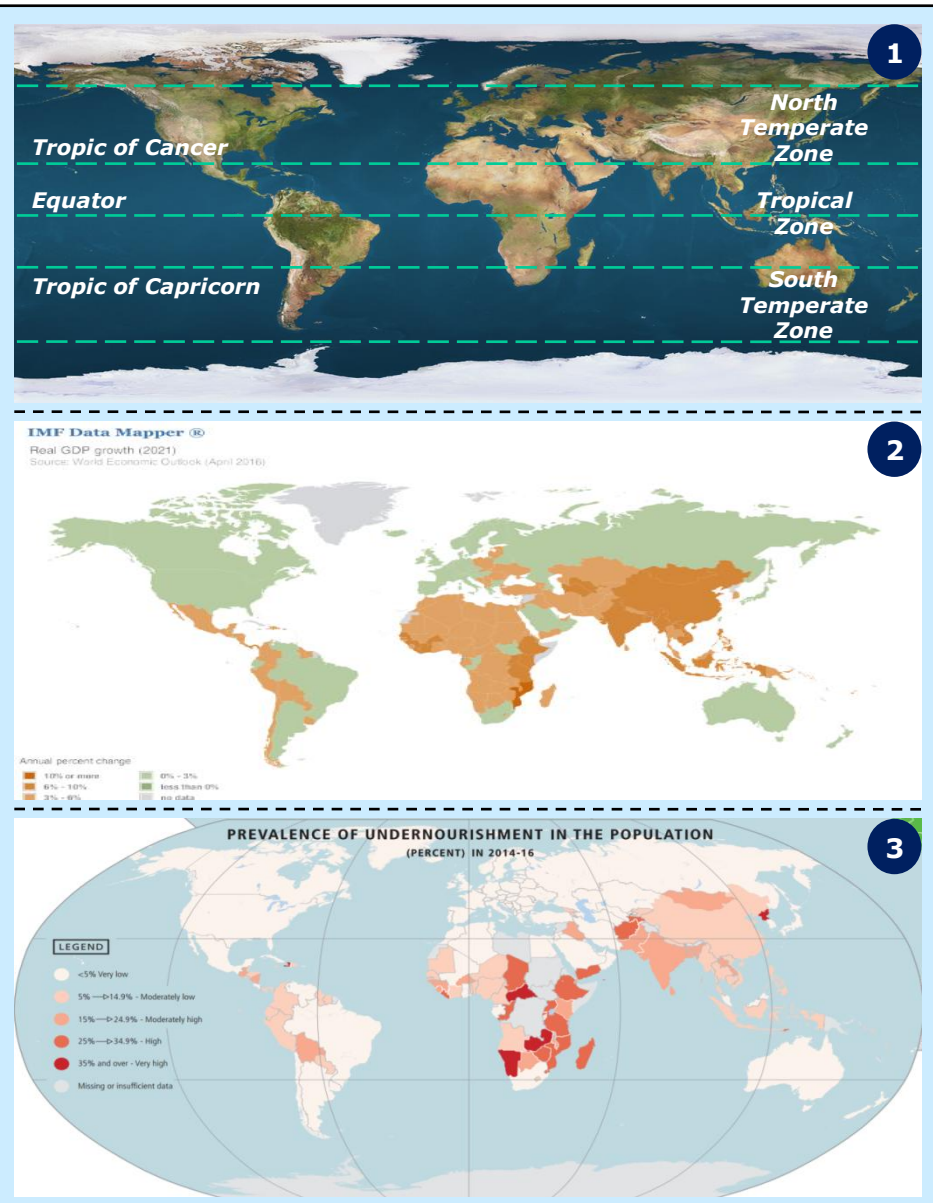


CAMPO's Agro Integrated Production Projects in Africa



XXI Japan-Brazil Business Council | Tokyo, July 23rd, 2018

Potential for food production and consumption expansion in the coming years is concentrated in the African Continent



Opportunities and Challenges

- 1** The great potential for expanding food production worldwide is in the Tropics, with Africa 400 million hectares available to agriculture
- 1** Brazil is, by far, the global reference in large scale and sustainable food production in the Tropics
- 2** IMF projections up to 2021 indicate that the vast majority of countries with expectations of real per capita GDP growth and purchasing power are in Africa and Asia
- 3** Much of the African continent remains the focus of malnutrition problems in the world
- 3** About 793 million people around the world still do not have enough access to the food they need for an active and healthy life
- 3** The year 2015 marks the end of the Millennium Goals. 73 out of 129 developing countries have achieved the goal of reducing their chronic undernourishment by 50%, which means ~ 218 million fewer people suffering from malnutrition than 25 years ago and 169 million fewer than a decade ago

The development of large-scale sustainable agriculture is of vital importance to Sub-Saharan Africa and to the world



