

# Bucking the trend of Africa's Food Trade Deficit

John Purchase

IFAMA 2017

20 June 2017



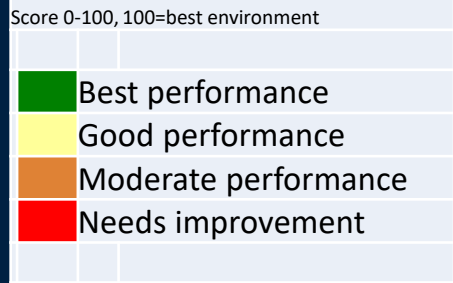
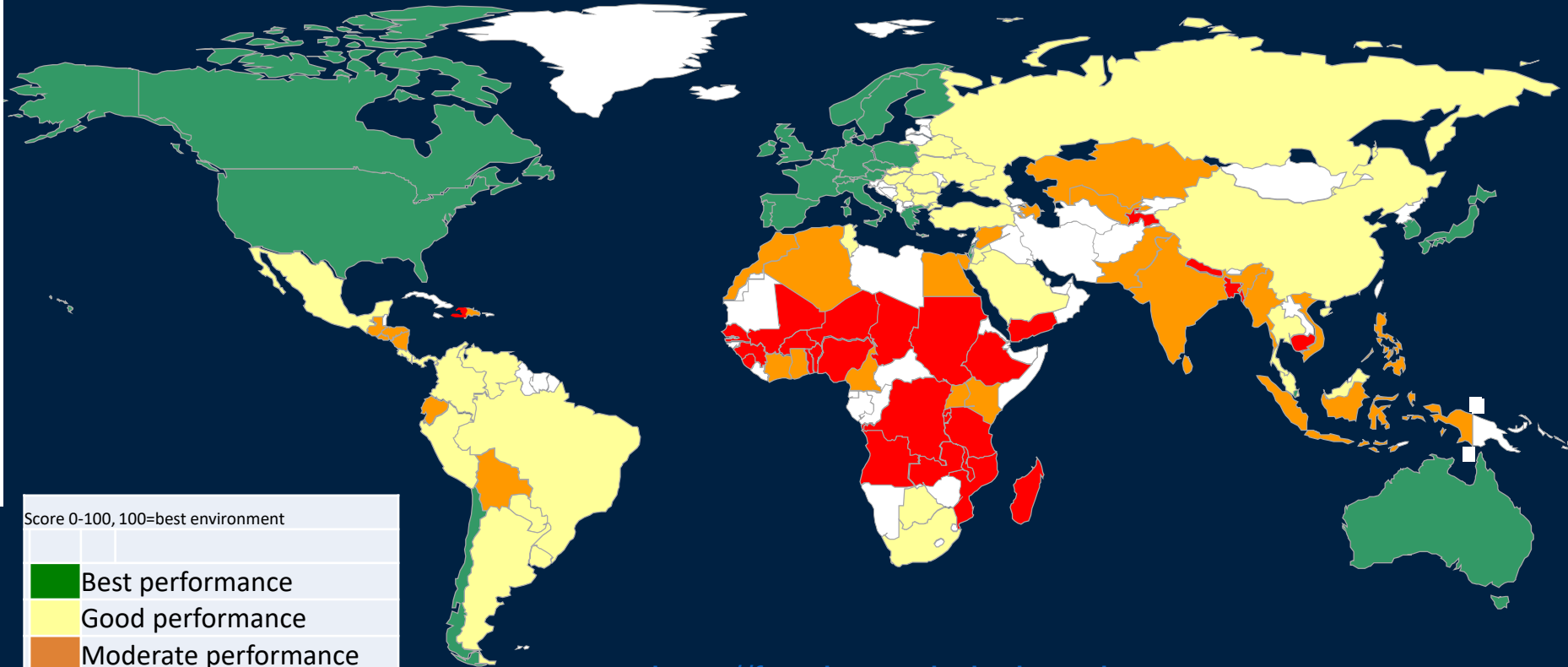
# Global Food Security Index

**Overall food security rankings in Sub-Saharan Africa**  
Weighted total of all category scores (0-100 where 100=most favourable)

Rank	Country	Score /100
1	South Africa	62.9
2	Botswana	57.8
3	Ghana	47.8
4	Uganda	44.2
5	Kenya	42.7
6	Cote d'Ivoire	42.3
7	Cameroon	41.6
8	Senegal	41.0
9	Rwanda	40.7
10	Benin	40.2
11	Nigeria	39.4
12	Mali	39.3
13	Togo	37.9
14	Tanzania	36.9
15	Guinea	35.0
=16	Ethiopia	34.7
=16	Sudan	34.7
18	Angola	33.7
19	Zambia	33.3
20	Madagascar	31.6
21	Malawi	31.4
22	Burkina Faso	31.0
23	Congo (Dem. Rep.)	30.5
24	Mozambique	29.4
25	Niger	29.0
26	Chad	28.6
27	Sierra Leone	26.1
28	Burundi	24.0

Source: Economist Intelligence Unit

South Africa ranked 41st

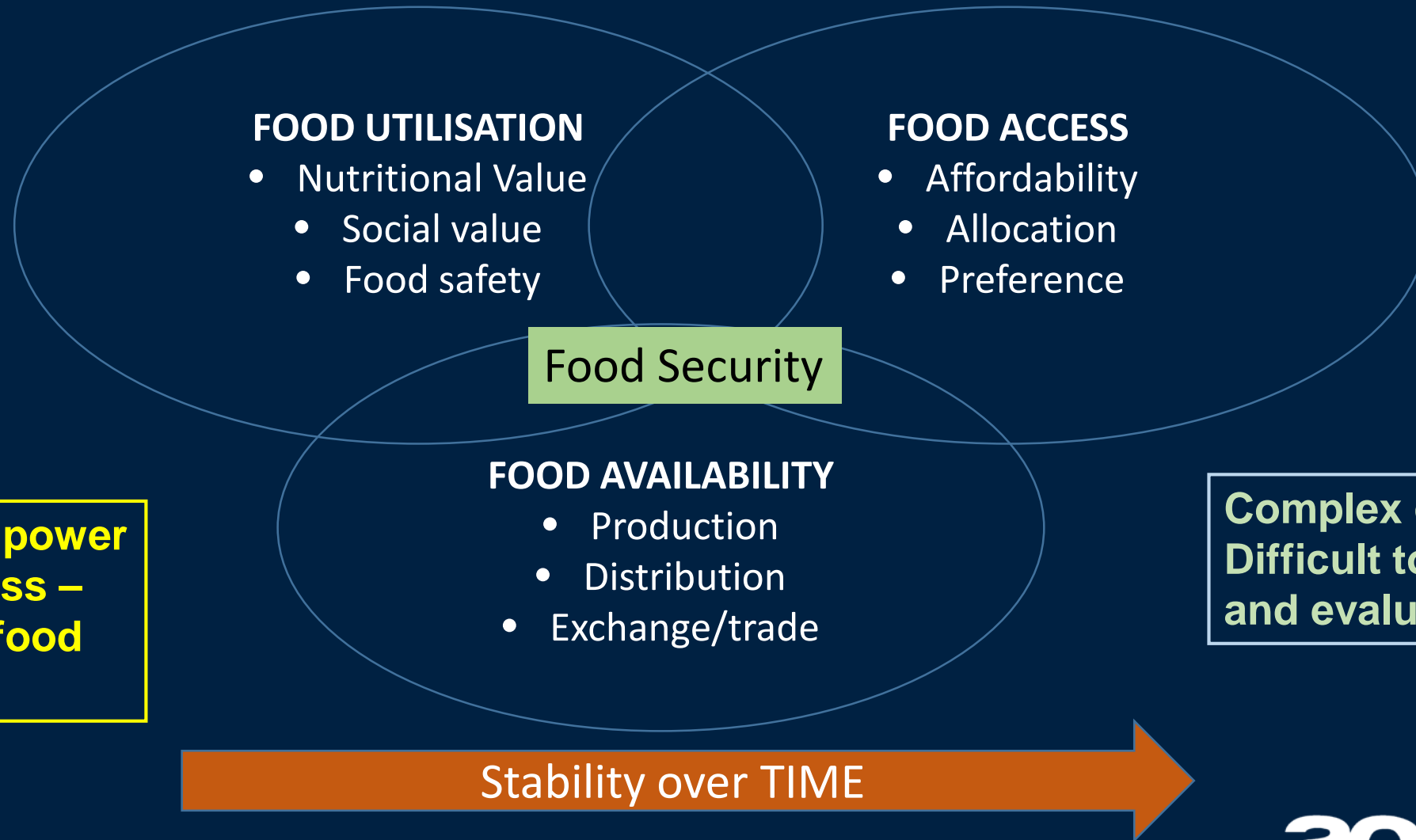


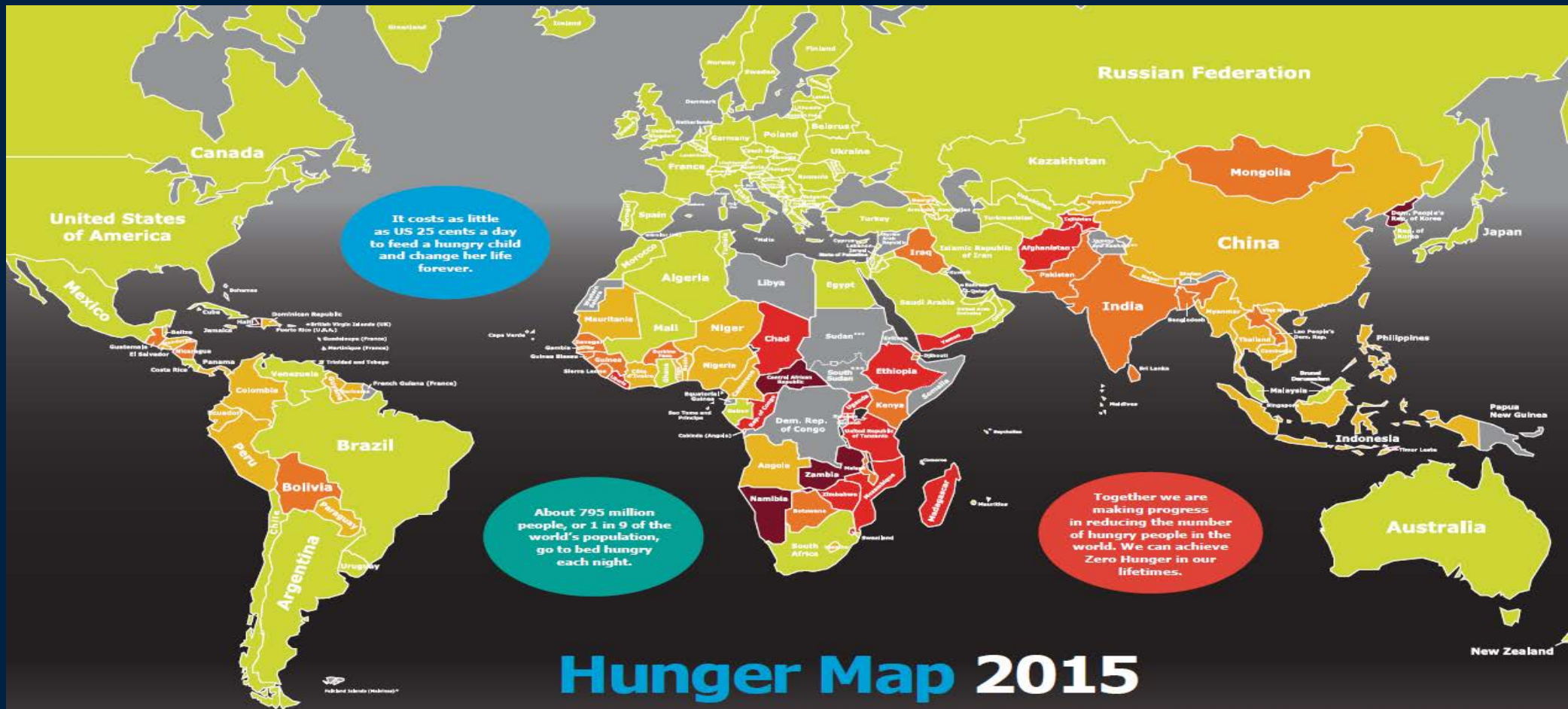
<http://foodsecurityindex.eiu.com>

Source: Economist Intelligence Unit/Du Pont



# Components of Food Security





# Hunger Map 2015



**World Food Programme**



Prevalence of undernourishment in the population (percent) in 2014-16



The map shows the prevalence of undernourishment in the population of developing countries as of 2014-16. The indicator measures the probability that a randomly selected individual in the population is consuming an amount of dietary energy, which is insufficient to cover basic requirements for an active and healthy life.

Source: FAO, IFAD and WFP, 2015. The State of Food Security in the World 2015. Meeting the 2015 International Hunger Targets: Taking Action Against Invisible Hunger. Rome, FAO. Further information is available at [www.fao.org/publications/sofi/en/](http://www.fao.org/publications/sofi/en/). Undernourishment data: FAO Statistics Division (SDC) - [www.fao.org/sofi/en/](http://www.fao.org/sofi/en/)

© 2015 World Food Programme

The organization developed and the presentation of material in this map does not imply the expression of any opinion whatsoever on the part of WFP concerning the legal or political status of any country, territory or sea area, or concerning the delimitation of frontiers.

\* A dashed circle indicates the boundaries of Europe and the United Kingdom of Great Britain and Northern Ireland concerning assembly area (the Republic of Ireland (excluded)).

\*\* Control line (the line of Control in Jersey and Guernsey) agreed upon by St. Kitts and Nevis. The final status of Jersey and Guernsey has not yet been determined.

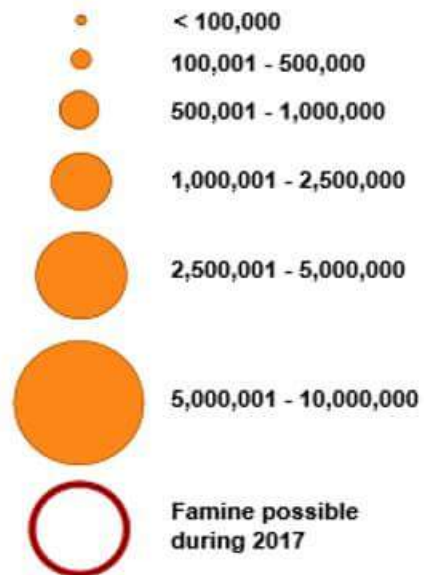
\*\*\* Final boundary between the Republic of South Sudan and the Republic of Sudan has not yet been determined.

