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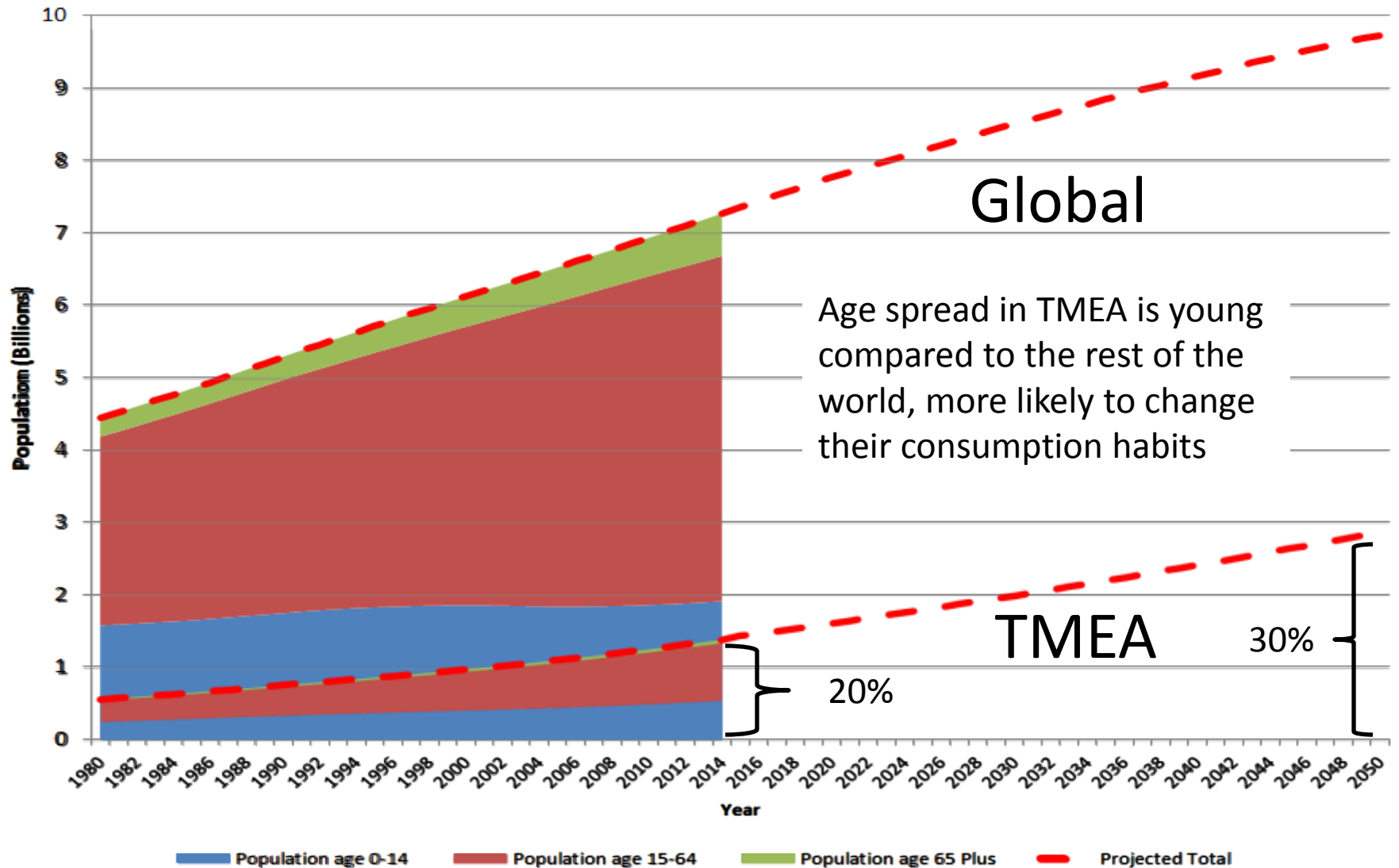
Turkey, Middle East and Africa Outlook for Poultry