28% of the population is malnourished¹



Agricultural productivity 63% below the world average²



69% of the population lives with less than USD 2.0 / day³



70% of the Population directly linked to Agriculture⁴



Agriculture accounts for 11% of GDP⁵



60% of the land suitable for the expansion of crops in the world⁶

¹ FAO; 2005-07

² 2010 Cereal Productivity Reference provided by the World Bank

³ World Bank; 2008

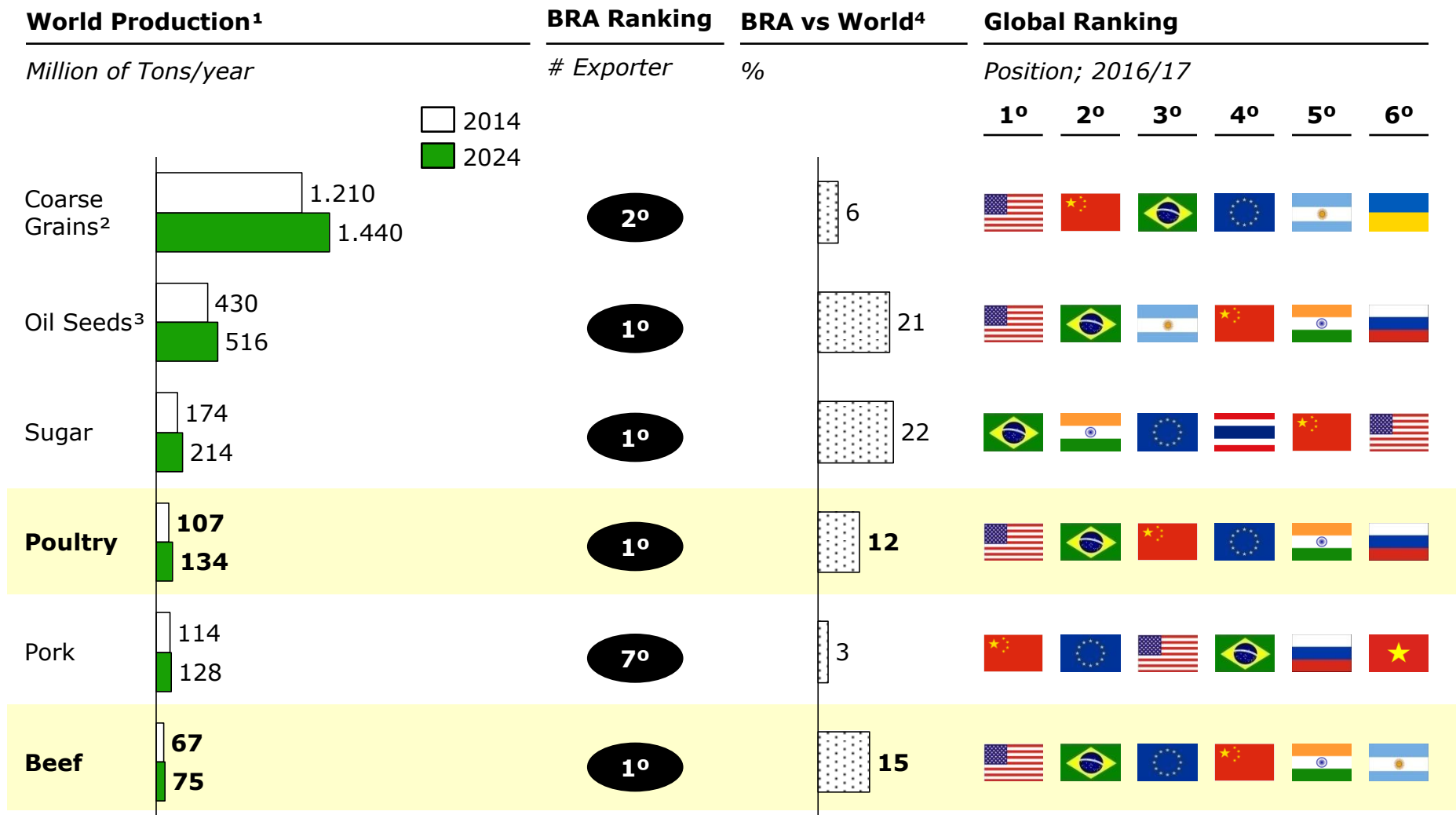
⁴ "Grow Africa - G8 Overview"

⁵ World Bank; 2010

⁶ World Bank / FAO; "Awakening Africa's Sleeping Giant"; McKinsey Global Institute

Sources: World Bank; FAO; CAMPO; McKinsey

Projections for 2024 indicate that Brazil will remain as the only major global food producer with expertise in Tropical Sustainable Production, co-leading with the USA, Poultry and Beef Value Chains



¹ McKinsey only considered 2012-14 production average for its forecasts; need to be revised by CAMPO

² Include maize, wheat, barley, triticale, oats, rye, etc

³ Include soybean oil, sunflower oil, peanut oil, cottonseed, and canola oil

⁴ Shares of Brazil's forecasted production versus total global consumption forecasts in 2024

CAMPO offers state of the art services on agro industrial sustainable production in tropical environments, being its trajectory directly linked to the development of the Brazilian Savannah as a global producer, despite its tropical conditions

