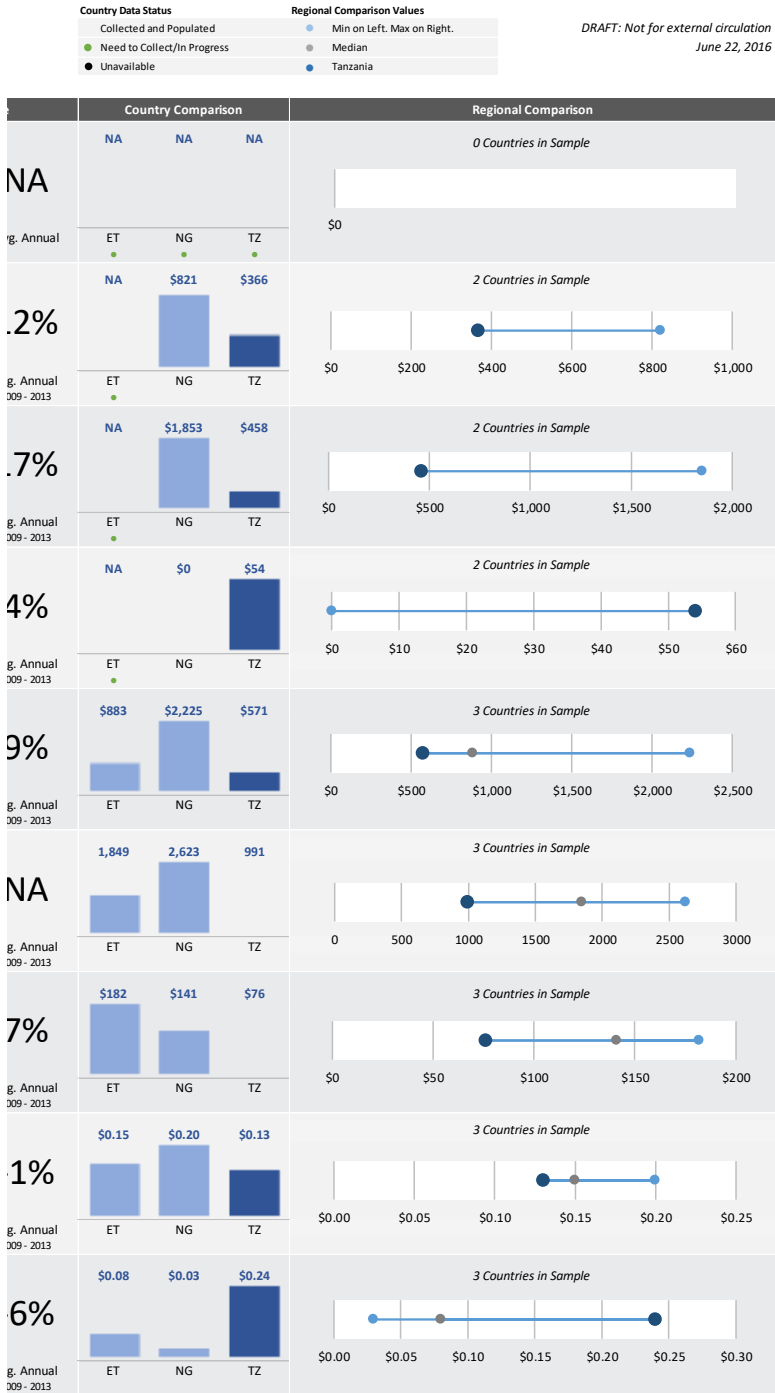
Land Productivity

Area-weighted Cereal Yield

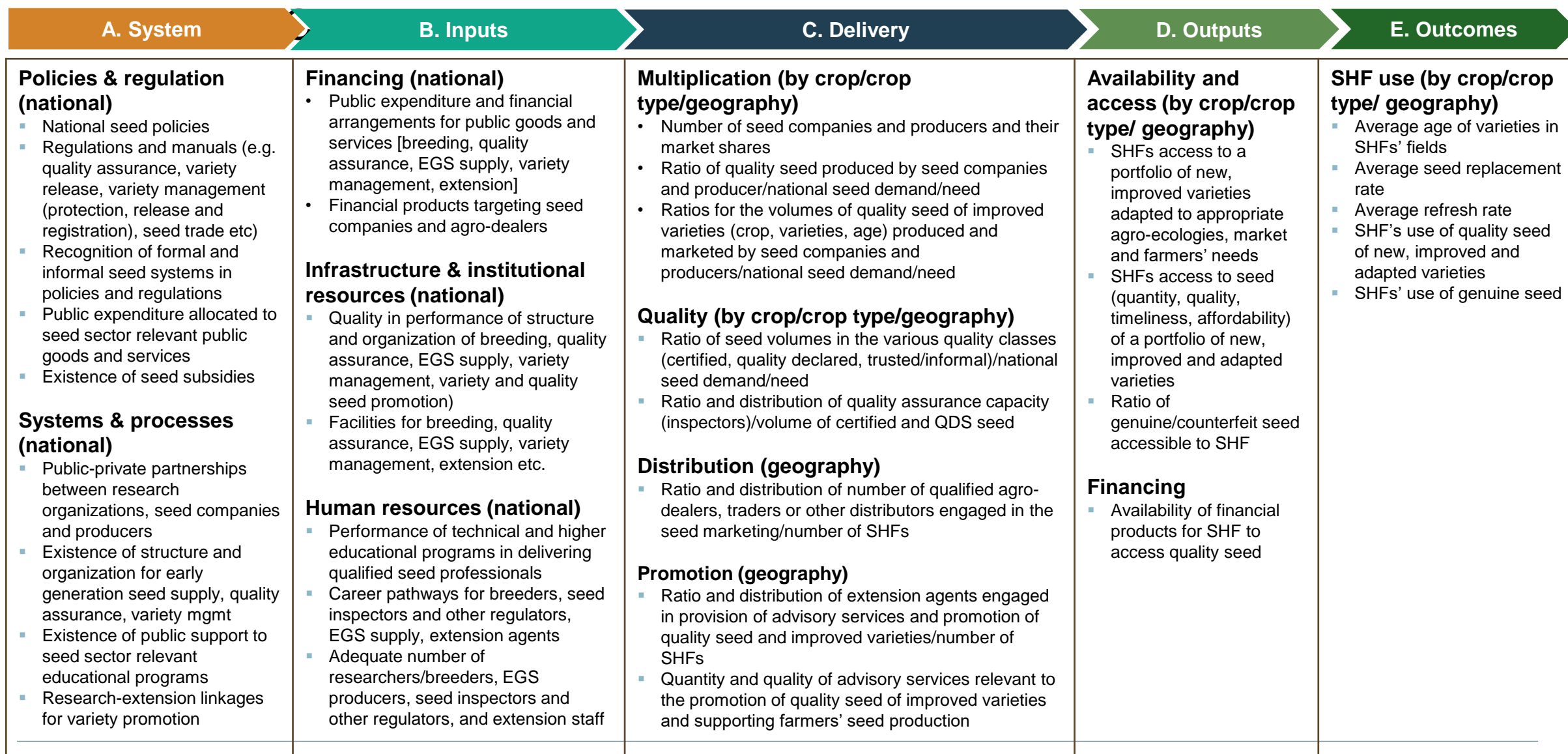
Crop Production Costs/ha

Cost of Crop Production

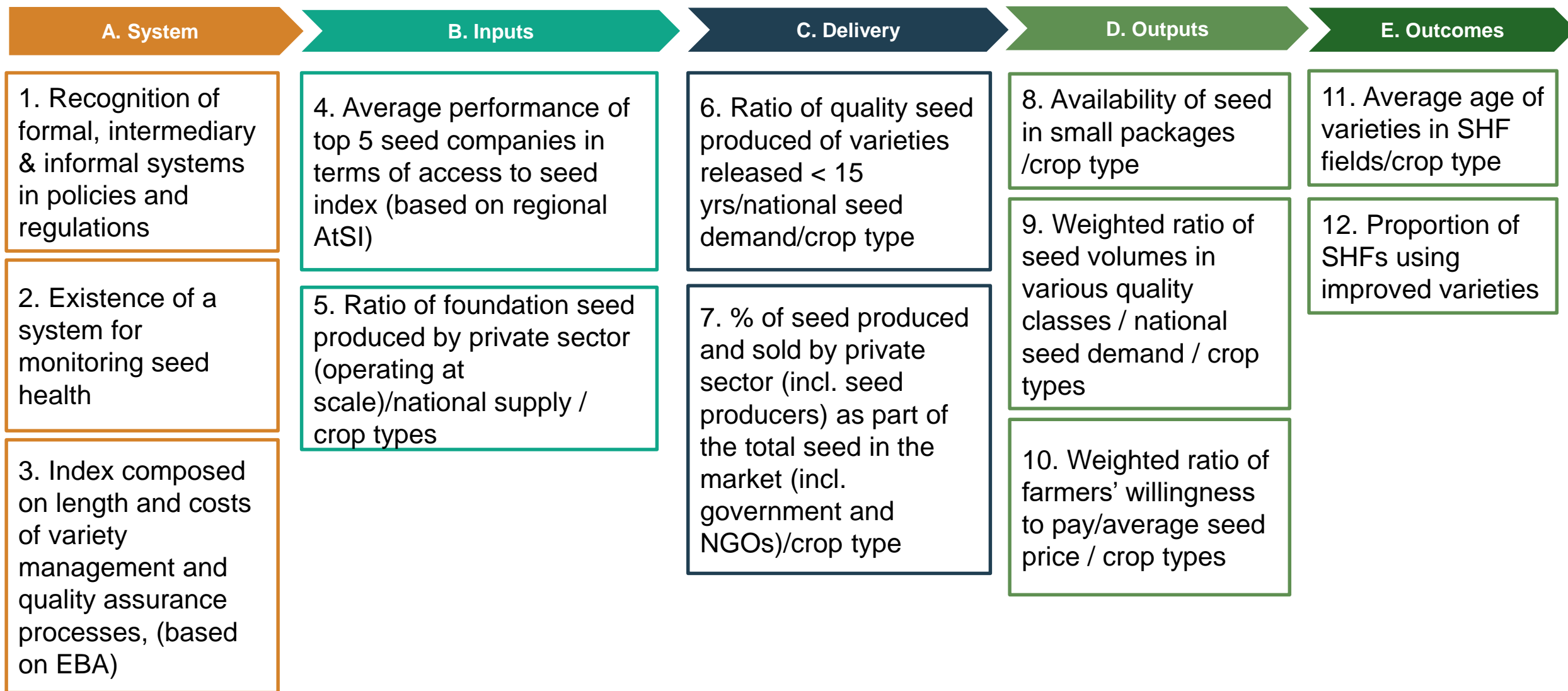
Cost of Livestock Production



METHODS - LOGIC MODEL FOR ASSESSING SEED SECTOR



Draft Short list of Seed Indicators



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<div>1. Labor Productivity</div> <div>Annual value of farm output per FTE adult equivalent farm worker.</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	NA <div>PPPS\$/farm worker/yr</div> <div>NA</div>		NA	NA	<div>NA NA NA</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>0 Countries in Sample</div> <div></div> <div>\$0</div>
<div>2. Total Household Income per Capita</div> <div>Total real household income from all sources per household member per year; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$366 <div>PPPS\$/hh member/yr</div> <div>2013</div>		59%	12%	<div>NA \$821 \$366</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>2 Countries in Sample</div> <div></div> <div>\$0 \$200 \$400 \$600 \$800 \$1,000</div>
<div>3. Crop Production Income</div> <div>Total annual farm income from crop production; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$458 <div>PPPS\$/hh/yr</div> <div>2013</div>		83%	17%	<div>NA \$1,853 \$458</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>2 Countries in Sample</div> <div></div> <div>\$0 \$500 \$1,000 \$1,500 \$2,000</div>