*From Africa and Asia to Latin America and the Near East, there are 795 million people in the world who do not get enough food to lead a normal, active life.*



# Food Assistance Needs in 2017 are Unprecedented

Estimated Acutely Food Insecure Populations\*



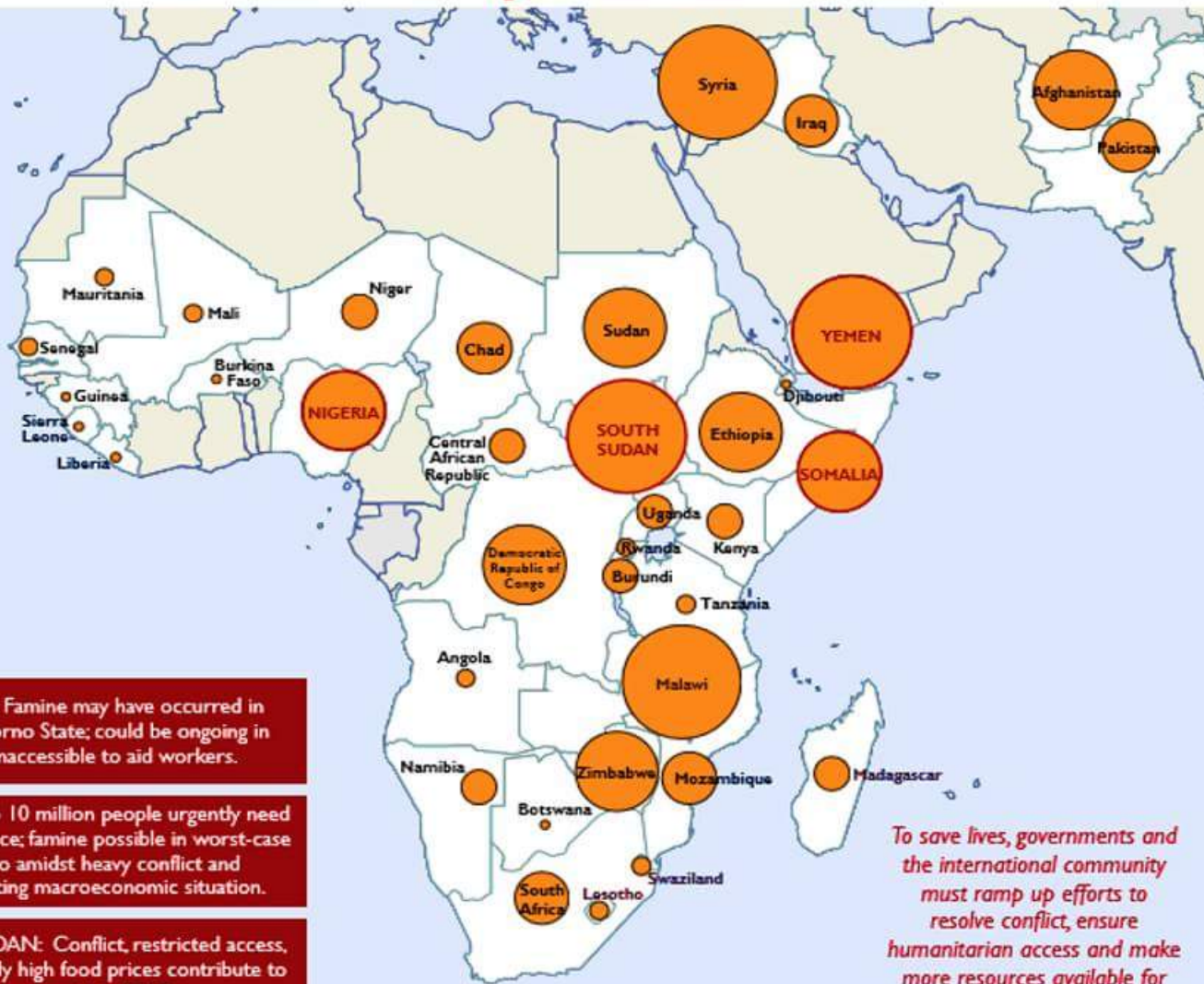
\*Based on IPC-compatible phase classifications of Phase 3 or higher. More info at [www.fews.net/IPC](http://www.fews.net/IPC)

Source: FEWS NET, OCHA, Southern Africa R/IAC



**Across 45 countries, some 70 million people will require emergency food assistance, 40% more than in 2015.**

**Famine threatens 4 countries**



**NIGERIA:** Famine may have occurred in 2016 in Borno State; could be ongoing in areas inaccessible to aid workers.

**YEMEN:** 7 to 10 million people urgently need food assistance; famine possible in worst-case scenario amidst heavy conflict and deteriorating macroeconomic situation.

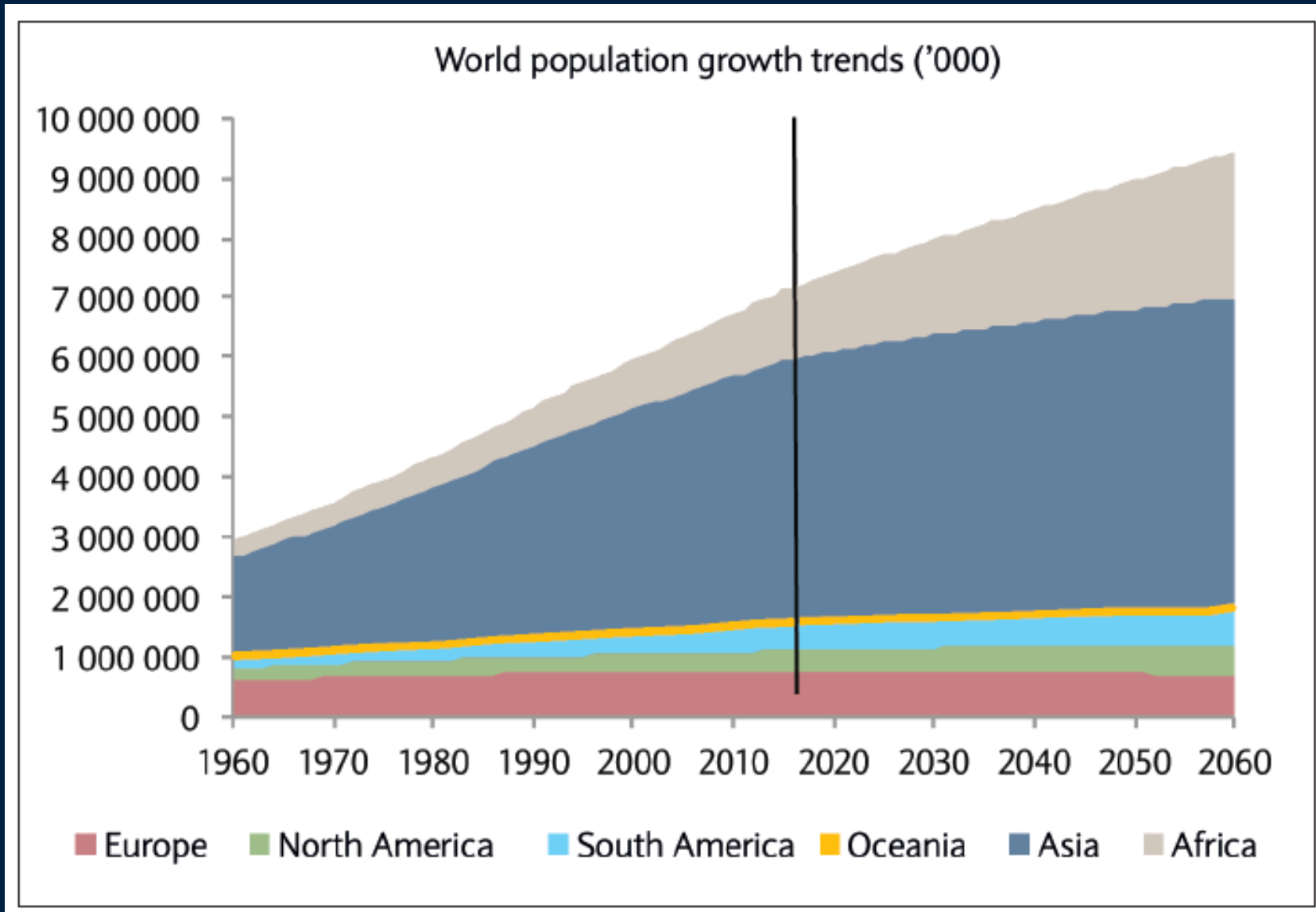
**SOUTH SUDAN:** Conflict, restricted access, and extremely high food prices contribute to famine risk in 2017.

**SOMALIA:** Failure of the Deyr rains and poor spring forecast threaten a repeat of 2011, when famine led to 260,000 deaths.

*To save lives, governments and the international community must ramp up efforts to resolve conflict, ensure humanitarian access and make more resources available for emergency response.*



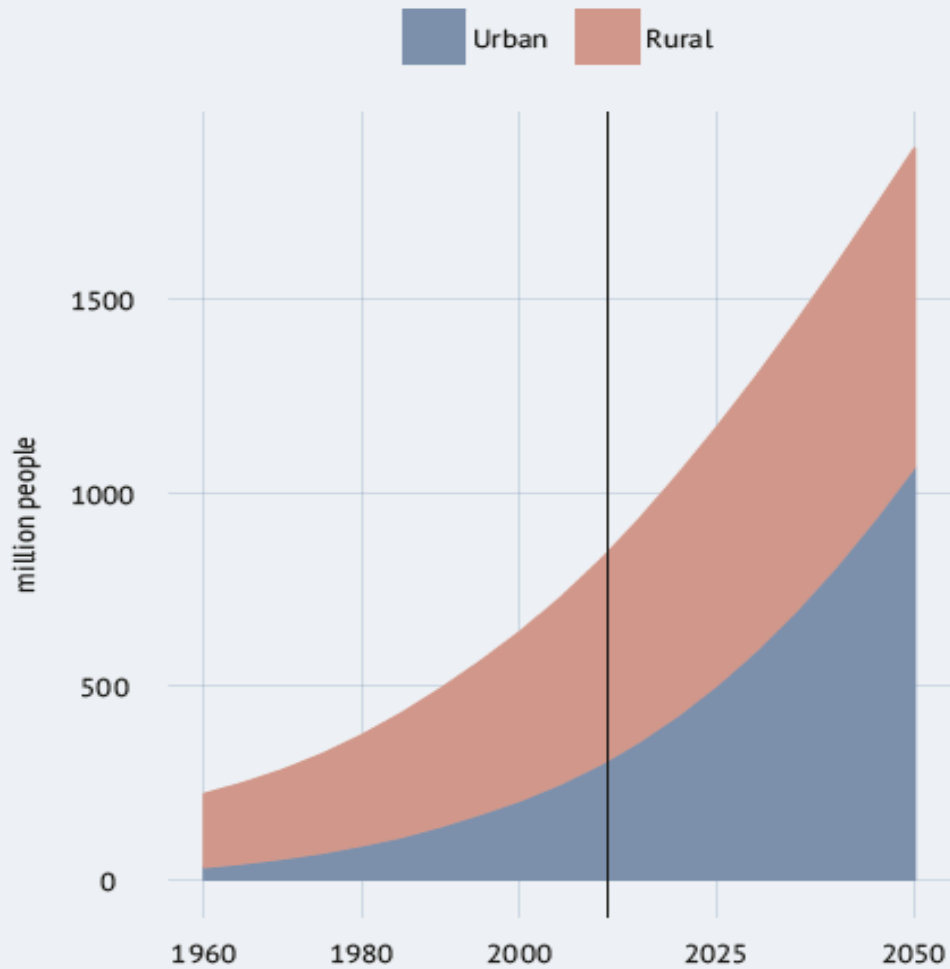
# Demographics: World Population Growth Trends



Source: Absa 2017 Outlook



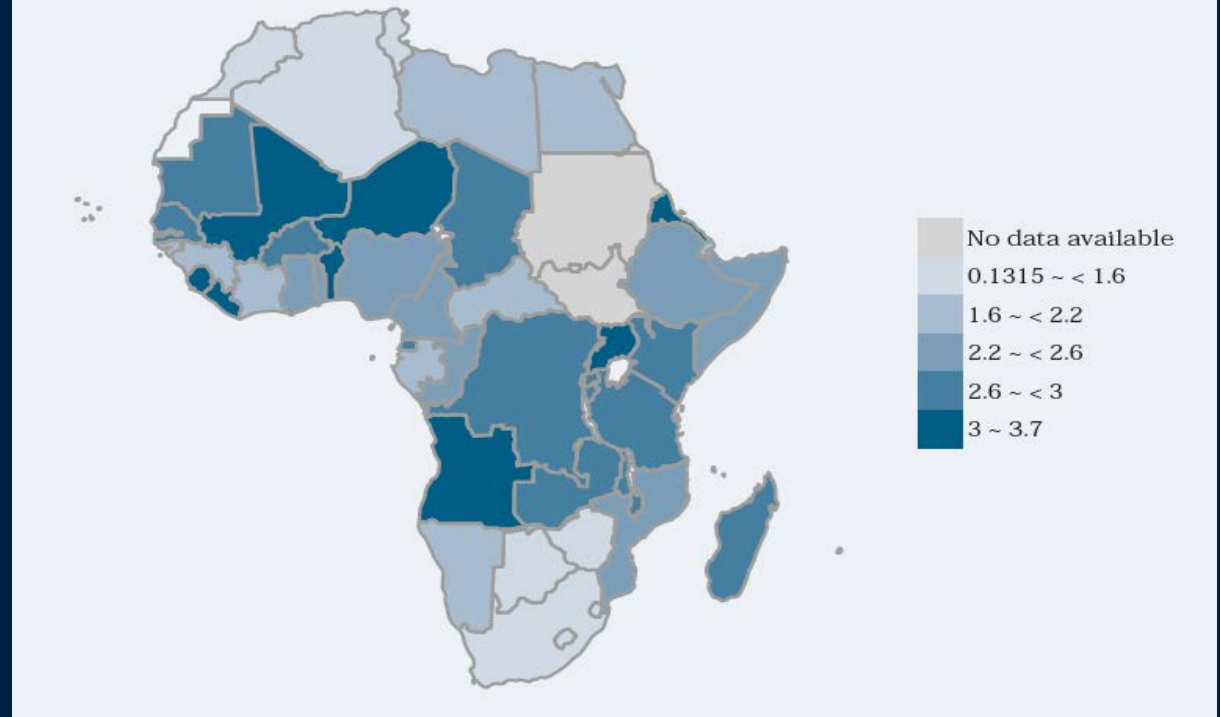
CHART 1: Africa rural and urban population (1960-2050)



Source: United Nations Population Division.  
Data after 2011 are projections.

# Demographics.....

MAP 1: Population annual growth (percent, 2000-2012)



**Nkosazana Dhlamini-Zuma (AU Chairperson, 2016):**

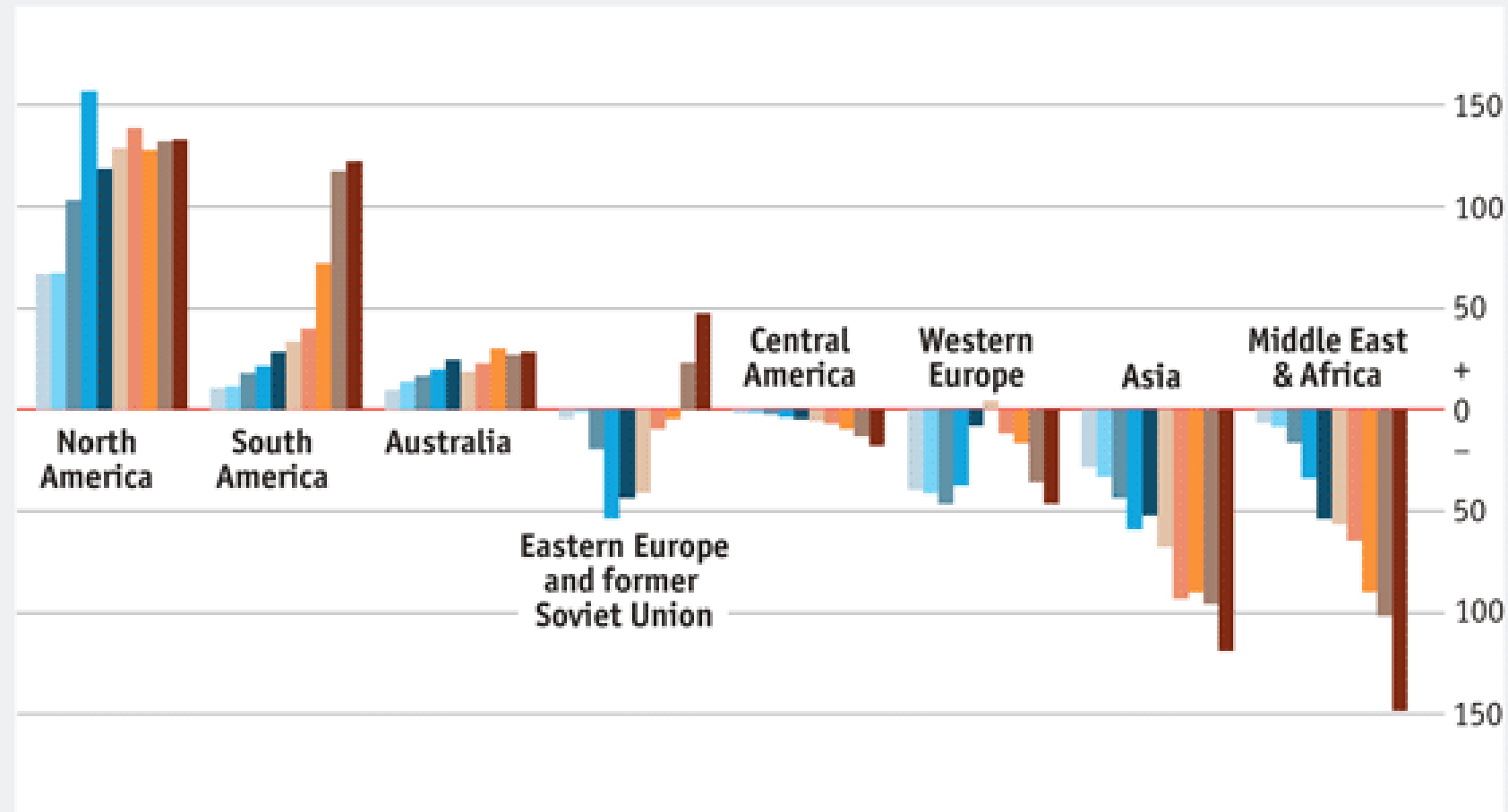
**Either massive opportunity, or critical risk!**