CAMPO – History and Milestones

- **CAMPO (Agricultural Promotion Company) was founded in 1978 as a joint venture to coordinate the implementation of the Japanese-Brazilian Cooperation Program for the Development of Cerrados - PRODECER**
- Brazilian Cerrado, also known as the **Brazilian Savannah, was previously considered as having no agricultural value**, since its soil presented a very low natural fertility as well as high levels of toxic aluminum, among other unfavorable natural factors
- **PRODECER** allowed the settlement of small and medium-sized rural producers, which **were organized in cooperatives supported by technologies developed in partnership with EMBRAPA and other partners**. This Programme made the Cerrado Region a global producer of soybean and maize
- With the acquired experience, **CAMPO has expanded its geographical area of activity as well as diversified its services**. Nowadays, CAMPO develops activities in several areas, such as: i) Biotechnology; ii) Soil Analysis; iii) Plant and Environmental Material; iv) Precision Agriculture; v) Agricultural, Agro-industrial, and Environmental Consulting
- **Since 1996, CAMPO Consulting Business has gone international**, having led important agribusiness projects in numerous countries, such as Ecuador, Venezuela, Guyana, Angola, Mozambique, Equatorial Guinea, Ghana, Uganda, and Indonesia

21 Projects
Developed

USD 570
Million
Invested

650 Kton of
Annual
Production

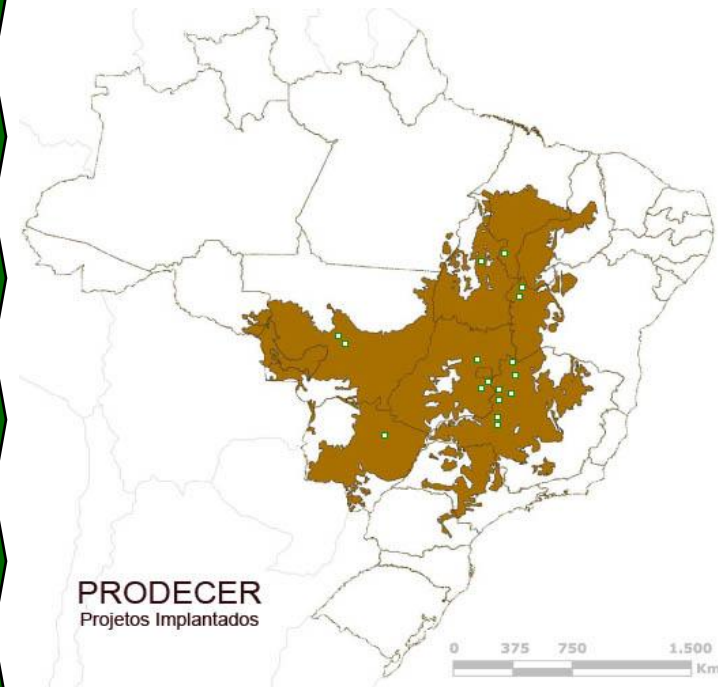
758 Farms
Involved

~19K Jobs
Created

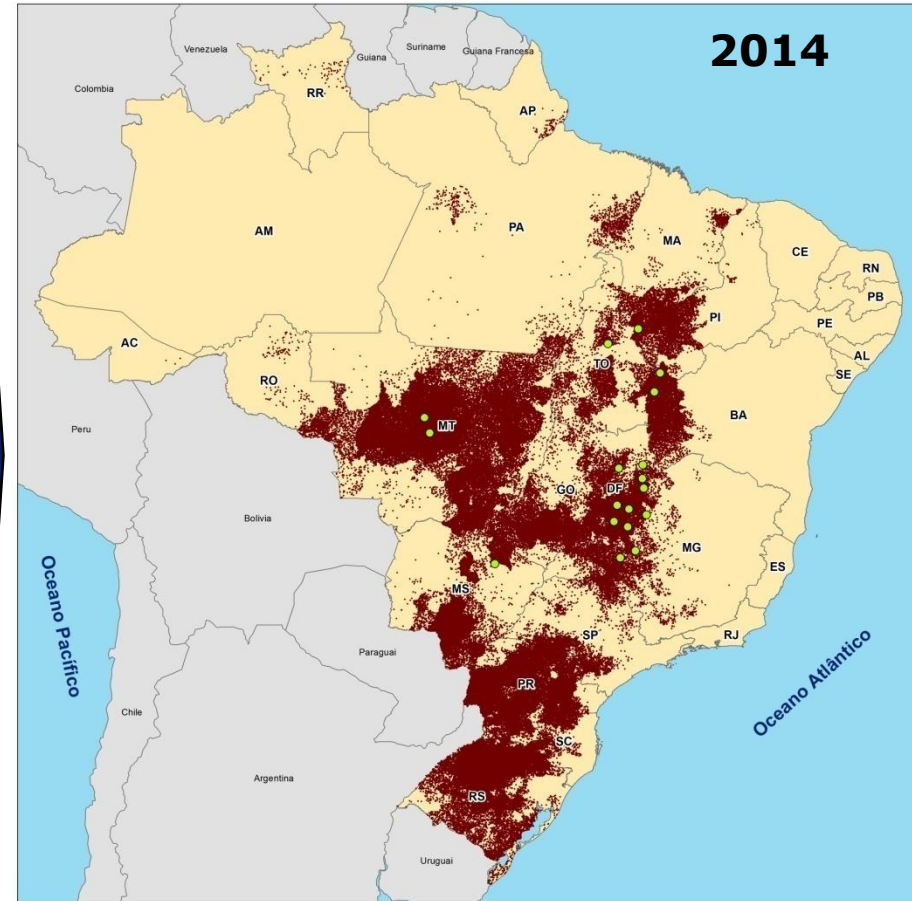
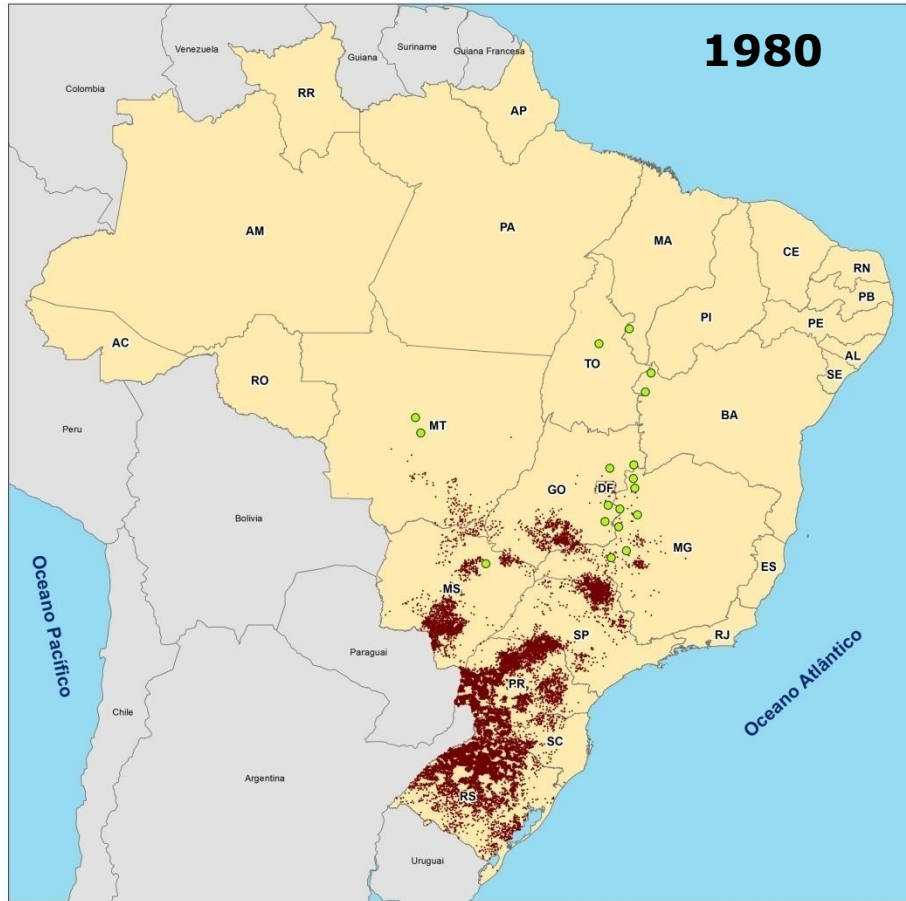
~243K
Hectares
Cultivated

16K Hectares
Irrigated

334K
Hectares
Implanted



Growth of Soybean and Maize Production in Brazil is directly linked with all 21 PRODECER Projects led by CAMPO



 PRODECER Projects

Sources: IBGE; CAMPO

CAMPO's Business Units being leveraged for Africa

Consultancy and EPCM Brasília-DF



Agro Environmental Lab Complex Paracatu-MG



Coromandel Farm Coromandel-MG



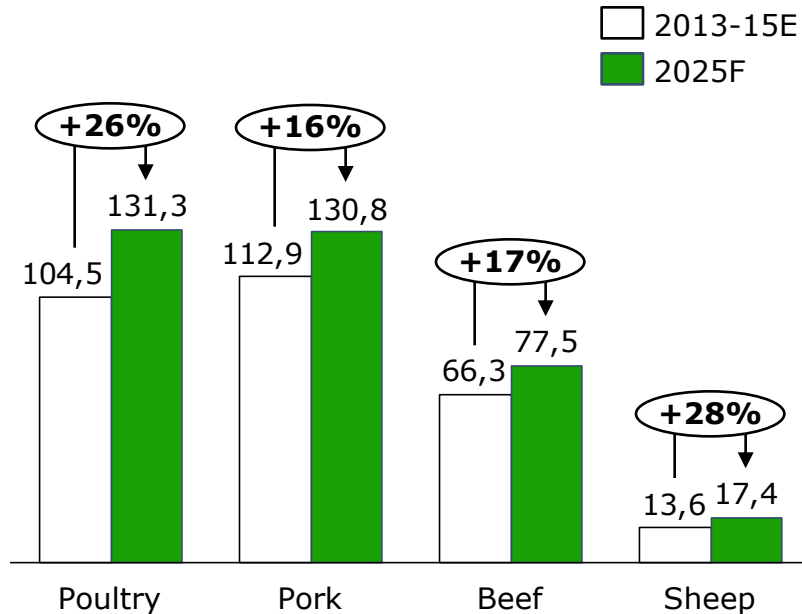
Biotechnology Centre Cruz das Almas-BA



Chicken Meat is the 2nd protein source consumed in the world and should become the 1st in 2025 due to its low production cost as well as being a guarantor of people's life quality

