



The United Republic of Tanzania
Agriculture Sector Lead Ministries

4TH ANNUAL AGRICULTURAL POLICY CONFERENCE [AAPC]

**Integrating Food and Nutrition
Security into Economic Transformation
and Industrialization Agenda:**
How can agriculture be the driver rather
than follower of economic transformation in
Tanzania?



New Dodoma Hotel, Dodoma

14th - 16th February, 2018





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Evaluating Policies and Public Investments to Transform Tanzania's Agriculture-Food System

James Thurlow, Senior Research Fellow, International Food Policy Research Institute

Coauthors: Todd Benson and Josee Randriamamonjy (IFPRI)



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Strategic Concerns

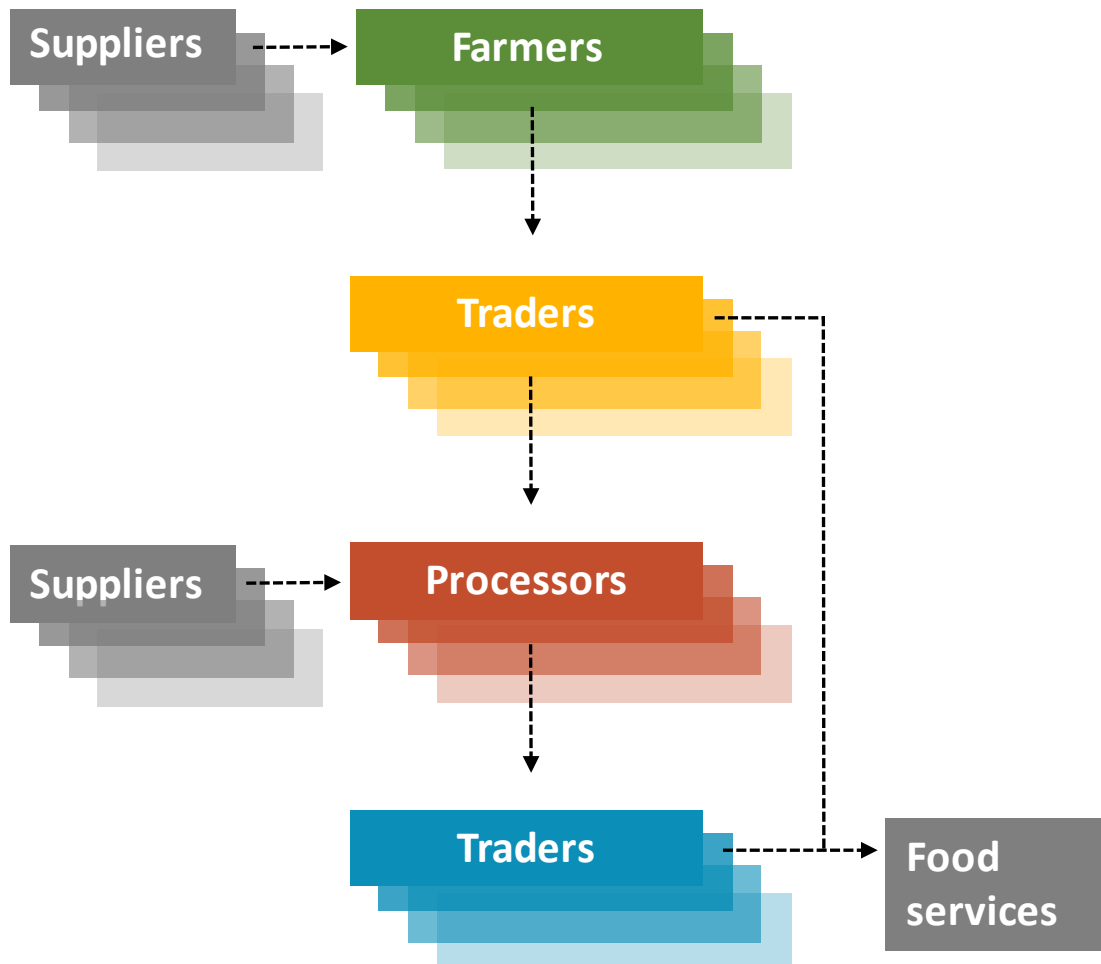
- **Agriculture remains a core engine of the economy**
- **Multi-pronged agricultural strategy required**
 - Food security, high-value activities & nutritious foods
- **Which value-chains, if scaled-up, are most effective at...**
 - Accelerating growth
 - Reducing poverty
 - Creating jobs
 - Diversifying diets



