Developing a strategic long-run outlook for grain markets in Tanzania

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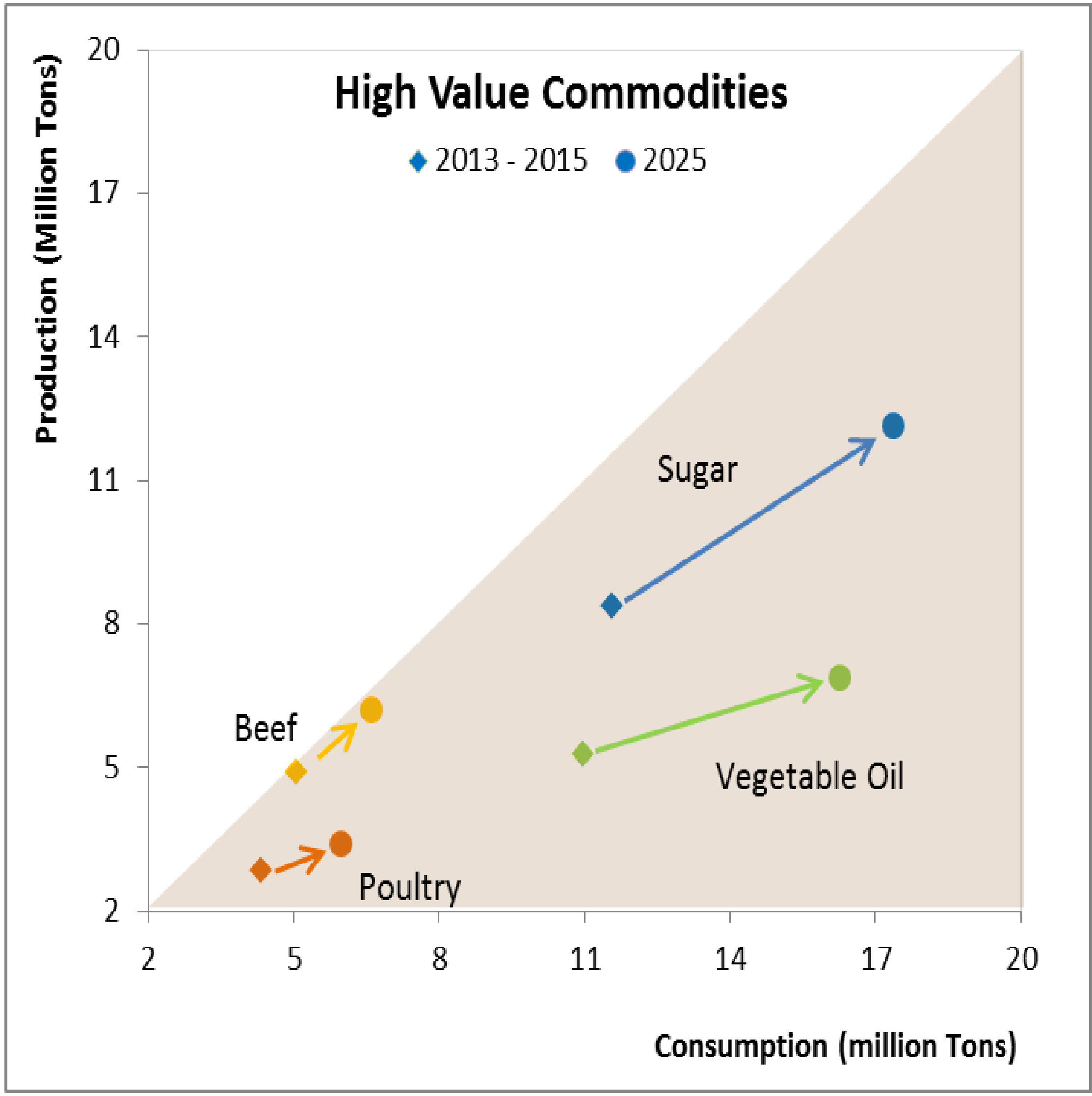
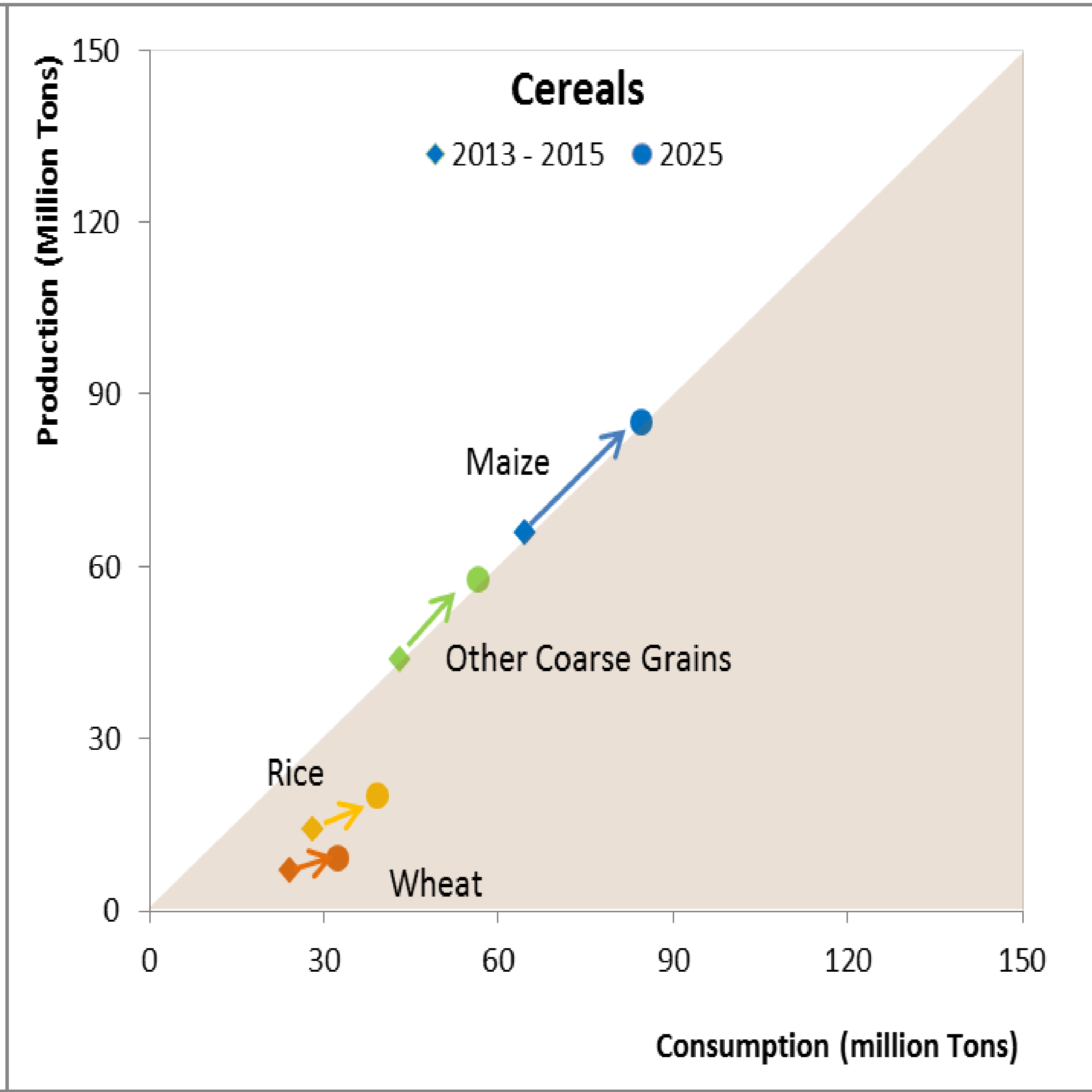
Background

