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Policy Prioritisation Using Value Chain Analysis (PPVC)

13 September 2022

LAUNCH OF PPVC

Towards inclusive agricultural transformation in Malawi



Programme:

13 September 2022

Programme Director: Ndidza Chisanu



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Item	Person	Time
Registration and Coffee	All	08:00-08:30
1. Welcoming	Executive Director of MwAPATA Mr. William Chadza	08:30-08:45
2. Remarks on policy direction and planning	National Planning Commission	08:45-09:00
3. Official Opening by Ministry of Agriculture	Ministry of Agriculture	08:45-09:00
4. Session 1: PPVC Results on Value Chain Rankings	Prof Ferdi Meyer & Research Team	10:00-11:00
Tea		11:00-11:30
5. Session 2: PPVC Results on Value Chain	Prof Ferdi Meyer & Research Team	11:30-12:00
6. Discussions and Stakeholder Feedback		12:00-13:00
Break for Lunch		13:00



1. Welcoming



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2. Remarks by the NPC



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3. Opening remarks by the Ministry of Agriculture





4. PPVC Results



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BACKGROUND ON PPVC METHODOLOGY



The PPVC is a market-led approach developed by BFAP & IFPRI



Rationale & Evidence from sub-Saharan Africa

- Long list of potentially unaffordable policy and investment recommendations
- Initial focus is on agriculture, rather than the agriculture-food system transformation
- Limited focus on market dynamics, private sector needs and economy-wide impacts



Aim to assist governments with evidence-based analysis to adequately prioritise their policies and investments. Determine which policies and public investments are most (cost) effective at driving market-led inclusive agricultural transformation, and Involve public- and private sector stakeholders



Private sector takes on an increasingly important role to drive Agricultural transformation and we include our focus beyond the farm to include agro-processing development and linkages

IAT through the lens of a market-led approach



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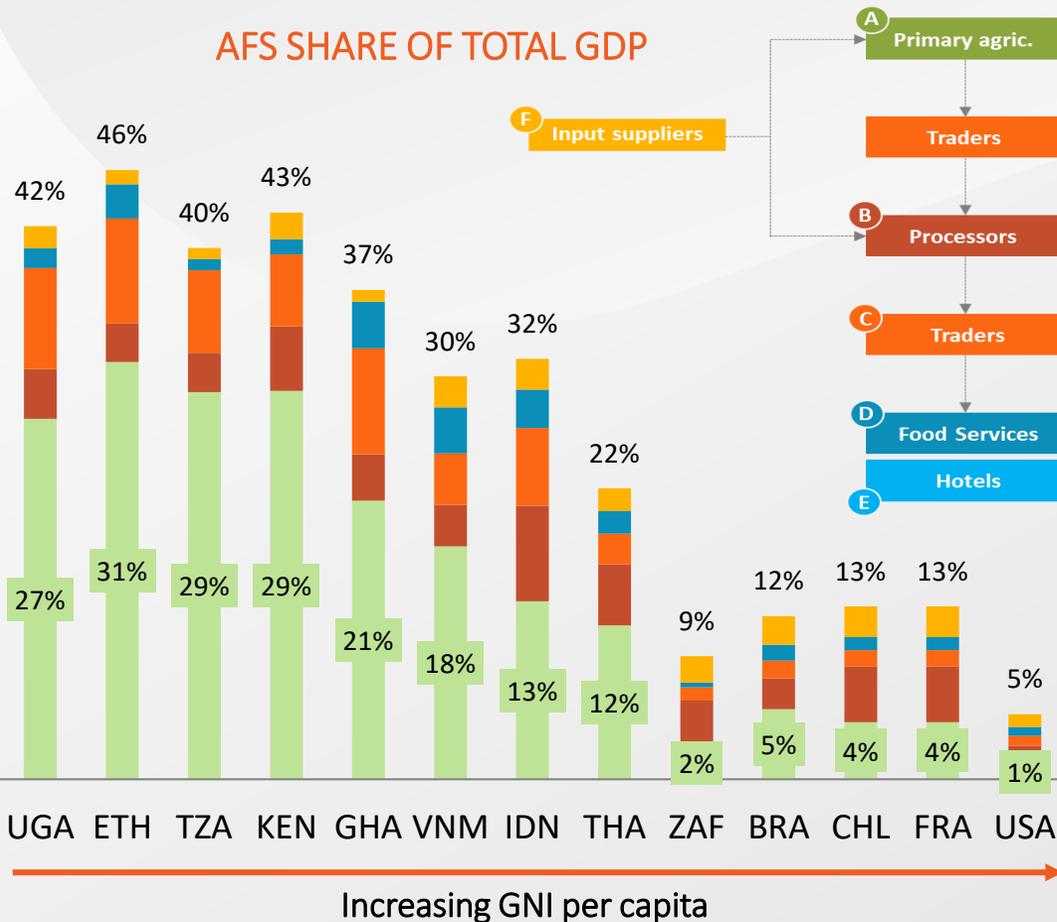


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Agricultural Food Systems (AFS) is less important in more developed countries, hence, countries with higher gross net income such as USA & France. In less developed countries such as in sub-Saharan Africa, these food systems have a larger share in the total economy.

AFS SHARE OF TOTAL GDP



WHAT IS IAT?

- Shift from **diversified subsistence production** to specialized marketed production
- Shift from short- to long-term **capital investments**
- Greater **integration** with other downstream sectors
- Part of a broader **urbanization / structural change process**
- Increased opportunities for **off-farm employment** – High-value added worker
- Poor households not only benefit from, but also **participate in the transformation process**

IAT BRINGS NEW POLICY CHALLENGES

More Complex Goals

Productivity → Transformation
Farming → Food systems
Public → Public-Private (PP)
Poverty → Inclusion

Broader Array of Partners & Interest

Private sector, foreign investors and donors and stronger partnerships

More Complex Policy Process

Overlapping sectors & agencies (ag, trade, industry, state-level etc.)
Need for policy complementarity

A need for Market-led Analytics



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Historic NAIP focus

Farmer-first approach



PPVC focus

Market-first approach



The PPVC Approach was developed to:

- 1) identify value chains that can make a significant contribution to economic growth and jobs
- 2) Prioritize and implement policies and public investment for upgrading the identified value chain

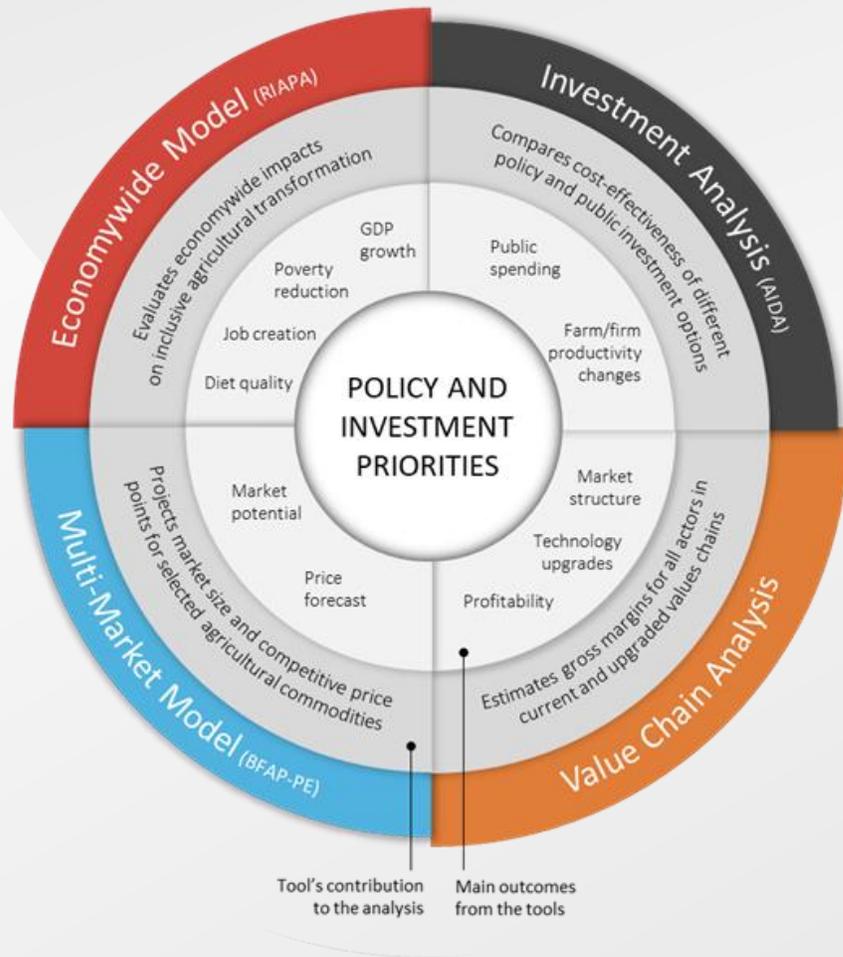
Policy Prioritisation through Value Chain Analysis



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Cross-Cutting Sectoral Priorities

- 1 Which policies and public investment options are the most cost-effective at driving IAT?
→ **Policy stack**
- 2 How could governments reallocate public spending to enhance IAT outcomes?
→ **Rightsized budget**

Value Chain-Specific Priorities

- 3 Which value chains are currently the most effective at driving market-led IAT?
→ **Value chain ranking** →
- 4 What policies and investments are needed to make value chains more profitable and inclusive?
→ **Deep dive value chain analysis** ↓

Value Chain Deep Dives Analyses

- Market outlook** (BFAP-PE model)
- Product flow and market structure**
- Gross margin analysis**
- Economywide impact analysis** (RIAPA model)

Indicators Used To Rank Value Chains

1. 'Market-led'

Market-potential indicators

- Potential for intensification
- Domestic consumption growth
- Regional export potential

Competitiveness indicators

- Relative trade advantage (RTA)
- Input cost/use ratio

2. 'Inclusiveness' (from RIAPA model)

- Poverty reduction
- Agri-food system employment

3. 'Transformation' (from RIAPA model)

- Agri-food system growth
- Diet quality

4. Value chain scans

In-country qualitative assessment

- Level of policy support
- Investment levels – current private sector investments
- Scalability – link to complementary value chains
- Agri-ecological resources

PPVC Steps



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1

Pre-selection to identify long-list of agricultural value chains within the country with a standardised set of indicators. Select 10-17 VC's to be used in PPVC's next steps



2

Compile analytics for each selected VC based on a replicable set of indicators, both quantitative and qualitative (see next slide). This includes developing balance sheets and 10-year Outlook for each VC, combined with indicators from the RIAPA CGE model



3

Final Rankings on IAT indicators and compare findings against the policy directives and other value chain prioritisation studies. Develop overview of the country's economy and food-security status in order to compare priorities



4

Select top 3 VC's for Deep-Dive analysis: Identify current state with detailed value chain maps, identify major value chain actors and evaluate economic feasibility with gross margin analysis. Identify areas for reforms for an ideal state with scenario analysis and economy-wide impact assessment of potential policy interventions

5

Final step is to make policy and investment recommendations that are cost-effective, right-sized according to budget availability and discuss policy outcomes and trade-offs.

Deep-Dive Selection and Scope since 2017

The approach to select three VC's for Deep Dives is the following:

- Shortlisting based on quantitative and qualitative scans
- Targeted stakeholder engagement on shortlist
- Government selects three value chains

Examples in other countries:

Tanzania: Cassava | Sunflower

Kenya: Coffee | Beef | Aquaculture

Ethiopia: Soybeans | Poultry | Sunflower

Malawi: ?