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Agriculture-Food System (AFS)



National share, 2016 (%)

	GDP	Jobs
National economy	100	100
AFS	38.7	73.3
Agriculture	29.1	66.7
Agro-processing	3.2	1.3
Input production	0.9	0.5
Trade & transport	5.5	4.8
Food services	0.5	1.5

Source: Tanzania SAM and HBS2011/12

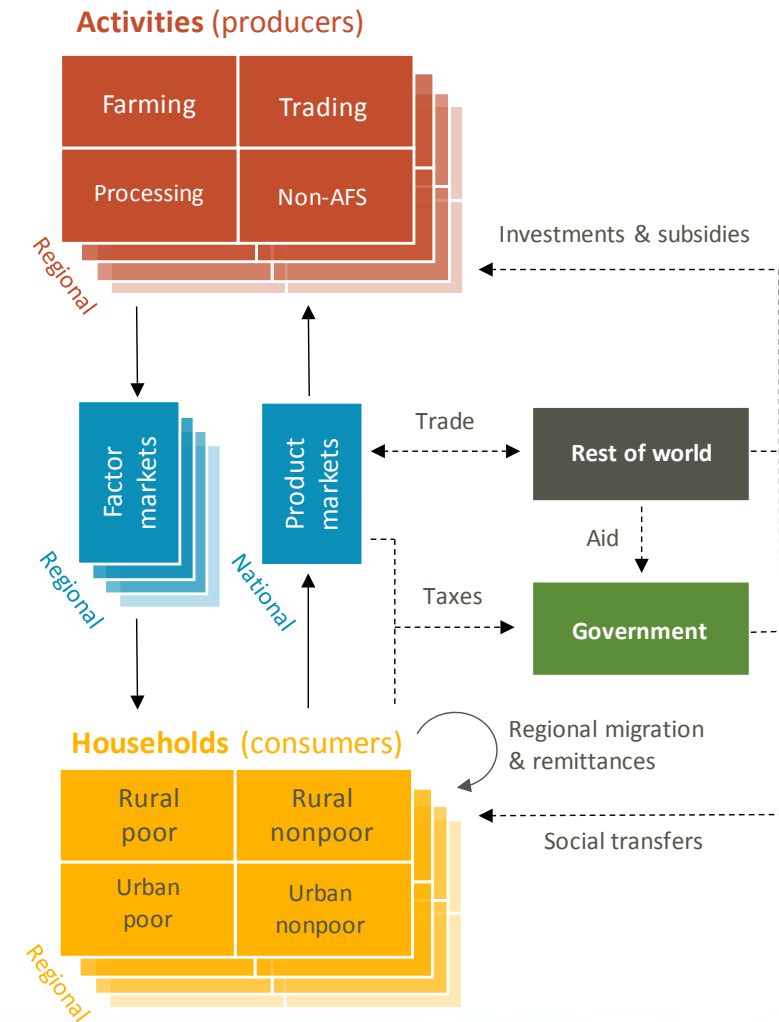


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Economywide Value Chain Analysis

- When at scale, VCs have economywide implications (spillovers)
- Rural Investment and Policy Analysis (RIAPA) Model
 - Detailed sectors & households
 - Linked to national surveys
- Respects resource constraints
 - Limited crop land & educated labor
 - Foreign exchange & fiscal constraints
- Dynamic: 2016-2025





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Business-as-Usual Scenario (2018-2025)

Annual change (%)

	BAU	History
Total GDP	6.0	6.2
Agriculture	3.5	3.6
Employment	1.8	1.8
Crop land	2.0	2.0
Consumption per capita	1.6	2.9
Poverty-growth elasticity	-0.3	-0.4

Observed trends for 2005-2015

Agriculture grows faster than population, but GDP share falls

Growth patterns determine consumption & poverty outcomes

Value-Chain Expansion Scenarios

- **Increase productivity in certain agricultural sectors**
 - Target 1% gain in agric. GDP by 2025
 - Small sectors need to grow fast

- **Captures spillovers & trade-offs**
 - Growth along and beyond target VC
 - Growth starts but not limited to VC
 - VC draws inputs from other VCs