## Food\* surpluses and deficits

Net intra-regional trade, tonnes, m

1965 1970 1975 1980 1985  
1990 1995 2000 2005 2010



Source: Cargill

\*Cereals, rice, oilseeds, meals, oils and feed equivalent of meat

Source: The Economist, 2012

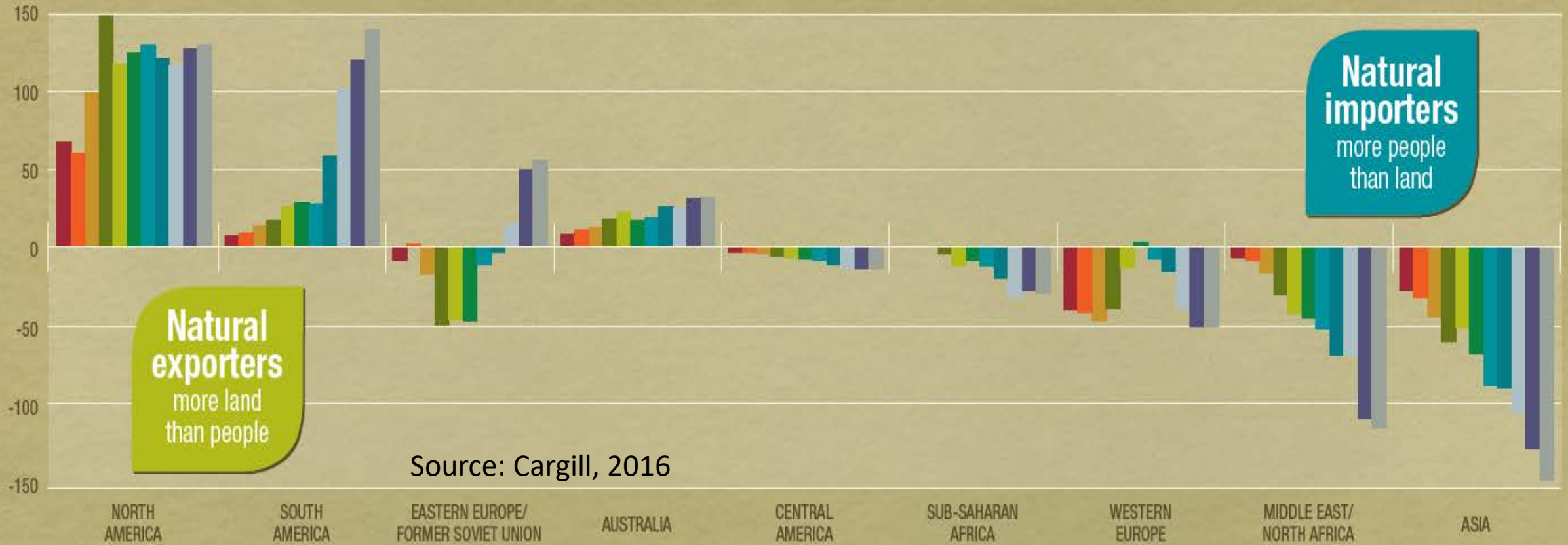




# World Food Flows

grains, rice, oilseeds, meals, oils, feed equivalent of meat—net interregional in millions of metric tons

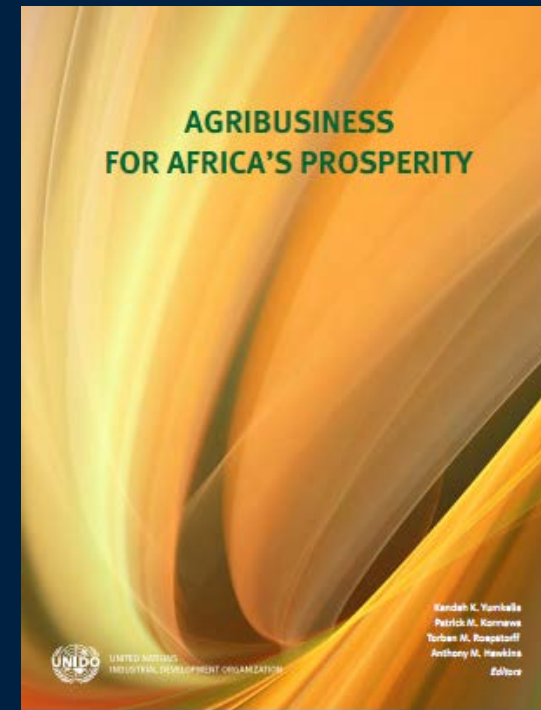
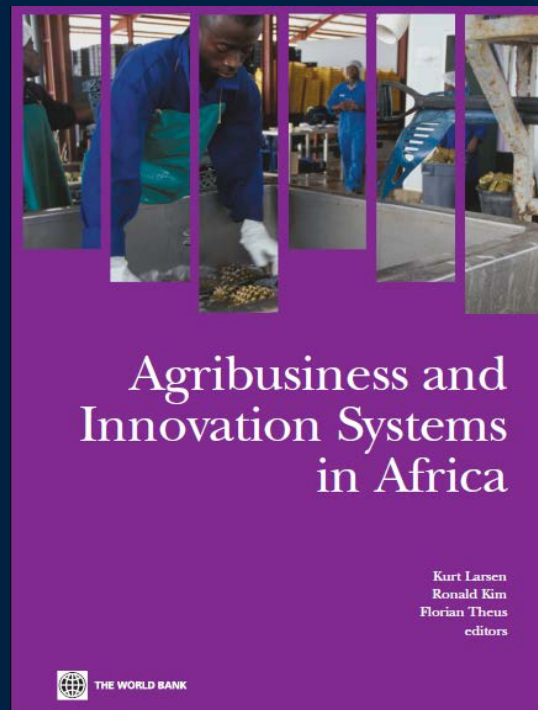
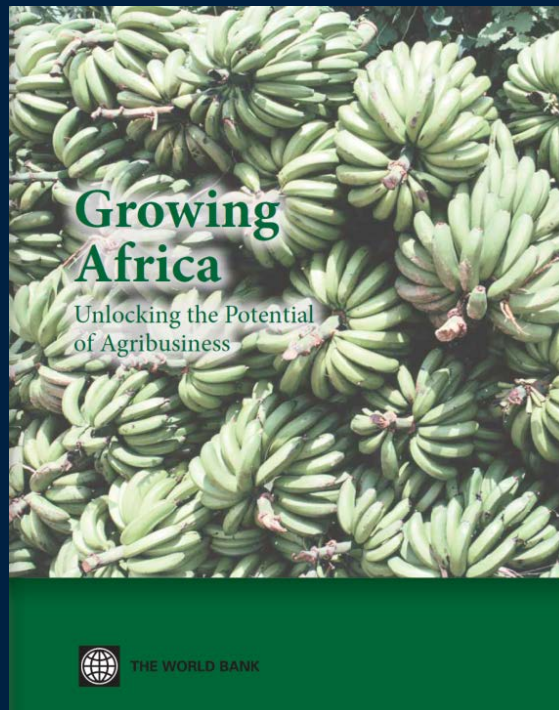
1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2012



Source: Cargill, 2016

# Why agribusiness?

Agriculture and agribusiness together are projected to be a US\$ 1 trillion industry in Sub-Saharan Africa (SSA) by 2030 (compared to US\$ 313 billion in 2010), and they should be at the top of the agenda for economic transformation and development. Agribusiness can play a critical role in jump-starting economic transformation through the development of agro-based industries that bring much-needed jobs and incomes. Successful agribusiness investments in turn stimulate agricultural growth through the provision of new markets and the development of a vibrant input supply sector.



## AFRICA AGRICULTURE STATUS REPORT 2016

Progress towards Agricultural Transformation in Africa

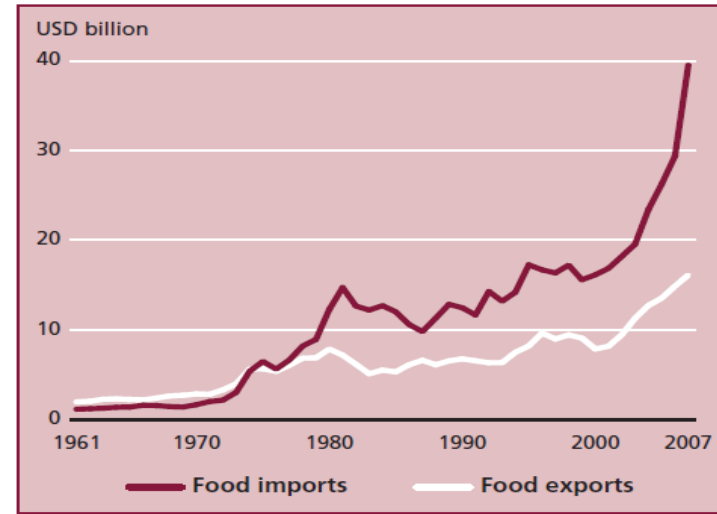


# WHY HAS AFRICA BECOME A NET FOOD IMPORTER?

*Explaining Africa agricultural and food trade deficits*

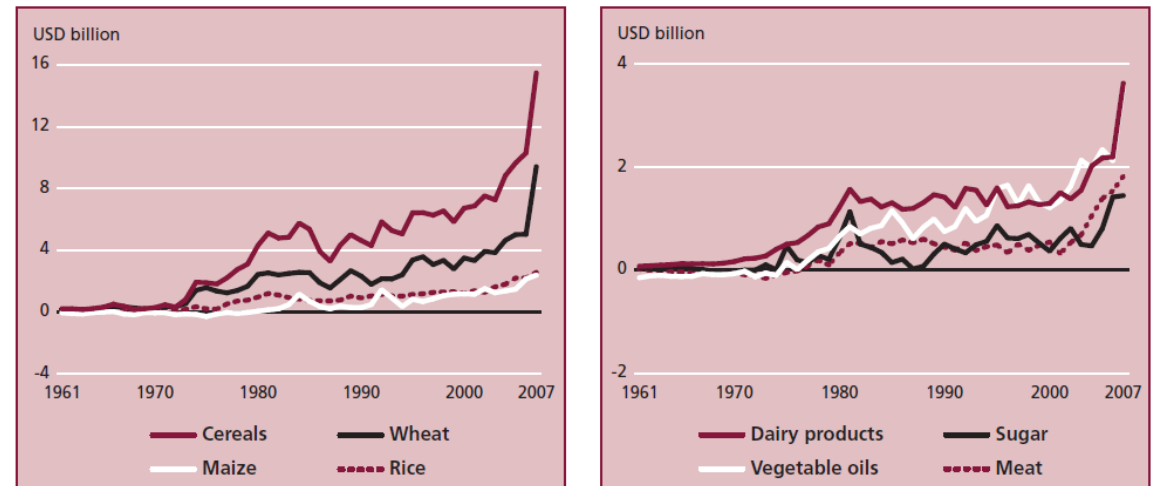


FIGURE 1. AFRICA'S FOOD IMPORT AND EXPORT TRENDS (CURRENT VALUES)



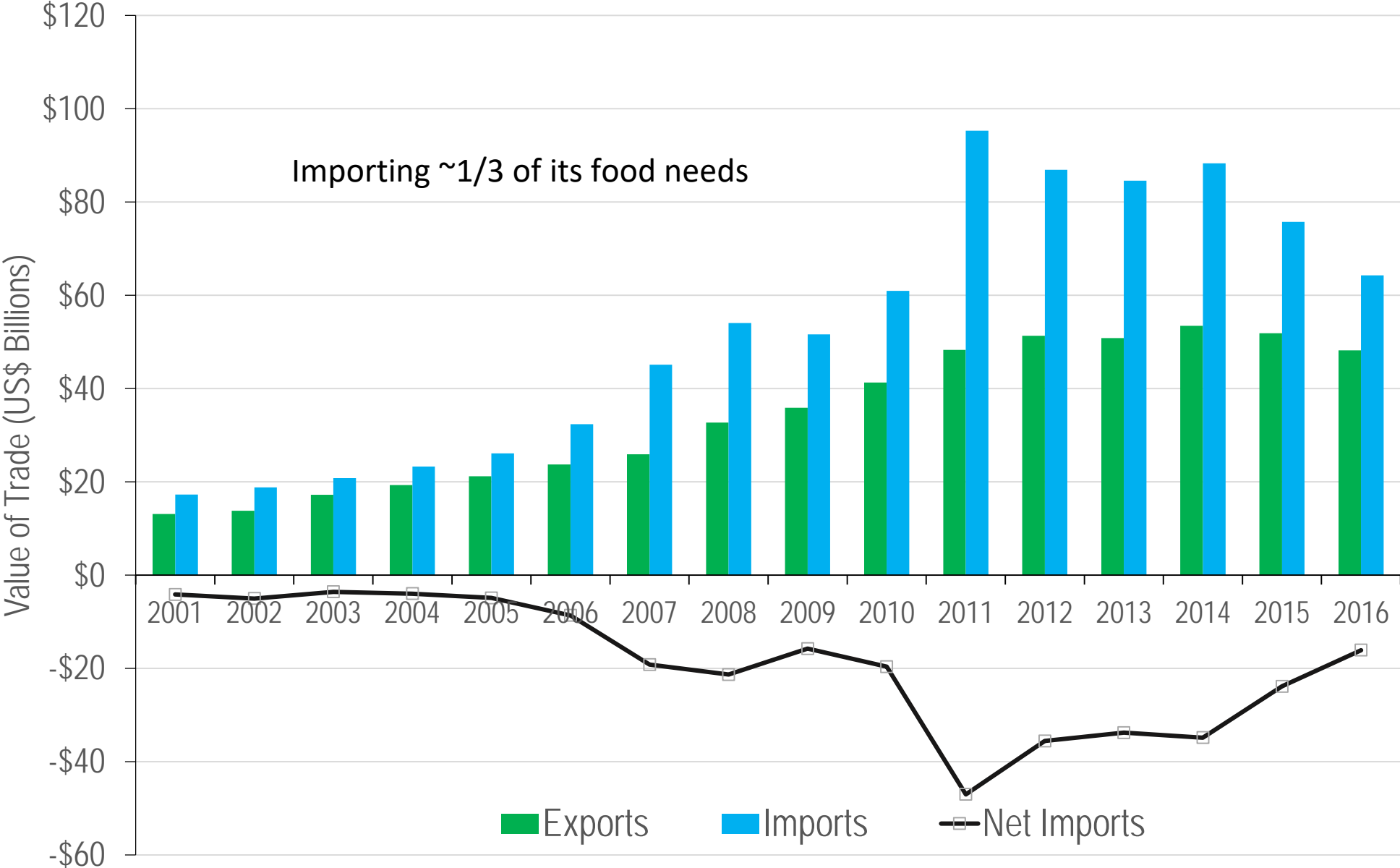
Source: FAOSTAT, 2011

FIGURE 2. AFRICA'S NET IMPORTS OF SELECTED FOOD GROUPS (CURRENT VALUES)