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Prioritizing Policies for
Driving Inclusive Agricultural
Transformation: Kenya

Value Chain Deep Dive Report:
Beef

December 2021



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IFPRI



Deep-Dive Value Chain Analysis: Process



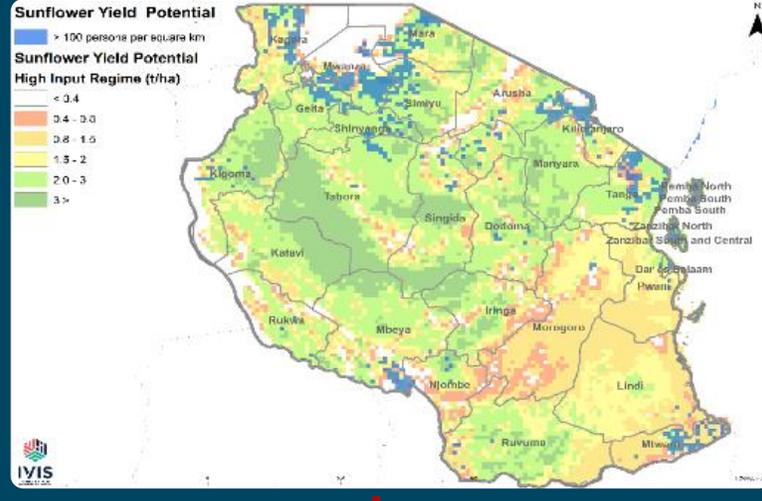
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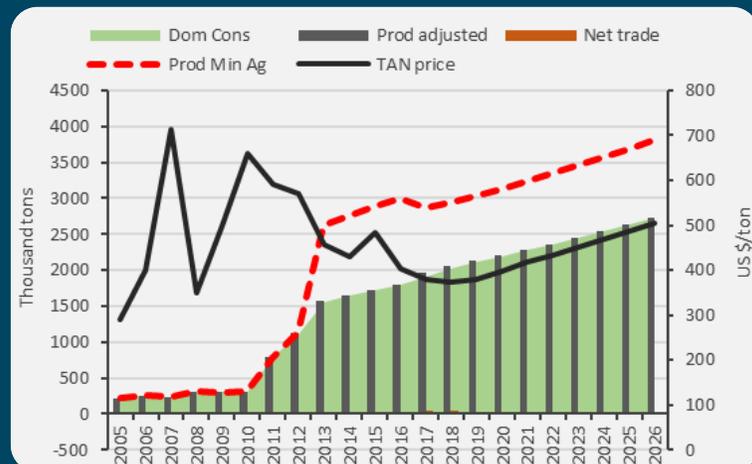
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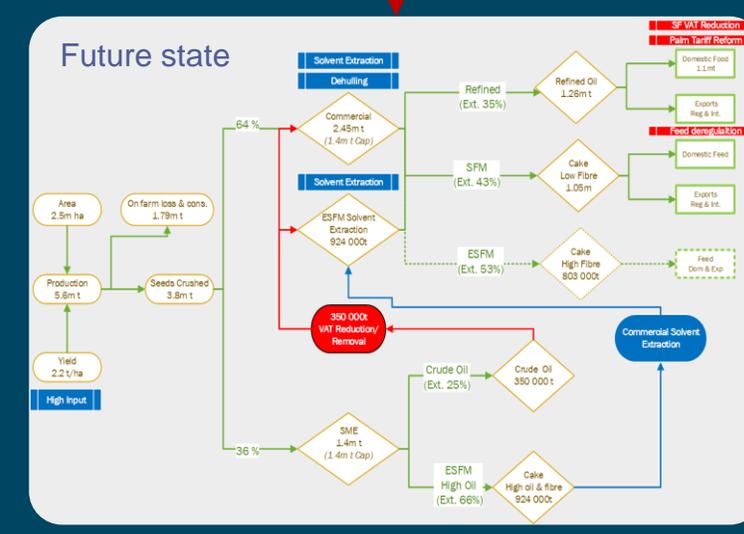
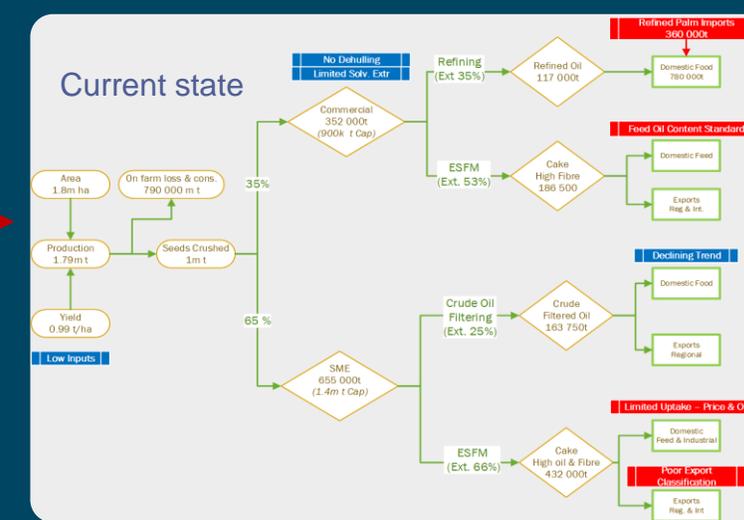
1. Spatial context (natural resource potential)



2. Market potential (domestic, regional, inter)



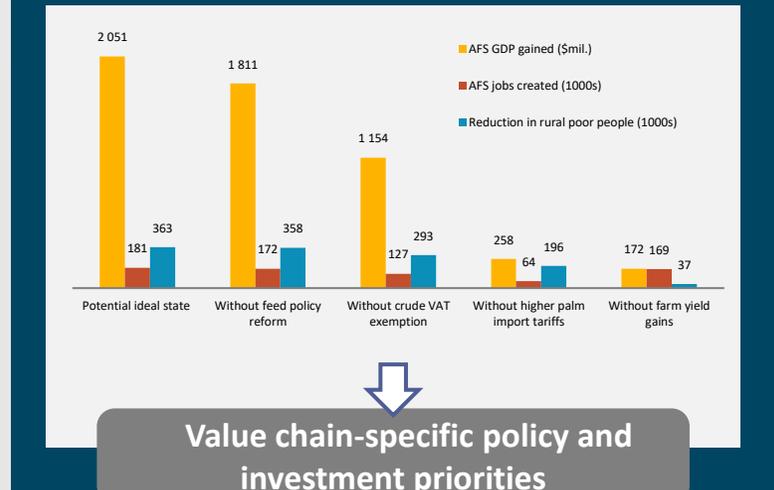
3. Market structure & product flows



4. Economic feasibility & competitiveness



5. Economy-wide impact



PPVC in Tanzania

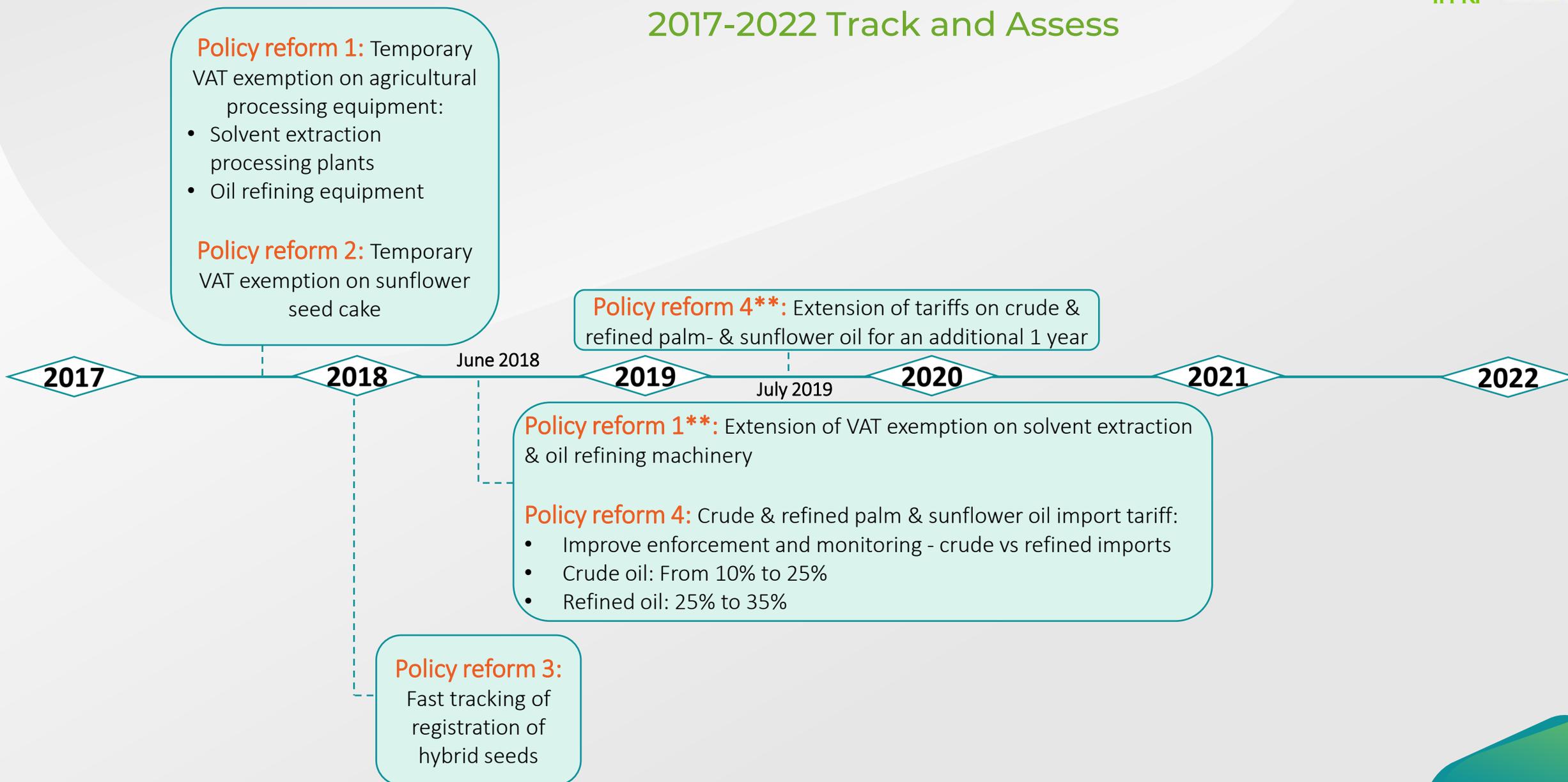
Example of reforms & investments



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2017-2022 Track and Assess



PPVC in Tanzania

Example of reforms & investments



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Policy reform 1: Temporary VAT exemption on agricultural processing equipment:

- Solvent extraction processing plants
- Oil refining equipment

Policy reform 2: Temporary VAT exemption on sunflower seed cake

Outcomes:



- Installation of **2 new solvent extraction plants** & **3 new refining plants**



- Value of Tanzania machinery used in vegetable oil extraction: **+ 133% in 2018 from 2017**
- Increase in **seed cake exports** to Kenya

Policy reform 4***: Extension of tariffs on crude & refined palm- & sunflower oil for an additional 1 year

2017

2018

June & July 2018

2019

July 2019

2020

2021

2022

Policy reform 1***: Extension of VAT exemption on solvent extraction & oil refining machinery

Policy reform 4: Crude & refined palm & sunflower oil import tariff:

- Initial: From 10% to 25%
- From 25% to 35% for one year

- Evidence of **reduced smuggling** of refined palm oil imports - Increase in **reporting of refined palm oil**

- **60% decline** in crude palm oil imports

Policy reform 3:

Fast tracking of registration of hybrid seeds

Outcomes:

- **+US\$200,000 investments in seed breeding & multiplication** with 12 hybrid seeds recently being registered, reducing cost of seeds by 44% (cost of domestically produced high-yielding hybrid seed = 50% of imported hybrids. Release of new varieties – from 7 years to 13 months)

Investments cluster around Dodoma and the Lakes region, close to production zones