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<div>5. Land Productivity</div> <div>Total annual value of crops (staples, cash crops, horticulture, etc.) per hectare of land operated by household (land owned + land rented-in - land rented-out); [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$571 <div>PPPS\$/ha/yr</div> <div>2013</div>		46%	9%	<div>\$883 \$2,225 \$571</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>3 Countries in Sample</div> <div></div> <div>\$0 \$500 \$1,000 \$1,500 \$2,000 \$2,500</div>
<div>6. Area-Weighted Cereal Yield</div> <div>Average annual production per unit of planted area of maize, wheat, and rice; yield estimates are from mono-cropped plots only in order to limit area measurement errors; [mean].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	991 <div>Kg/ha</div> <div>2013</div>		NA	NA	<div>1,849 2,623 991</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>3 Countries in Sample</div> <div></div> <div>0 500 1000 1500 2000 2500 3000</div>
<div>7. Crop Production Cost per Hectare</div> <div>Cost of purchased inputs per unit of land operated by household; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$76 <div>PPPS\$/ha/yr</div> <div>2013</div>		35%	7%	<div>\$182 \$141 \$76</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>3 Countries in Sample</div> <div></div> <div>\$0 \$50 \$100 \$150 \$200</div>
<div>8. Cost of Crop Production</div> <div>Cost of purchased inputs per dollar of output; [median].</div> <div>Data Source: Living Standards Measurement Study - Integrated Surveys on Agriculture (LSMS-ISA)</div>	\$0.13 <div>Ratio</div> <div>2013</div>		-6%	-1%	<div>\$0.15 \$0.20 \$0.13</div> <div>ET NG TZ</div> <div>ET NG TZ</div>	<div>3 Countries in Sample</div> <div></div> <div>\$0.00 \$0.05 \$0.10 \$0.15 \$0.20 \$0.25</div>
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Representative Indicator Scorecard

Scorecard

Audience: Heads of state

Purpose: Facilitate a rapid triage on the performance of critical agriculture sub-sectors, spur competition, and identify opportunities for shared learning and action by decision-makers.

Topic Dashboards

Audience: Individual line-ministries and departments

Purpose: Deliver actionable sub-sector insights, with a focus on tracking the progress of smallholder farmers.

Africa						
		Indicator	Unit	TZ	ET	NG
Farm-Level Performance						
1	Crop (Sector) Performance	Average annual yield growth rate (based on top 5 economically important commodities for a country)	%			
2	Livestock (Sector) Performance	Average annual productivity growth rate (based on 3 most important livestock products)	%			
3	Smallholder Economic Wellbeing	Income per capita (for smallholder farming households)	\$/person/yr			
4	Women's Participation in Agriculture	Gender productivity gap	%			
Systems and Services						
5	Extension and Information Services	Proportion of farm households receiving extension advice from any agent within the last 12 months	%			