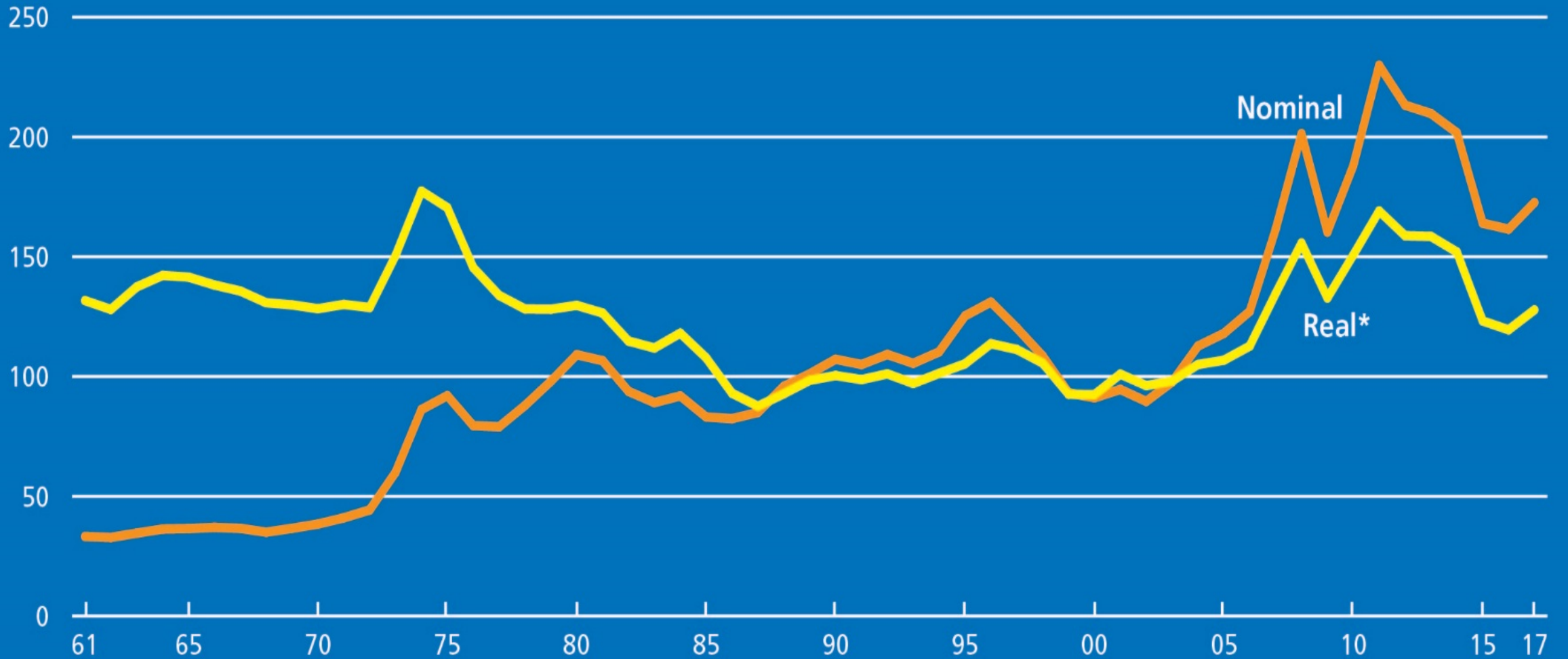
Source: FAOSTAT, 2011

# Africa's Trade Balance for Food



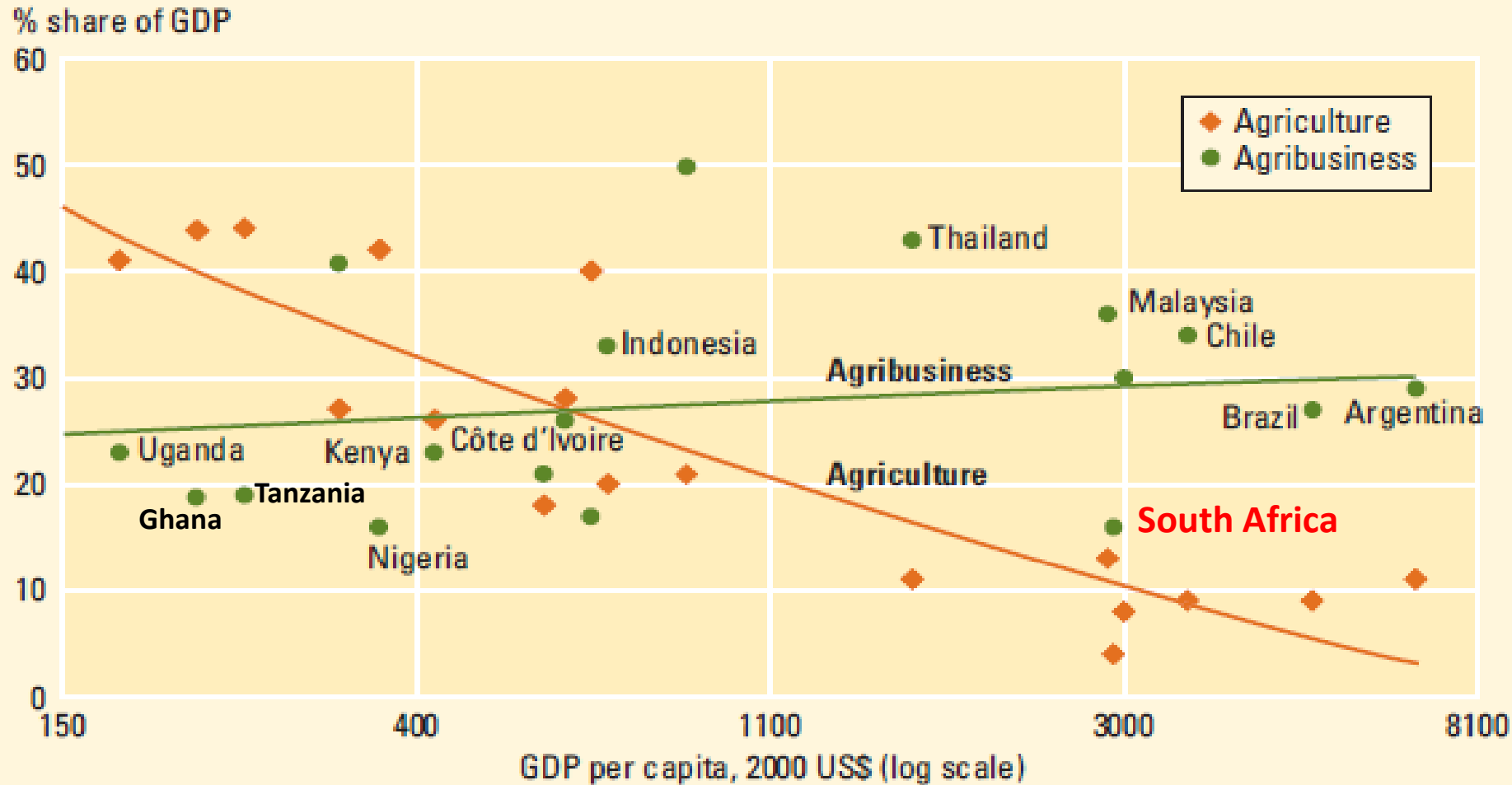
## FAO Food Price Index in nominal and real terms

2002-2004=100



\* The real price index is the nominal price index deflated by the World Bank Manufactures Unit Value Index (MUV)

**Figure D.1 The relative shares of agriculture and agribusiness in GDP change as incomes rise**



Sources: WDR 2008 team. Data from Jaffee (1999) as cited in World Bank (2003f); and from Pryor and Holt (1999).  
 Note: Agribusiness includes the value added for agro-related industries and for agricultural trade and distribution services. Data are for Argentina, Brazil, Cameroon, Chile, Côte d'Ivoire, Ghana, India, Indonesia, Kenya, Malaysia, Mexico, Nigeria, Republic of Korea, South Africa, Tanzania, Thailand, Uganda, and Zimbabwe.

Source: UNIDO, 2012



# Prospects and Challenges

- **The demand causes**

- demographics - per capita food consumption
- food prices and imports

- **The supply causes**

- Arable and agricultural land availability (~600 million ha uncultivated arable land available – NA)
- Low yields and productivity
- Poor infrastructure, services and low investment in food production and especially agro-processing
- Institutional deficiencies, insecurity and conflicts

- **Role of Economic and Agricultural Policies**

- African growth characteristics
- Africa's economic and agricultural policies (Maputo & Malabo declarations, CAADP a solution?)
- Foreign agricultural policies (mega-regionals, e.g. TTIP, TPP, EPA's)
- Challenges ahead and policy choices

- **Way forward.....?**



# Competence in Africa for Africa

## Bureau of Food and Agricultural Policy

- Sector Analysis and Models
- Policy input and determination
- Market Analysis and Forecasting



## Value Chain Solutions

- Investment viability and funding facilitation
- Feasibility analysis
- Project commercialisation planning and scenarios

## IVIS

- Investment impact assessment
- Sustainability reporting
- Productivity measurement

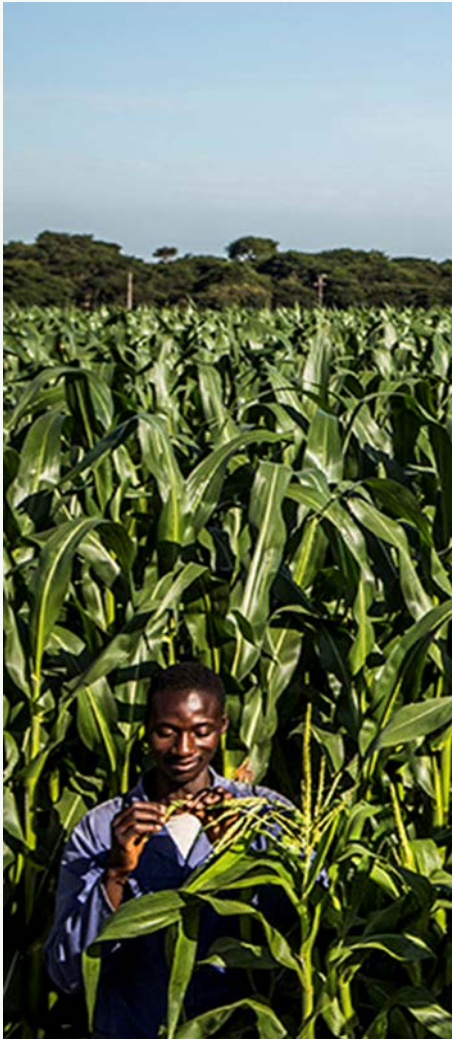


# Sub Sahara Africa

- Africa is by nature a heterogenous continent – providing both opportunity and large constraints to growing trade
- Trade openness has increased strongly
- Integration in the global economy has made the region more vulnerable to external shocks
- Levels of trade flows emanating from sub-Saharan Africa ***are still only half the magnitude of those experienced elsewhere in the world***
- ***The region still has some way to go to better integrate in Global Value Chains***
- It is more critical than ever to make faster progress in the upgrading of agricultural value chains – given Africa's age demographics and rate of urbanisation (***the retail evolution***)



# Value Chain participation defined



Foreign value added (FVA) that has been imported from foreign suppliers upstream in the GVC. This share is referred to as ***backward integration***, and reflects the extent to which a country is integrated relatively downstream of the value chain.

Domestic value added (DVA) of products consumed ***directly in the country*** where it is exported.

DVA of products that enter themselves into the production of other countries' exports. This share is referred to as ***forward integration***, and reflects the extent to which a country is integrated relatively upstream of the value chain.

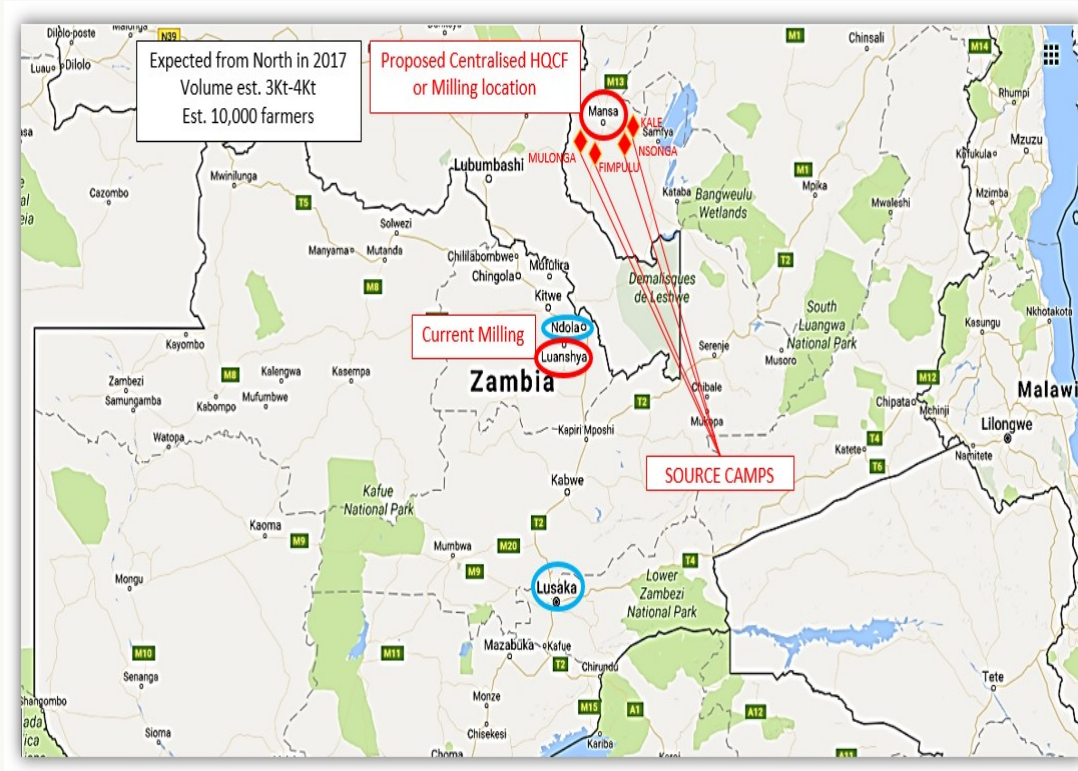
**Value Chain development offers the highest future opportunity for DVA improvement which in turns holds the key to unlocking Africa's trade potential**

# Learning from Progress

- Common themes emerging are the approach to agricultural value chain upgrading by moving from *agriculture to agri-business*. Key success factors include:
  - An aligned development impact policy at country level
  - Government led coordination and commitment, nurtured partnerships with private sector players – ***especially multinationals with local sourcing imperatives***
  - Market led sectors and value chains – shelf to seed approach to upgrading value chains
  - Facilitation of investment in *fit for purpose* Agri-processing and logistics, striking the balance between clustering and in the field processing. This truly is the ***“missing link”***
  - The ability to measure true impact of investment in value chains
- Some of the countries which have made positive strides into value chain development thus far are Ethiopia, Kenya, Seychelles, South Africa, Zambia and Tanzania. They provide valuable lessons for the continent

# Zambia cassava value chain

Government and Private sector partnership to establish a *locally sourced*, processed and delivered cassava *root to flour* supply chain for Zambia, which redefines the Eagle Lager recipe and economics



Cassava was prioritised for value chain upgrading. Key VC aspects identified were food safety and quality control, fit for purpose root to flour processing and the needed storage and transport to enable the value chain. This improves the value chain economics for some 4000 farmers with clear benefits to the anchor client. It also opens up the further development of this value chain for use in food product markets, both within Zambia and the DRC.