February 2016

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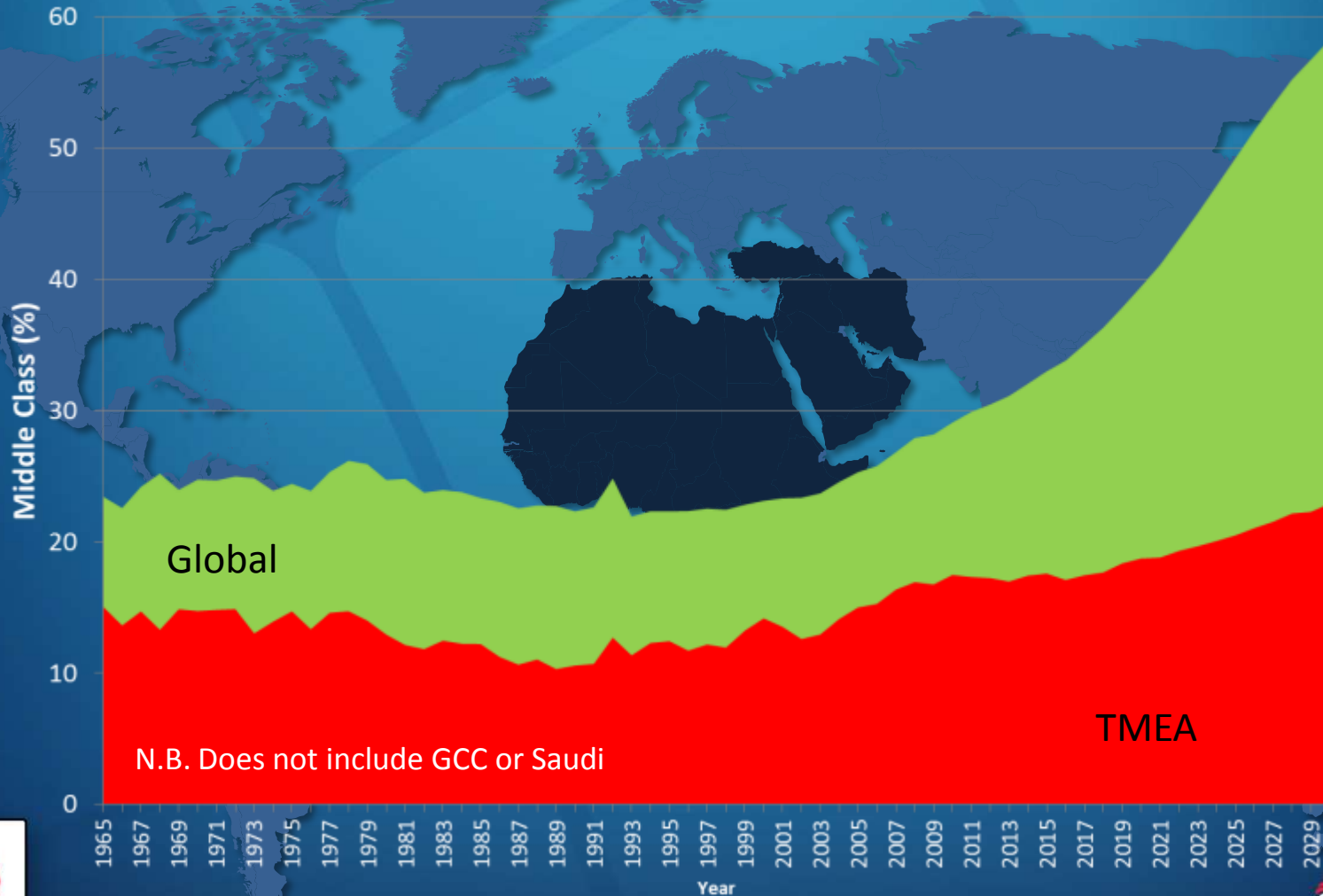
Population Explosion in TMEA

Adapted from World Bank World Development Indicators and UN Population Median Data



The Rise of the Middle Class

Percentage of Middle Class Population by Region (selected countries)