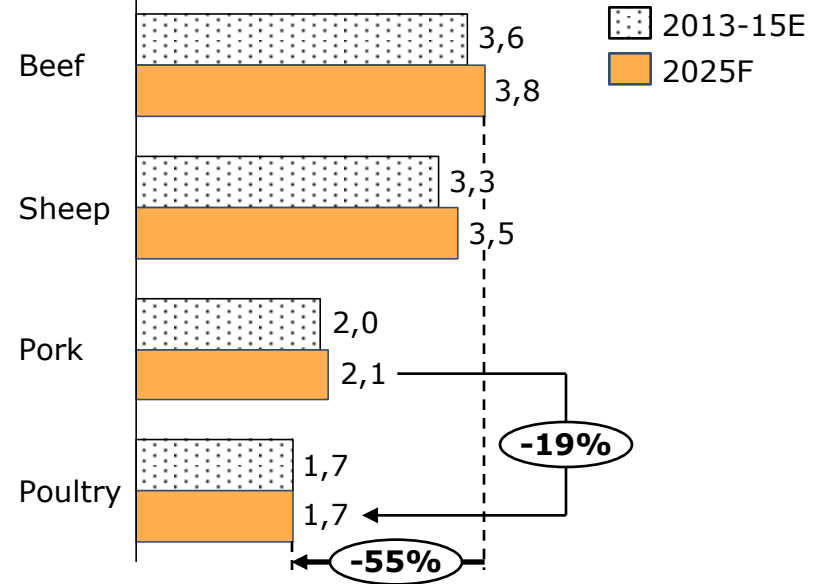
Global Consumption by Type of Animal Protein

Million of Tons



Production Cost by Type of Animal Protein

USD/Kg



- Poultry will sustain its position within the next ten years as the Cost Leader Animal Protein, having production costs 45% inferior to Beef and 19% to Pork, as well as being the only animal protein that will not suffer a production cost increase during the same period**
- That said, Chicken Meat and Eggs are the best source of Animal Protein regarding quality, cost, speed, and ease of implementation, being much needed by the ~800 million undernourished people, living in poverty especially in Sub-Saharan Africa and in South Asia**

Sources: OECD; FAO; USDA; CAMPO

Africa could also capture ~4 MMton/year of poultry exports to “Large Importers” in Africa, the Middle East, and Asia, currently captured by Brazil and USA; a USD 10 Bi/year export opportunity¹

