Socio-Economic Impact of Drought on Agricultural Production and Food Security

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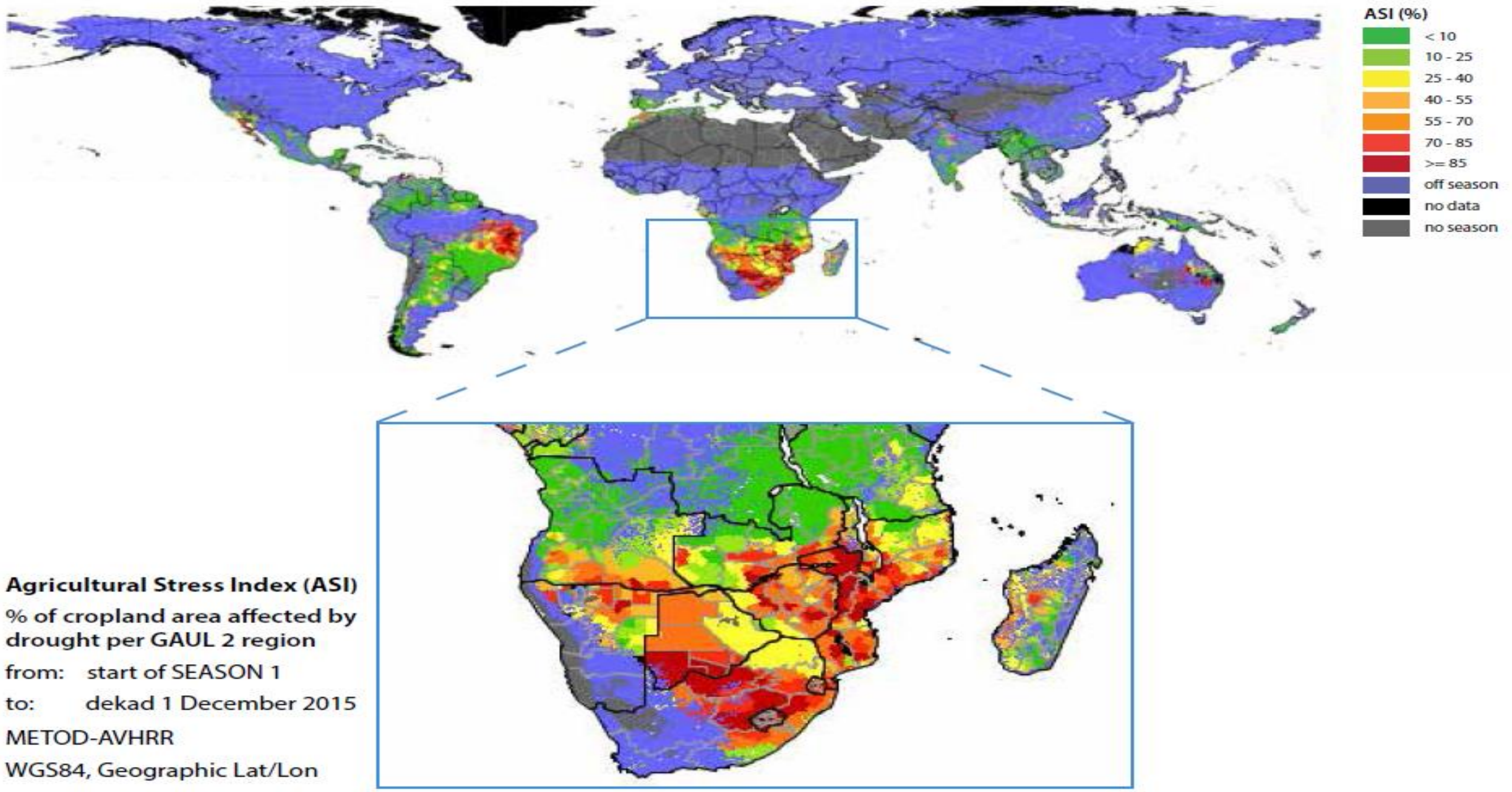
SECTION 7 COMMITTEE ON IMPACT OF DROUGHT AND IMPLEMENTATION OF DROUGHT RESPONSE IN SOUTH AFRICAN AGRICULTURE

It is a Southern African regional drought

- The most affected areas are SA, Botswana, Zimbabwe and Southern parts of Zambia and Mozambique

Figure 1: Agricultural Stress Index December 2015
(1st dekad 2015)



Note: The Agricultural Stress Index (ASI) refers to the percentage of cropped areas suffering from water stress, by administrative region.
Source: FAO/GIEWS

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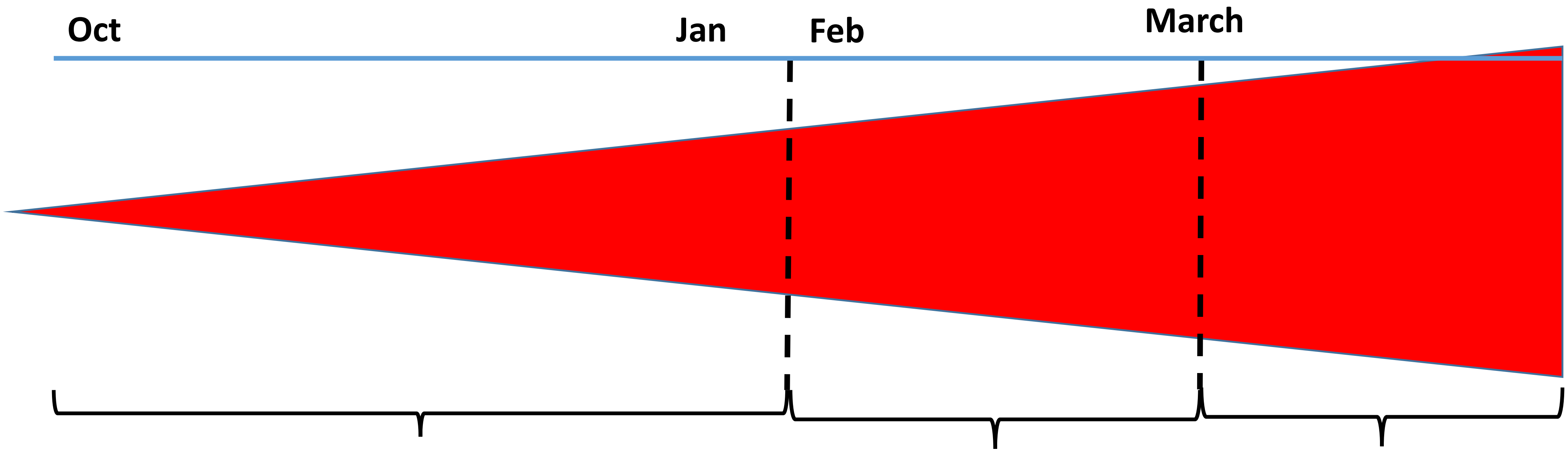
Impact of drought: 3 Thresholds

- Large areas in SA passed all three Thresholds with long-term implications



- Area planted summer crops
- Pastures – first summer growth
- Impact on irrigation agriculture still limited