- Objective
  – Develop tool to generate long-run strategic outlook – has to be country & commodity specific
  – Illustrate balance between production, consumption, trade, prices
  – Generate dynamic solutions and impact analysis for a range of exogenous shocks (e.g. policy, macro-economic, demographics, climatic)
  – Informs strategic planning and policy analysis
- Approach: ReNAPRI Outlook Initiative:
  – Multifaceted approach - farm-level, sector-level, value-chain analysis within a Strategic Foresighting framework

Overview of supply & demand

Aggregate approach for SSA

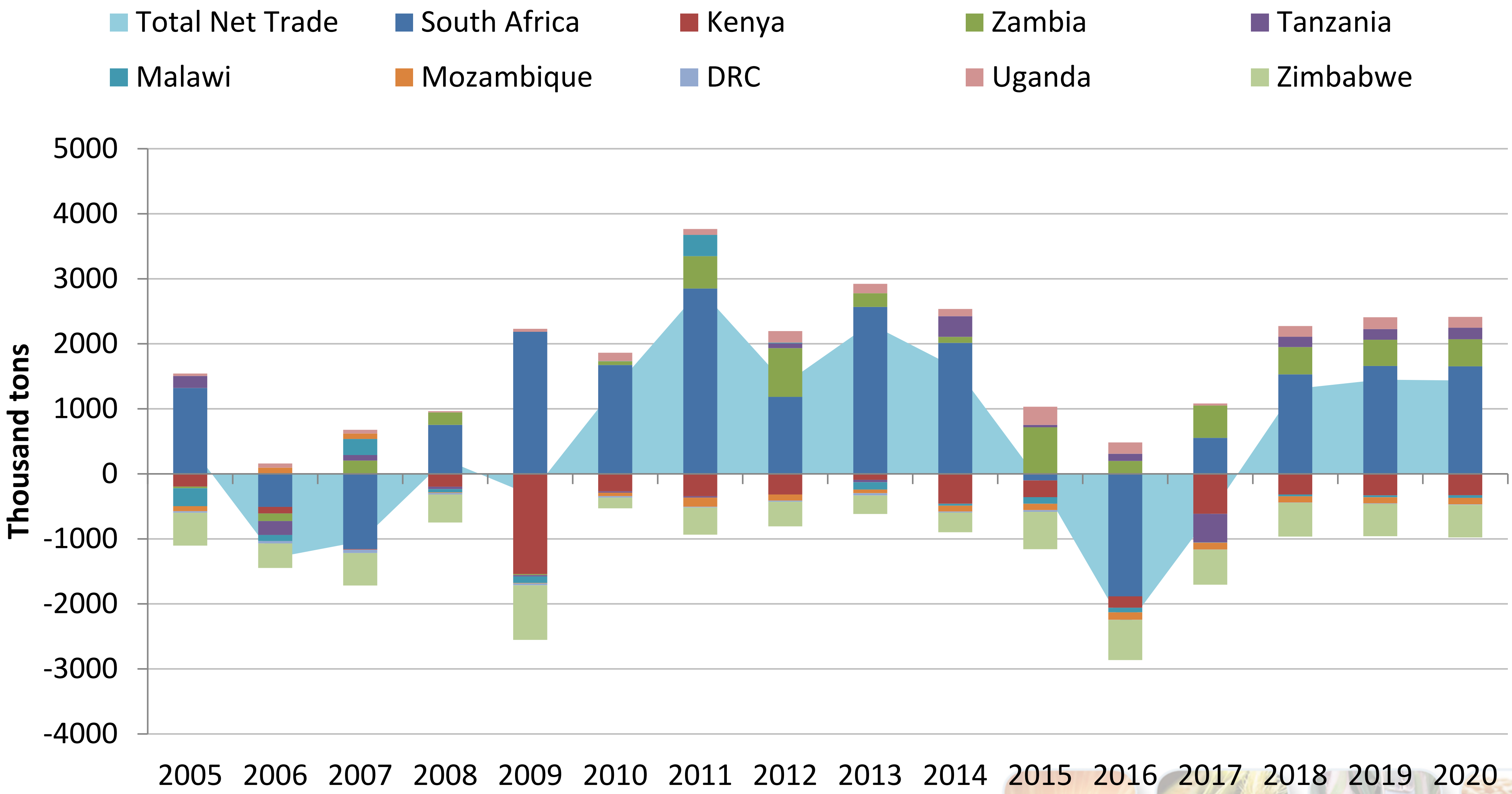




Source: OECD-FAO, 2016

Overview of maize trade balance

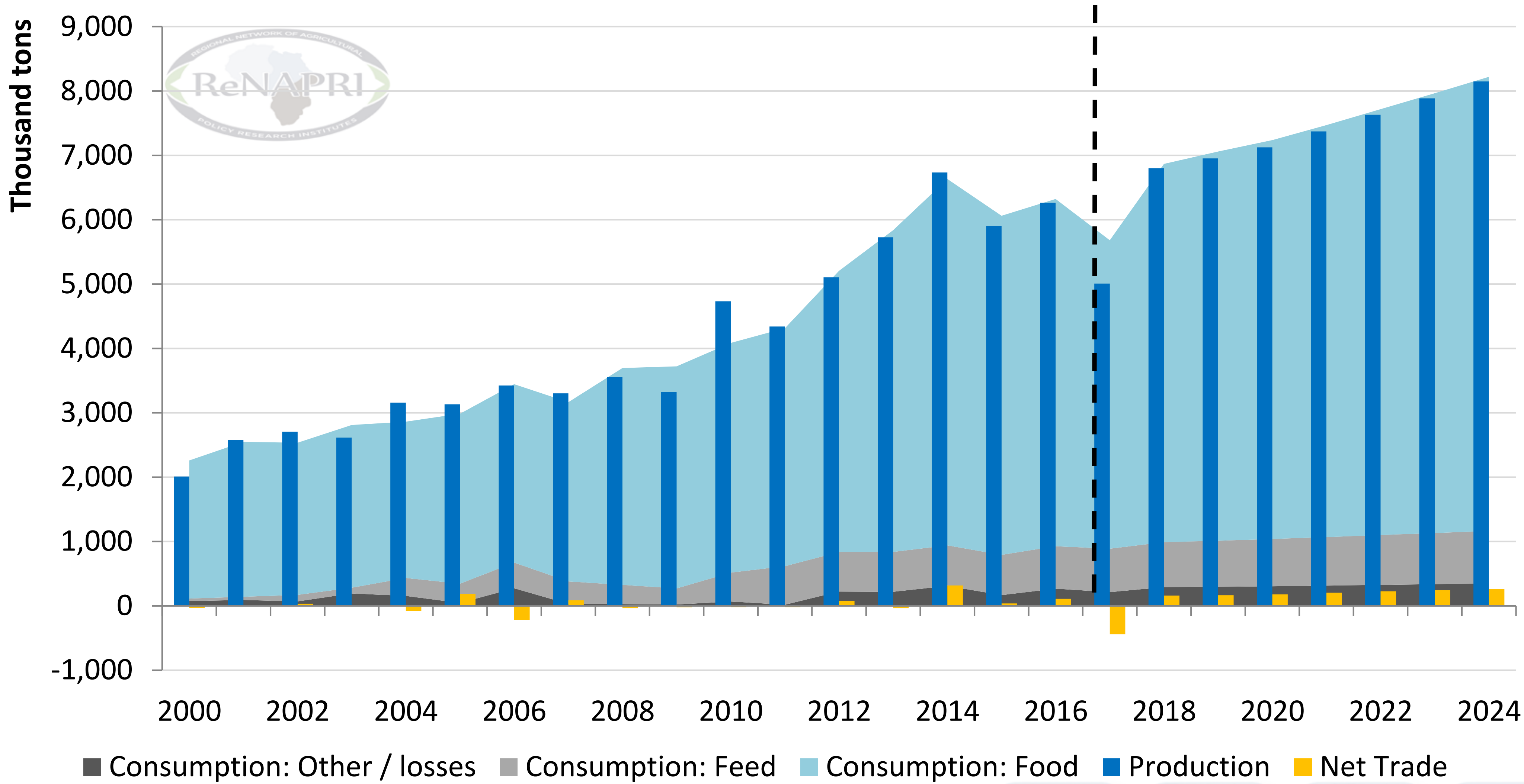
Aggregate approach – crop specific (maize)



Source: ReNAPRI, 2017

Overview of supply & demand

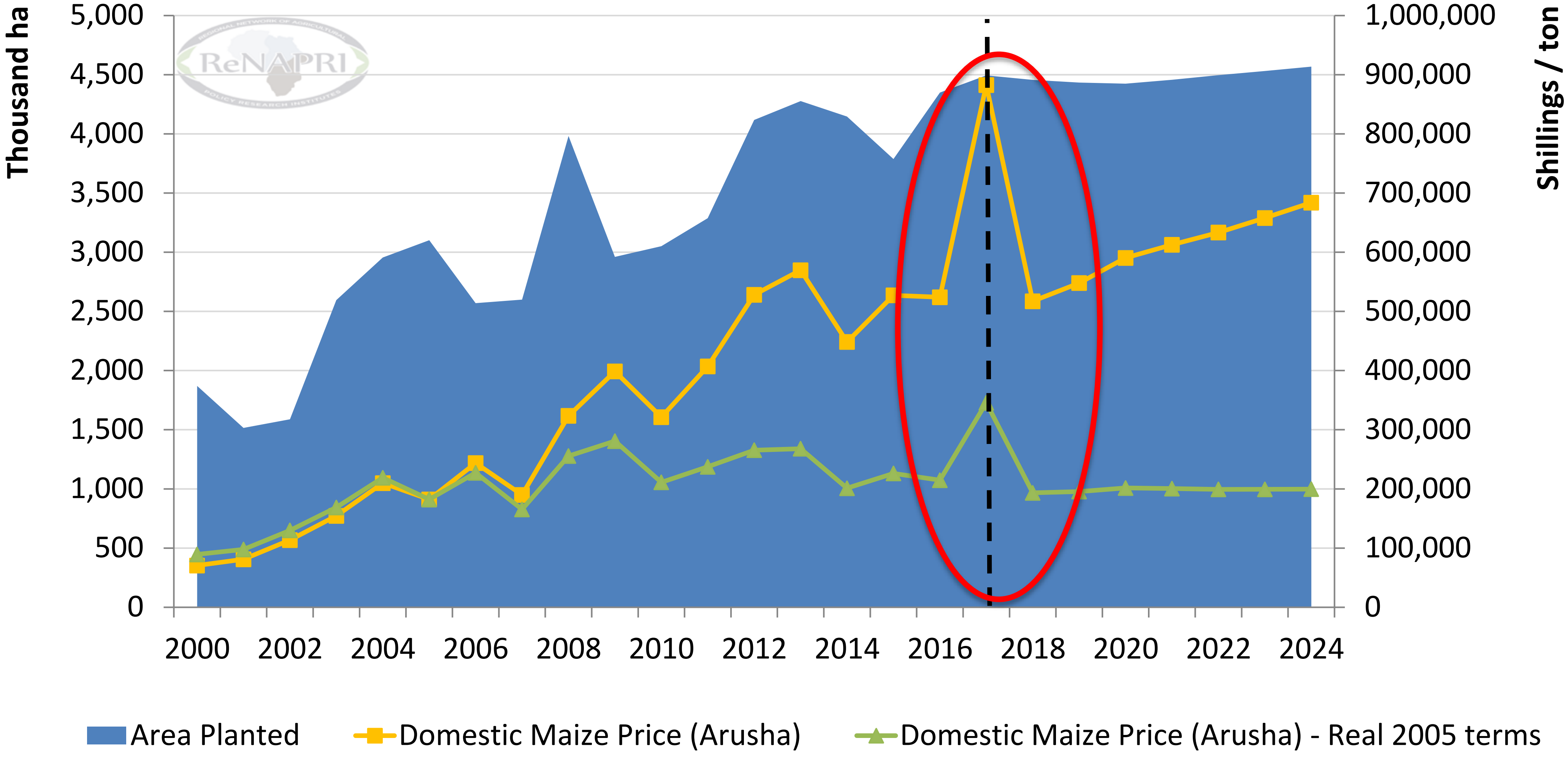
Country & crop specific: Tanzania - maize