- Key**
- Existing Plants
 - New plants

Company KCCL

Location	Kahama
Capacity	30 000 tons
Type	Solvent

Company Nyarusai Ltd

Location	Kahama
Capacity	10 000 tons
Est. Cost	US\$2.4 million
Type	Solvent

Company Gilitu Enterprises

Location	Shinyanga
Capacity	30 000 tons
Est. Cost	US\$7 million
Type	Mechanical

Company QStek

Location	Singida
Capacity	12 000 tons
Type	Mechanical & Solvent

Company Mt Meru

Location	Singida
Capacity	230 000 tons
Type	Mechanical & Solvent

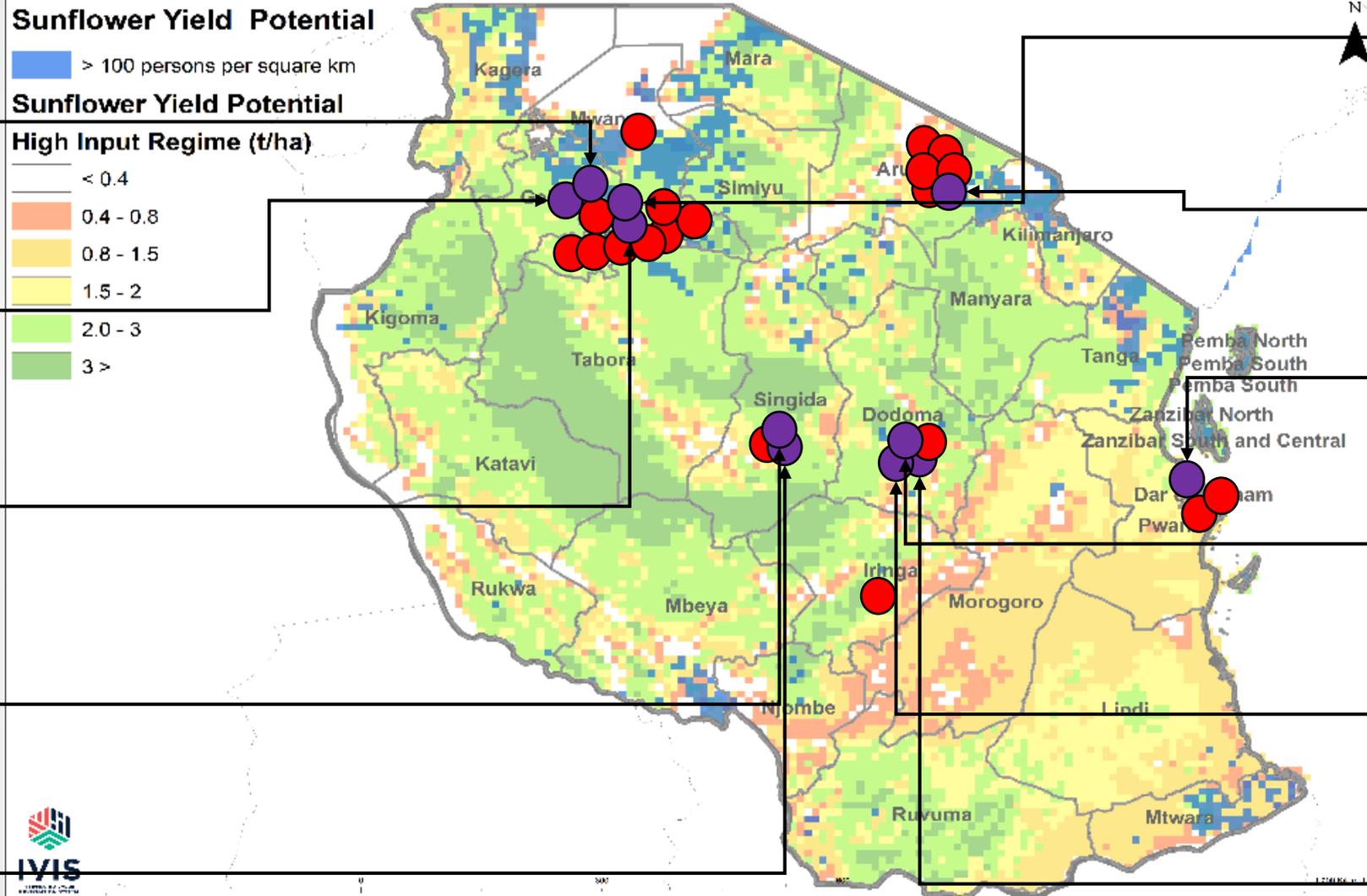
Sunflower Yield Potential

> 100 persons per square km

Sunflower Yield Potential

High Input Regime (t/ha)

- < 0.4
- 0.4 - 0.8
- 0.8 - 1.5
- 1.5 - 2
- 2.0 - 3
- 3 >



Company Bugali Investment Limited

Location	Shinyanga
Capacity	12 000 tons
Type	Mechanical

Company Mt Meru

Location	Arusha
Capacity	110 000 tons
Type	Solvent

Company Majinja Logistics

Location	Dar es Salaam
Capacity	30 000 tons
Type	Mechanical

Company CPB (not operating)

Location	Dodoma
Capacity	6 000 tons
Type	Mechanical

Company Margin Ltd

Location	Dodoma
Capacity	30 000 tons
Type	Solvent

Company Pyxus Agriculture

Location	Dodoma
Capacity	21 600 tons
Type	Mechanical

Tanzania 201-2022:

Changing product flow to drive inclusiveness, HH income, jobs

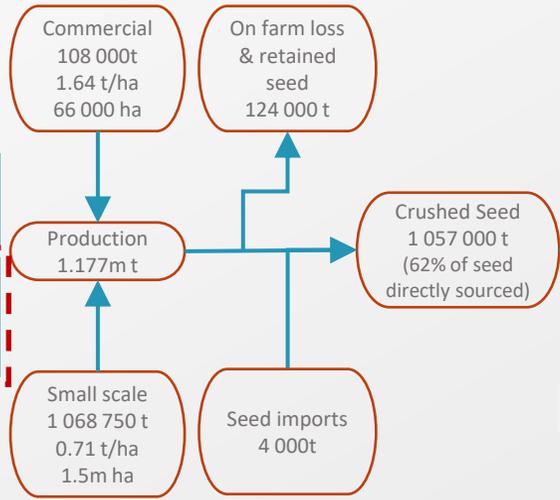


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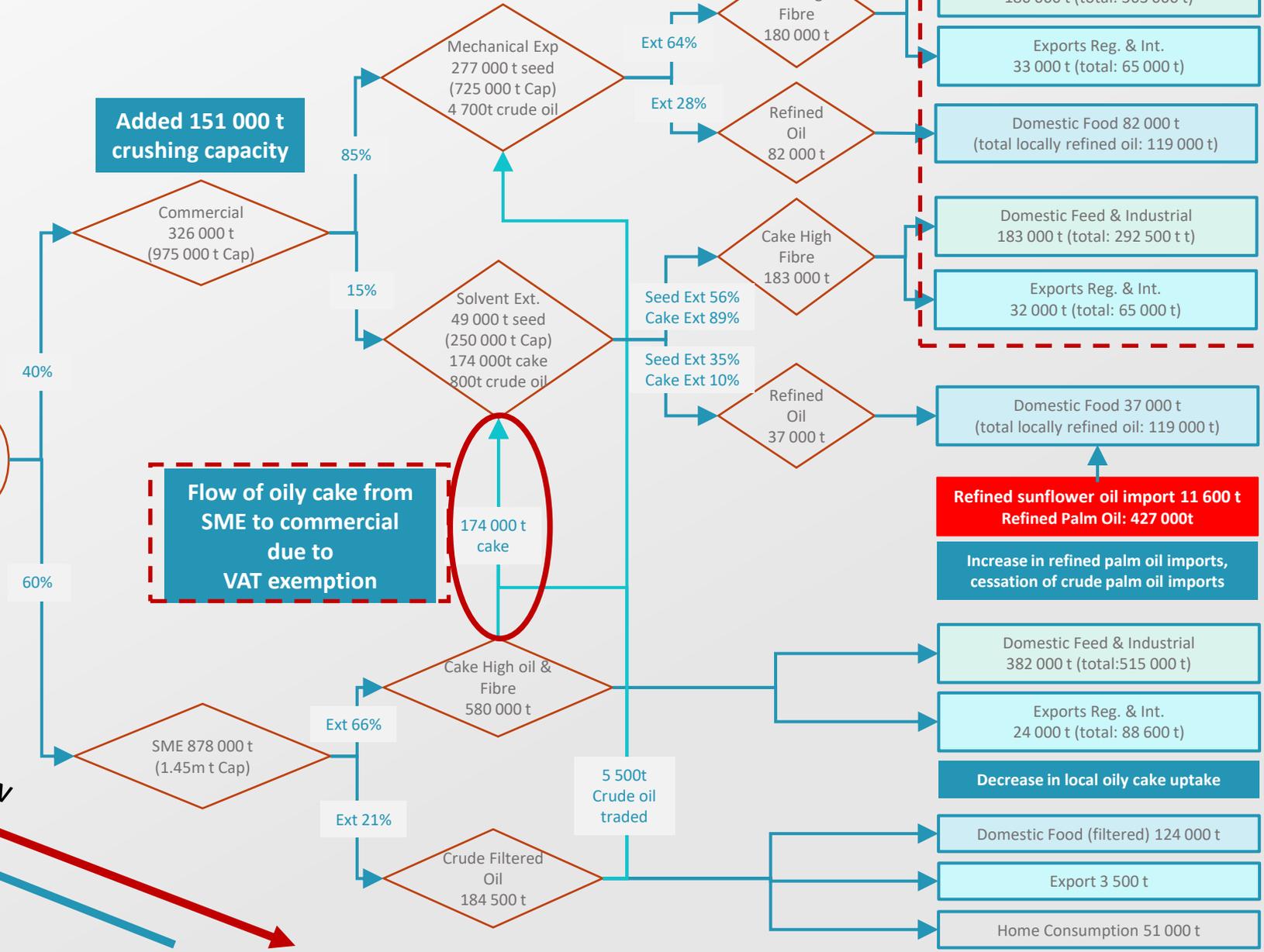
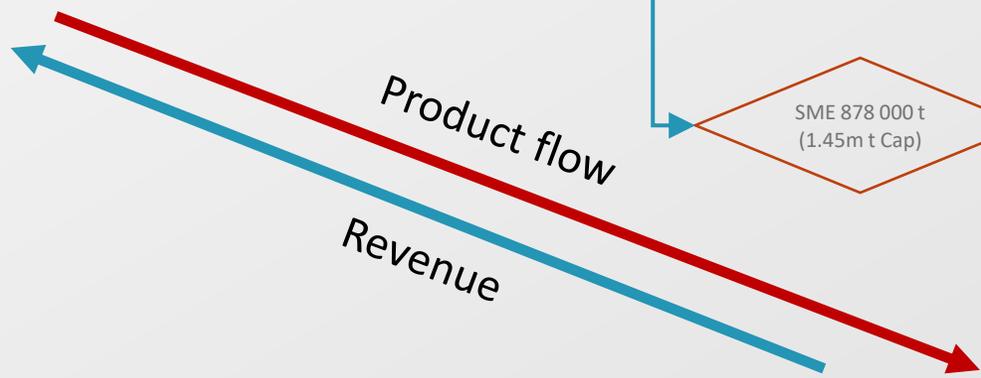
5% increase in production

44% decrease in local hybrid and OPV seed prices



Added 151 000 t crushing capacity

Flow of oily cake from SME to commercial due to VAT exemption



Similar refined oil production 90 000 t increase in clean cake

- Domestic Feed & Industrial 180 000 t (total: 363 000 t)
- Exports Reg. & Int. 33 000 t (total: 65 000 t)
- Domestic Food 82 000 t (total locally refined oil: 119 000 t)
- Domestic Feed & Industrial 183 000 t (total: 292 500 t)
- Exports Reg. & Int. 32 000 t (total: 65 000 t)

Domestic Food 37 000 t (total locally refined oil: 119 000 t)

Refined sunflower oil import 11 600 t
Refined Palm Oil: 427 000t

Increase in refined palm oil imports, cessation of crude palm oil imports

Domestic Feed & Industrial 382 000 t (total:515 000 t)

Exports Reg. & Int. 24 000 t (total: 88 600 t)

Decrease in local oily cake uptake

- Domestic Food (filtered) 124 000 t
- Export 3 500 t
- Home Consumption 51 000 t

Objectives for today



Malawi has a complex and dynamic agricultural policy environment and recently strengthened by the new National Development Plan of Malawi 2063

Our rankings provides an evidence base for public and private investment in value chains that can deliver on agricultural transformation