Also see [www.cava.nri.org](http://www.cava.nri.org)



# SA Honeybush products value chain

**2 000 +**

Khoi people as Trust beneficiaries in the Honeybush and Herbal Industry

**1 000 +**

Hectares Cultivated Plantations Alleviating pressure on wild Honeybush



**2 700**

tons of processed Honeybush tea produced at full capacity at year 4

**1 500 +**

Direct and Indirect jobs in the first 2 years

**50 +**

Vegetable tunnels feeding communities

**\$ 75m**

Annual Income after 7 years

**30 +**

Rural communities directly impacted

**8 000 +**

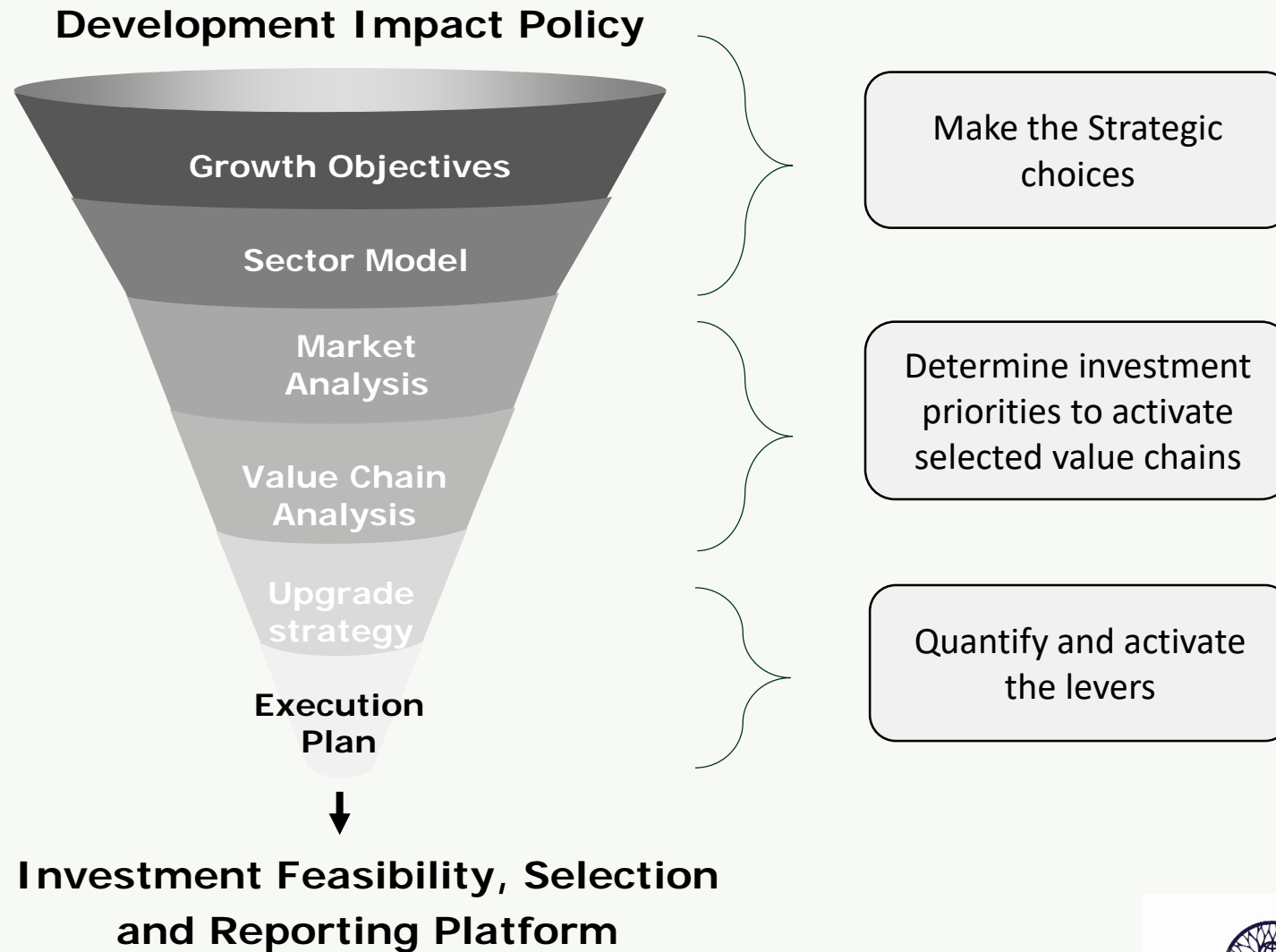
Square meters of Energy efficient buildings

**1** Single Sustainable Business Model Changing The Lives of Communities Forever



**TOTAL COST TO UPGRADE VALUE CHAIN \$55m**

# Our approach to value chain upgrading



# Africa's Food Trade Deficit: The Role of Technology

**Ed Mabaya, PhD.**

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President: African Association of Agricultural Economists

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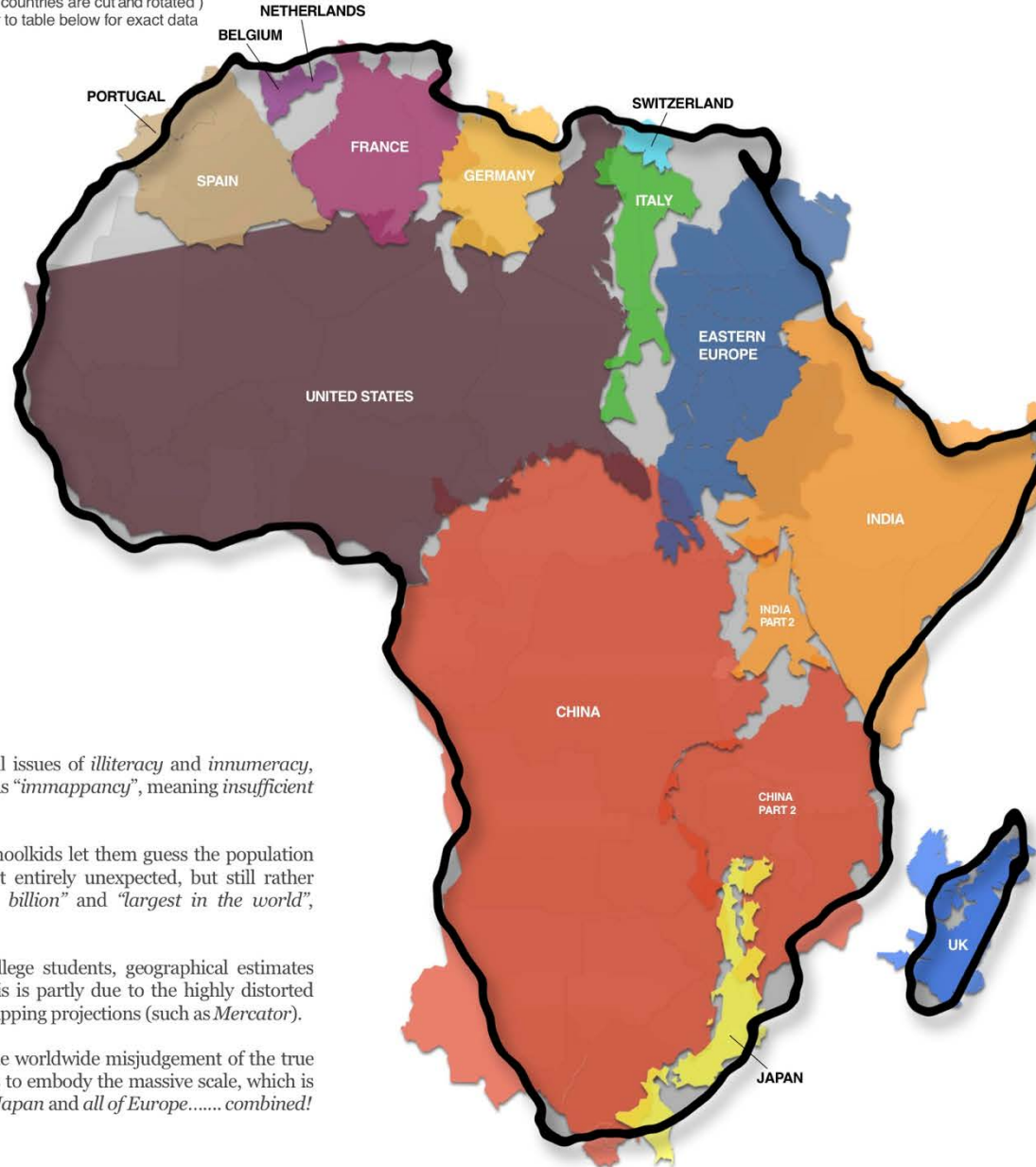


# The True Size of Africa

A small contribution in the fight against rampant *Immappancy*, by Kai Krause

Graphic layout for visualization only ( some countries are cut and rotated )  
But the conclusions are very accurate: refer to table below for exact data

COUNTRY	AREA x 1000 km <sup>2</sup>
China	9.597
USA	9.629
India	3.287
Mexico	1.964
Peru	1.285
France	633
Spain	506
Papua New Guinea	462
Sweden	441
Japan	378
Germany	357
Norway	324
Italy	301
New Zealand	270
United Kingdom	243
Nepal	147
Bangladesh	144
Greece	132
<b>TOTAL</b>	<b>30.102</b>
<b>AFRICA</b>	<b>30.221</b>



## Top 100 Countries

Area in square kilometers, Percentage of World Total  
Sources: Britannica, Wikipedia, Almanac 2010

	AREA km <sup>2</sup>	%	
1	Russia	17.098.242	11,50
2	Canada	9.984.670	6,70
3	China	9.596.961	6,40
4	United States	9.629.091	6,40
5	Brazil	8.514.877	5,70
6	Australia	7.692.024	5,20
7	India	3.287.263	2,30
8	Argentina	2.780.400	2,00
9	Kazakhstan	2.724.900	1,80
10	Sudan	2.505.813	1,70
11	Algeria	2.381.741	1,60
12	Congo	2.344.858	1,60
13	Greenland	2.166.086	1,50
14	Saudi Arabia	2.149.690	1,40
15	Mexico	1.964.375	1,30
16	Indonesia	1.860.360	1,30
17	Libya	1.759.540	1,20
18	Iran	1.628.750	1,10
19	Mongolia	1.564.100	1,10
20	Peru	1.285.216	0,86
21	Chad	1.284.000	0,86
22	Niger	1.267.000	0,85
23	Angola	1.246.700	0,85
24	Mali	1.240.192	0,83
25	South Africa	1.221.037	0,82
26	Colombia	1.141.748	0,76
27	Ethiopia	1.104.300	0,74
28	Bolivia	1.098.581	0,74
29	Mauritania	1.025.520	0,69
30	Egypt	1.002.000	0,67
31	Tanzania	945.087	0,63
32	Nigeria	923.768	0,62
33	Venezuela	912.050	0,61
34	Namibia	824.116	0,55
35	Mozambique	801.590	0,54
36	Pakistan	796.095	0,53
37	Turkey	783.562	0,53
38	Chile	756.102	0,51
39	Zambia	752.612	0,51
40	Myanmar	676.578	0,45
41	Afghanistan	652.090	0,44
42	Somalia	637.657	0,43
43	France	632.834	0,43
44	C. African Rep	622.984	0,42
45	Ukraine	603.500	0,41
46	Madagascar	587.041	0,39
47	Botswana	582.000	0,39
48	Kenya	580.367	0,39
49	Yemen	527.968	0,35
50	Thailand	513.120	0,34
51	Spain	505.992	0,34
52	Turkmenistan	488.100	0,33
53	Cameroon	475.442	0,32
54	Papua New Guinea	462.840	0,31
55	Uzbekistan	447.400	0,30
56	Morocco	446.550	0,30
57	Sweden	441.370	0,30
58	Iraq	438.317	0,29
59	Paraguay	406.752	0,27
60	Zimbabwe	390.757	0,26
61	Japan	377.930	0,25
62	Germany	357.114	0,24
63	Rep o.L Congo	342.000	0,23
64	Finland	338.419	0,23
65	Vietnam	331.212	0,22
66	Malaysia	330.803	0,22
67	Norway	323.802	0,22
68	Côte d'Ivoire	322.463	0,22
69	Poland	312.685	0,21
70	Oman	309.500	0,21
71	Italy	301.336	0,20
72	Philippines	300.000	0,20
73	Burkina Faso	274.222	0,18
74	New Zealand	270.467	0,18
75	Cuba	267.668	0,18
76	Western Sahara	266.000	0,18
77	Ecuador	256.369	0,20
78	Guinea	245.857	0,17
79	United Kingdom	242.900	0,16
80	Uganda	241.038	0,16
81	Ghana	238.539	0,16
82	Romania	238.391	0,16
83	Laos	236.800	0,16
84	Guyana	214.969	0,14
85	Belarus	207.600	0,14
86	Kyrgyzstan	199.951	0,13
87	Senegal	196.722	0,13
88	Syria	185.180	0,12
89	Cambodia	181.035	0,12
90	Uruguay	176.215	0,12
91	Suriname	163.820	0,11
92	Tunisia	163.610	0,11
93	Nepal	147.181	0,10
94	Bangladesh	143.998	0,10
95	Tajikistan	143.100	0,10
96	Greece	131.957	0,09
97	Nicaragua	130.373	0,09
98	North Korea	120.538	0,08
99	Malawi	118.484	0,08
100	Eritrea	117.600	0,08
	<b>TOP 100 TOTAL</b>	<b>132.632.524</b>	<b>89,34</b>



United States



Europe



India



Japan



China

In addition to the well known social issues of *illiteracy* and *innumeracy*, there also should be such a concept as "*immappancy*", meaning *insufficient geographical knowledge*.

A survey with random American schoolkids let them guess the population and land area of their country. Not entirely unexpected, but still rather unsettling, the majority chose "1-2 billion" and "largest in the world", respectively.

Even with Asian and European college students, geographical estimates were often off by factors of 2-3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as *Mercator*).

A particularly extreme example is the worldwide misjudgement of the true size of *Africa*. This single image tries to embody the massive scale, which is larger than the *USA*, *China*, *India*, *Japan* and *all of Europe*..... combined!

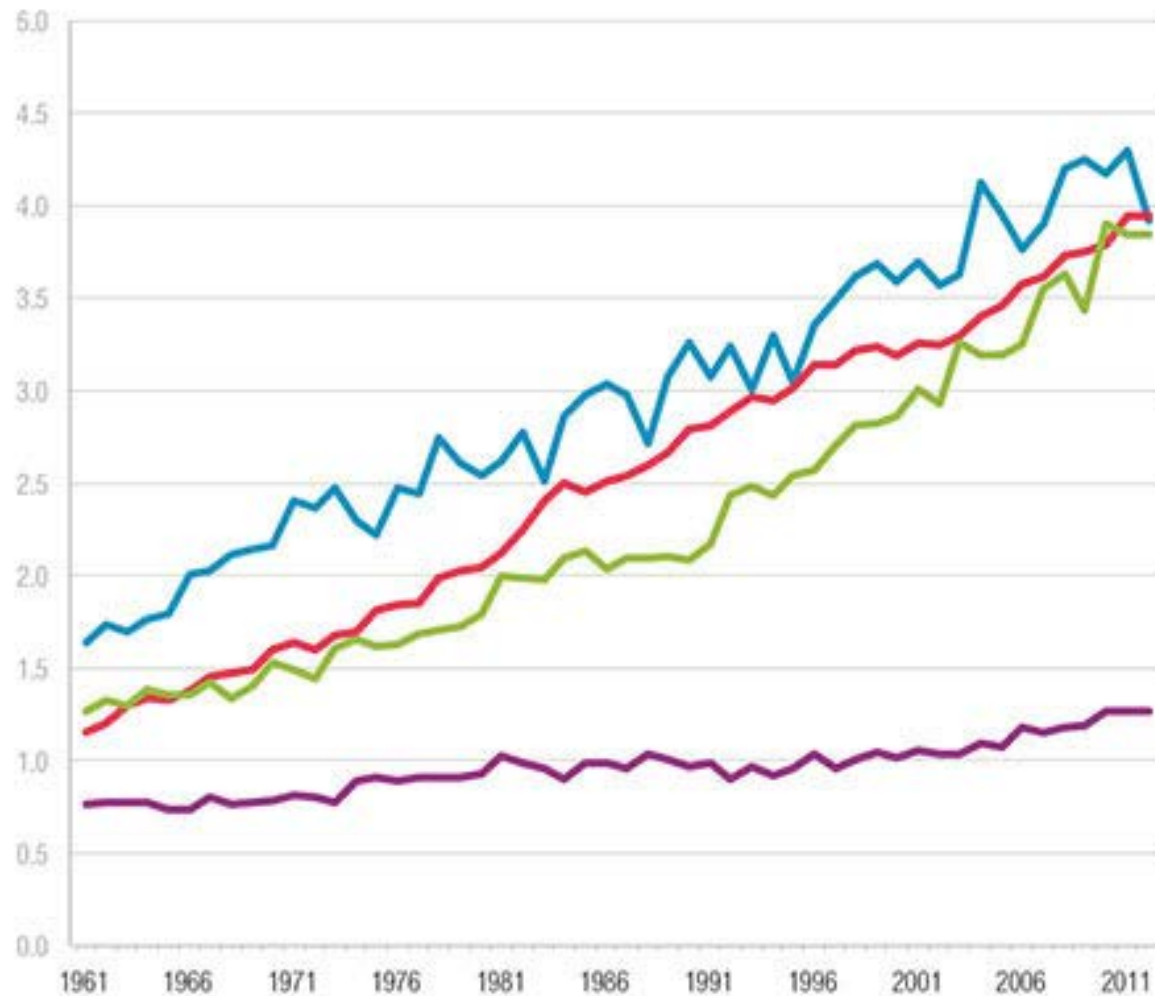


"The power of population is indefinitely greater than the power in the earth to produce subsistence for man"

Rev. Thomas  
Malthus, 1798



# Cereal Yields (in metric tons per hectare)



- Developed Countries
- Asia Developing
- Latin America
- Sub-Saharan Africa



# Africa has yet to Experience its **Green Revolution**



The **value** of **Africa's** **agricultural output** has **quadrupled** since 1961, in inflation-adjusted terms.



But the increase in production hasn't been due to higher yields per acre. Instead, the gains came almost entirely from **using more land to grow crops**.