6	Fertilizer Production, Delivery, and Use	Average consumption (NPK) of fertilizer per ha arable land	kg/ha			
7	Seed Production, Delivery, and Use	Proportion of farm households using improved seed	%			
8	Animal Health Services	Proportion of farm households vaccinating their animals	%			
9	Research Capacity and Performance	R&D expenditure per 100,000 farm households	\$/100,000hh			
10	Pest and Disease Surveillance	Quality of pest and disease surveillance systems	Score: 1-5			
11	Data Systems	Capacity to generate reliable agricultural statistics, based on the Ag Statistical Capacity Index (ASCI)	%			
12	Financial Services	Proportion of adults with access to financial services, disaggregated by gender	%			
Investment and Policy						
13	Agriculture Budget and Expenditure	Agriculture share of government expenditures	%			
14	Agriculture/Agribusiness Laws & Regulations	Agribusiness laws and regulations benchmarked against best practices (average EBA score)	Score: 0-100			
15	Rural Infrastructure	Density of all-weather rural roads	km/100 sq. km			
16	Water Management and Use	Proportion of farm households reporting irrigated cultivation	%			
17	Land Rights and Ownership	Proportion of farm households with ownership of secure land rights, disaggregated by gender	%			
18	Market Access (prices, trade, etc.)	Share of farm-gate price to wholesale price (for top 5 economically important commodities)	%			