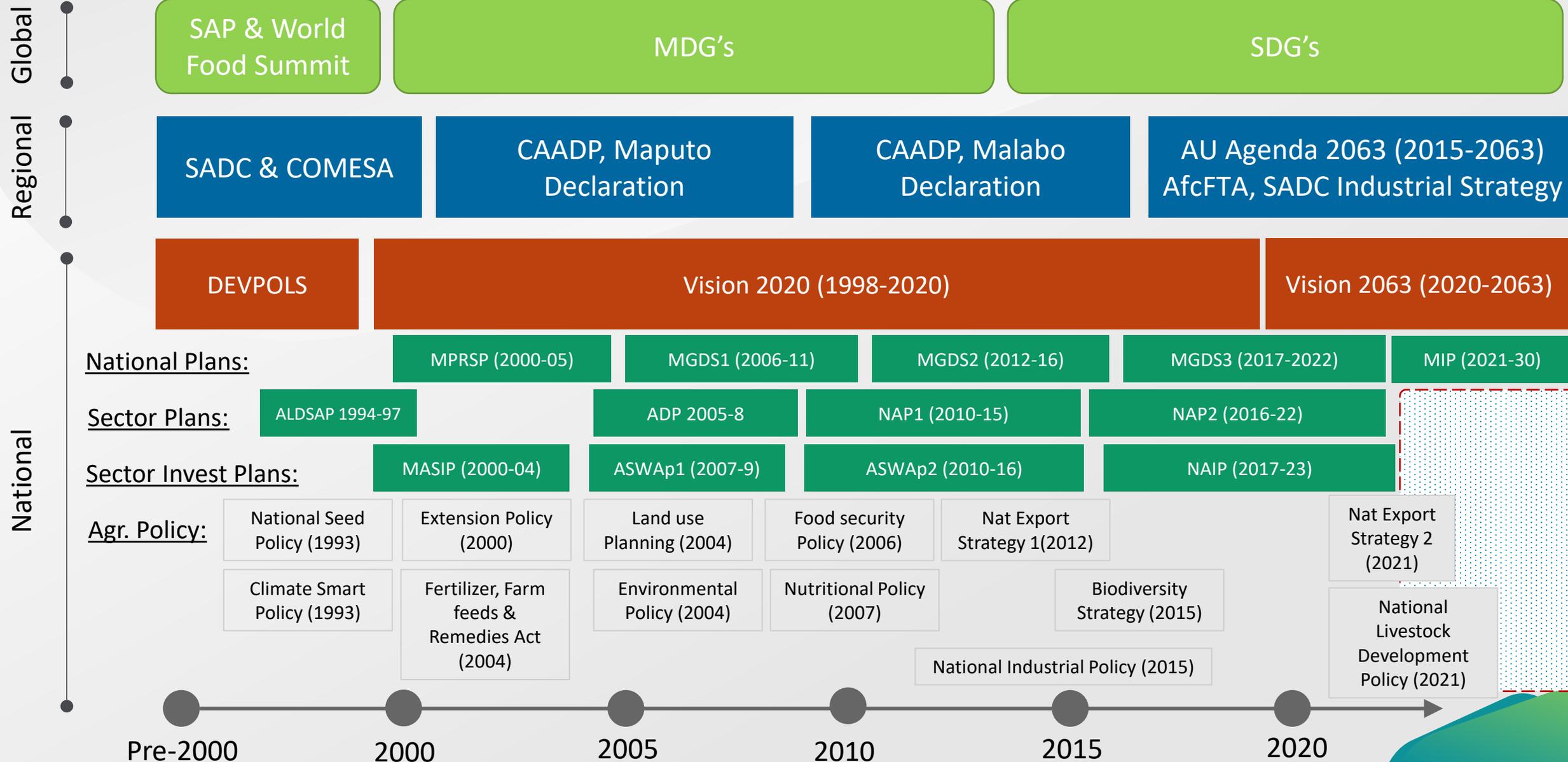
We'd like to share our ranking results today with the purpose of discussing, reviewing and debating on which Value Chains should be prioritised in Malawi

This will feed into the selection process of Government to decide on three value chain for further Deep-Dive Analysis.

Malawi's Policy Framework



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Major policies affecting agricultural markets



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Input Subsidies

Malawi started with FISP from 2004/5 to 2019/20

FISP covered subsidized inputs for seed (maize & legumes) and fertiliser (NPK & Urea)

Introduced a new Affordable Input Program (AIP) in 2020/21 to replace FISP

- Increased coverage from 900 000 farm families to 3.8 million
- Reduction in the subsidised price (22% subsidy)
- From paper vouchers to electronic system
- Legumes seed excluded, but rice & sorghum included

Total costs = MK133 billion (\$186 million)

Special Crops Act (SCA)-1963 & Agriculture Act (AGPA)-1987

SCA regulates the production & marketing of 'important' crops: cashew, coffee, cotton, groundnuts, cotton, groundnuts, macs, tea, tobacco & tung.

AGPA regulates the production & marketing of all crops not under SCA

Both Acts gives the Minister of Agriculture broad powers to intervene in markets

SCA-individual or firm must obtain license for production, processing, marketing and export

AGPA-License the buying, selling or marketing of crops, set minimum and maximum prices and decide on export procedures

New Draft Crops Bill

Control of Goods Act (1968)

CoGA was revised in 2018 and regulates the imports and exports of goods, including agricultural products

It give the Minister of Trade & Industry wide-ranging powers to “regulate the control of the distribution, disposal, purchase, and sale, and the wholesale and retail prices of manufactured or unmanufactured products...for the control of import into and exports from Malawi”

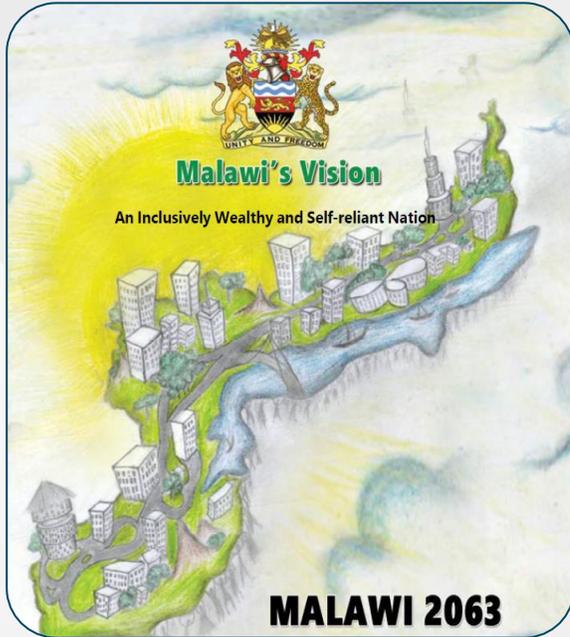
Licenses is obtained from the ministry to trade outside of Malawi

Ad-hoc bans on maize and soybeans are examples

Current Policy Direction



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Agricultural value chains central

Pillar 1: Agricultural productivity

Pillar 2: Commercialisation & industrialisation

Pillar 3: Urbanisation

Agr-GDP growth of 5.3% towards 2024

Malawi 2063 Implementation Plan (MIP) – First 10 Years towards 2030

Agricultural Diversification

Irrigation Development

Anchor/Mega Farms

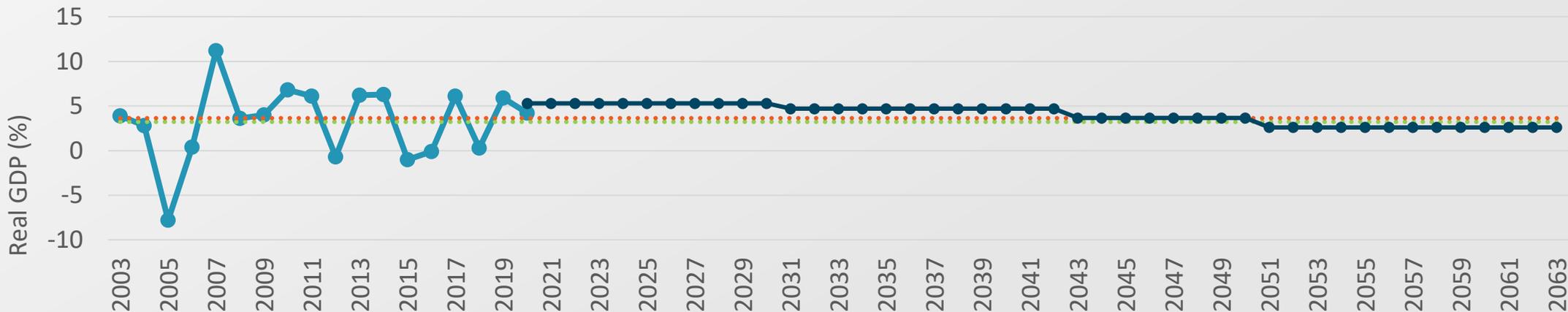
Structured Markets

R&D

Value addition and competitiveness targeting exports

Special economic zones

Developing secondary cities



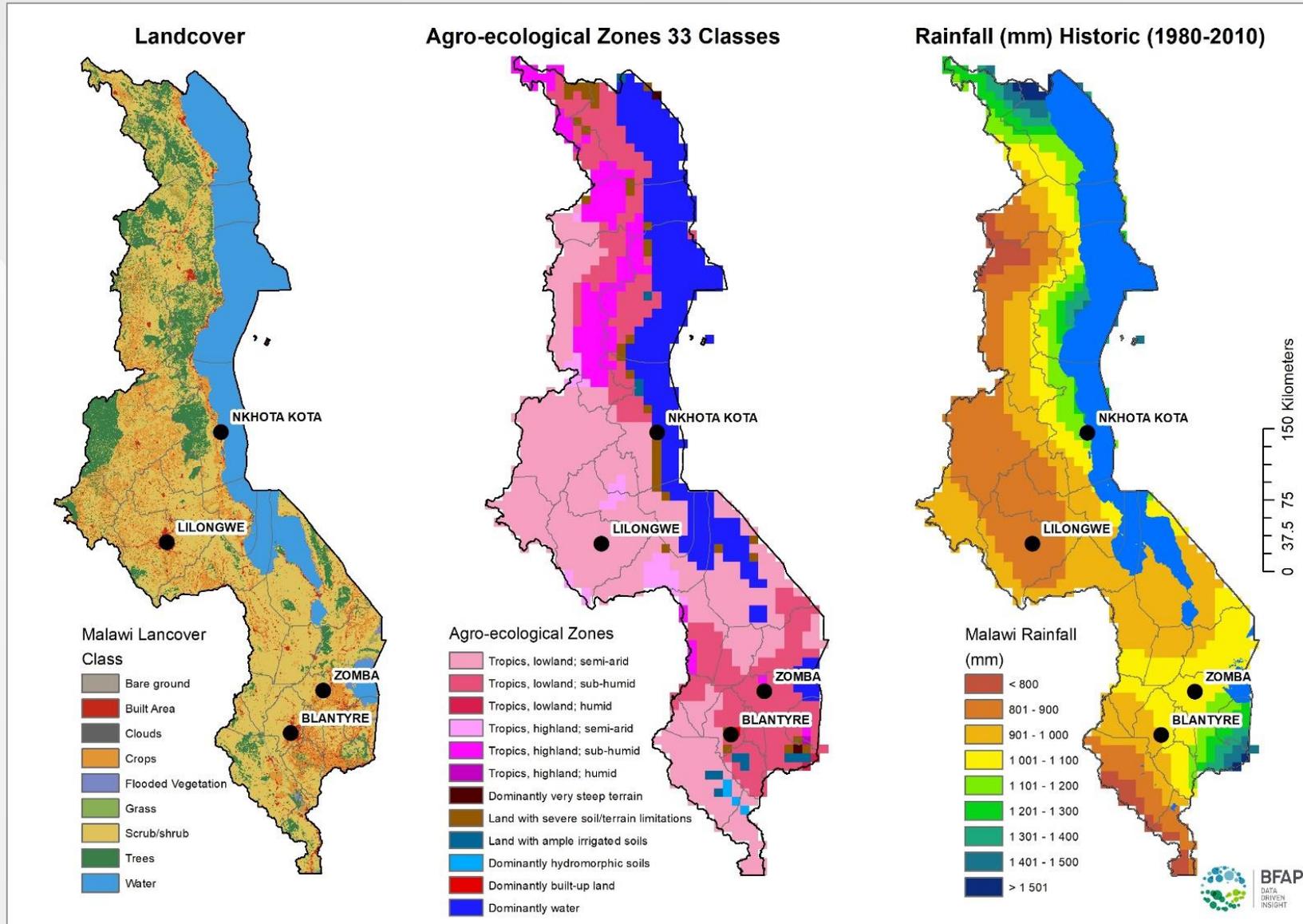
The Spatial Context



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Opportunities of Value Chain development is dependent on a number of macro factors

- Land scarcity & population growth
- Crop suitability and soil health
- Climate and Rainfall
- Access to markets and cost of logistics
- Off-farm investment in value addition
- Realistic import replacement
- Sustainable diversification options
- Protecting the natural capital



4. PPVC Results



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PPVC Coverage and modelling process