Source: ReNAPRI, 2016

Overview of supply & demand

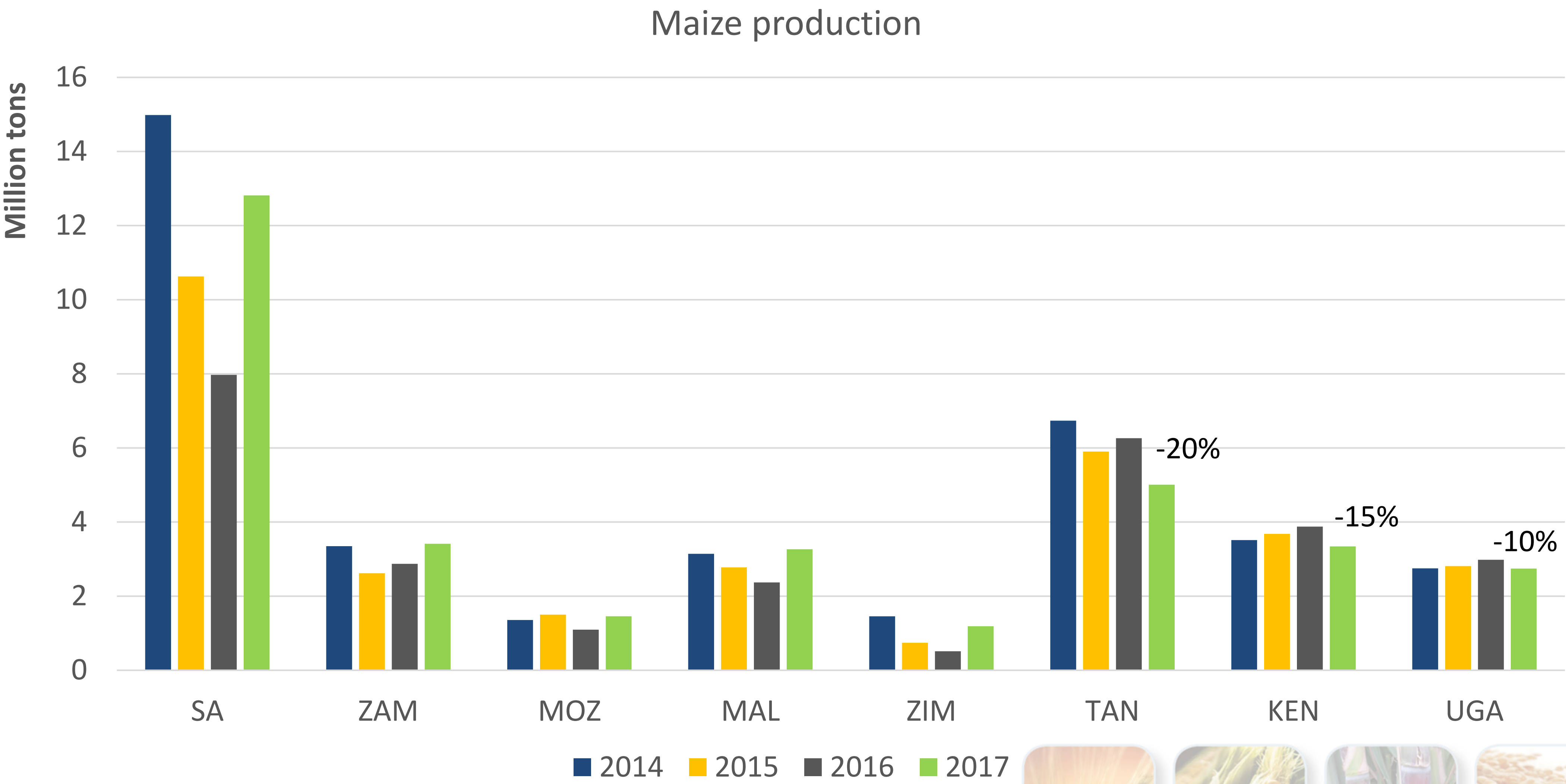
Country & crop specific: Tanzania - maize