Category	Detailed products
Maize	Maize
Sorghum, millet	Sorghum; millet
Rice	Rice
Wheat, barley	Wheat; barley
Pulses	Beans; peas; other pulses
Groundnuts	Groundnuts
Oilseeds	Soybeans; sunflower; other
Cassava	Cassava
Potatoes	Irish & sweet potatoes
Vegetables	Tomatoes; onions; other
Nuts	Cashew nuts; other nuts
Bananas	Plantains; bananas
Fruits	Mangoes; guavas; other
Sugarcane	Sugarcane
Cotton	Cotton
Coffee	Coffee
Cattle	Cattle
Milk	Milk; dairy
Poultry, eggs	Poultry; eggs
Goats, sheep	Small ruminants
Forestry	Timber; other products



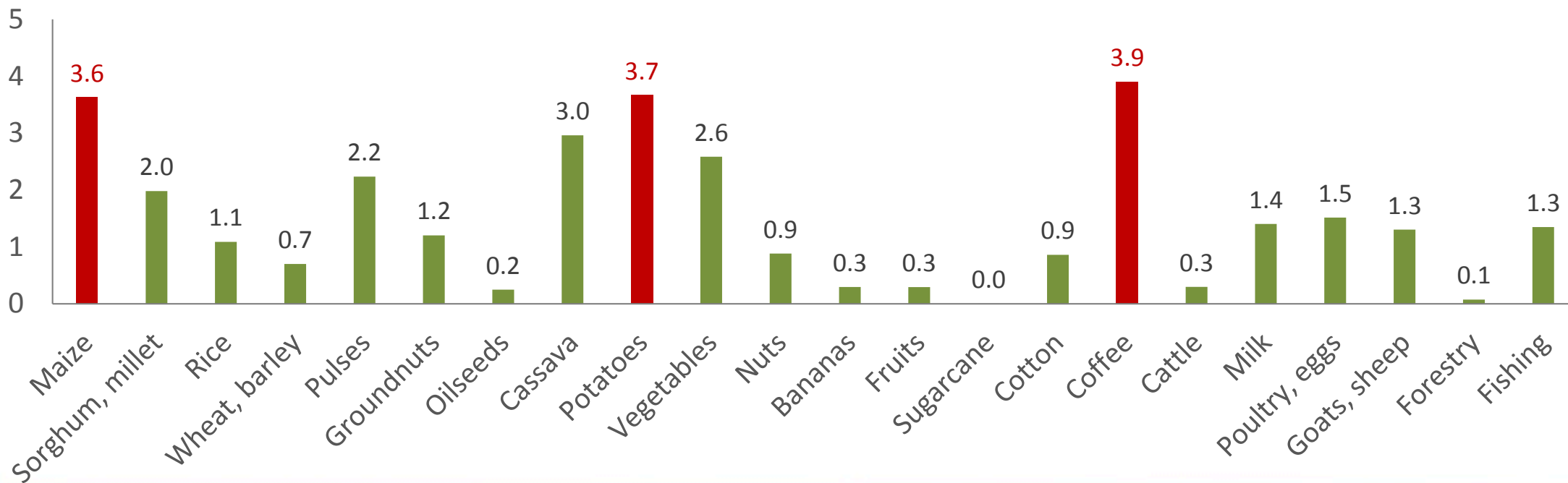
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Poverty Effects

- Most effective VCs at generating poverty-reducing growth in rural areas are **maize, potatoes** and **coffee**

Estimated Rural Poverty Growth Elasticities





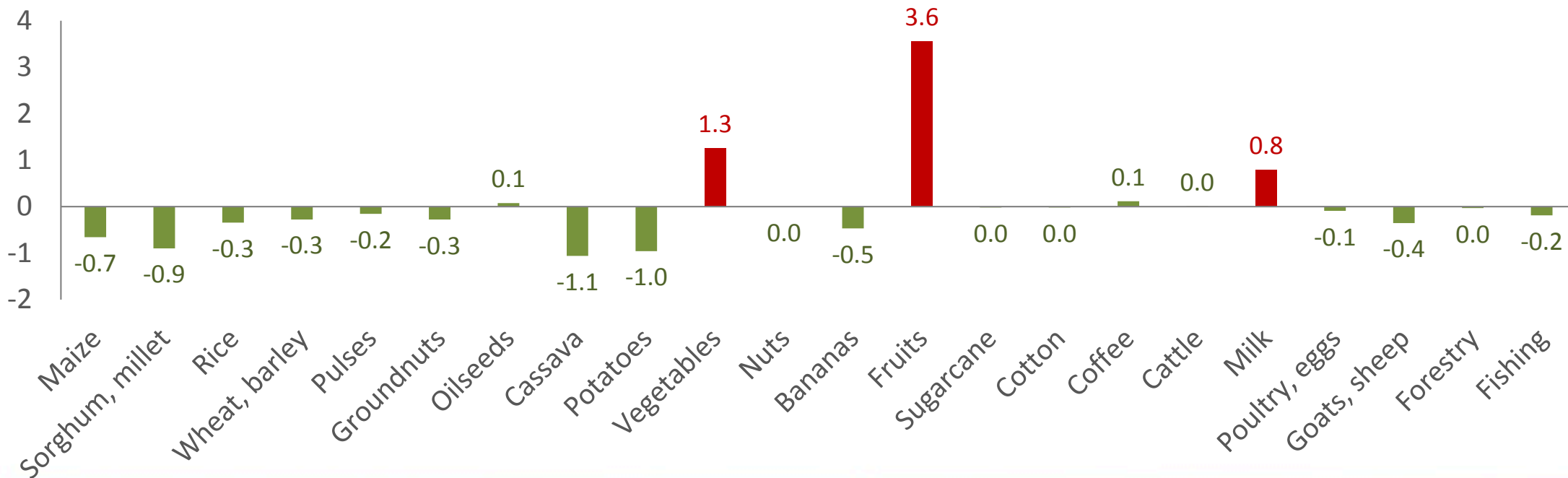
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Nutrition Effects