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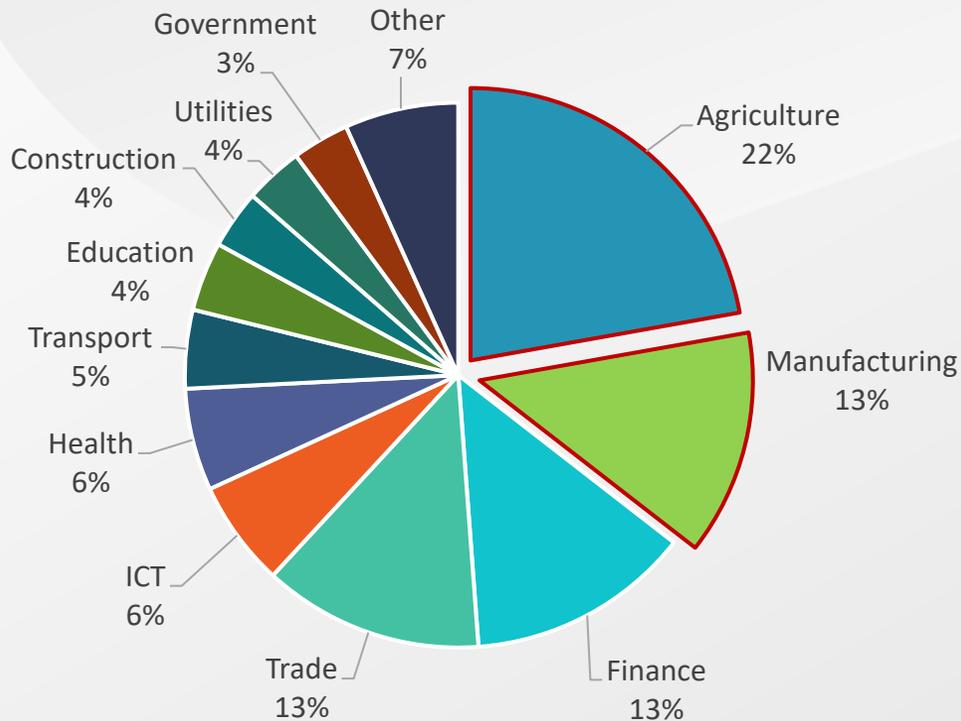


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We identified 17 value chains with the potential to drive inclusive agricultural transformation

Malawi GDP per Sector: 2019



Sector	Value Chain
Field crop	Pigeon Peas
Field crop	Soybeans
Field crop	Groundnuts
Field crop	Sugar
Field crop	Rice
Field crop	Maize
Field crop	Beans
Field crop	Cotton
Livestock	Poultry
Livestock	Pigs
Livestock	Goats
Livestock	Aquaculture
Cash crop	Tobacco
Horticulture	Mangoes
Horticulture	Bananas
Horticulture	Sweet Potatoes
Horticulture	Macadamias



10-year Multi-Market
Partial Equilibrium-models



Farm Competitiveness &
Benchmark Analysis



Economy-wide Indicators
using RIAPA CGE model



Qualitative Scans through
industry consultations

Final Rankings

PPVC Indicators for Inclusive Agricultural Transformation



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	Market Led		Ag Transformation	Social Inclusiveness	VC Scans
	Potential	Competitiveness			
Indicators	Intensification	Input cost / use	Agricultural food system growth	Poverty	Policy support
	Domestic consumption growth	Relative trade advantage (RTA)	Dietary change	Employment	Investment Support
	Regional export potential				Scalability
					Agro-ecology

Example of Pigeon Peas



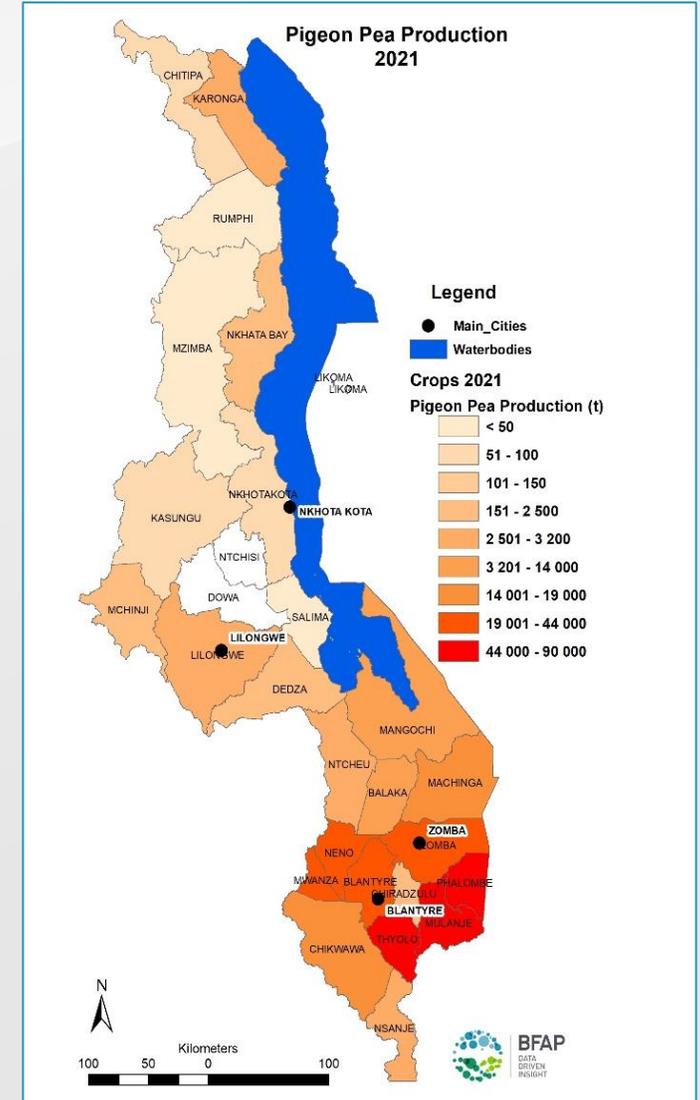
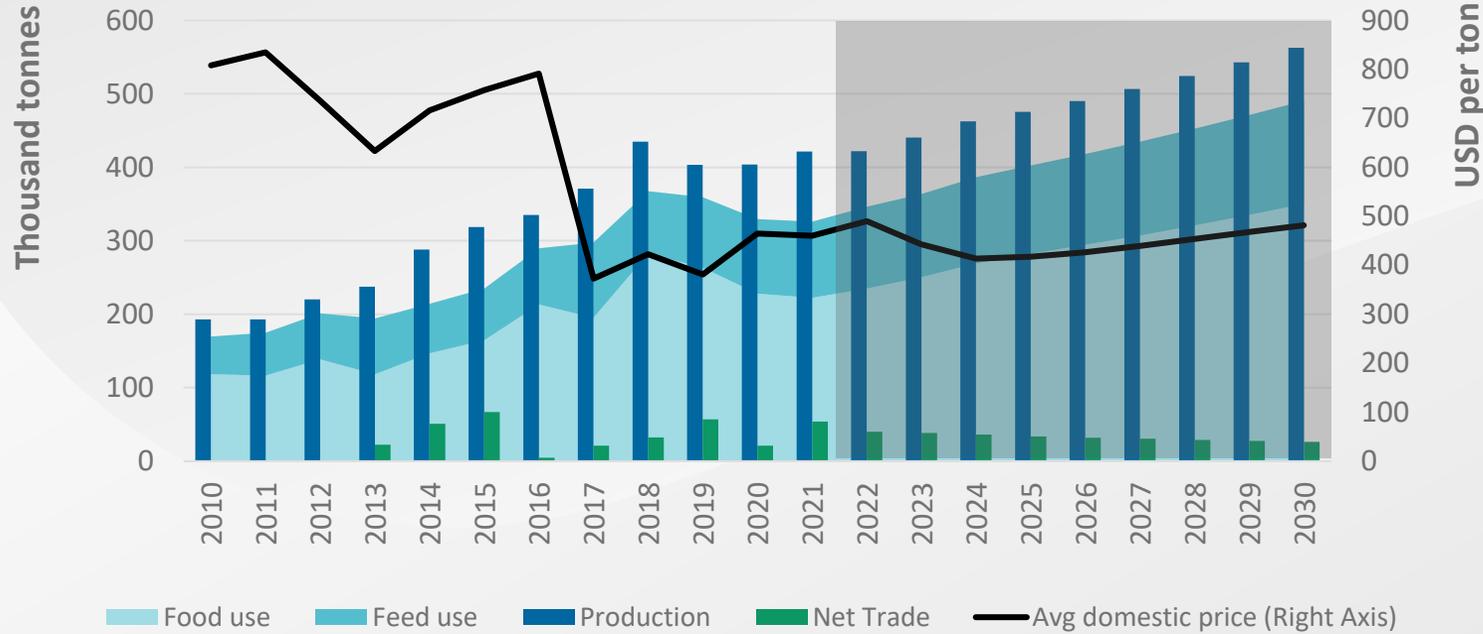
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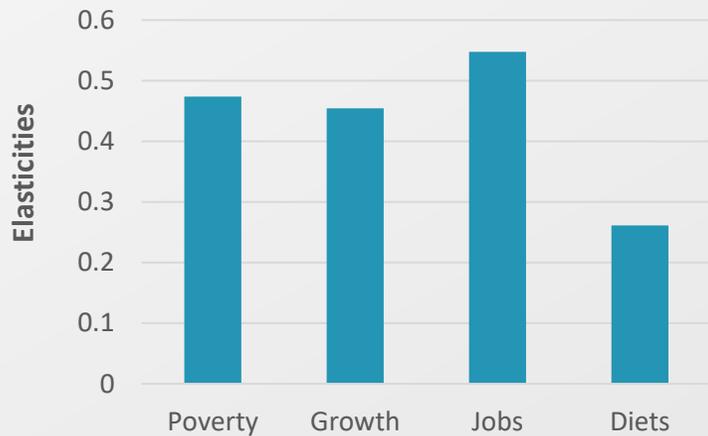
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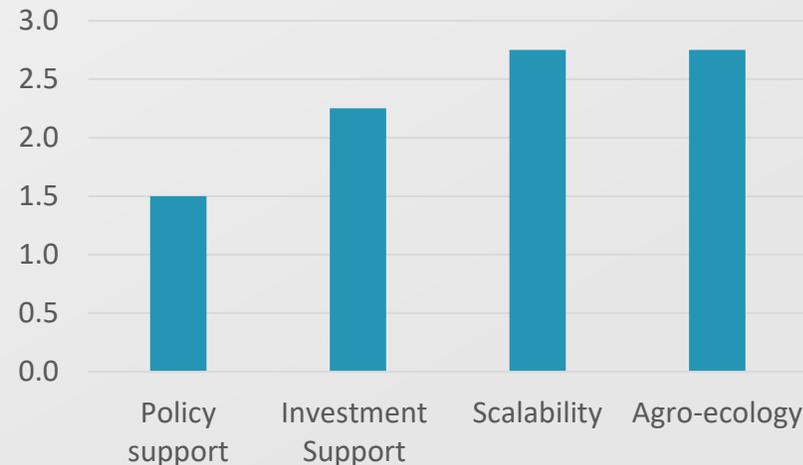
Market-led