- Critical for yields
- Pastures-late summer growth
- Heat affecting fruits ..
- Smaller dams and boreholes affected

- Critical for all dams and boreholes etc
- Long-term damage on pastures
- All three industries affected

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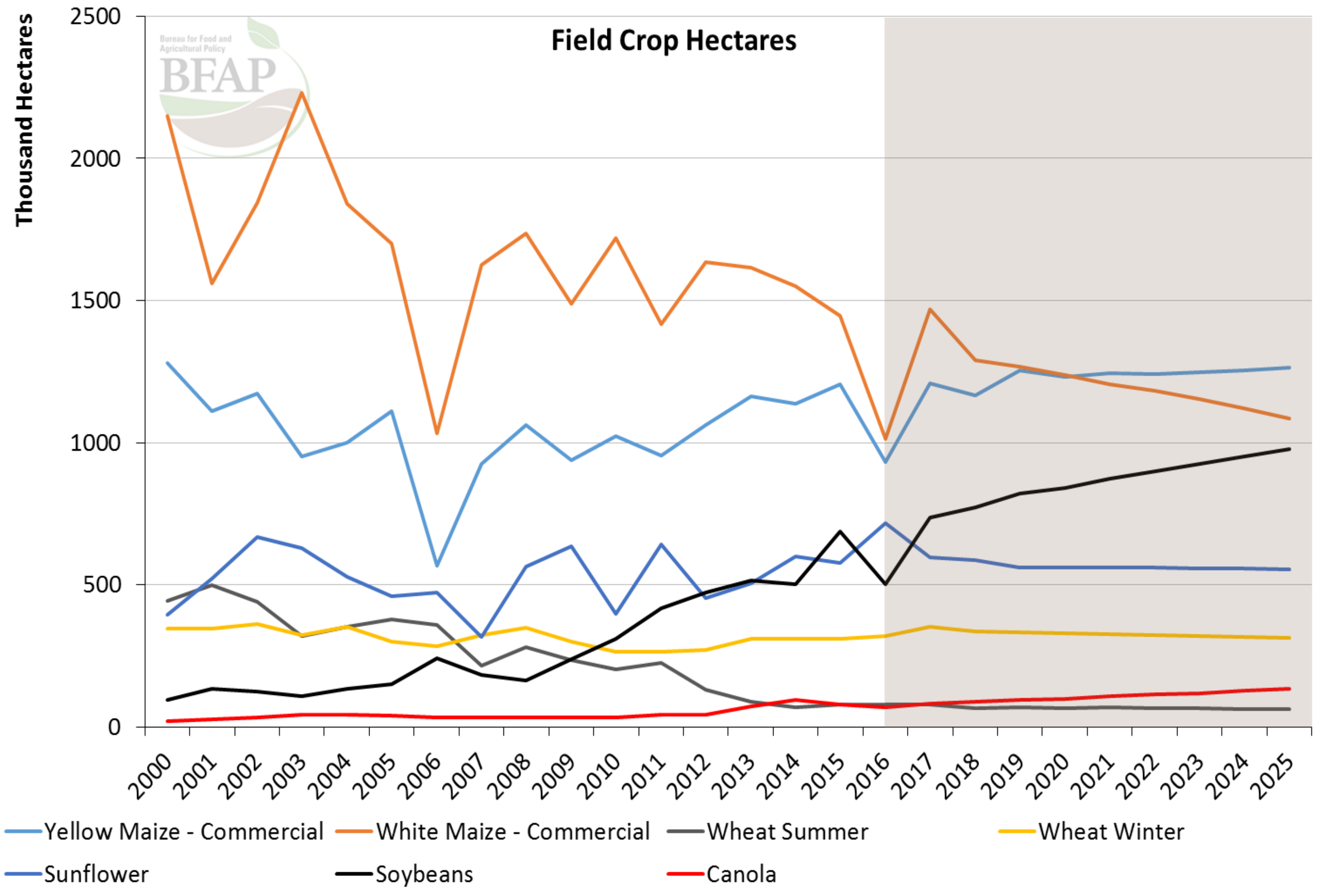
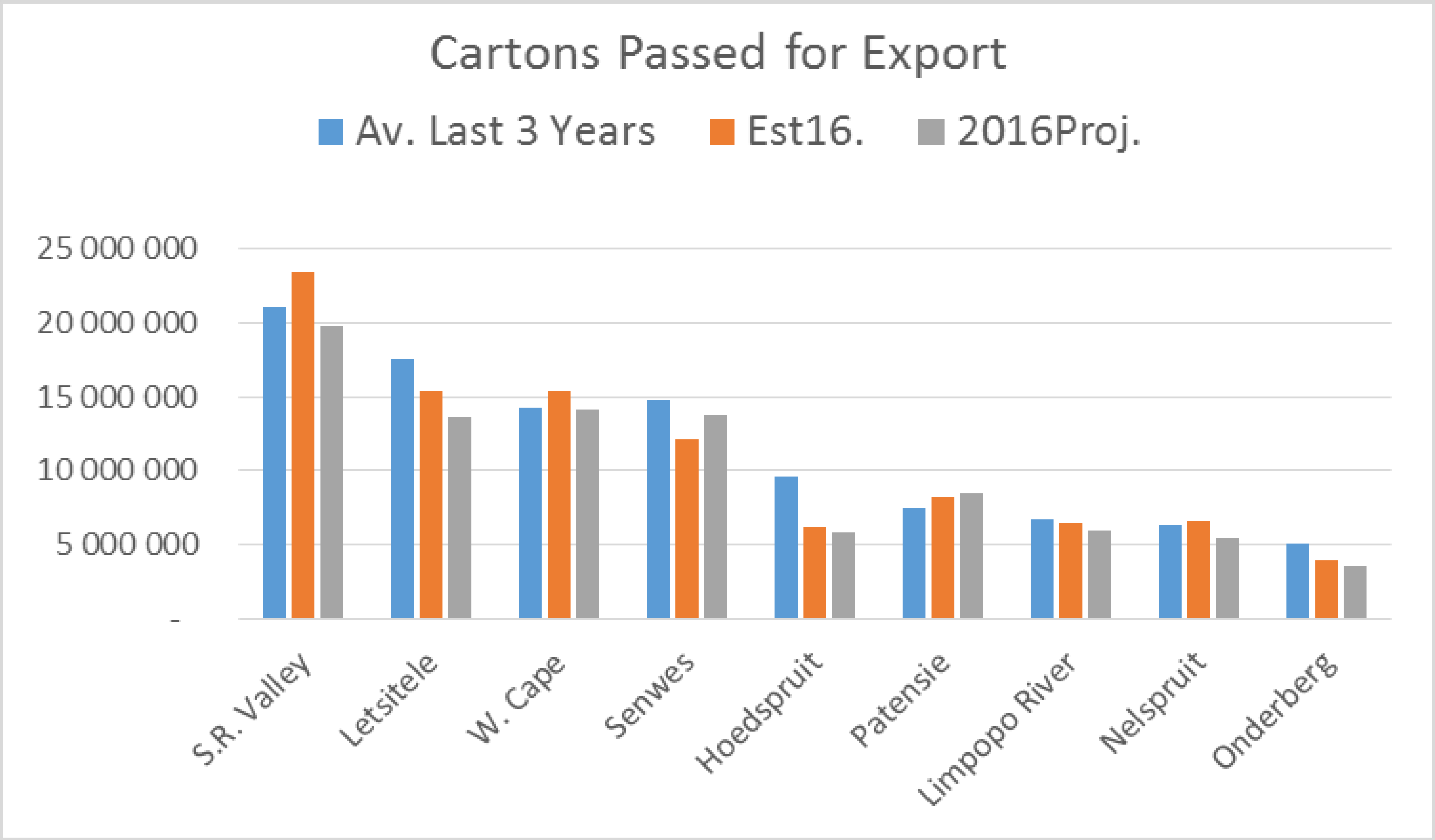
Impact on area planted – focus on food staple crops