**Sub-Saharan Africa** and the **US** dedicate roughly the same amount of land to **grow maize**;



but the **US** produces **400 million tonnes of maize**

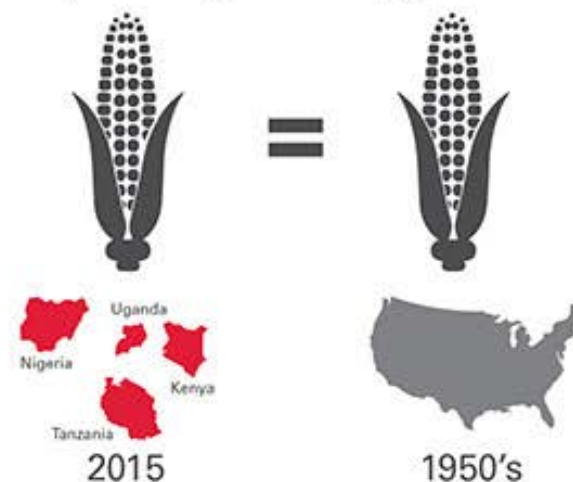


to Africa's **60 million tonnes**.

Africa is still awaiting its Green Revolution.



The **maize yield rates** of **Kenya, Nigeria, Tanzania, and Uganda** are approximately that of the **US** in the **1950s**, before American maize yields significantly grew.



Sources: NASS, UN FAO, USDA PS&D, Gro Intelligence



# Sub-Saharan Africa Lags Behind Global Fertilizer Consumption

Between 1976 and 2016,  
**global fertilizer consumption**  
has more than **doubled**, from



Countries in **Africa** consume  
**fertilizer** at far **lower** rates  
than the global average.

Fertilizer use across the  
continent **averages** under  
**20 kg**  
per hectare  
across all crops.

**Sub-Saharan Africa**  
has nearly **20%**  
of the **world's**  
**arable land**,



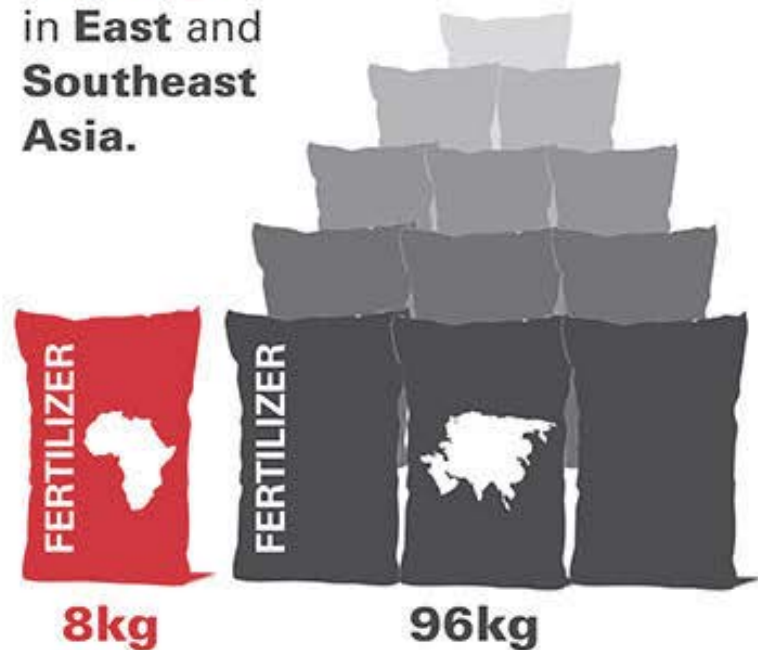
but **consumed**  
**less than**  
**2%**  
of **fertilizer**  
nutrients in 2014.





# Increased Fertilizer Use

Africa uses an average of **8 kg** of fertilizer per hectare compared with **96 kg** per hectare in East and Southeast Asia.

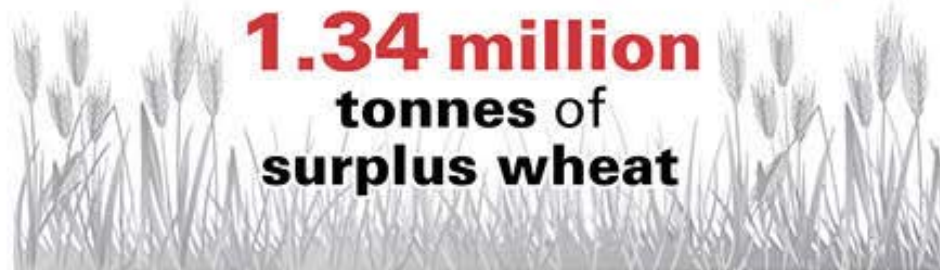


Yet the **benefits of fertilizer use are great**. In 2005, Malawi produced just **57%** of its national wheat requirement.

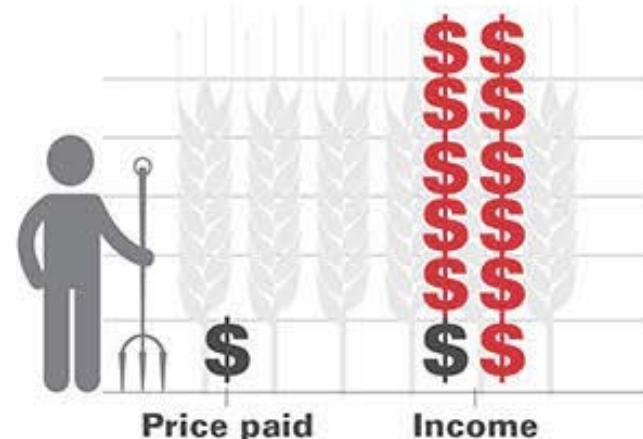


Within **2 years**, following the government's **Farm Input Subsidy Program (FISP)** which **provided subsidized fertilizer to farmers**, Malawi was producing

**1.34 million tonnes of surplus wheat**



Farmers paid a **subsidized price of \$0.10-0.15** for each **kg of fertilizer**, while their **incomes rose** about **\$1.50** for each **kg of fertilizer they applied**.



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# Africa's Nascent Seed Industry

Most **African smallholder farmers** plant seeds saved from the **previous year's crop**, meaning that **access to improved seed varieties remains low.**



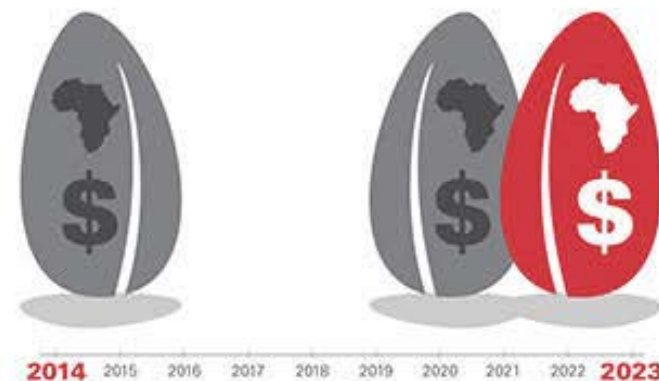
But **this trend is beginning to change:** **Kenya**, for example, **went from having:**

  
**31** registered seed companies in **2002**

  
to **60** registered seed companies in **2007**

  
to **104** registered seed companies in **2012**

**Africa's \$1.5 billion seed market is expected to double within the coming decade.**



# “Good News” and “Bad News”

## **Necessary Technologies**

- Mechanization
- Irrigation and water storage
- Improved seed varieties
- Fertilizers
- Pesticides

## **Improving Access and Adoption**

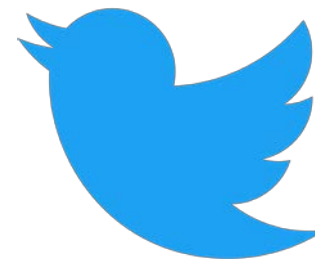
- Finance and investment
- Enabling environment
- Supportive policies
- Extension services
- Public Private Partnerships
- Value chain approaches

# Twitter Summary

Africa's food trade deficit is a symptom; the problem is low agricultural productivity caused by limited use of purchased inputs.



[@EdMabaya](#)





# Bucking the Trend of Africa's Food-trade Deficit: Skills development & ICT

Sharon Brown-Peters  
Educational Technologist for  
AGRICOLLEGES international



Internet technology could increase annual agricultural productivity in Africa by \$3 billion per annum. McKinsey reports 2010 and 2016



**Mobile devices (phones) are the most widely used and interactive ICT in the world**

(UNESCO). Some of the latest innovations in Mobile Learning include next-generation *Location-based Learning, Real Time Performance and Decision Support, Mobile Learning Value Added Services*, and most recently, *Augmented Reality Mobile Learning* (Ambient Insight).

**Mobile Learning** is one of the fastest growing and investment-supported learning technologies in the world at this current time (Ambient Insight) and is projected to continue to grow over the next five years.



**Where digital technologies are most inaccessible, slower growth, fewer jobs and poor services only deepens already existing inequality** (Digital Dividends).

The skills sets for Agricultural workers are likely to shift rapidly. Anticipating these shifts and **strengthening local “educational supply chains”** to provide skills is critical (Africa Agricultural Report 2016).



"People who don't have access to running water or electricity have access to a phone that is more powerful than computers we had a few years ago" (Sami Ibrahim, lead developer for Vet Africa)

***iCow*** (Kenya)

***Vet Africa***

***M-Farm*** (Kenya)

***Esoko*** (9 African countries) - collects, monitors and visualizes data (Kenya, Tanzania and Ghana)

***Tulaa*** - Enables farmers to lay-away and borrow money to purchase discounted agricultural inputs.

***EZ Farms*** - soil moisture levels

***Cocoa Link*** - for Ghana's cocoa farmers to disseminate info about cocoa agri

***Kilimo Salama*** - up-to-date and full climate data via sms



# Digital Green

## Our Work

We work with existing, people-based extension systems, aiming to amplify their effectiveness through our ICT-enabled approach. Our model combines technology and social organization to maximize the potential of building the capacity of community members on improved, sustainable agriculture, livelihood and health interventions.

We also facilitate knowledge exchange between community engagement for partners looking to learn, contribute and connect on social innovation practices toward improving lives in rural communities. We work with partners throughout the entire experience to share knowledge and capture feedback with supported technologies that allow partners to locally produce and share videos in villages all around the world.



# Digital Green

## COCO - Data Management Framework

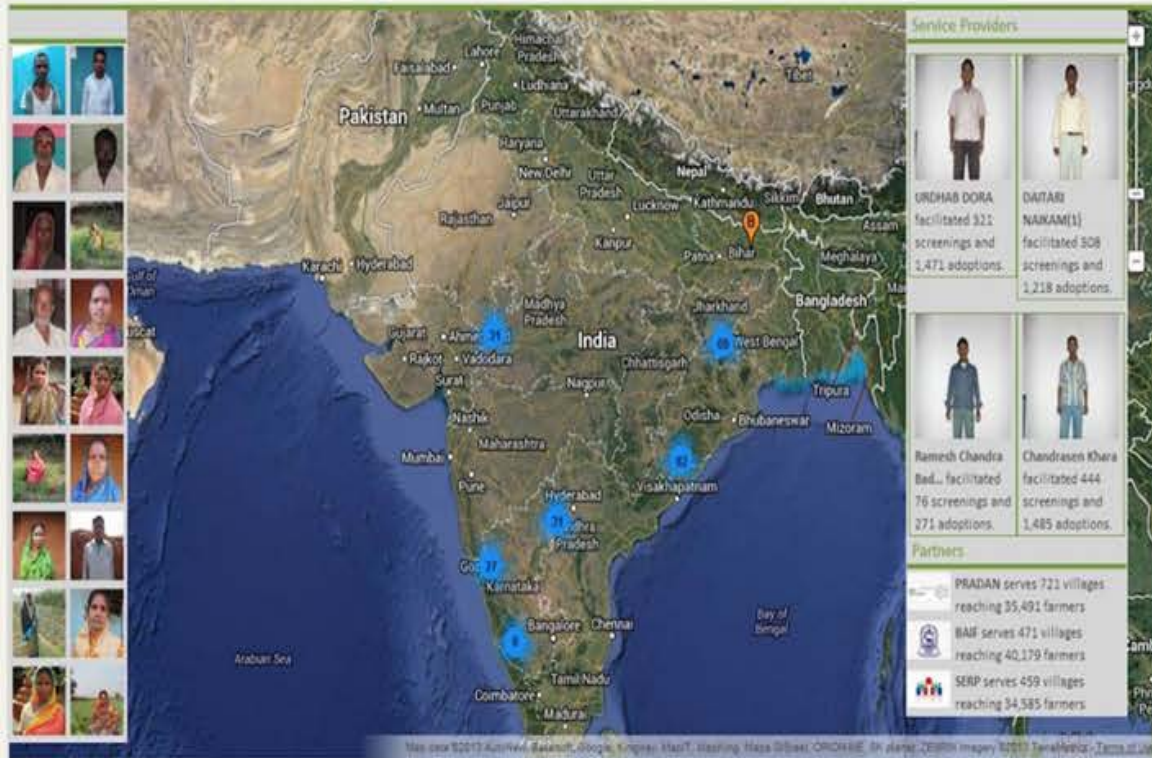
COCO represents the foundation of Digital Green's technology stack. It captures data related to the key processes of the Digital Green approach – video production, dissemination and adoption of practices – having the unique ability to accept data while offline for areas with intermittent internet connectivity.

Built as a robust standalone application in the Internet browser, COCO requires no additional software installation or maintenance. Since affordable smart-phones and tablet devices are becoming increasingly common, the latest version of COCO has been developed such that it is fully functional on all modern browsers compliant with the HTML5 standard on any device - phone, tablet, laptop and desktop.

The screenshot shows the COCO web application interface. At the top, there is a header with the 'digitalGREEN' logo on the left, the word 'COCO' in the center, and a 'Help' link with a user profile icon on the right. Below the header is a sidebar on the left containing a 'Sync 0' button and a list of data categories: Villages, Mediators, Videos, Groups, Persons, Screenings, and Adoptions. Each category has a green plus sign next to it. The main content area on the right features a large green heading 'Welcome to COCO!' followed by a sub-heading 'COCO helps you to seamlessly enter data in conditions of intermittent connectivity.' Below this, there are three sections: 'Add data' with a green plus icon and text 'To add some data, click on (+) sign next to the type of data that you want to add.'; 'View Data' with a list of categories (Villages, Mediators, Videos) and text 'To view, sort and search through your data, click on the data link in the sidebar.'; and 'Sync data' with a 'Sync 0' button and text 'To sync data with the server, click on the sync button. While syncing, if some data is rejected by the server, you will get the opportunity to correct the data, or in case of duplicate entries, to discard it. The number in the button shows how many entries are yet to be uploaded. Clicking on the sync button will also download the database if it is not completely downloaded.' At the bottom, there is a feedback section with two smiley face icons (one green, one red) and text 'We value your feedback' and 'Do share your feedback by mailing us at [system@digitalgreen.org](mailto:system@digitalgreen.org)'.

# Digital Green

## Farmerbook



Farmerbook is an open-access platform which displays detailed timeline-based activities of each farmer we work with along with the villages plotted on Google Map. The application highlights the integrated nature of the practices that individual farmers adopt on their fields as well as stimulates healthy competition among partners, village facilitators, and community members through the sharing of performance data and community feedback. Use of Farmerbook also supports transparency and accountability in existing extension systems and enables the development of non-monetary incentive structures among stakeholders participating in them through mechanisms like leaderboards.

Visit Farmerbook at [farmerbook.digitalgreen.org](http://farmerbook.digitalgreen.org).