Source: ReNAPRI, 2016

Early warning – weather impacts

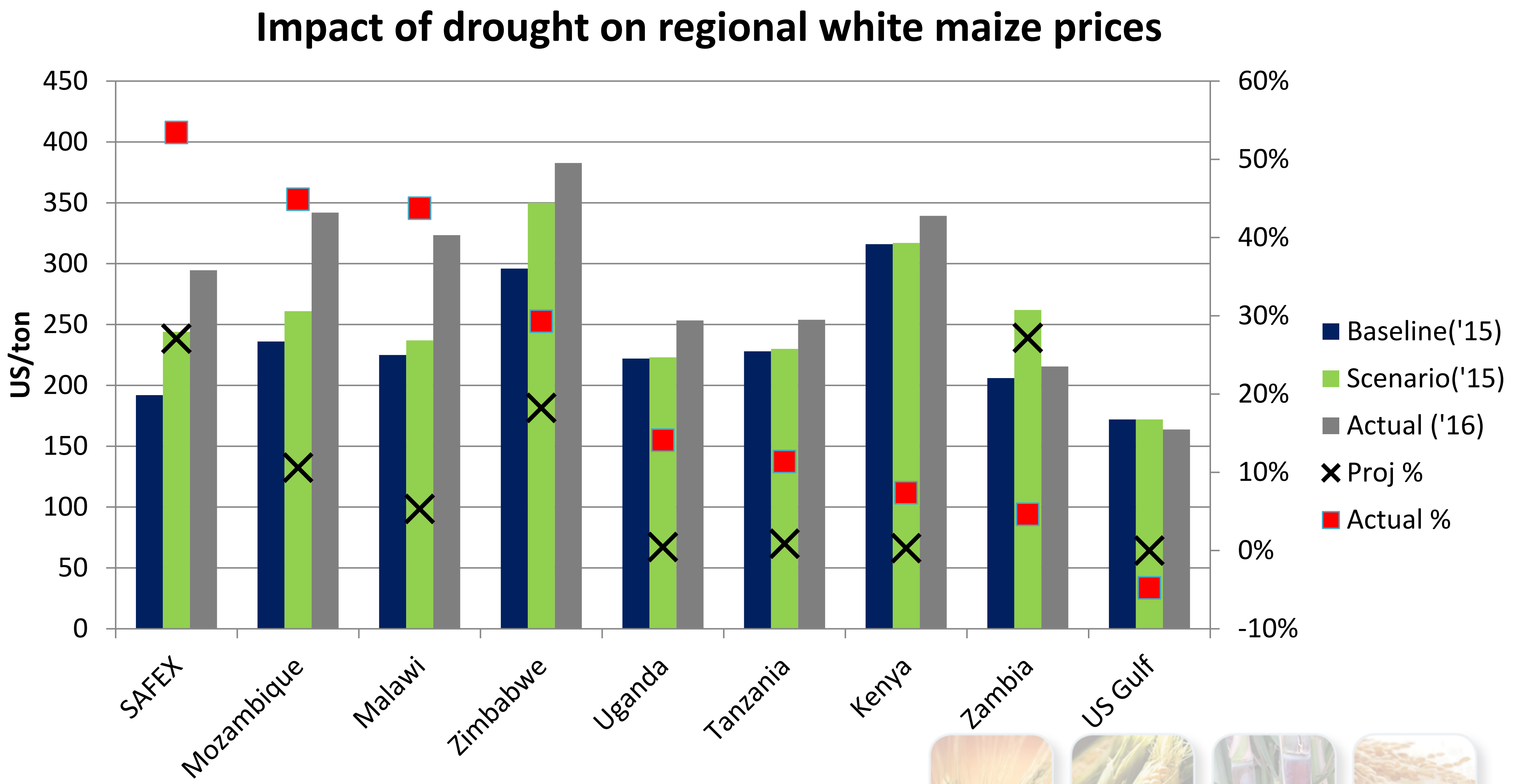
El Nino (2015/16) & La Nina (2016/17)