- Drop in white and yellow maize area planted of 30% and 23% respectively.
- Under the assumption of normal weather and sufficient access to credit a significant recovery in maize area planted is projected in 2016/17 season.
- Marginal expansion in wheat dryland area planted
- Less irrigation wheat due to quota restrictions

Source: BFAP, 2016

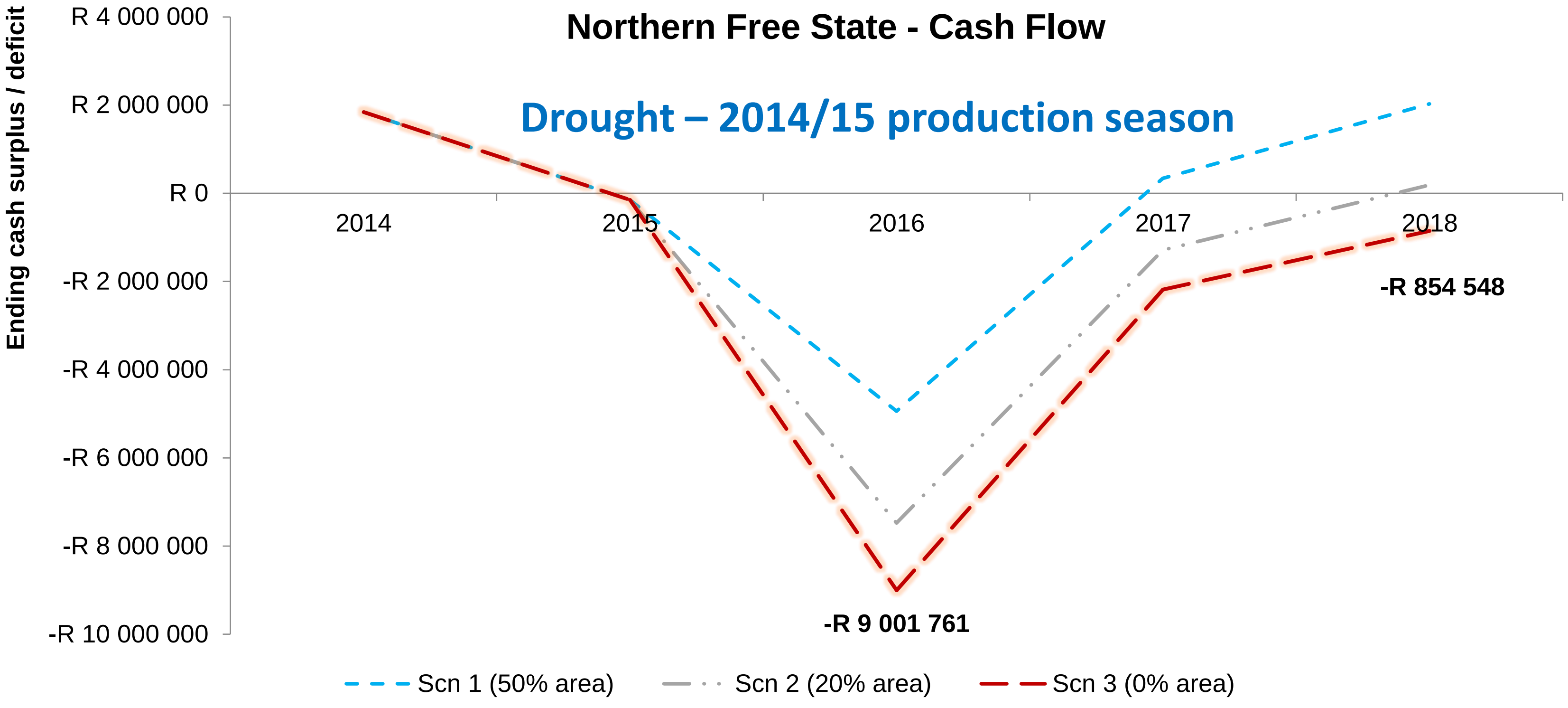
Impact on horticulture – focus on citrus



- Citrus is no 1 agricultural export earner
- 85 000 jobs – largest employer in sector
- Decline in production and export volumes due to extreme drought conditions

Source: Citrus Growers Association 2016

Impact on cash flow in severely affected areas



- Negative cashflow positions can be expected in severely affected areas of the North-West and the Free State until 2018.
- Ensure that these farmers have access to credit is critical to induce the required supply response to drive the maize market back to export parity levels.
- Long-run drought mitigation – crop insurance essential