- Most effective VCs at promoting dietary diversity of the rural poor are **fruits, vegetables** and **milk/dairy**

Estimated Rural Dietary Diversity-Growth Elasticities





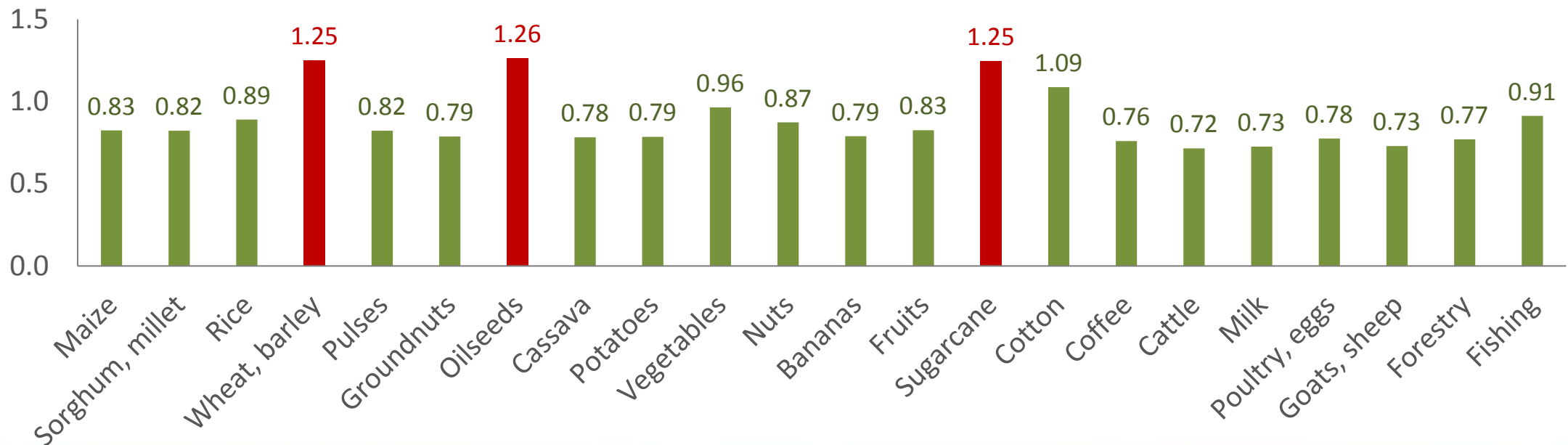
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Growth Effects

- Most effective VCs at generating AFS growth (GDP) are **wheat/barley**, **oilseeds** and **sugarcane**