Source: ReNAPRI, 2017

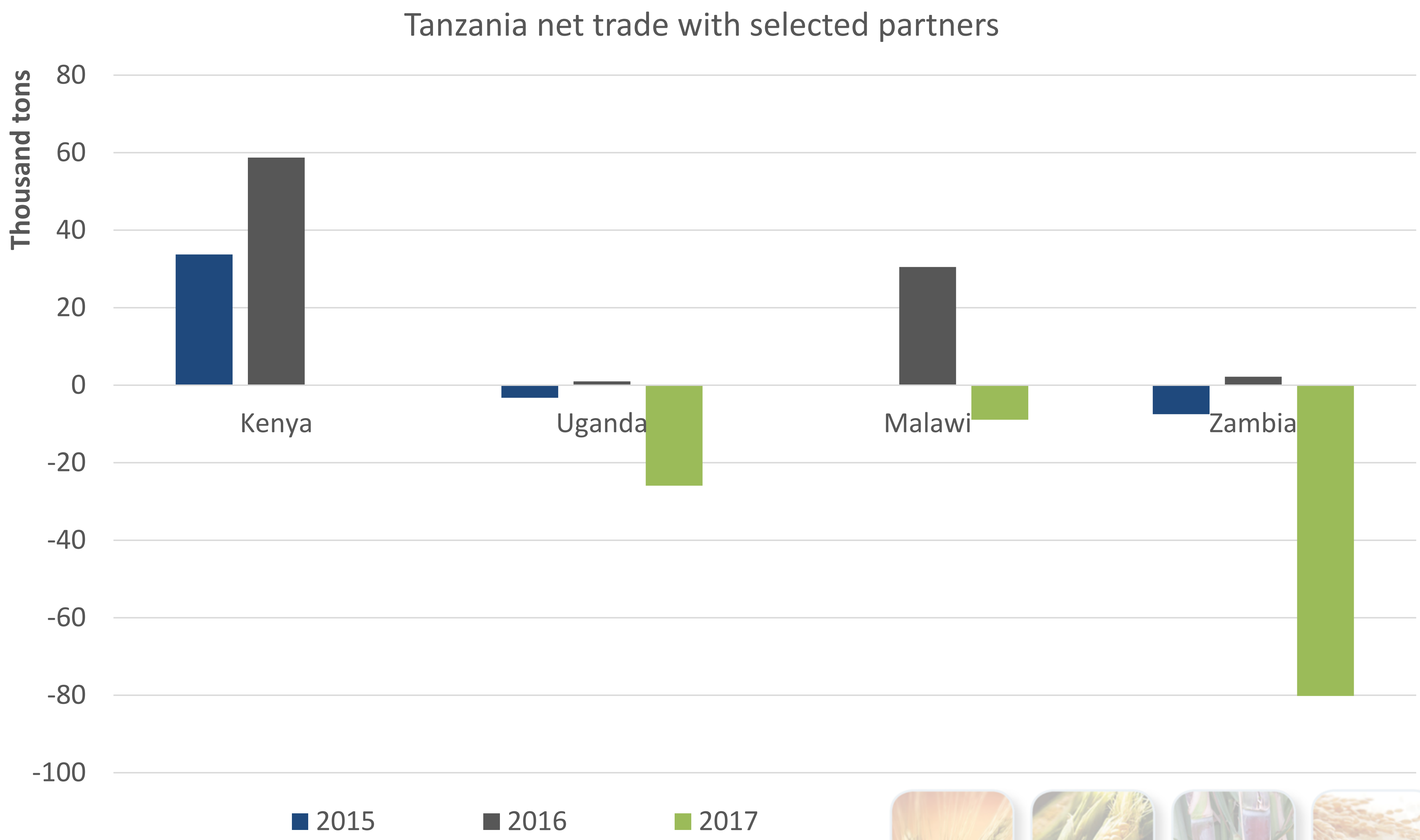
Impact of drought (15/16) on prices

Projected versus actual impact on prices



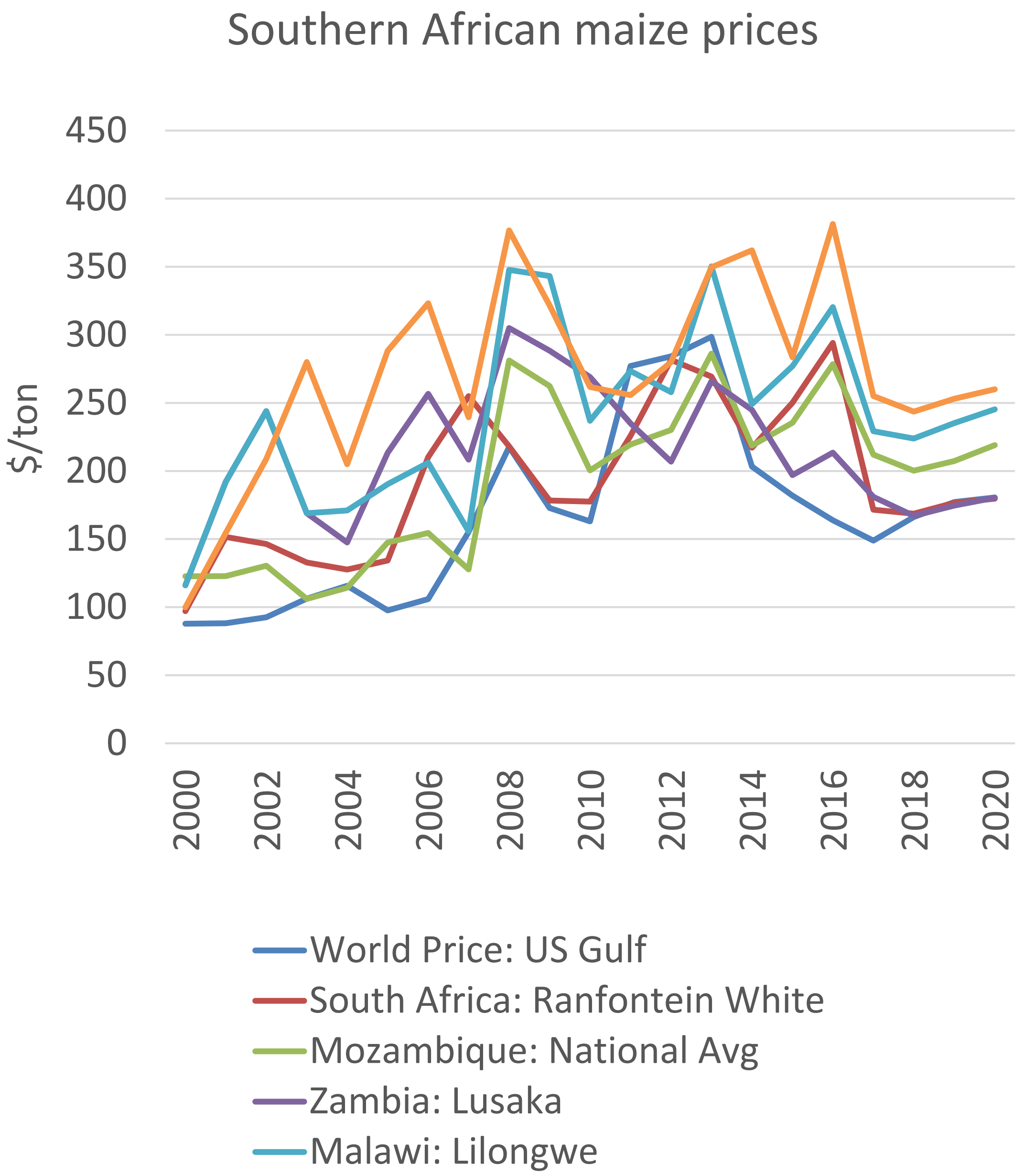
Source: Davids, ReNAPRI network

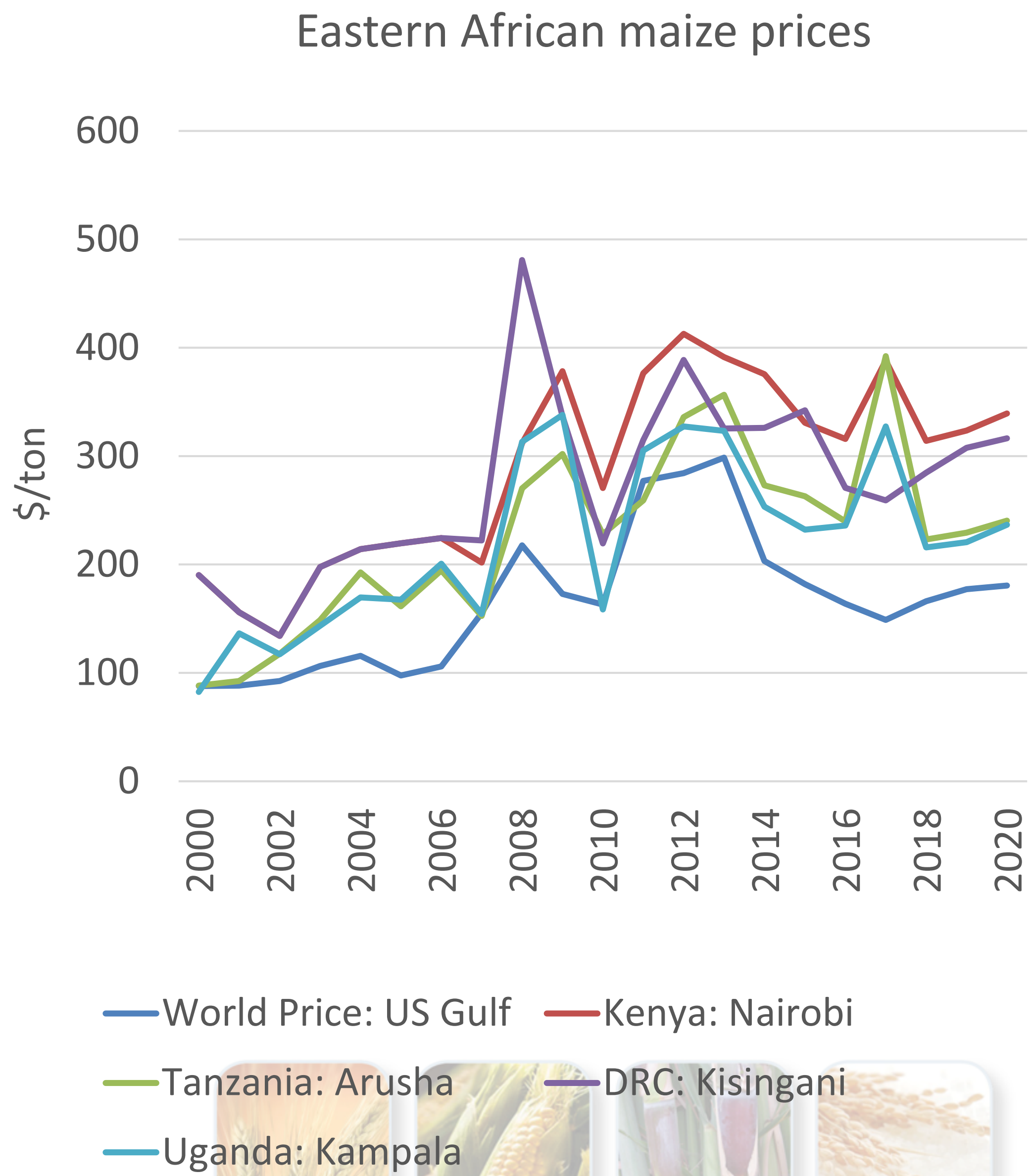