Source: BFAP, 2016

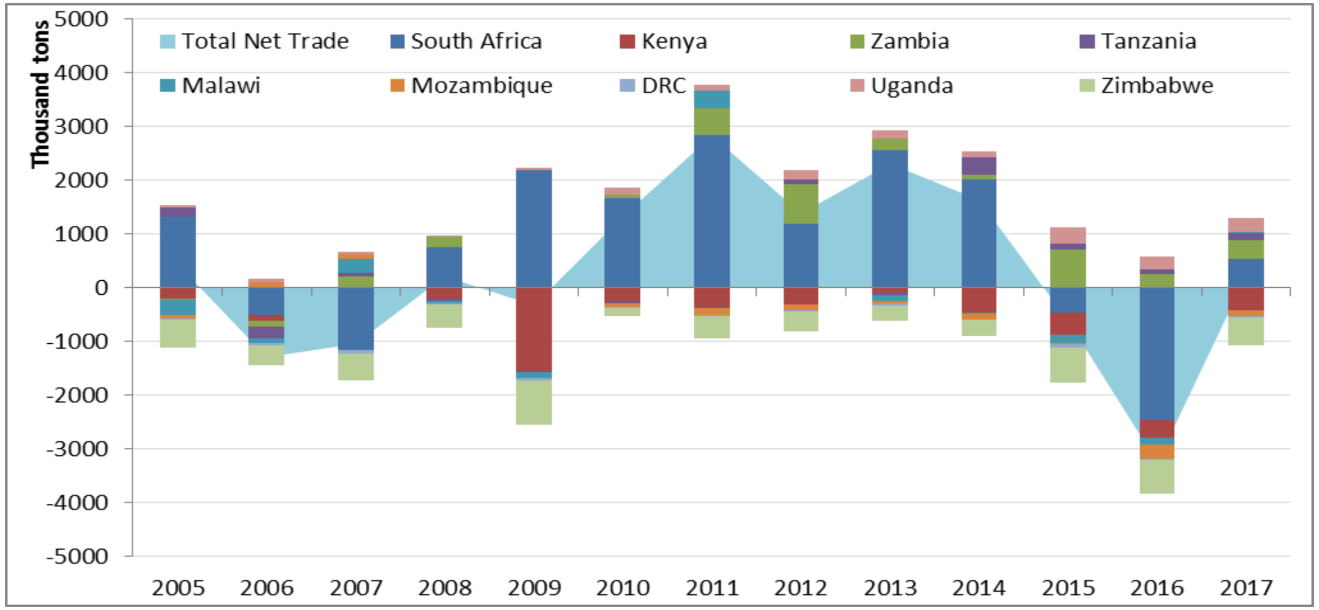
Impact on staple food availability

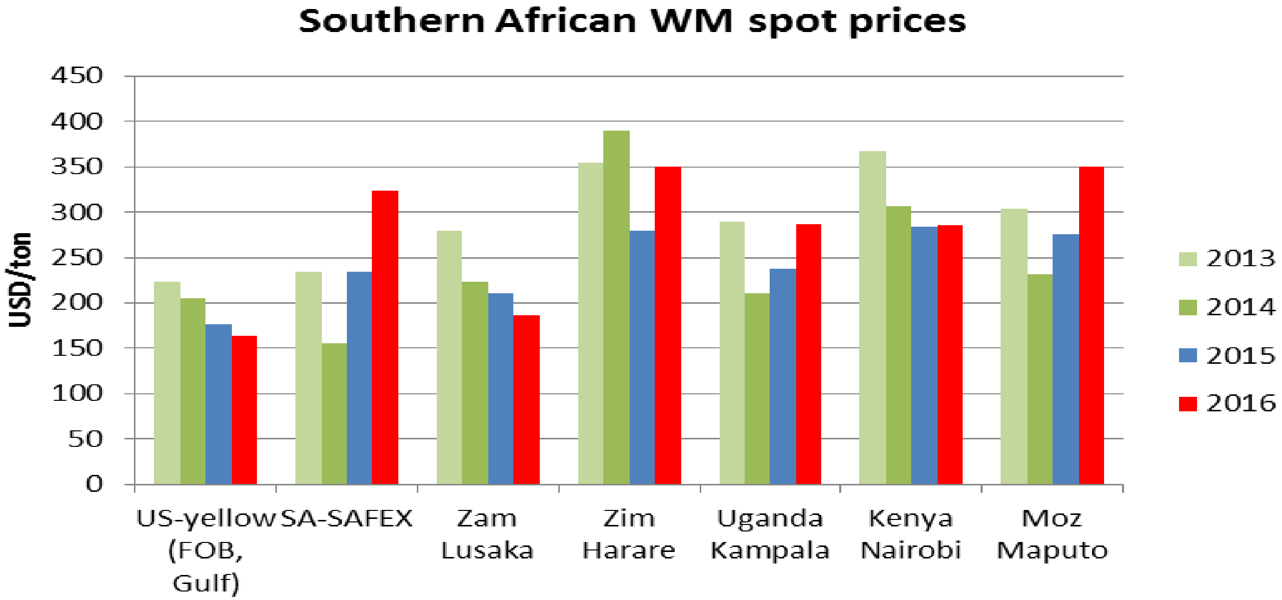
Marketing season	Actual for 2014/15	Actuals for 2015/16	Projection for 2016/17
	tons	tons	tons
Available for the commercial market (CEC ,early deliveries & retentions)	**7 572 753**	**4 735 000**	**3 082 082**
SUPPLY			
Opening stock (1 May)	274 318	1 282 581	1 308 745
Producer deliveries	7 592 893	4 806 215	3 017 225
Imports	0	103 176	1 000 000
Total Supply	**7 876 019**	**6 209 698**	**5 405 827**
DEMAND			
Processed for the local market	**5 862 438**	**4 315 487**	**4 265 000**
- human	4 361 295	4 180 389	4 150 000
- animal and industrial	1 469 002	117 084	100 000
Local demand	**5 952 631**	**4 347 396**	**4 302 000**
Exports	**640 807**	**553 557**	**480 000**
Total Demand	**6 593 438**	**4 900 953**	**4 782 000**
Closing Stock (30 Apr)	**1 282 581**	**1 308 745**	**623 827**

Source: NAMC SASDE, 2016

- White maize balance severely under stress.
- White maize production estimated to decline by 35% from 2015 levels and 50% from the 5-year average.
- White maize imports of 1 million tons required
- Exports to neighbouring countries of 480 000tons
- Projected endings stocks of 545 000 tons (only 43% of last year’s carry out stocks)
- Wheat balance sheet not stressed with constant imports supplementing local shortfall