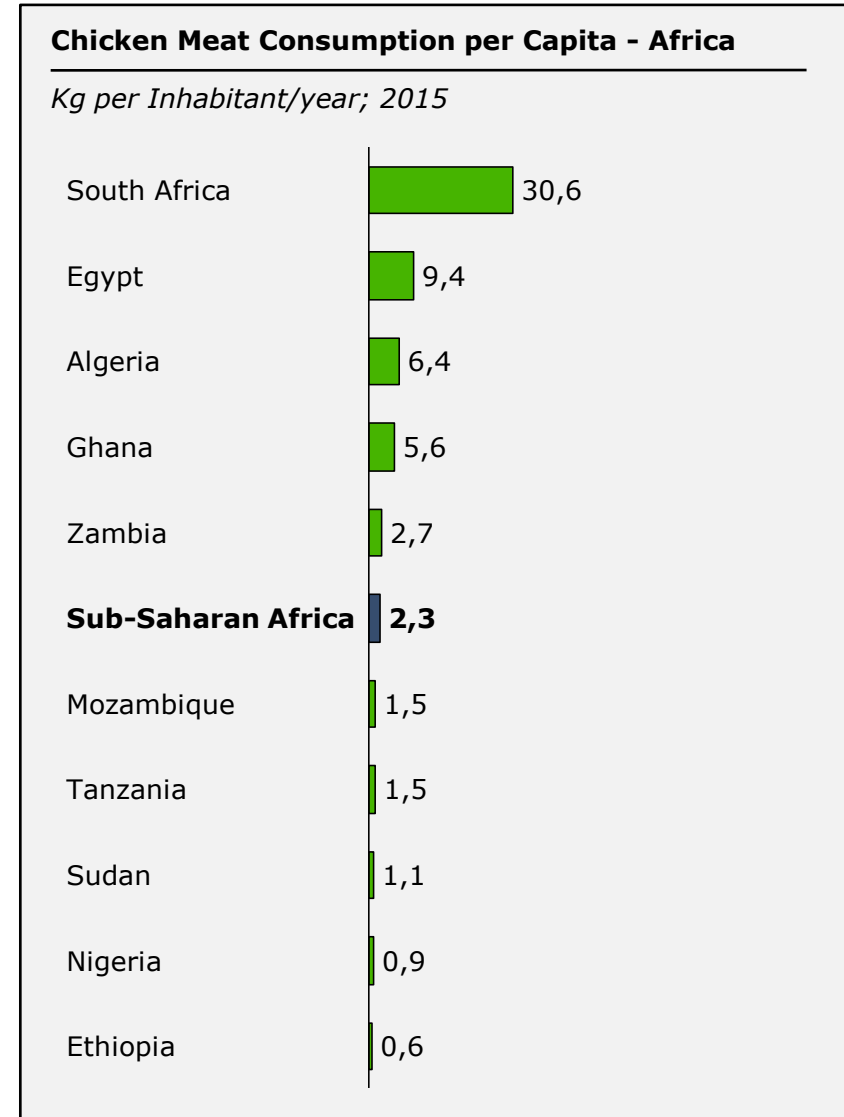
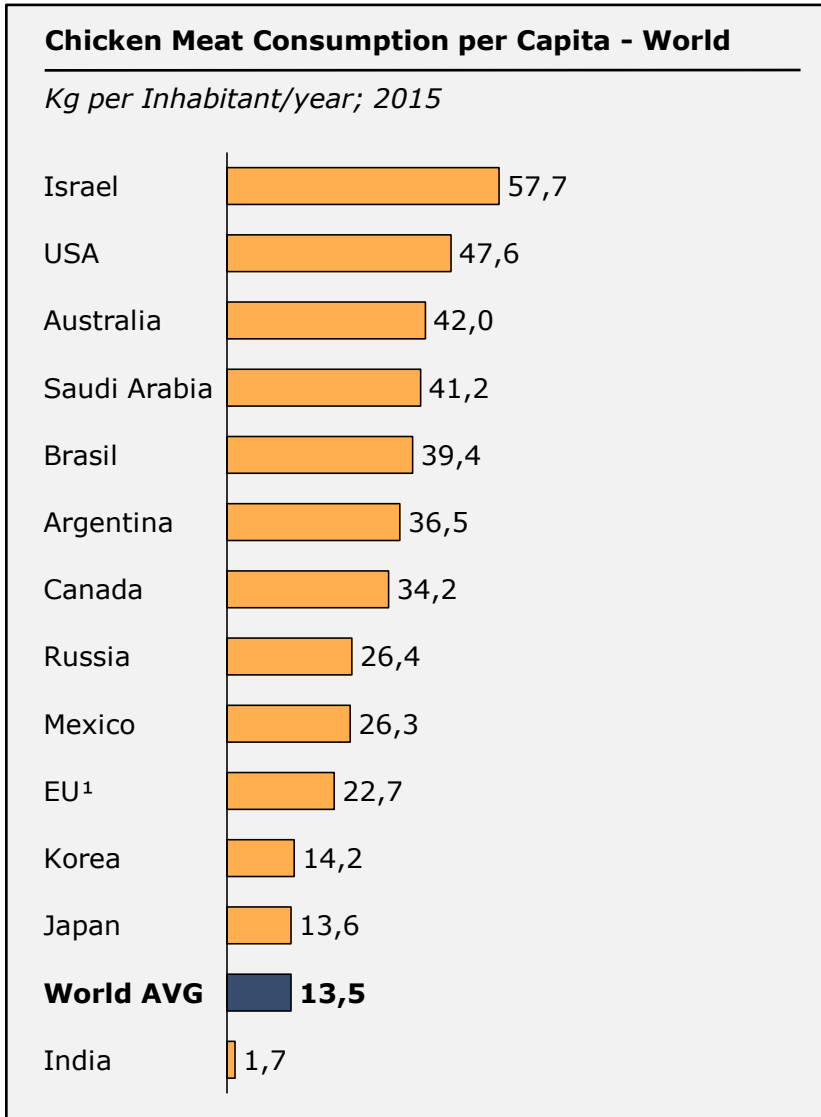
Country	Production Kton; 2016	Consumption Kton; 2016	Exports Kton; 2016	Imports Kton; 2016
USA	18.261	15.331	3.015	60
Brazil	12.910	9.024	3.889	
China	12.300	12.344	386	430
European Union	11.330	10.815	1.276	761
India	4.200	4.196		
Russia	3.720	3.836	104	
Mexico	3.285	4.071		791
Argentina	2.055	1.905	158	
Turkey	1.871		296	
Thailand	1.780		690	
Indonesia	1.640			
Japan		2.394		973
South Africa		1.775		504
Malasia		1.685		
Ukraine			236	
Canada			134	
Belarus			145	
Saudi Arabia				800
Iraq				661
Hong Kong				344
The Philippines				245
UAE				296
Others	15.376	19.532	357	2.993
Total	88.728	86.908	10.686	8.858