Drought (16/17): Trade impact



Source: Davids, ReNAPRI network

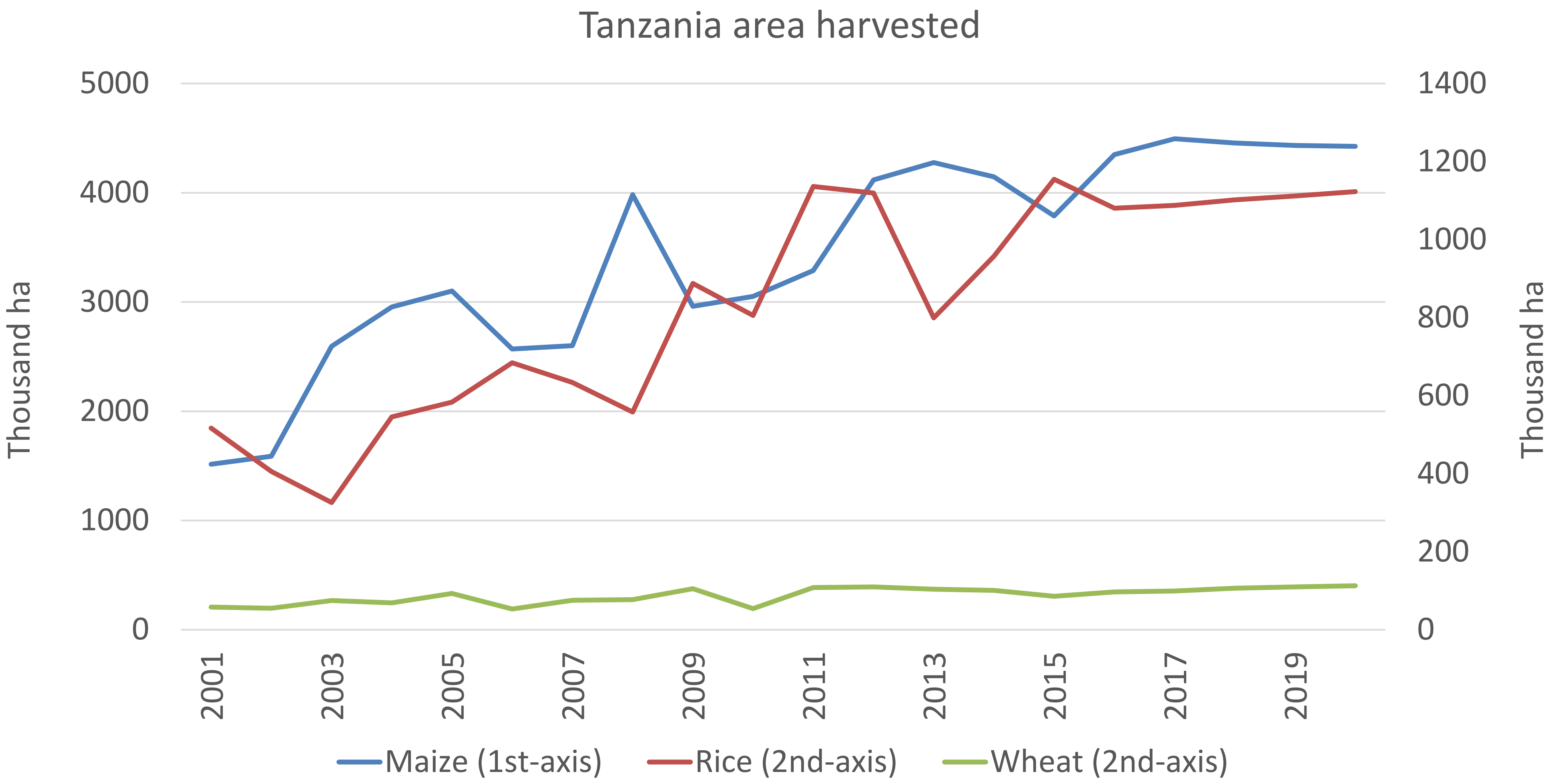
Market integration





Overview of area harvested

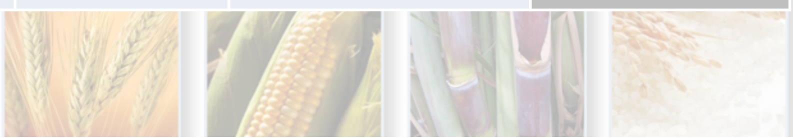
Growth in expansion of land slowing down