Impact on region

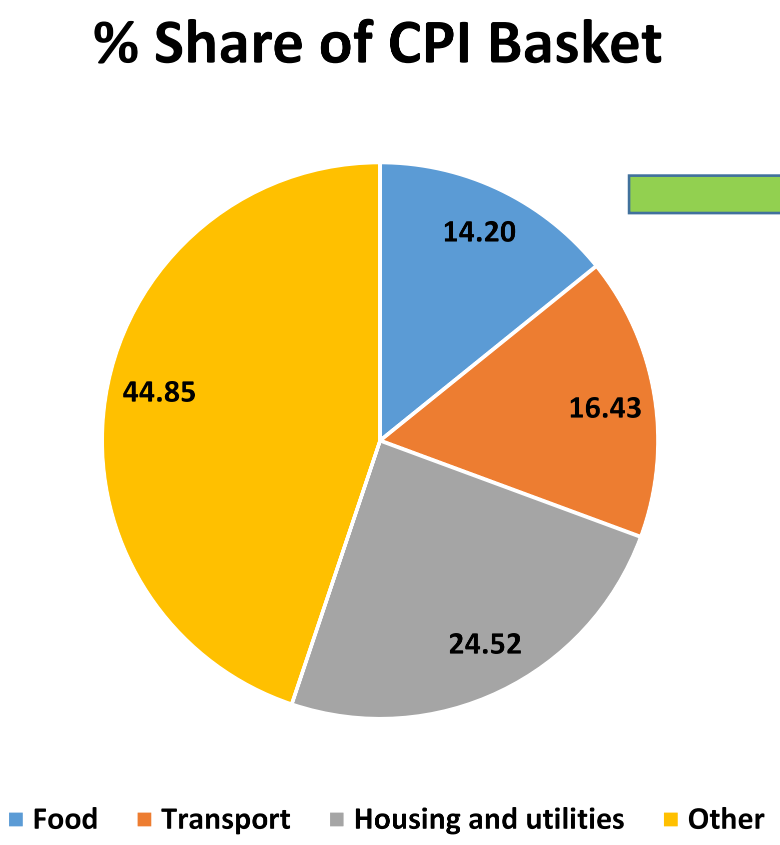


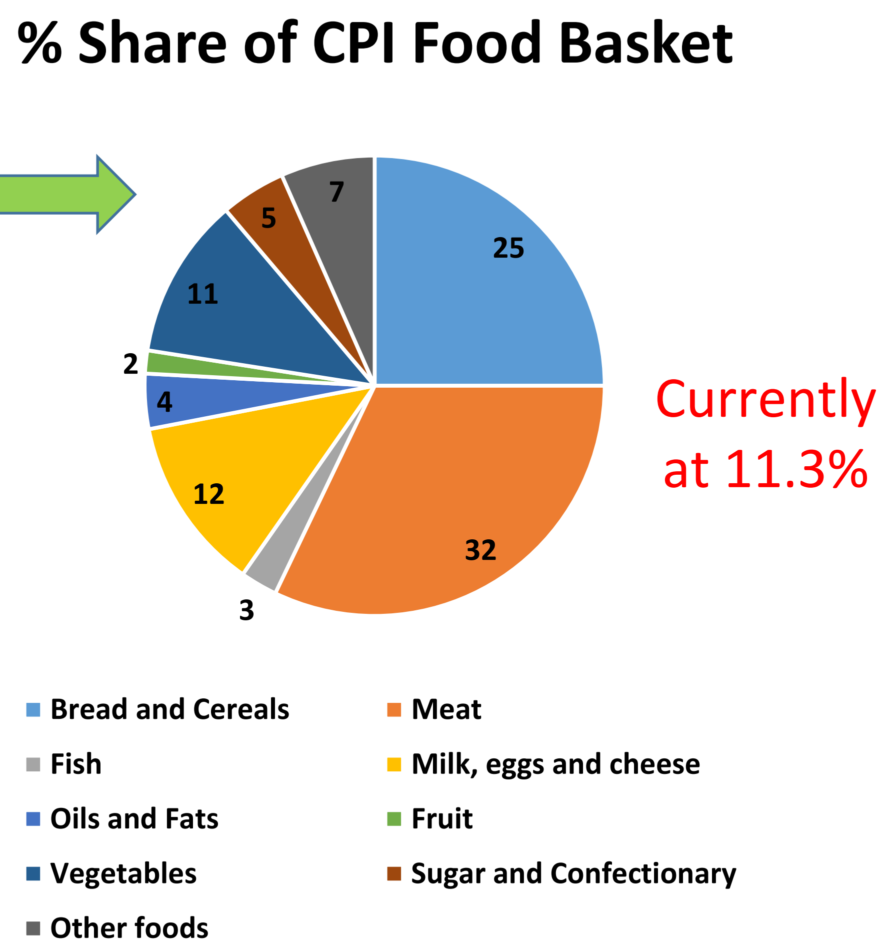


- Southern African maize crop mostly affected
- Major improvement of crop estimate in Zambia in the Northern Regions. Exportable surpluses around 800 000tons.
- However, the shortfall in neighbouring markets (Zimbabwe, DRC, Mozambique) will exceed the exportable surplus in Zambia and Zambian government is carefully monitoring the flow of exports.

Source: BFAP, 2016

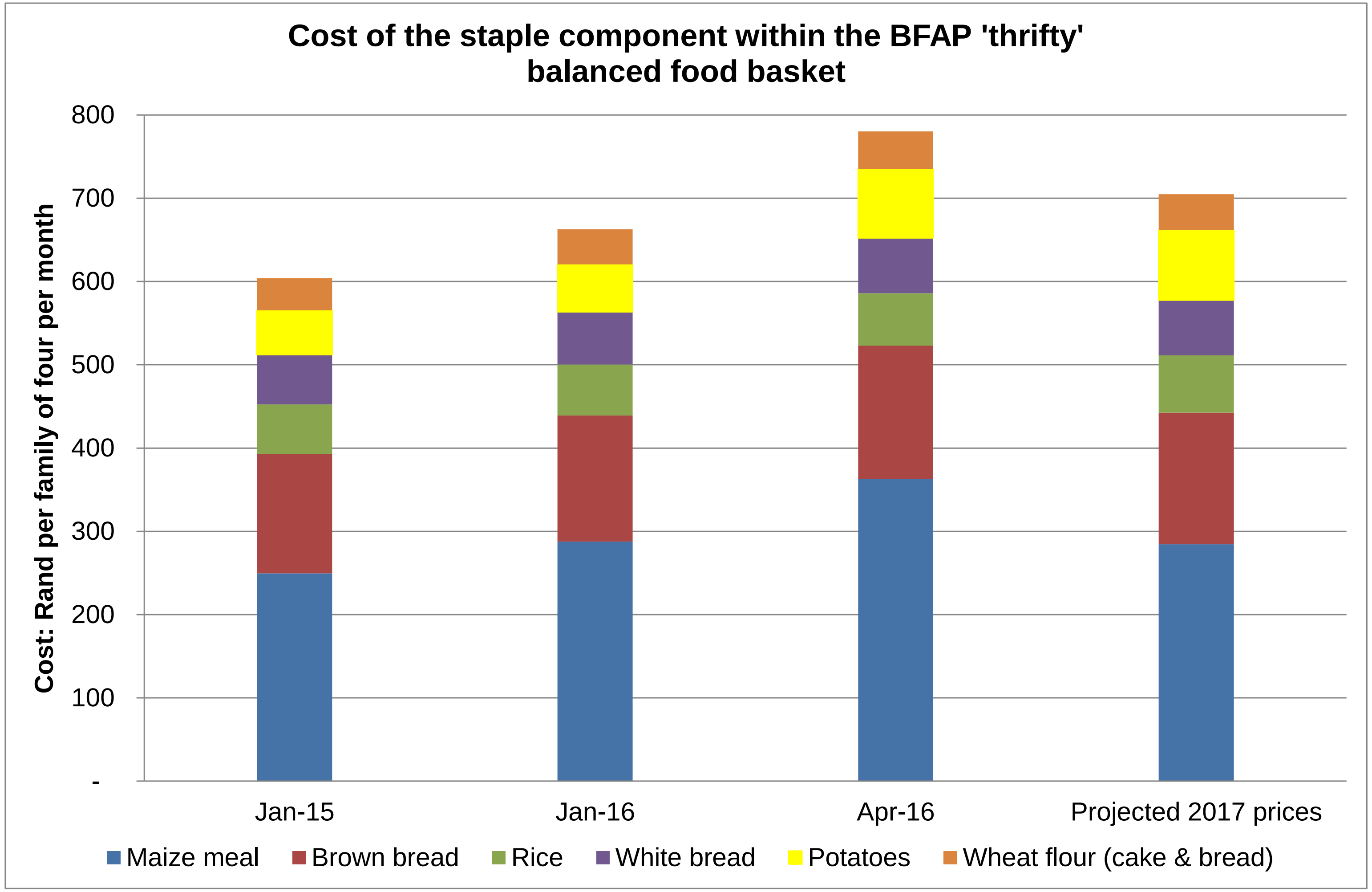
Food Inflation in the context of Total Inflation





Source: StatsSA, CPI Brief (2015)