## Governments need to focus on six imperatives and transform their own leadership capabilities and governance

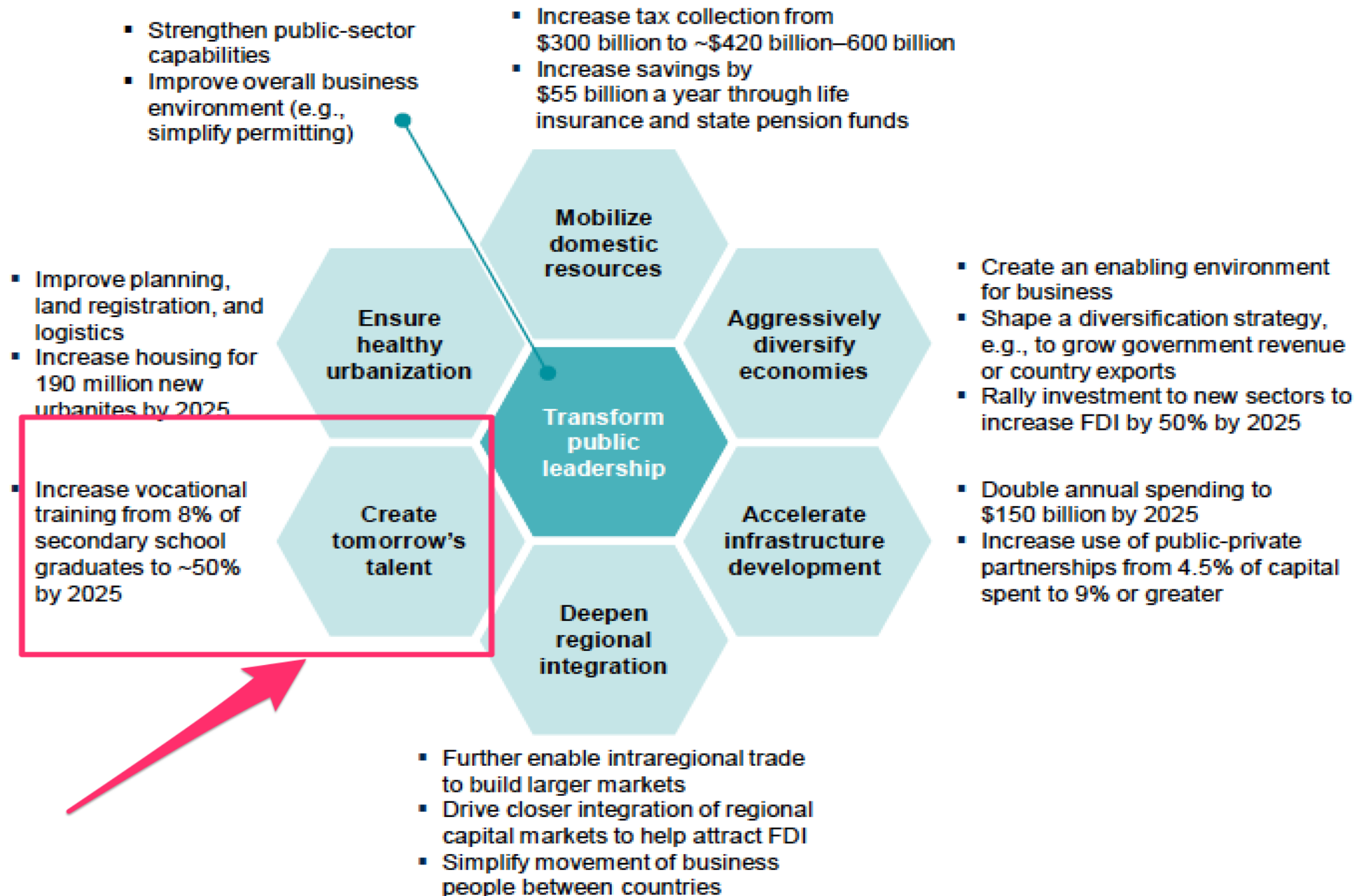
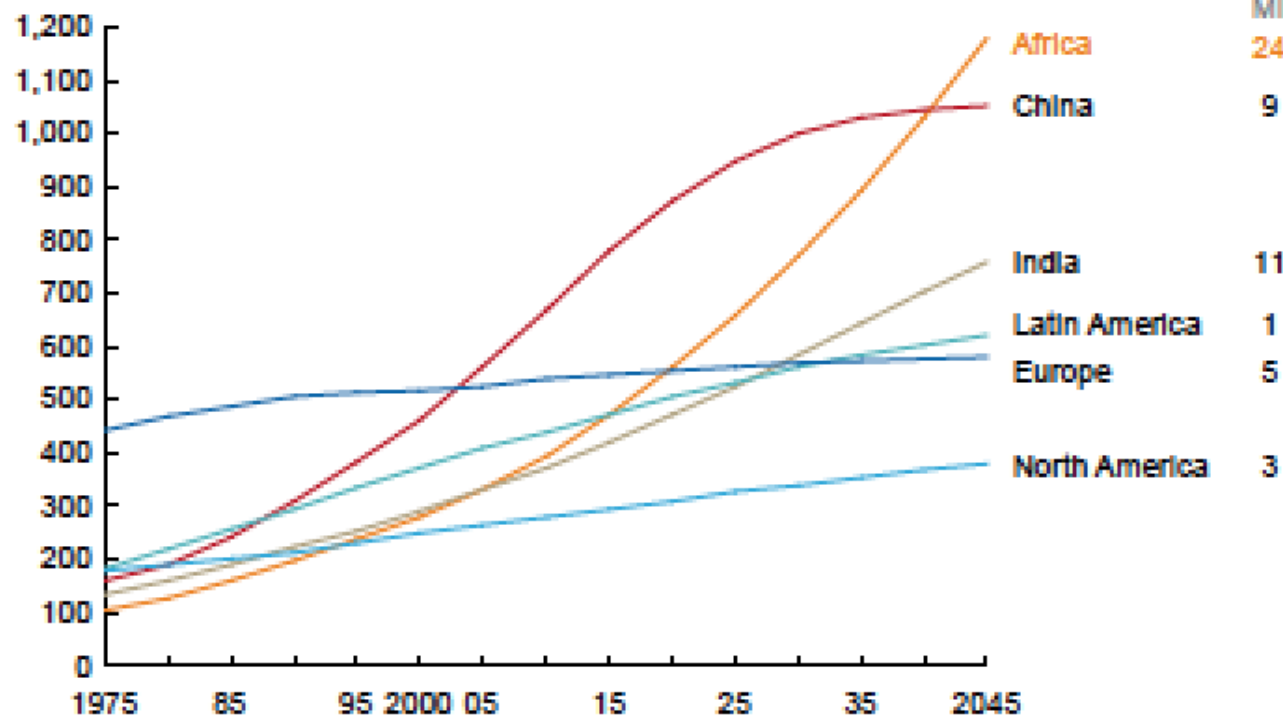


Exhibit E4

**Africa is urbanizing faster than any other region; its cities are expected to gain 24 million people each year until 2045**

**Size of the urbanized population<sup>1</sup>**  
Million



**Additional people living in urban areas per year, 2015–45**  
Million

**24**  
**9**  
**11**  
**1**  
**5**  
**3**

**Africa urbanized**

%

25 29 33 36 40 45 49 54

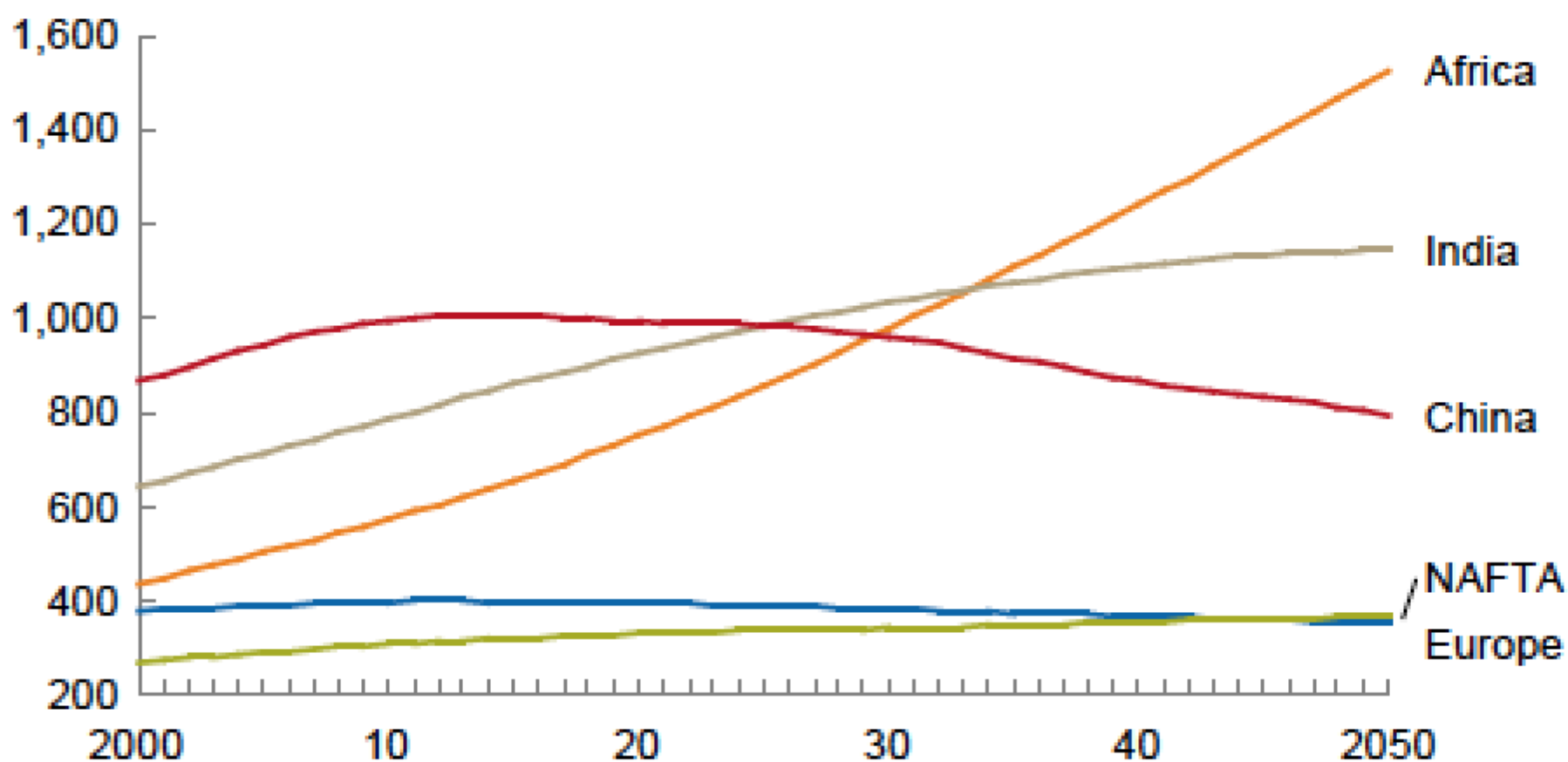
<sup>1</sup> Population living in urban areas. UN forecasts last adjusted in 2014.

## Exhibit 9

**Africa is set to have a larger working-age population than either China or India by 2034; employment is also picking up**

### Working-age population in largest countries and regions<sup>1</sup>

Million people aged 15–64

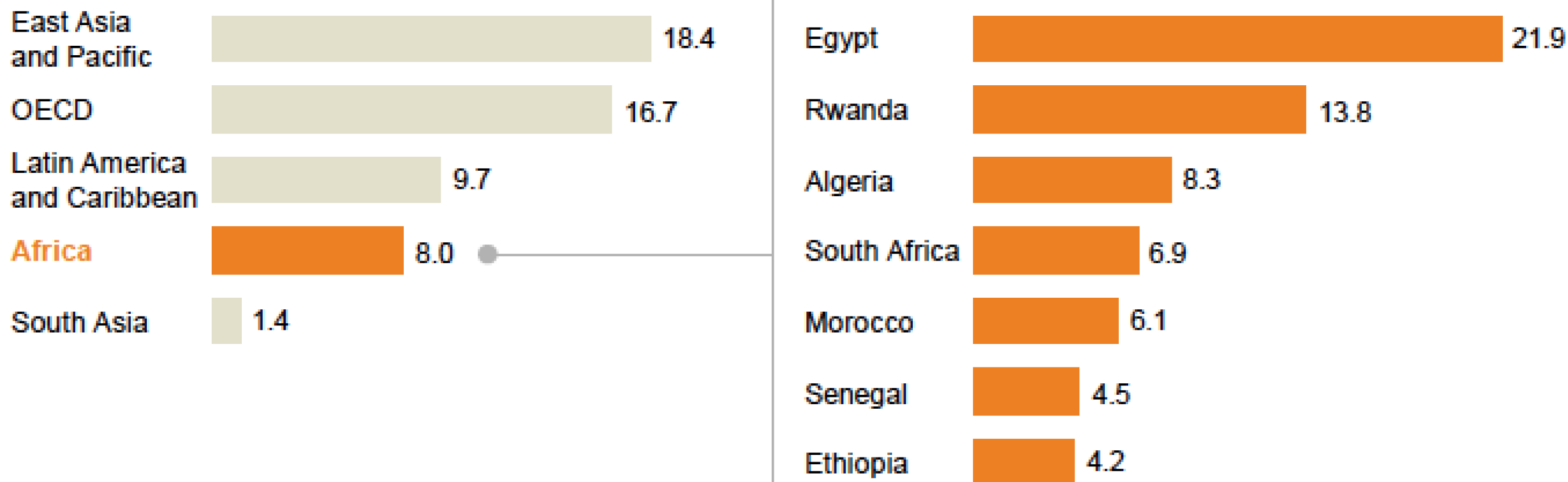


## Exhibit 59

### The penetration of vocational training is significantly lower in Africa than in other emerging markets

Share of students in secondary education enrolled in vocational programs<sup>1</sup>

%



<sup>1</sup> 2013 or most recent year.

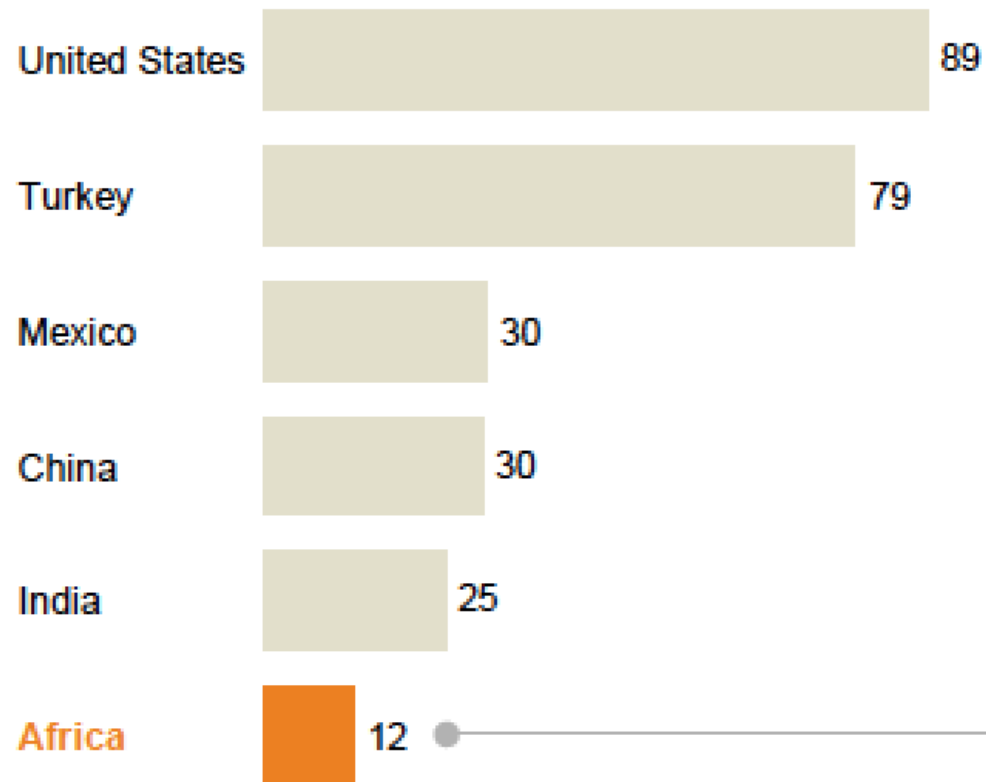
SOURCE: World Bank education indicators; McKinsey Global Institute analysis

Exhibit 60

Africa's tertiary educational enrollment is low by international standards; to catch up with India would require 16 million university places by 2025

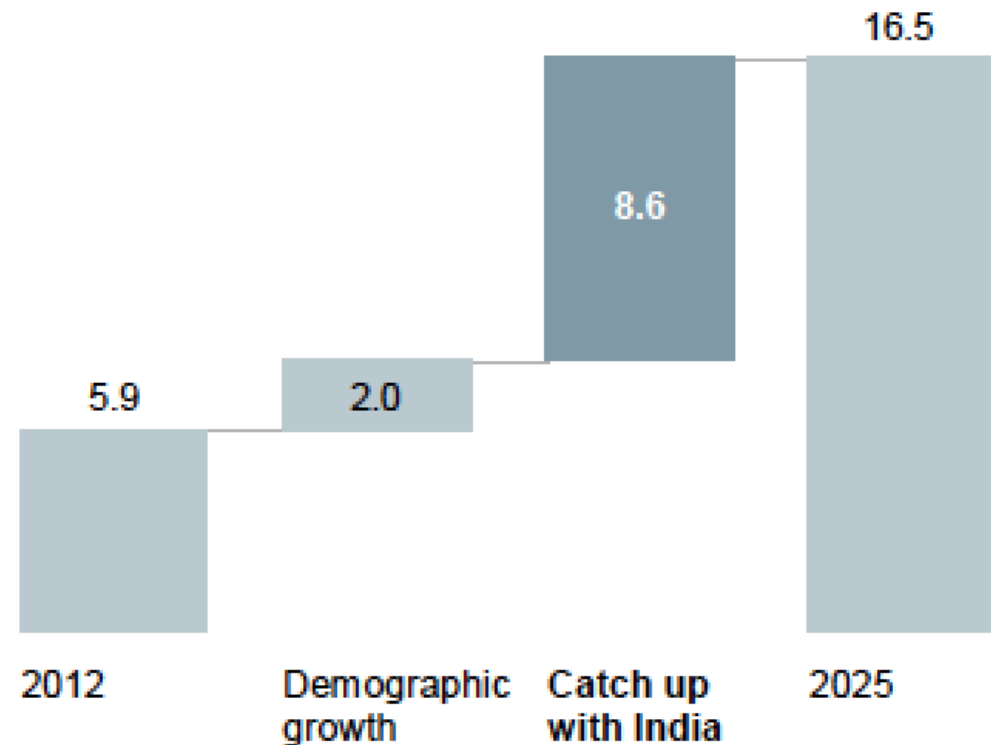
Tertiary education enrollment ratio, 2013

%



University slots needed by 2025

Million



NOTE: Numbers may not sum due to rounding.