Source: ReNAPRI, 2017

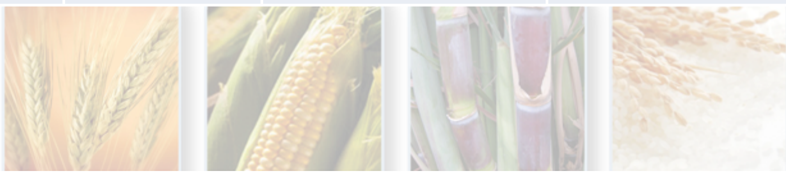
Maize: Growth decomposition

	Avg. annual growth Past Decade (2004-2015)		Avg. annual growth Outlook (2016-2020)		Absolute Growth Maize area planted		Absolute Growth Yields	
	Area Expansion	Yield Growth	Area Expansion	Yield Growth	2012-2014 ‘000 ha	2020 ‘000 ha	2012-2014 t/ha	2020 t/ha
South Africa	-1.5%	2.4%	-0.25%	8.52%	3 158	2651	4.24 t/ha	5.03 t/ha
Zambia	6.1%	3.6%	1.58%	5.13%	1 335	1453	2.19 t/ha	2.53 t/ha
Kenya	2.6%	0.7%	1.96%	1.27%	2 132	2358	1.70 t/ha	1.85 t/ha
Tanzania	5.4%	2.5%	1.26%	2.89%	4 180	4158	1.37 t/ha	1.73 t/ha
Malawi	-0.3%	2.2%	-0.16%	6.94%	1 363	1444	2.19 t/ha	2.46 t/ha
Mozambique	0.7%	-0.4%	3.65%	3.98%	1 615	1618	1.06 t/ha	1.14 t/ha
DRC	1.6%	0.1%	3.01%	0.29%	1 467	1842	0.83 t/ha	0.88 t/ha
Uganda	3.8%	5%	2.32%	2.72%	1 098	1264	2.50 t/ha	2.88 t/ha
Zimbabwe	-0.5%	-1.7%	-0.80%	14.90%	1 579	1499	0.68 t/ha	0.82 t/ha



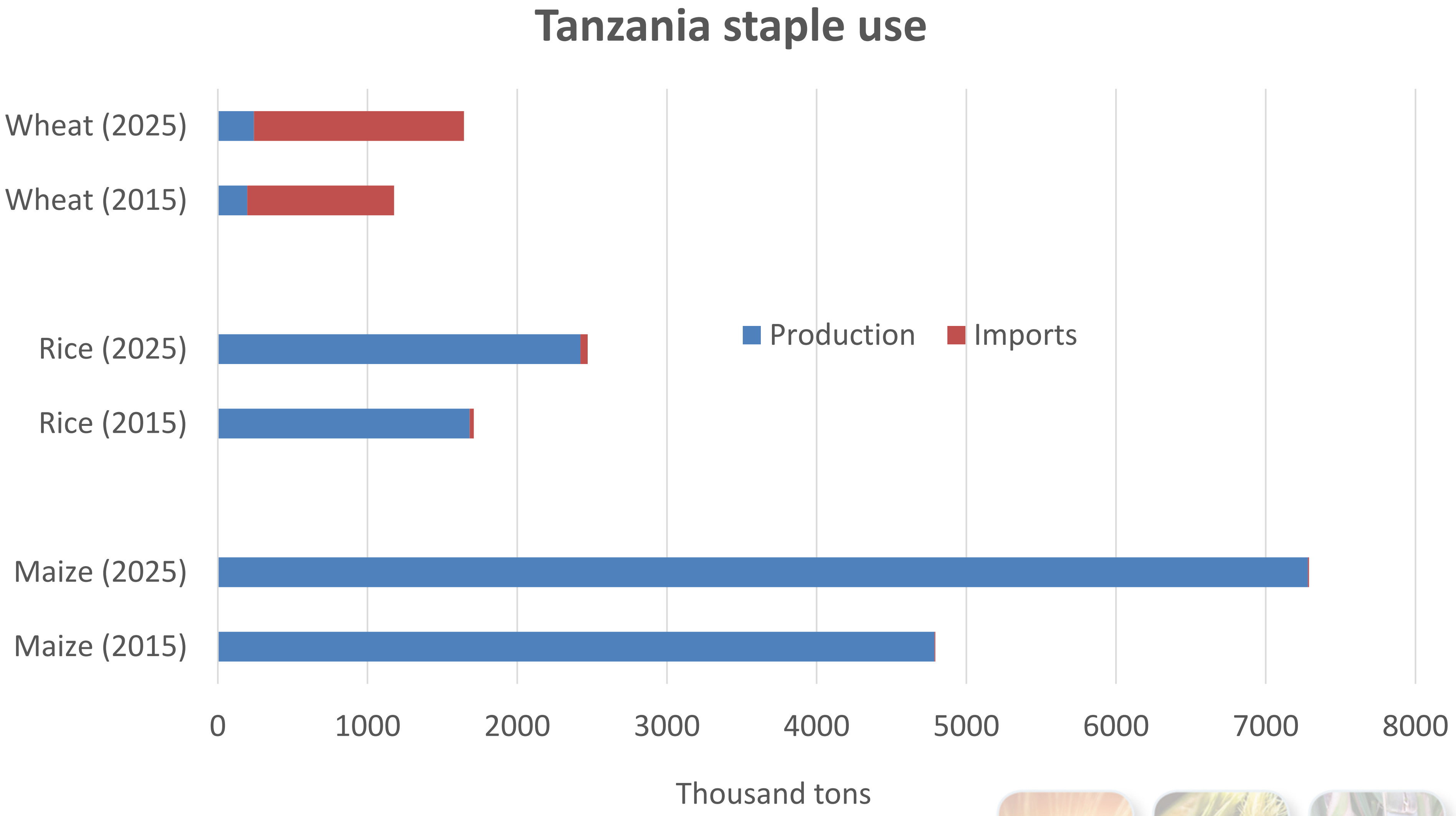
Wheat: Growth decomposition

	Avg. annual growth Past Decade (2004-2015)		Avg. annual growth Outlook (2015-2020)		Absolute Growth Maize area planted		Absolute Growth Yields	
	Area Expansion	Yield Growth	Area Expansion	Yield Growth	2013-2015 '000 ha	2020 '000 ha	2013-2015 t/ha	2020 t/ha
South Africa	-5.4%	3.2%	-0.57%	4.44%	488	476	3.47 t/ha	3.82 t/ha
Zambia	7.1%	1.5%	3.83%	2.58%	35	41	6.7t/ha	7.42 t/ha
Kenya	2.9%	1.8%	-0.10%	0.35%	154	152	2.6t/ha	2.78 t/ha
Tanzania	5.2%	-0.6%	5.45%	12.98%	110	115	1.3t/ha	1.98 t/ha



Overview of consumption

Long-run shift in consumption



Source: ReNAPRI, 2017

Conclusion

What informs an outlook?

- Mega trends shaping the future
- Assumptions on:
  - Climate
  - Macro-economic drivers (economic growth, class mobility, exchange rates etc.)
  - Demographics (population distribution etc.)
- Policies (trade, stocks, land etc.)
- Linking the strategic outlook to the industrial policy and planning

Acknowledgement

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Thank you!

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Source: ReNAPRI, 2017