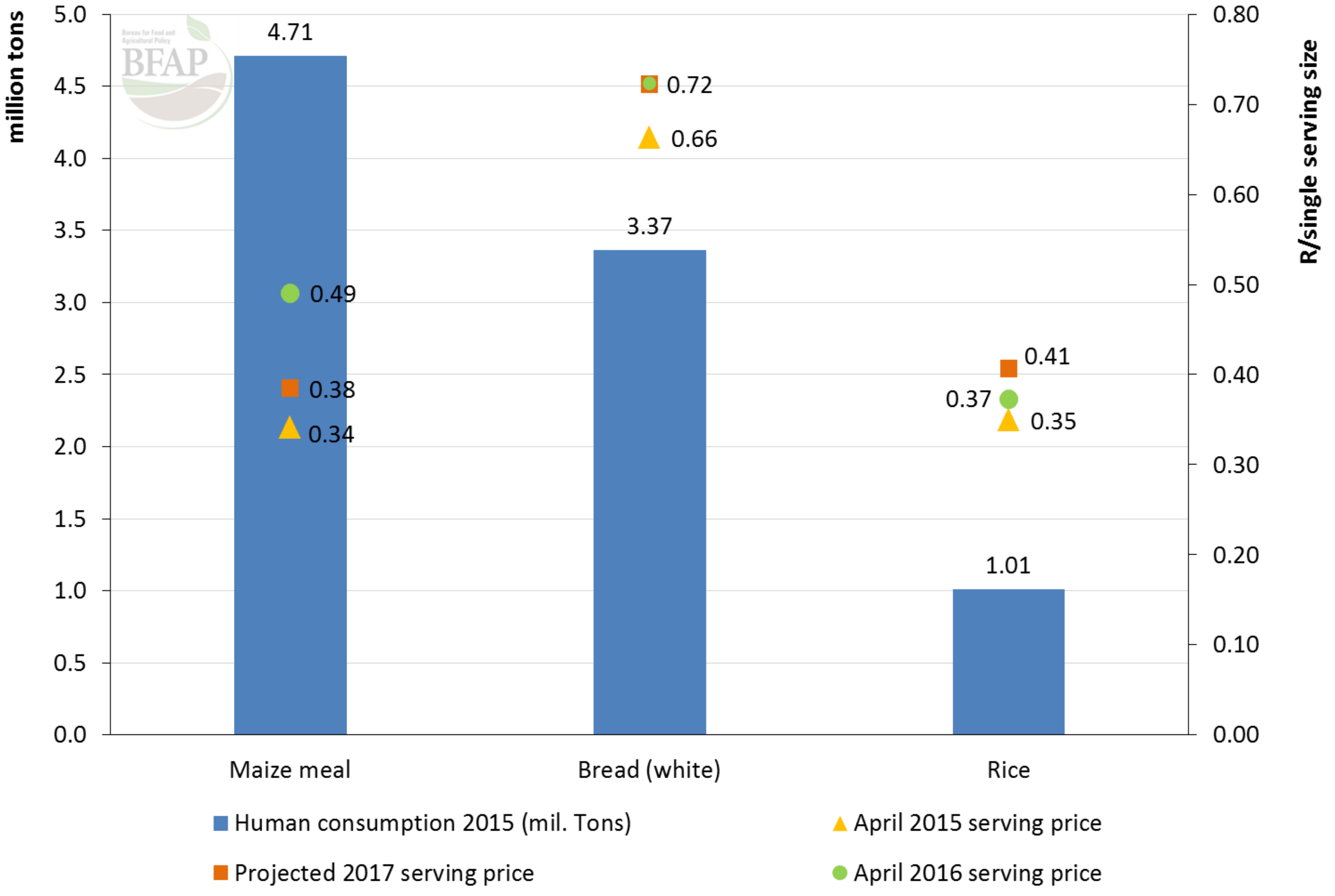
Impact on staple food price inflation



- From January 2015 to January 2016 the staple food component within the BFAP healthy baskets increased by R58.
- From January 2016 up to April 2016 revealed significant further increases in the cost of the staple food component increasing by a further R118 (to R780)
- Overall inflation on staple foods for low income households amounts to 29%