SOURCE: World Bank education indicators; McKinsey Global Institute analysis

In 2016, the UN passed a resolution that declared that **access to the Internet was a basic human right.** (UN, Article 19)

The resolution later calls on **governments to promote digital literacy** and to facilitate access to information on the Internet, as it can be an important tool in facilitating the promotion of the right to education.

Further, the UN calls all states to **bridge the gender digital divide** and enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of all women and girls.”

Where policy makers have created an environment where **access and affordability** are being addressed, such innovation can flourish and benefit the farmers. (Digital Dividends)

Where policy makers have not provided a context where healthy competition is promoted between broadband providers, we see this bottle-necking of access and innovation can potentially be inhibited

# Lingering Questions

How do we address the need for **digital skills training**?

How do we encourage **equitable access to the marginalized** (often women, the youth, those with disabilities)?

How can we encourage **youth to consider agriculture** as a viable vocation or career? (i.e. How do we make farming “sexy”?)

How do we **prepare skilled agricultural workers** who:

Can think critically to problem-solve?

Can communicate and interact meaningfully face-to-face or using technology-mediated tools?



## Twitter Summary



Internet technology could increase annual agricultural productivity in Africa by \$3 BN per annum IF accessible affordable & equitable #IFAMA

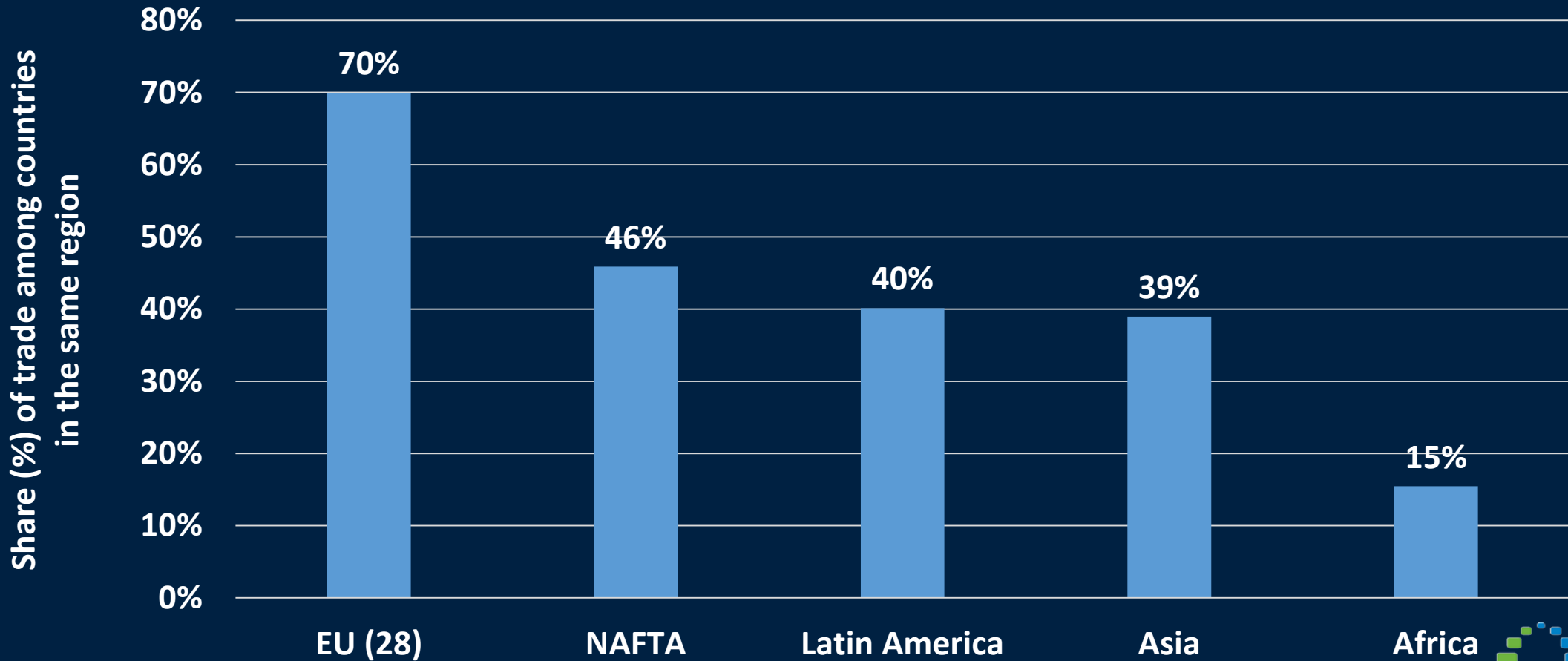
@sbrownpeters

# Trade dynamics – opportunities & challenges

Tinashe Kapuya



# Proportion of intra-regional agricultural trade (2011-2015 Avg)



Source: ITC (2016)



# The Malabo Declaration 26-27 June 2014

Source: African Union  
Assembly/AU/Decl.1(XXIII)

## V. Commitment to Boosting Intra-African Trade in Agricultural commodities and services

4. We commit to harness markets and trade opportunities, locally, regionally and internationally, and to this end we resolve:

a) to triple, by the year 2025, intra-African trade in agricultural commodities and services;

b) to create and enhance policies and institutional conditions and support systems:

- to simplify and formalize the current trade practices;
- to fast-track the establishment of Continental Free Trade Area (CFTA) and transition to a continental Common External Tariff (CET) scheme;
- to increase and facilitate investment in markets and trade infrastructure;
- to promote and strengthen platforms for multi-actors interactions;
- to strengthen and streamline the coordination mechanism that will facilitate the promotion African common position on agriculture-related international trade negotiations and partnership agreements.

# The Malabo Declaration 26-27 June 2014

Source: African Union  
Assembly/AU/Decl.1(XXIII)

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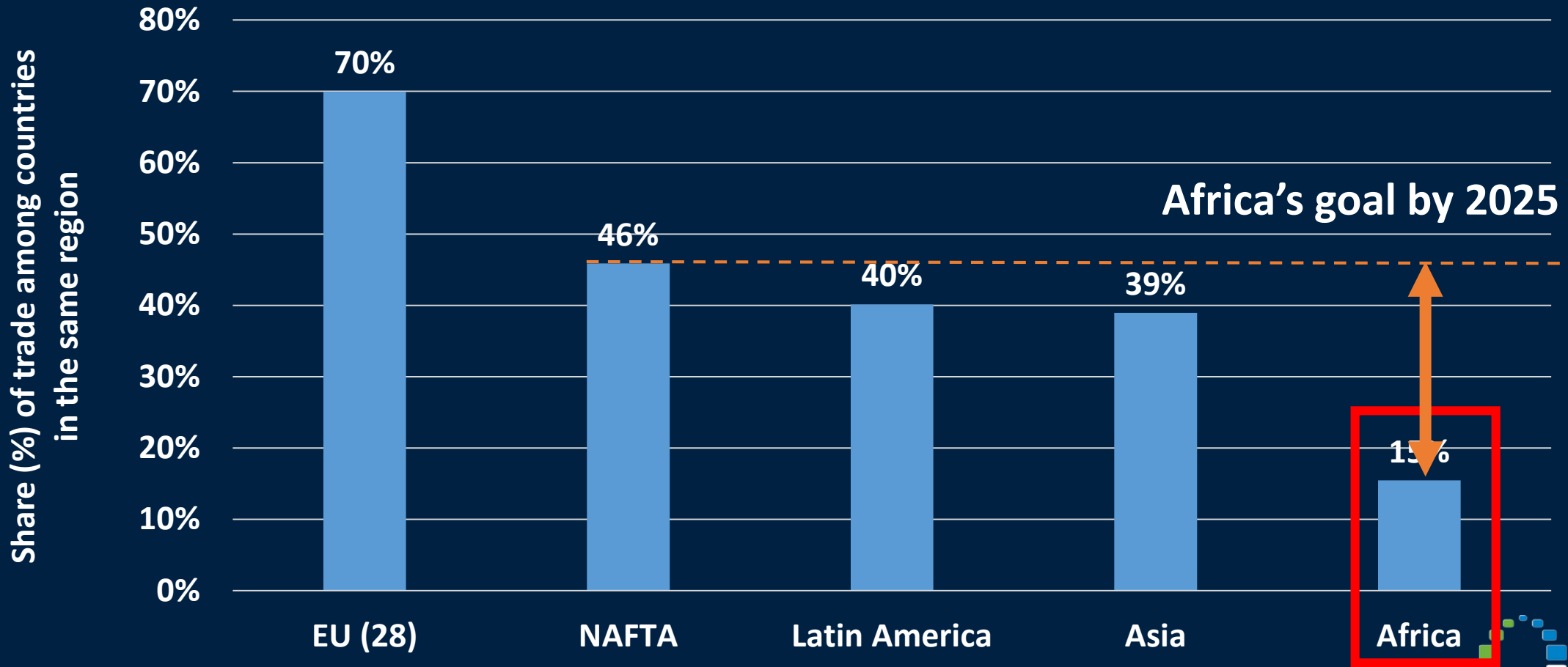
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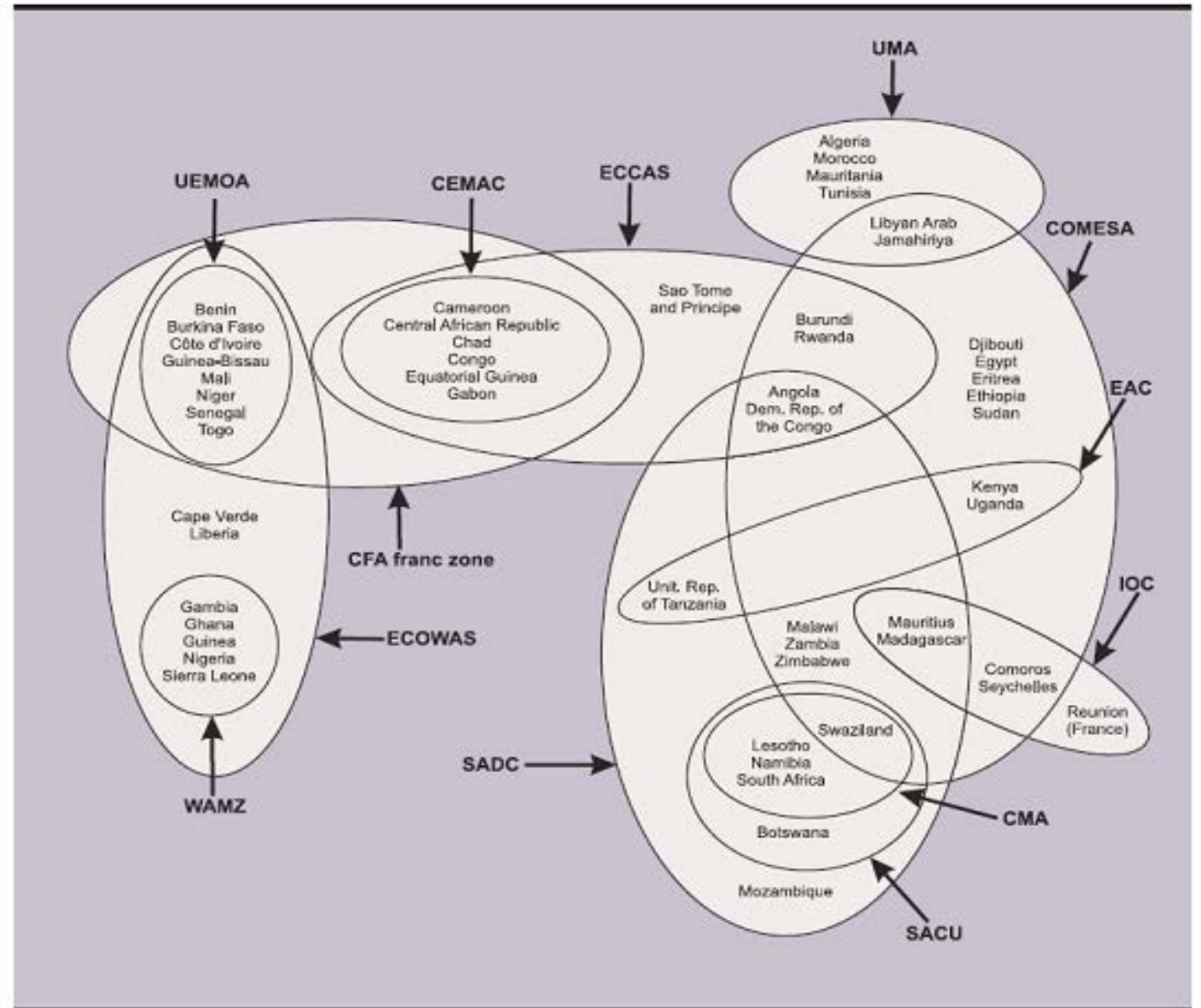
# Proportion of intra-regional agricultural trade (2011-2015 Avg)



Source: ITC (2016)

# The problem with Africa's trade agreements

## AFRICA: OVERLAPPING MEMBERSHIP IN REGIONAL INTEGRATION GROUPS



Source: UNCTAD (2006)

Source: UNCTAD secretariat, based on Tsangarides, Ewencyk and Hulej, 2006: 26.

Note: Comoros is also a member of the CFA franc zone.

# Implications of overlapping trade agreements

- Different rules, tariffs, standards, etc. across Regional Economic Communities (RECs) means higher transactions costs & inefficiencies in cross-border value chains
- One regional agreement could harmonize all tariffs and rules – and reduce the complexity of cross-border trade
- So the Tri-partite & Continental Free Trade Agreement (T-FTA and CFTA) are now a core strategy to promote intra-regional
- Could the T-FTA morph into a “mega-regional” trade agreement in the mould of the Trans-Pacific Partnership (TPP) or the Trans-Atlantic Trade and Investment Partnership (TTIP)?
- **NO! Because Africa is not looking at “new generation issues”, but rather, on tariff reduction and Rules of Origin (RoO)**



# Opportunities and Challenges

- Fast-growing and dynamic African agrifood market with strong economic growth, population growth and rapid urbanization
- African urban food markets are set to increase 4 times to exceed US\$400 billion (World Bank, 2015)
- CFTA + trade facilitation agreement (TFA) can **double** efficiency of customs procedures and **1/2 delay** of merchandises at ports = **an increase of intra regional 74%**. (ECA, 2015)
- This should be sufficient to meet the goal of tripling intra-regional trade in Africa by 2025
- However, the challenge is the collective political will (or lack thereof) to implement robust and efficient trade agreements and TFA measures



**Thank you**