Inclusiveness & Transformation



Qualitative Scans



PPVC – Market-led Indicators

Based on market potential & competitiveness



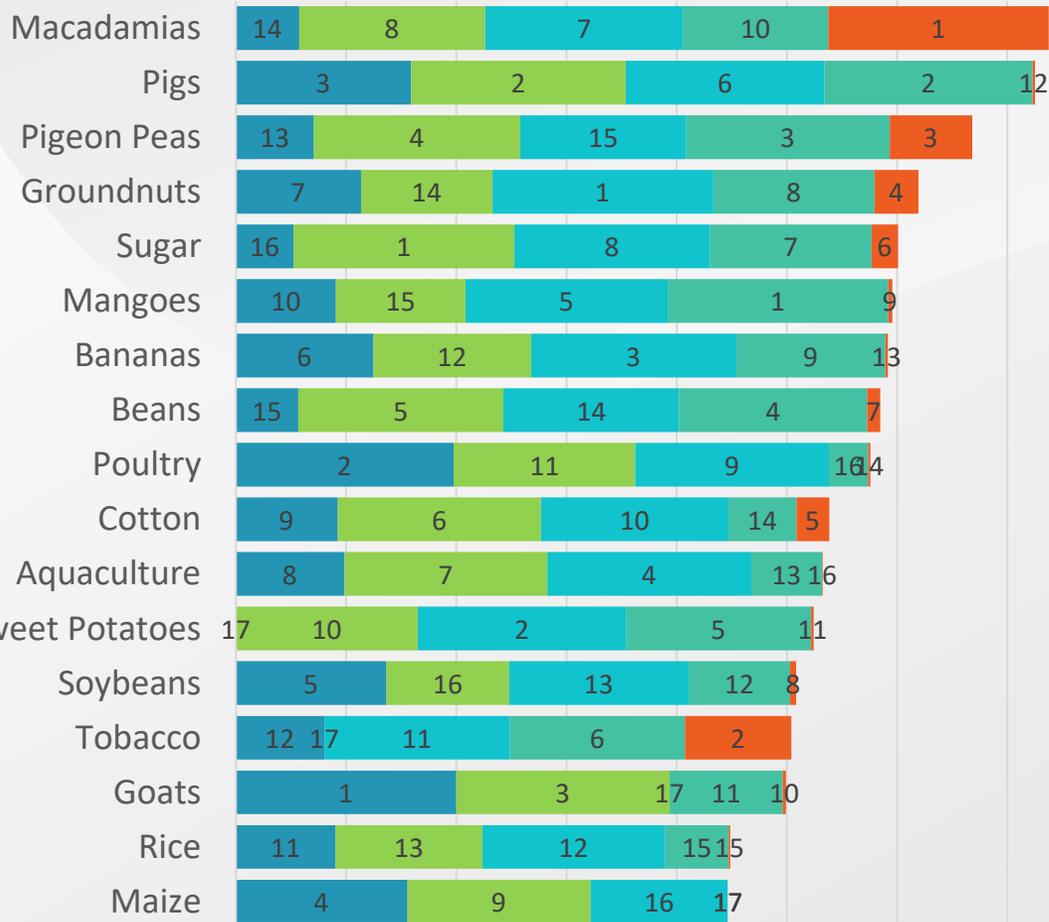
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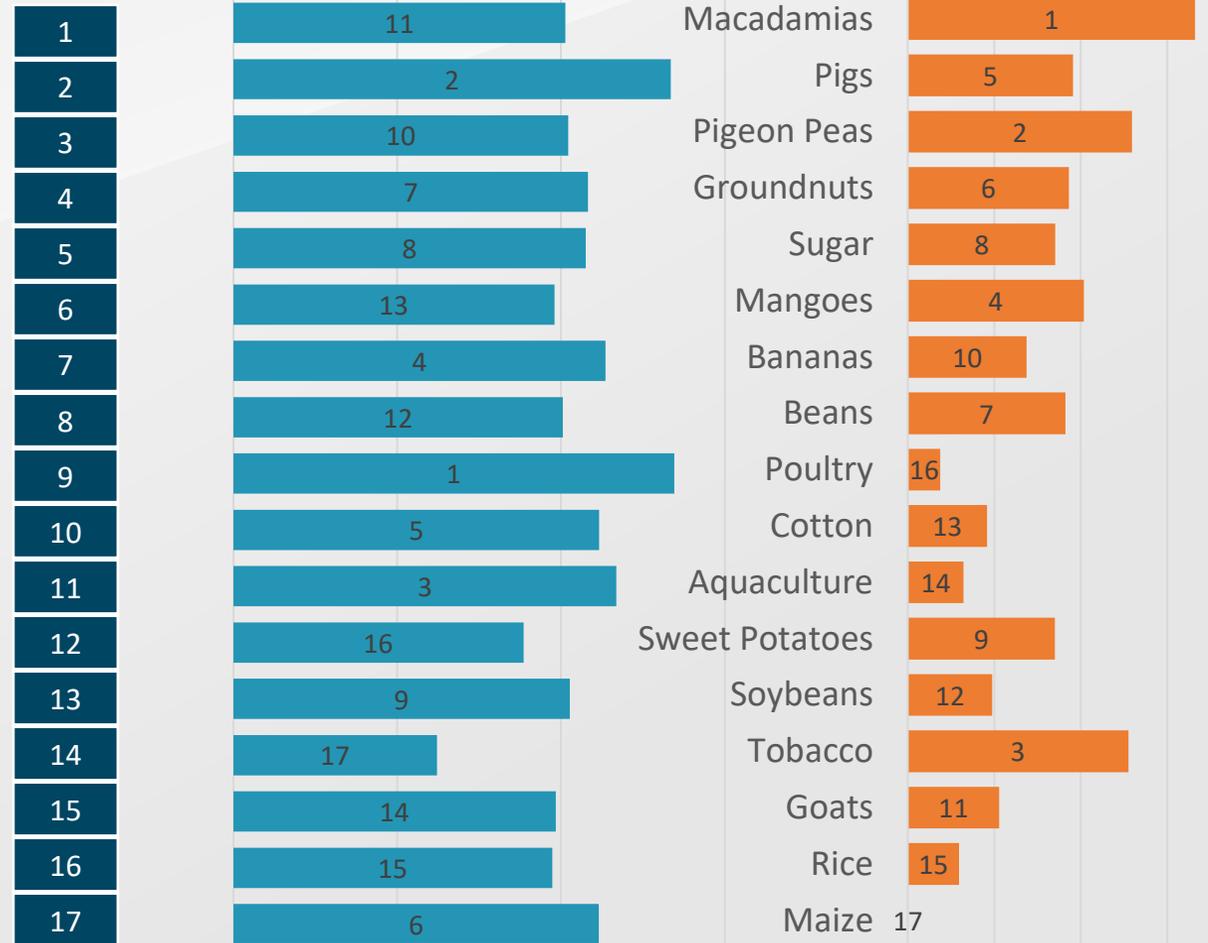


Market Led: By Indicator



■ Intensification ■ Domestic cons growth ■ Export potential
■ Input costs / output ■ RTA 5-year average

Summary



■ Potential

■ Competitiveness

PPVC – Qualitative Scans

Based on scoring for indicators by desktop review and stakeholder engagements



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Indicator	Score	Definition
Level of Policy Support	1	No clear direction on policy support for commodity
	2	Commodity listed in official investment plan with more detailed plan
	3	Clear post investment plan policy implementation and support
Current & Potential Investment Levels	1	No evidence of any potential public or private investments
	2	Evidence of investments (public/private), but no firm commitments yet
	3	Concrete evidence and tangible projects and investments
Scalability (regional & complementary value chains)	1	Isolated without complimentary VCs or links to regional markets, etc.
	2	Potential links to other VCs, but not widely produced, etc.
	3	Major opportunities for import replacement, export opportunities plus link to complimentary value chains, etc.
Agro-ecological & Natural Resource Constraints	1	Water, land and other natural resources are a major constraint to expanding production
	2	Natural resources are constraints but there are opportunities to overcome them (e.g. irrigation, dams etc.)
	3	Natural resources are not a constraint and production can be expanded (i.e. due to land and water availability etc.)

1.5	2.3	2.8	2.8
Policy Support	Investment Support	Scalability	Agro-Ecology
<p>Ministry of Agriculture signed an MoU with India to export 50 000 tons in 2021 for the next 5-years. It targets minimum yearly quantities of imports from Malawi¹. It is unclear whether this will stimulate increased exports</p> <p>Prior to the introduction of AIP, FISP included pigeon peas as part of the input subsidy but was excluded in 2021. Some have called on G&M to include legumes once again². The African Development Bank has approved a new project which will include pigeon peas in its seed subsidy³</p> <p>Pigeon peas are mentioned in various policy documents such as the ASWAP, NAP, NAIIP and more recently in the 2nd National Export Strategy mentions the crop as a priority product, targeting markets such as India, USA and UAE⁴</p> <p>The proposed new Draft Crops Bill 2022 includes pigeon peas as one of the scheduled crops to be included under the new regulatory framework⁵. Though not included under the Special Crop Act, but included in the Agricultural General Purposes Act, pigeon peas currently have a minimum farm gate price determined by the Ministry of Agriculture on an annual basis⁶</p> <p>Pigeon peas are also regulated under the Control of Goods Act</p>	<p>Continued investment will be contingent on finding alternative markets for pigeon peas and other markets off-take explored.</p> <p>There is limited current investment by the private sector and donor-funded projects in the pigeon pea processing with excess capacity not fully utilised to manufacture premium Dhal products⁸. RAB industries and Atlas are major processors and in 2017 total processing volumes stood at 250 000 tons⁹.</p> <p>Most investments are in seed production with the G&M working with ICRISAT, CIAT and the Malawi Seed Industry Development Project to increase utilization of legumes¹⁰.</p> <p>The declining market prices and the challenges with pest and disease is hampering further investment.¹¹</p> <p>Market not functioning in a structured manner is leading to farmers moving to other crops, whilst recycled seeds limits yield improvements and competitiveness of the value chain¹².</p> <p>Evidence of some investment in warehousing facilities for aggregation and purchases of micro processing equipment at farmer cooperative level, but no large-scale investment in processing facilities. NASFAM and the Malawi Farmers Association is active in the pigeon pea market.¹³</p>	<p>The average land size that smallholders dedicate to this crop was around 0.15 ha with many choosing to intercrop with maize and beans. Less than 1% of smallholders grow pigeon peas as a pure stand¹⁴</p> <p>Average yields are still much lower than the NAIIP target of 2 t/ha and currently ranging from 0.7-1.5 t/ha¹⁵</p> <p>Malawi harvests between July and August, which coincides with a period of high prices in India. Delivering product consistently in this market window could result in scaling of production.</p> <p>Scalability of pigeon peas are largely tied to the demand growth from India and policy certainty that their market will not be closed to protect their own smallholder producers as has been the case in the past. The Indian Ministry of Commerce and Industry¹⁶ has extended the unrestricted imports of pigeon peas to March 2023.</p> <p>Extension support systems and seed availability hinders scalability, but this value chain can easily be scaled if the market prices encourage wider planting and profitability is improved using improved varieties.</p> <p>Since many smallholders produce this crop, it is expected that these could easily switch into pigeon pea production from other crops.</p>	<p>Pigeon peas are mostly grown in the Southern region of Malawi, while crop suitability maps indicate that the Central and Northern regions are relatively more suitable¹⁷</p> <p>Pigeon peas are well adapted to semi-arid tropics, and large areas in Malawi is either suitable or highly suitable for production.</p> <p>It is also relatively drought-resistant compared to maize, tobacco and cotton, making it a suitable diversification strategy for climate variability¹⁸</p> <p>Due to climate change, Southern Malawi is affected by rainfall patterns that cause floods and drought which might hamper further expansion, although there is strong growth in areas such as Karonga and Chilipa.</p> <p>Pigeon peas are excellent crops used in rotation systems to boost soil fertility through nitrogen fixation, improved soil structure through its deep root system and abundant leaf fall provide green manure¹⁹</p>

References:

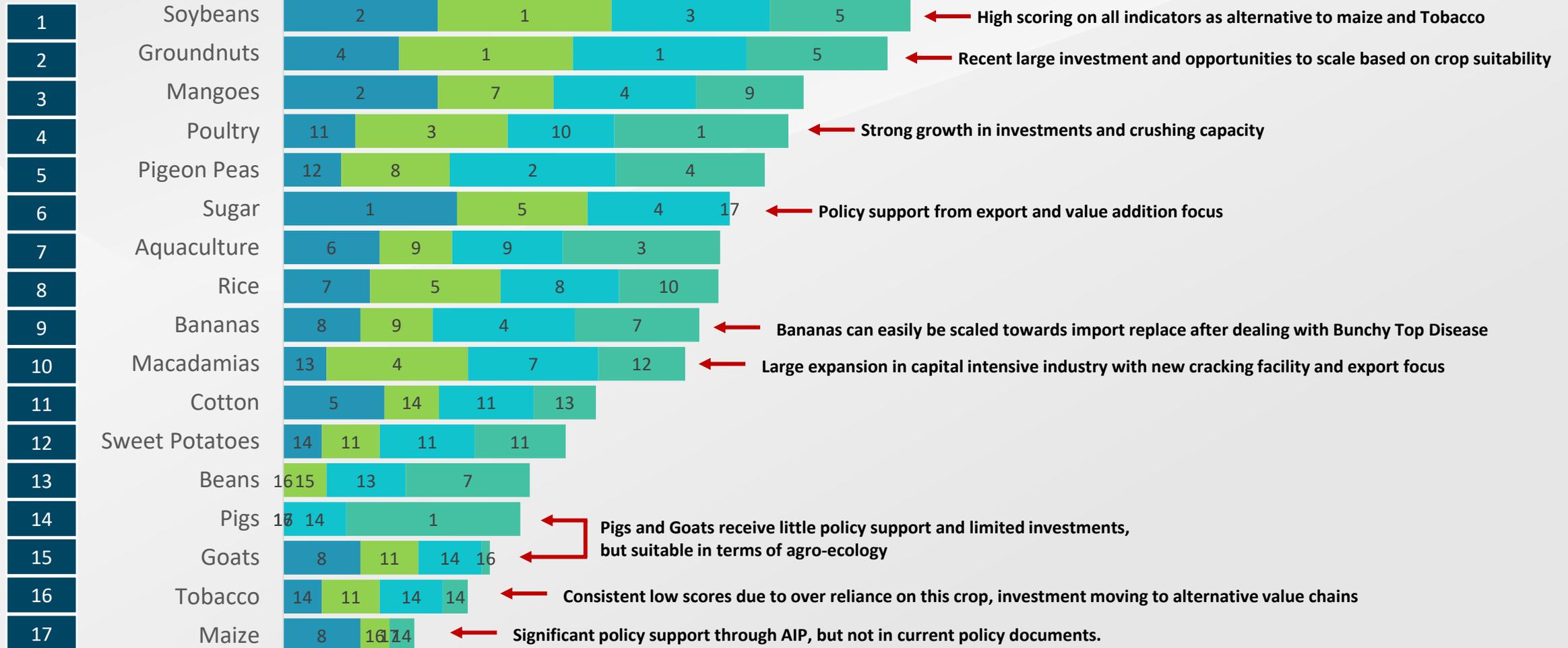
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PPVC – Qualitative Scans