Source: BFAP, 2016

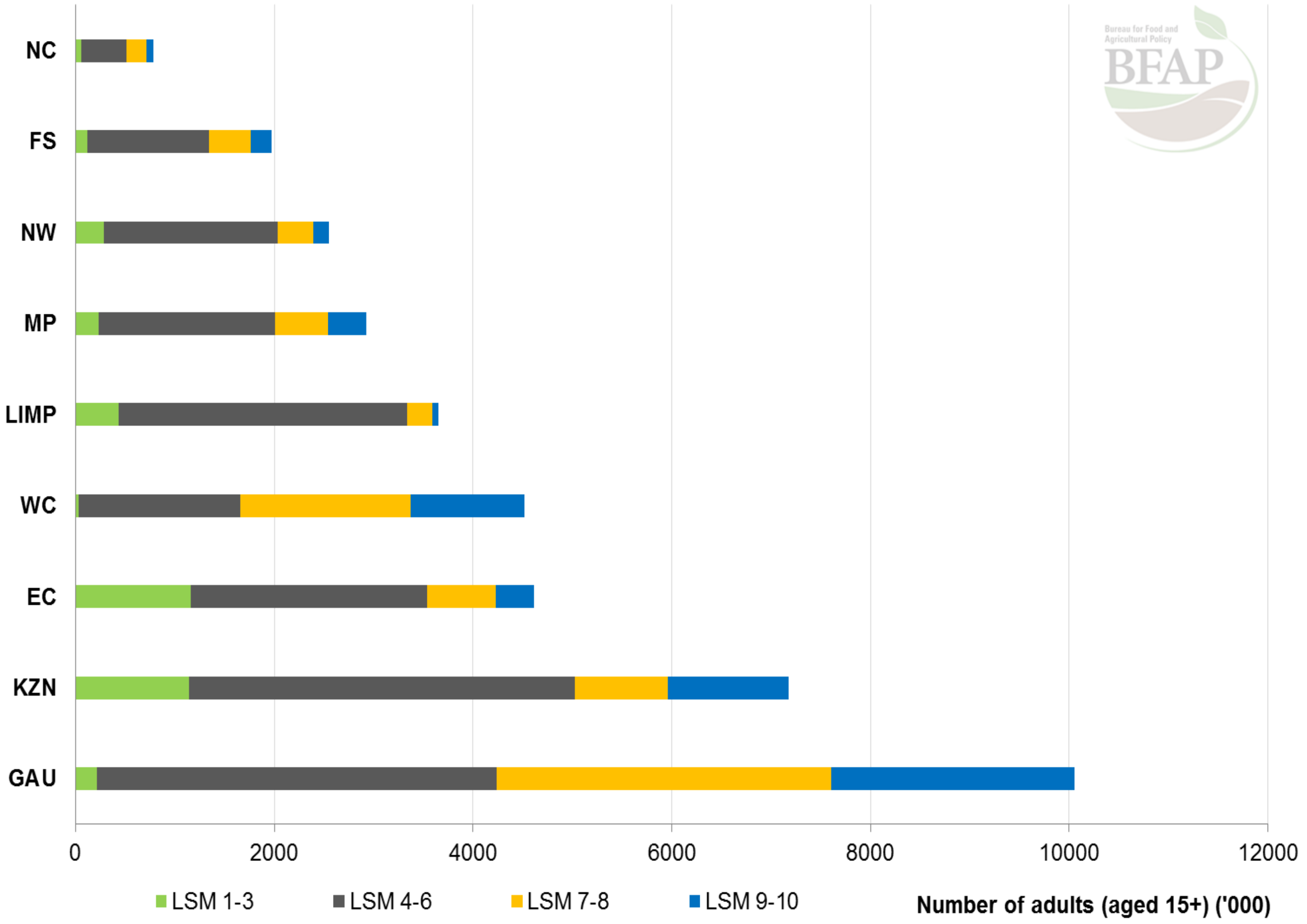
Impact of drought on staple servings



Source: BFAP, 2016

- Based on April 2016 retail prices, a serving of rice is the cheapest at 37c per serving, followed by maize meal (49c) and then bread (72c).
- Y-O-Y maize meal inflation the highest (44%) followed by bread (9%) and rice (6%).
- Hence, despite of sharp rise in maize meal prices, still no major shift in staple food consumption patterns expected, which is in line with the BFAP drought report projections in February 2016.