Global Clusters

- 1 Major Players:** hold 30-35% of global production as well as consumption, and 65% of world exports: USA and Brazil
- 2 Production and Consumption:** medium to high production and consumption without positive balance of exports and/or importers: China, EU, India, Russia, Mexico, and Argentina
- 3 Exports Oriented:** low to medium domestic consumption and considerable exports: Thailand, Turkey, Ukraine, Belarus, and Canada
- 4 Large Importers:** concentrate ~45% of total global imports: Japan, South Africa, Saudi Arabia, Iraq, Hong Kong, The Philippines, and UAE

¹ AVG price of USD 2.51/kg for broiler/fryer, whole birds, 2-1/2 to 3 pounds, USDA grade "A", ice-packed, Georgia Dock preliminary weighted average

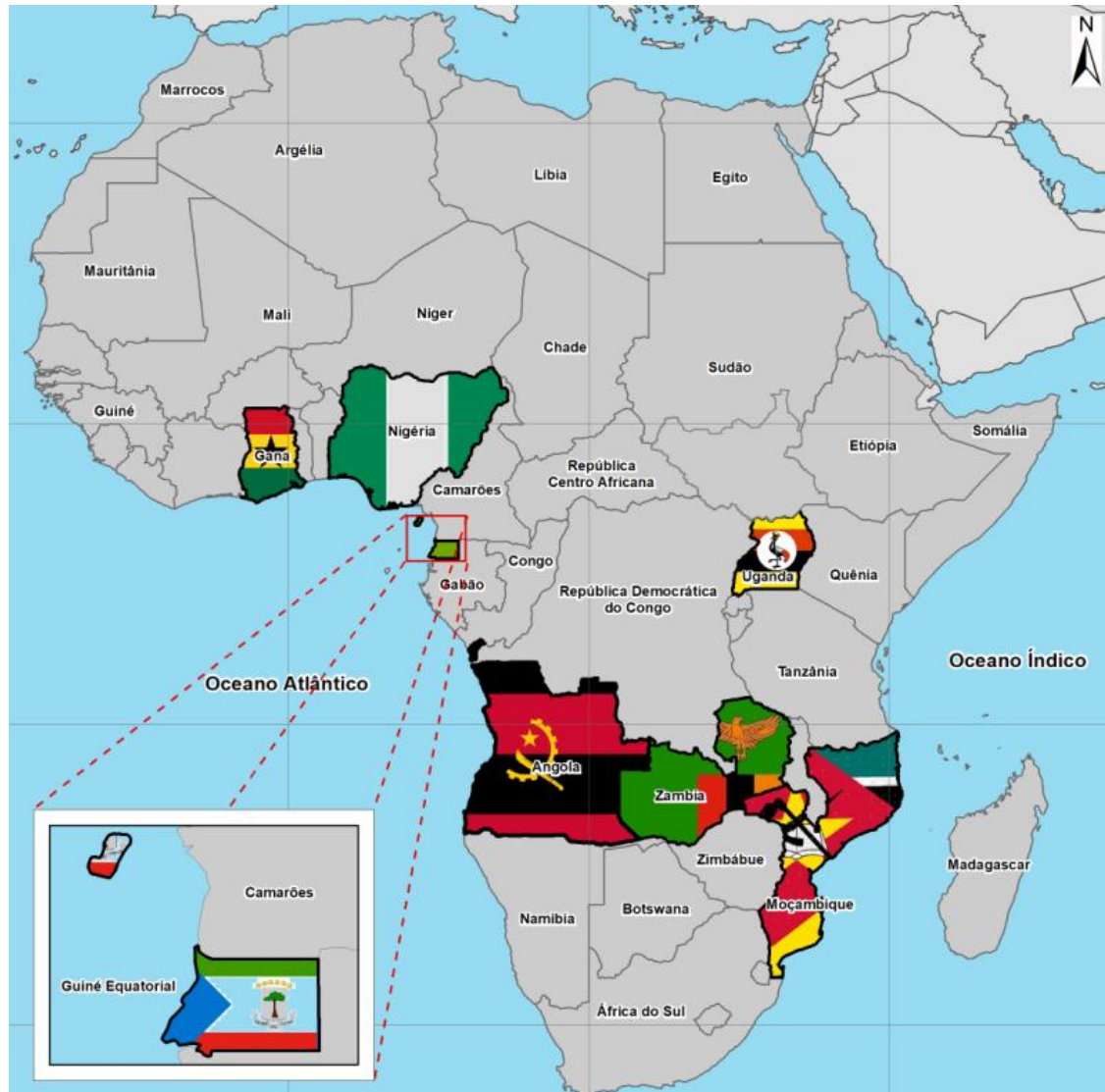
Consumption per capita of Chicken Meat in Africa is dramatic (i.e.; exception made to South Africa), being the Sub-Saharan average of only 2.3 kg/inhabitant/year



¹ European Union is composed by its 28 Member States

Sources: FAO; USDA; CAMPO

Since 1996, CAMPO has been structuring and leading international projects, especially in Latin America¹ and Africa



Main Projects

PAC Master Plan (Angola)

- ~400K hectares of areas for agro production being ~50K hectares irrigated. Value chains organised and led by Anchor Companies

Fruits and Vegetables (Angola)

- Production and *Packing House* of banana, passion fruits, and vegetables (EPCM – project and advisory on production/implementation)