Based on scoring for indicators by desktop review and stakeholder engagements



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■ Policy support ■ Investment Support ■ Scalability ■ Agro-ecology



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Malawi PPVC RIAPA Value Chain Ranking Analysis

Henry Kankwamba⁽¹⁾, Karl Pauw⁽²⁾, and James Thurlow⁽²⁾

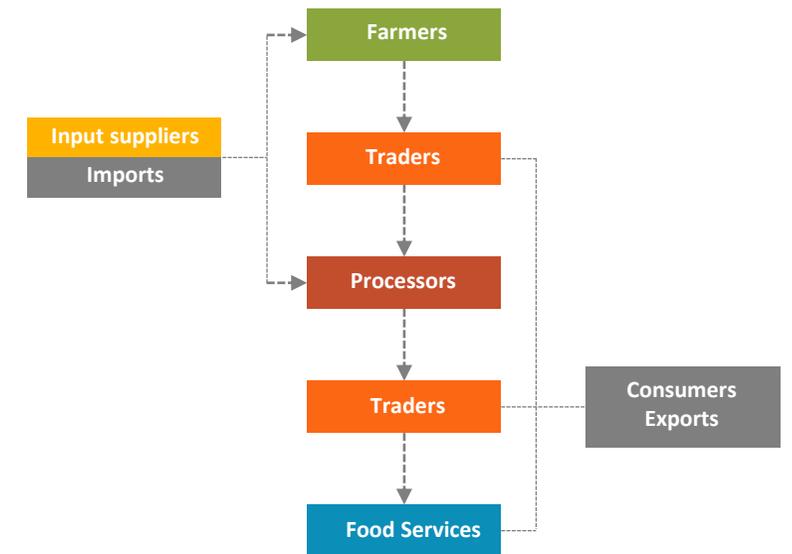
(1) Lilongwe University of Agriculture and Natural Resources (LUANAR)

(2) International Food Policy Research Institute (IFPRI)

What is RIAPA?

- RIAPA (Rural Investment and Policy Analysis) is used to conduct forward-looking, economywide country-level analysis
Serves as a simulation laboratory for experimenting with policies, investments, or economic shocks
- At its core is IFPRI's standard recursive-dynamic CGE (Computable General Equilibrium) model
- Distinguishing features of RIAPA
 - RIAPA has a detailed representation of the agri-food system (AFS)
Policies that affect farmers can have spillover implications for actors in the input supply, trade, agroprocessing, or food service sectors
 - RIAPA models trade-offs across policy and investment choices
Policies are not equally effective at achieving all development outcomes; winners and losers are created because of competition for resources and structural differences across sectors
 - RIAPA links CGE results to microsimulation models
Analysts can interpret implications of economywide shocks for individual households and people, e.g., in terms of poverty, diet quality, hunger, employment outcomes, etc.
- RIAPA is calibrated with a new Malawi SAM for 2019
Consistent with rebased National Accounts and Supply-and-Use Tables and latest Malawi Integrated Household Survey

Fig. Agri-food system (AFS)



How is RIAPA used in PPVC value chain selection stage?

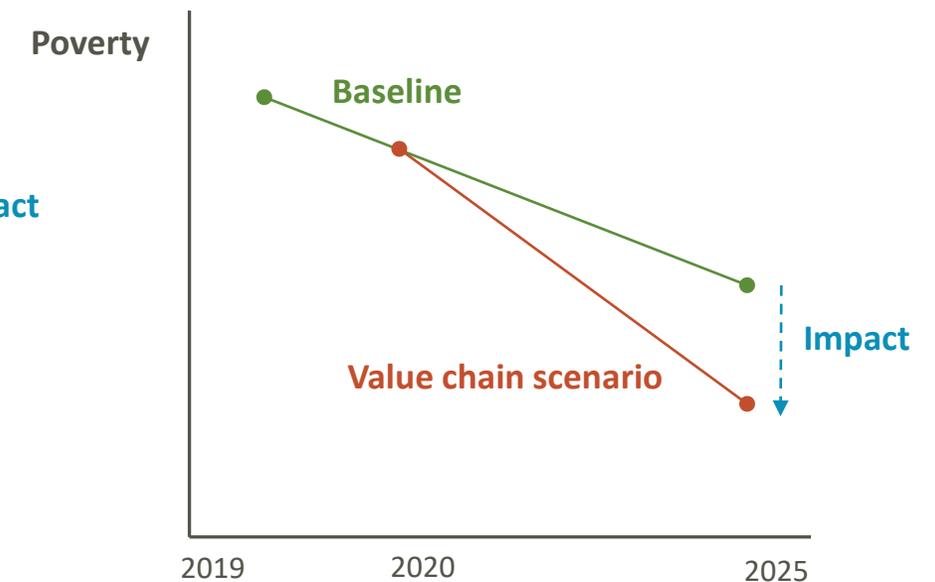
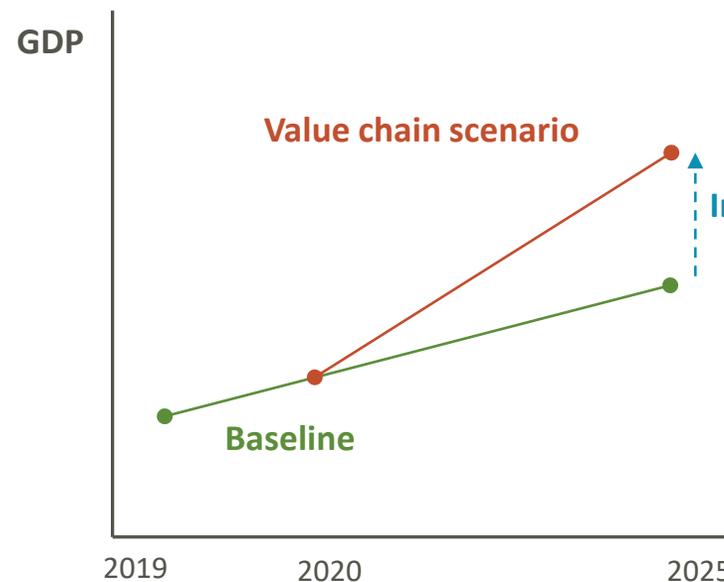


- Gross margin analysis provides the “**business case**” for a value chain
Productivity, profitability, and competitiveness
- But at scale, value-chains can have economywide implications
Positive spillovers across value chains and with other parts of the economy; resource competition (land, labor, capital) may mean a new value chain grows at the expense of another
- Establish the “**development case**” for value chain investments by considering economywide benefits and costs
Development outcome indicators of interest include poverty, employment, growth, and diets

- Model scenarios

- **Baseline scenario**
Business-as-usual growth path over 2020–2025
- **17* value chain scenarios**
Examine effect of productivity growth on development outcomes relative to baseline

**One scenario for each of the 17 shortlisted PPVC-Malawi value chains*



Development outcome indicators

- Productivity growth rates are set such that the increase in agricultural GDP is same across all value chain scenarios
This ensures comparability across value chain scenarios, but implies that smaller value chains must grow faster
- Two sets of outcome indicators, expressed as growth elasticities
That is, we divide the percentage or percentage-point change in the outcome indicator by the GDP increase in the targeted value chain

Social inclusion		Agricultural transformation	
Poverty	Jobs	Growth	Diets
<ul style="list-style-type: none"> • Measures the effectiveness of a value chain in reducing poverty • Reflects the extent to which poor households are linked to a value chain via employment, or how poor households benefit from lower prices of goods produced by that value chain 	<ul style="list-style-type: none"> • Measures the effectiveness of a value chain in creating jobs across the entire agri-food system (AFS) • Reflects employment intensities within value chains, both on and off the farm 	<ul style="list-style-type: none"> • Measures the effectiveness of a value chain in generating growth in the agri-food system (AFS) • Reflects the extent to which a value chain is transformative in that it generates growth within its off-farm component 	<ul style="list-style-type: none"> • Measures the effectiveness of a value chain in reducing diet deprivation (or, conversely, improves diet quality) • ReDD indicator considers incidence, breadth, and depth of diet deprivation across six food groups
<ul style="list-style-type: none"> • Indicator: %-point change in national poverty headcount rate per dollar increase in GDP of targeted value chain 	<ul style="list-style-type: none"> • Indicator: % change in AFS employment per dollar increase in GDP of targeted value chain 	<ul style="list-style-type: none"> • Indicator: % change in AFS GDP per dollar increase in GDP of targeted value chain 	<ul style="list-style-type: none"> • Indicator: % change in ReDD index per dollar increase in GDP of targeted value chain

Social inclusion outcomes



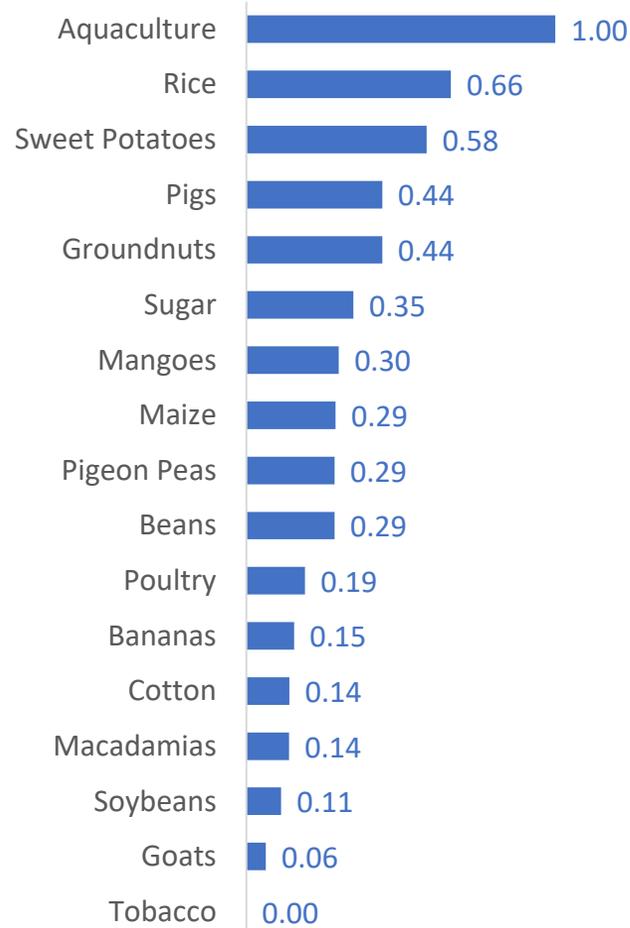
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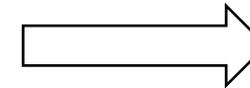
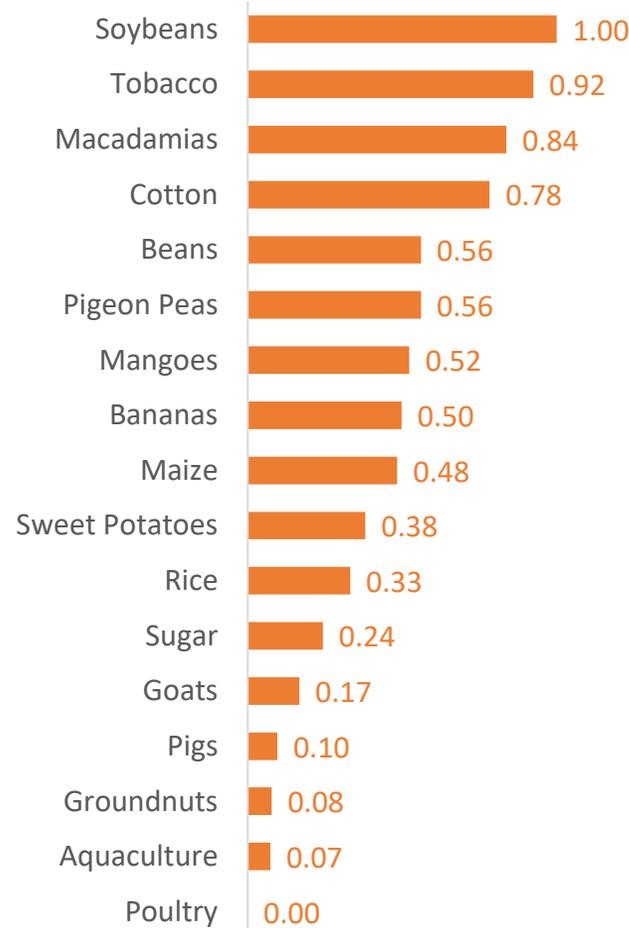
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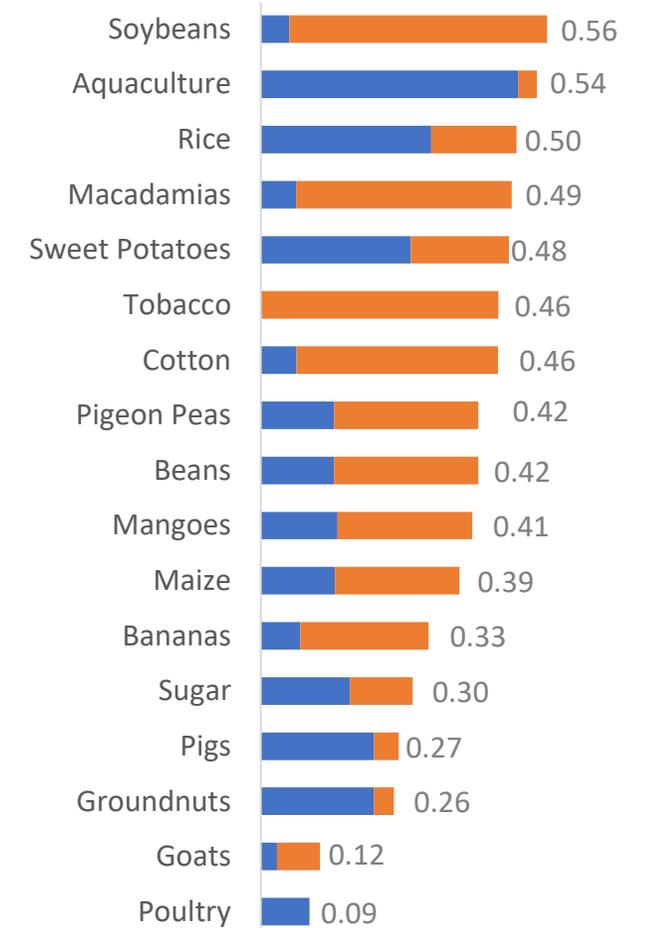
Poverty