LSM spatial distribution

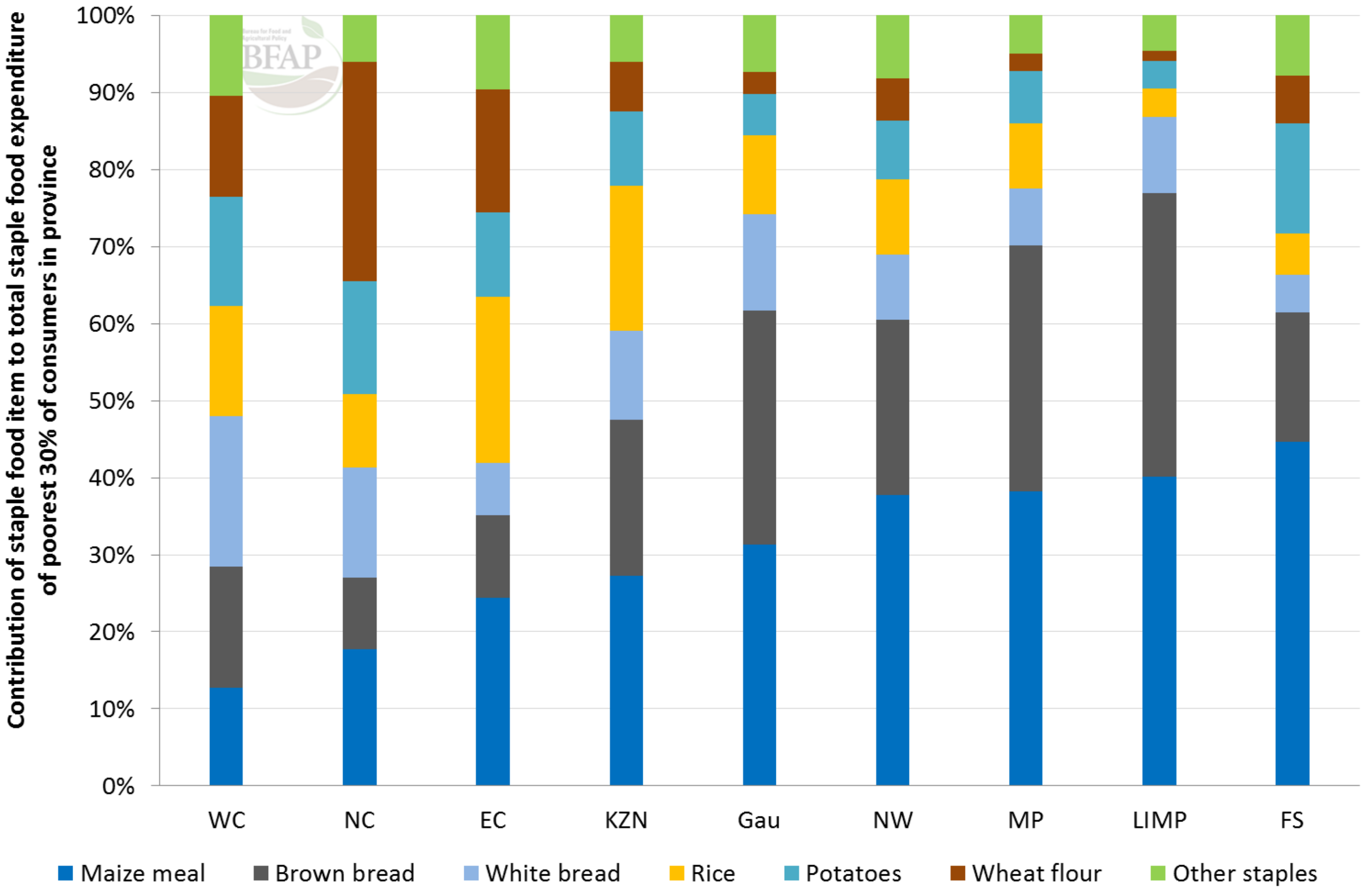


- The concentration of low income households is in KZN and the Eastern Cape

Source: BFAP, 2016

Acknowledgement: Research funded by Maize Trust

LSM spatial distribution

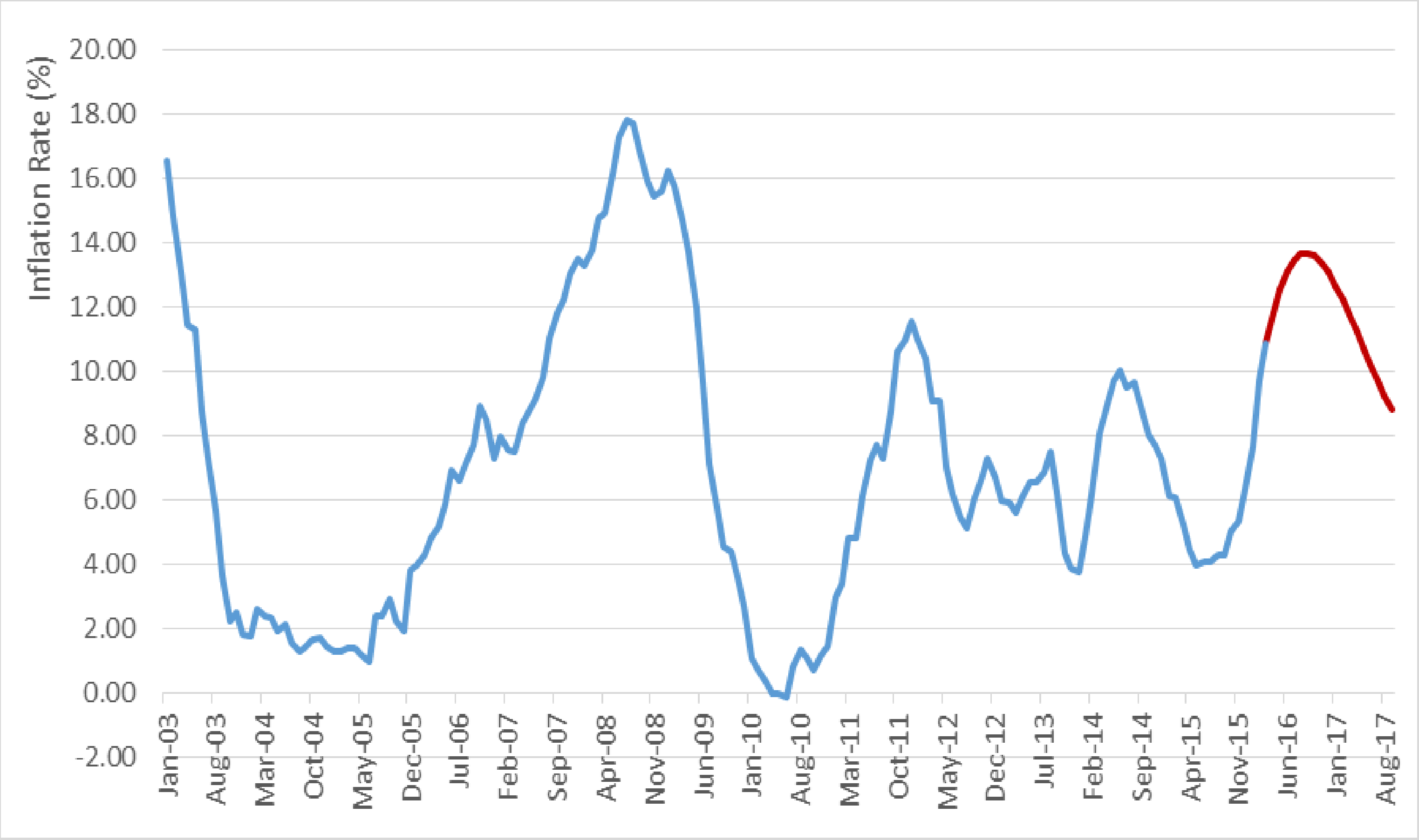


- Staple food basket composition suggests that the dependence on maize meal s staple food is the highest in the Free State, followed by Limpopo, Mpumalanga and the North-West

Source: BFAP, 2016

Acknowledgement: Research funded by Maize Trust

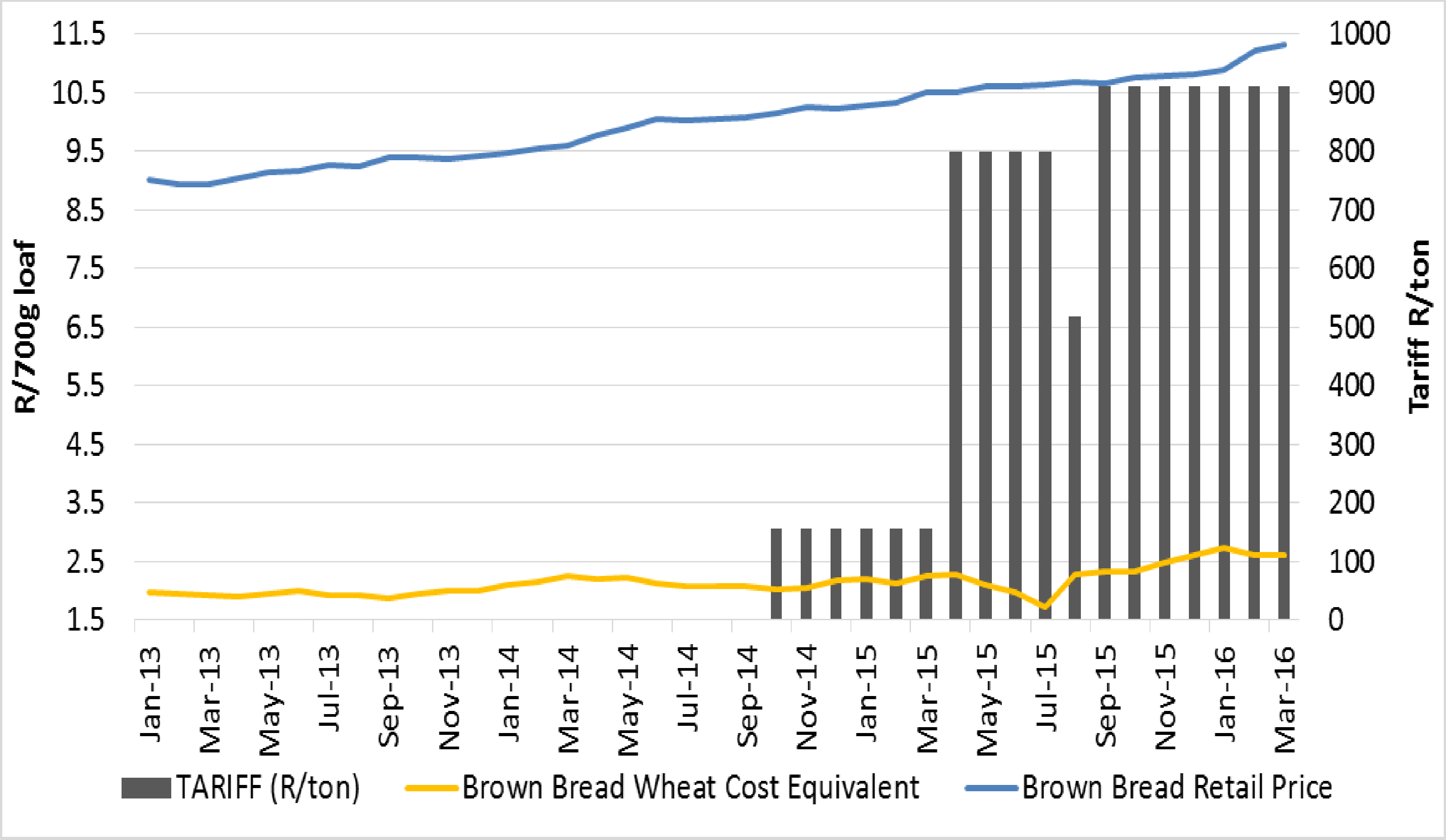
Outlook on CPI food price inflation



Source: BFAP, 2016

- Food price inflation projected to peak at 13.7% in October 2016
- By September 2017 food price inflation is projected to have declined by to around 9%. The reason why it is still expected to remain relatively high is the lagged effect on meat prices.
- The exchange rate movements poses the greatest threat to overall food price inflation. BFAP baseline simulated at projected exchange rate of R16/USD in 2017. Recent appreciation could have positive effect. Yet, the credit rating at the end of the year will have a significant impact.

Food inflation affected by a range of factors



- Cost share of wheat in the final retail price of bread approximately 20%
- On a brown bread price of R11.33 per loaf, the wheat cost share is R2.59
- Empirical evidence suggests a weak relationship between wheat and bread prices
- Major cost drivers in the chain are energy prices, marketing & distribution, administered prices

Source: BFAP, 2016

Acknowledgement: Research funded by Centre of Excellent

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