Integrated Poultry Chain (Mozambique)

- 30.000 processed/chicken/day. From agro production to processed frozen/packed chicken)

Grains Production/Processing (Uganda)

- 4.500 ha of production of beans, soybeans, and maize. Processing of maize and beans

AfDB – TASI (8 African Countries)

- *Transformation of the African Savannah Initiative*, inspired by PRODECER. 8 African countries with 100K ha each (Ghana, Zambia, Mozambique, Guinea Conakry, Central African Republic, Congo, Kenya, Uganda)

¹ Other countries include Indonesia, Venezuela, Ecuador, Guyana, etc

Source: CAMPO

CAMPO's Projects in Africa sum up 210K hectares with USD 2.1 Billion Investments in Crop and Agroindustry



Project Size

'000 Hectares

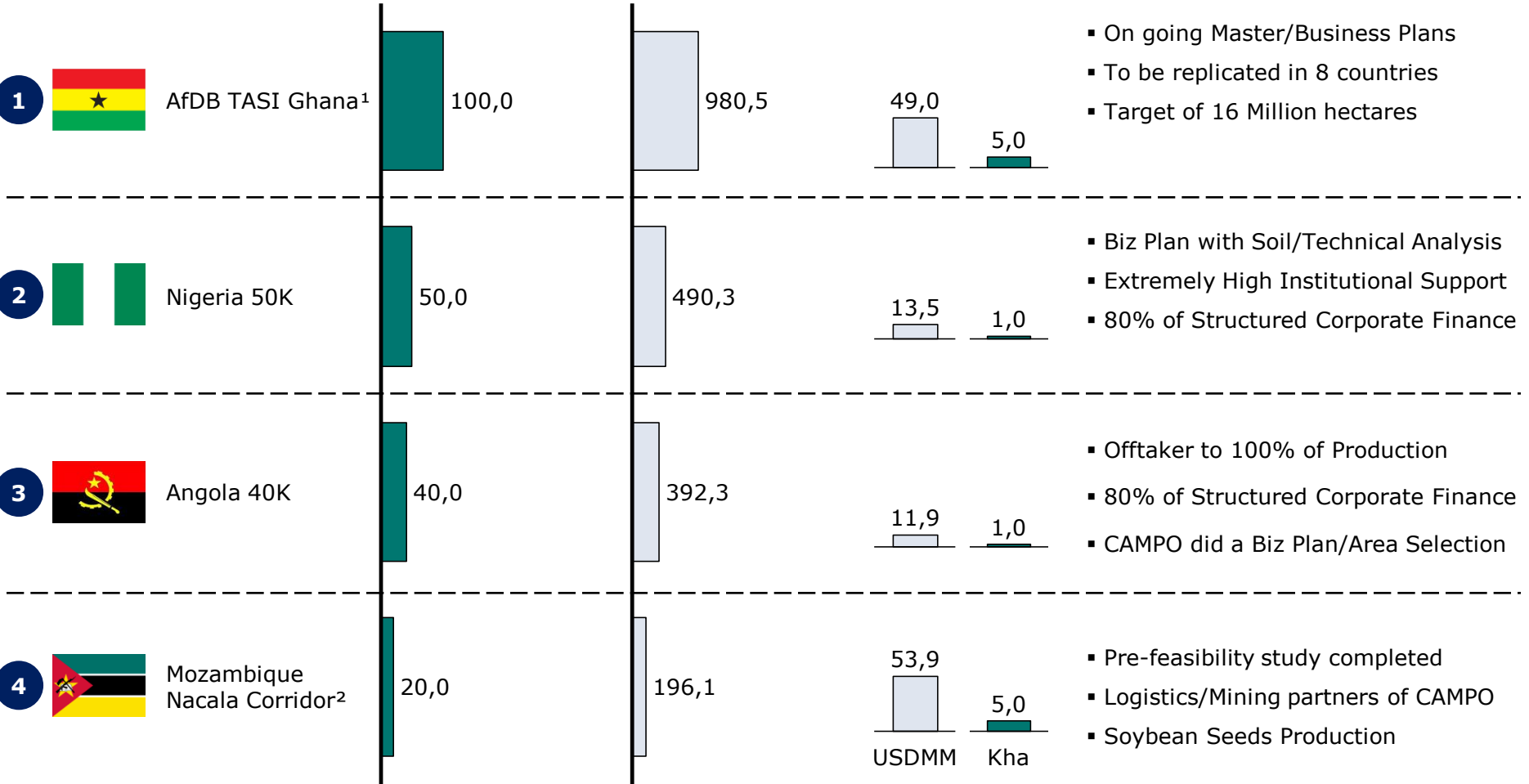
Investments³

USD Million

Pilot Phase

USD Million

Project Highlights



¹ Divided into four hubs of 25K hectares each; 1K hectare lot within each of the four hubs

² One 10K hectares Pilot an Nacala Province and another 10K hectares Pilot at Niassa Province

³ Preliminary figures will be validated by the Pilots

Sources: Wicklow Group; AfDB; CAMPO

Thank You!!!!

Emiliano Botelho

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