Estimated AFS GDP-Agricultural Growth Elasticities





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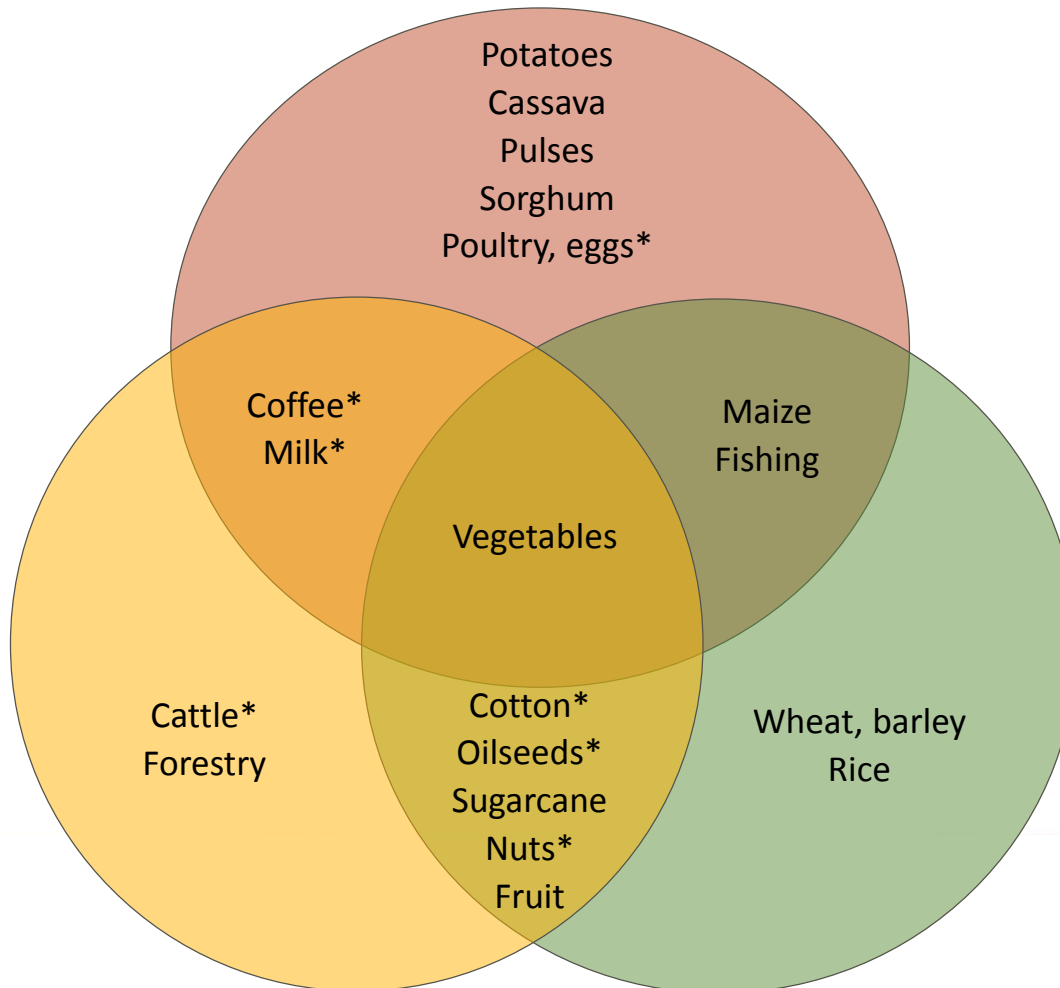
Top-Ranked Value-Chains

Rural poverty
(poverty effect)

* indicates positive
employment effect

**Dietary diversity of
the rural poor**
(nutrition effect)

AFS GDP
(growth effect)



Ranked Portfolio of Value-Chains

- **Composite indicator of poverty, nutrition, growth, and jobs effects**
 - Equal weights ($\frac{1}{4}$ each) or bias weighted ($\frac{1}{2}$ with $\frac{1}{6}$ each for others)

	Equal weights	Poverty-bias	Nutrition-bias	Growth-bias	Jobs-bias
1	Coffee	Coffee	Fruits	Oilseeds	Coffee
2	Oilseeds	Maize	Coffee	Wheat, barley	Nuts
3	Cotton	Potatoes	Vegetables	Sugarcane	Oilseeds
4	Vegetables	Vegetables	Oilseeds	Cotton	Cotton
5	Nuts	Cassava	Cotton	Vegetables	Goats, sheep
6	Wheat, barley	Pulses	Nuts	Coffee	Maize
7	Maize	Cotton	Milk	Nuts	Milk
8	Fruits	Nuts	Sugarcane	Fishing	Fishing
9	Sugarcane	Sorghum, millet	Wheat, barley	Maize	Cassava
10	Potatoes	Oilseeds	Maize	Fruits	Wheat, barley



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Conclusions

- **No single VC is the best at achieving every target**
 - Balanced portfolio is needed
- **Prioritized portfolio should consider...**
 - Food crops: Maize, vegetables, oilseeds
 - Export crops: Coffee, cotton
- **Remaining issues addressed in ongoing work:**
 - Market & growth potential
 - Required policies & investments

THANK YOU



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Dalberg