Jobs



Inclusiveness (poverty & jobs composite)



Agricultural transformation outcomes



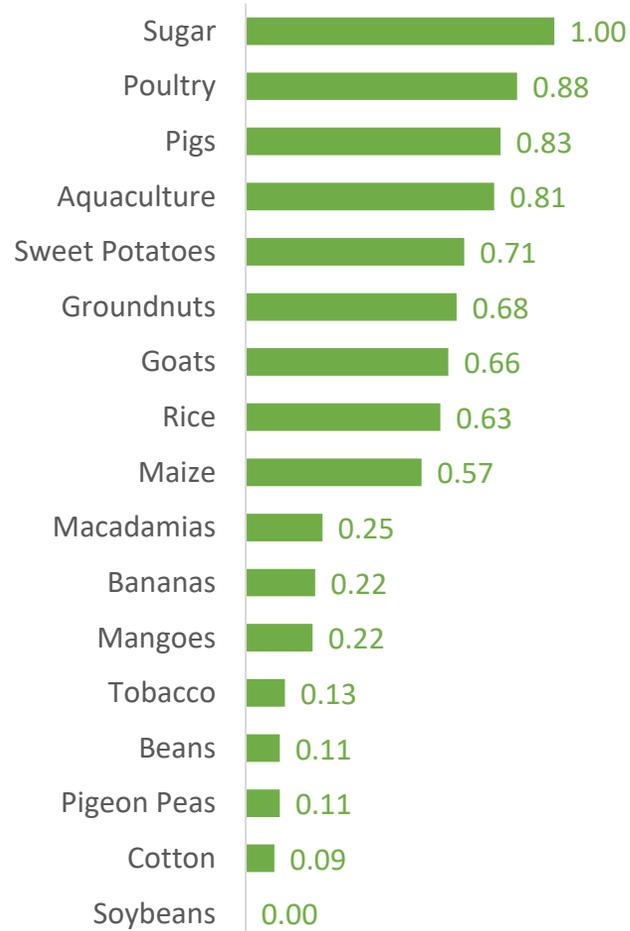
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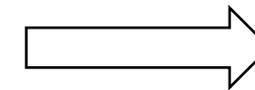
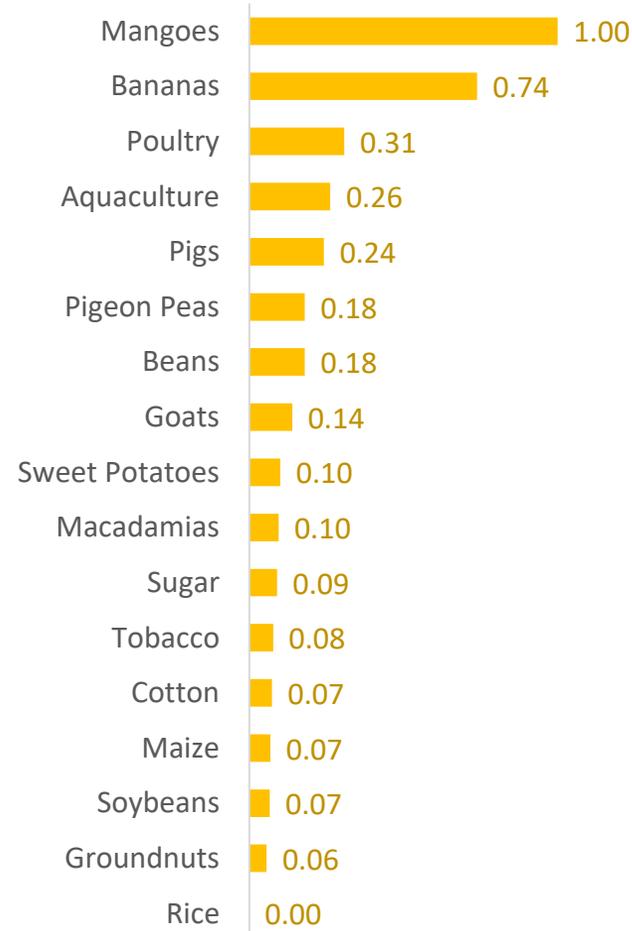
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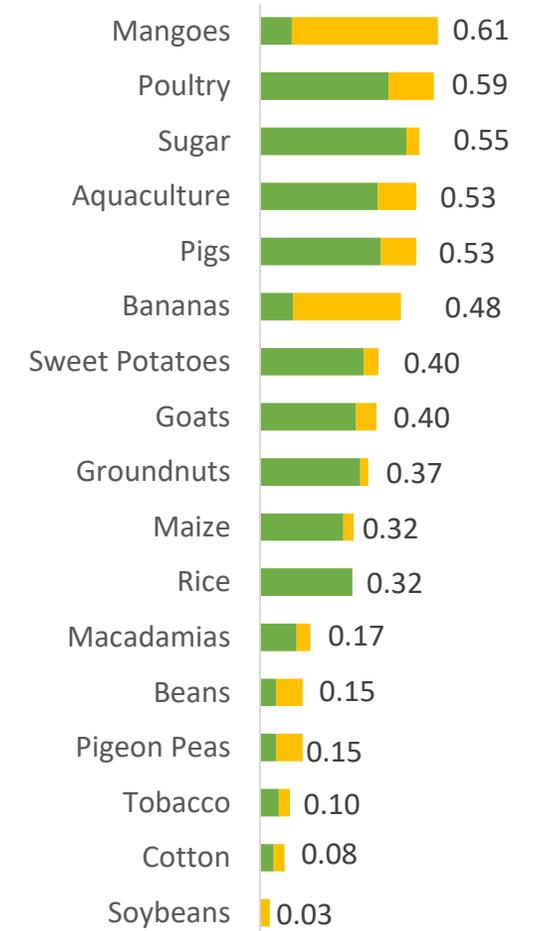
Growth



Diets



Transformation (growth & diets composite)



PPVC – Ranking on all indicators

Green shows areas of strength and red weak performance of VC



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Market-led

	Indicator	Pigeon Peas	Soybeans	Groundnuts	Sugar	Rice	Maize	Beans	Cotton	Poultry	Pigs	Goats	Aquaculture	Tobacco	Mangoes	Bananas	Sweet Potatoes	Macadamias
Potential	Intensification	0.35	0.68	0.57	0.26	0.45	0.78	0.28	0.46	0.99	0.8	1	0.49	0.4	0.45	0.62	0	0.29
	Domestic cons growth	0.94	0.56	0.6	1	0.67	0.83	0.93	0.84	0.82	0.97	0.97	0.92	0	0.59	0.72	0.83	0.84
	Export potential	0.75	0.81	1	0.89	0.83	0.62	0.8	0.85	0.88	0.9	0	0.92	0.84	0.92	0.93	0.95	0.9
Competitiveness	Input costs / output	0.92	0.46	0.73	0.73	0.29	0	0.85	0.31	0.18	0.94	0.51	0.32	0.79	1	0.68	0.84	0.66
	RTA 5-year average	0.37	0.03	0.2	0.12	0.01	0	0.06	0.15	0.01	0.01	0.01	0	0.48	0.02	0.01	0.01	1

Inclusiveness

Poverty	Rural Poverty	0.29	0.11	0.44	0.35	0.66	0.29	0.29	0.14	0.19	0.44	0.06	1.00	0.00	0.30	0.15	0.58	0.14
	Job Creation	0.56	1.00	0.08	0.24	0.33	0.48	0.56	0.78	0.00	0.10	0.17	0.07	0.92	0.52	0.50	0.38	0.84

Ag Transformation

GDP Contribution	AFS GDP	0.11	0.00	0.68	1.00	0.63	0.57	0.11	0.09	0.88	0.83	0.66	0.81	0.13	0.22	0.22	0.71	0.25
Dietary Change	Dietary Diversity	0.18	0.07	0.06	0.09	0.00	0.07	0.18	0.07	0.31	0.24	0.14	0.26	0.08	1.00	0.74	0.10	0.10

Qualitative Scans

Poverty	Policy Support	0.33	0.89	0.67	1.00	0.50	0.44	0.00	0.58	0.42	0.00	0.44	0.56	0.22	0.89	0.44	0.22	0.25
	Investment Support	0.63	1.00	1.00	0.75	0.75	0.17	0.25	0.31	0.88	0.00	0.33	0.42	0.33	0.67	0.42	0.33	0.81
	Scalability	0.95	0.91	1.00	0.82	0.68	0.00	0.45	0.55	0.61	0.36	0.36	0.64	0.36	0.82	0.82	0.55	0.75
	Agro-ecology	0.86	0.81	0.81	0.00	0.57	0.14	0.71	0.36	1.00	1.00	0.05	0.90	0.14	0.62	0.71	0.52	0.50

PPVC – Final Rankings



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Value Chain	Market-Led	Inclusive Growth	Ag Transformation	VC Scans	Final Ranking
Mangoes	6	10	1	3	1
Aquaculture ★	10	2	4	7	2
Macadamias	1	4	12	10	3
Sugar	5	13	3	6	4
Soybeans	13	1	17	1	5
Groundnuts	4	15	9	2	6
Pigeon Peas	3	8	14	5	7
Poultry	9	17	2	4	8
Pigs	2	14	5	14	9
Bananas	7	12	6	9	10
Sweet Potatoes	11	5	7	12	11
Rice	16	3	11	8	12
Beans	8	9	13	13	13
Cotton	12	7	16	11	14
Tobacco	14	6	15	16	15
Goats	15	16	8	15	16
Maize	17	11	10	17	17

*Aquaculture results is partially impacted by poverty indicator that doesn't disaggregate between capture fisheries and aquaculture



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Thank you