N.B. Does not include GCC or Saudi

TMEA

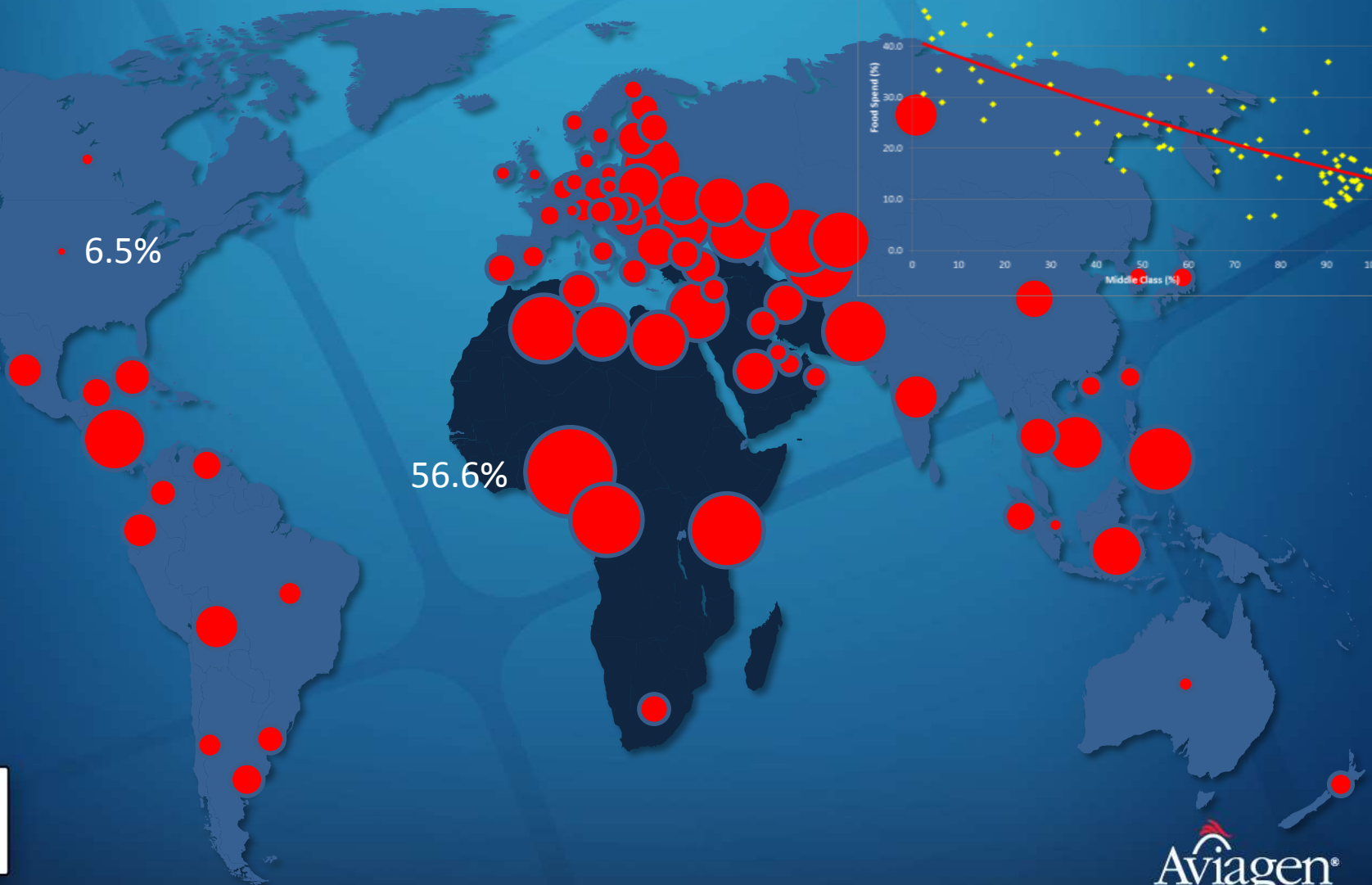


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Data adapted from Brookings Institute Global Data Indices 2014

Food Spend as % of Income



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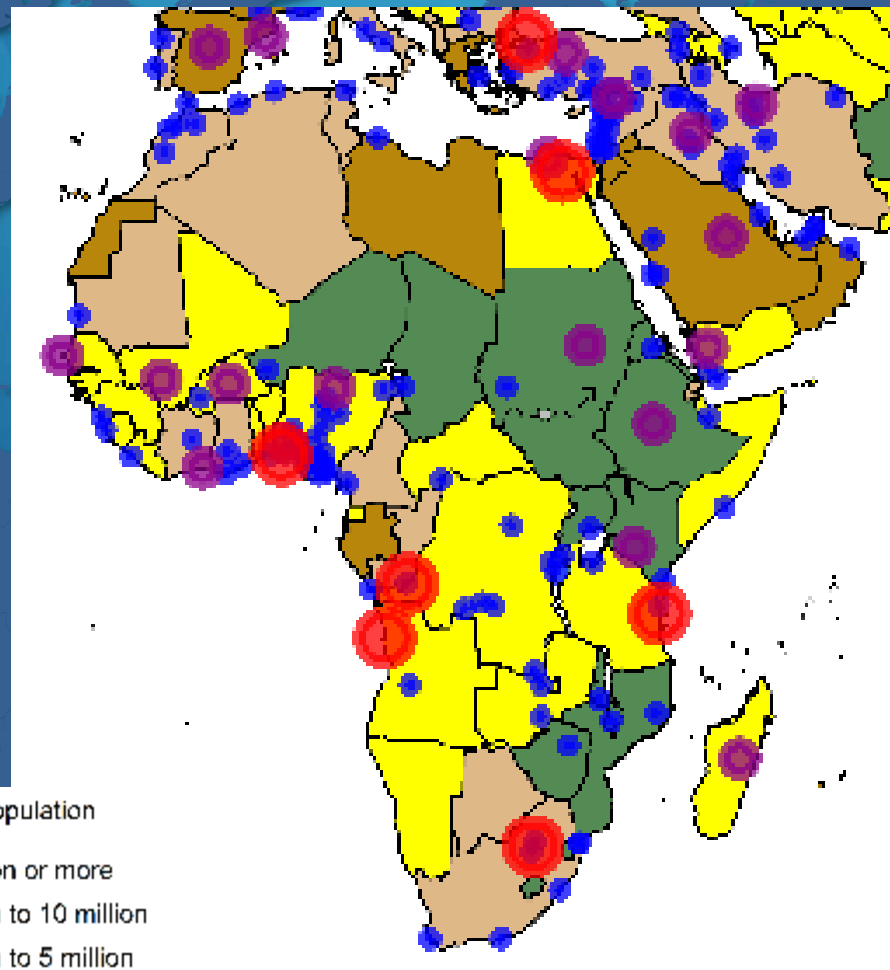


Data adapted from USDA / Euromonitor and Brooking s Institute

Urbanization

2030

By 2050 TMEA is projected to have 29 of the 100 largest cities in the world.



Rank	City	Pop (Mill)
4	Kinshasa	35.00
6	Lagos	32.63
11	Cairo	24.04
16	Kabul	17.09
19	Khartoum	16.00
20	Dar es Salaam	15.97
25	Baghdad	15.09
27	Luanda	14.30
29	Nairobi	14.25
30	Istanbul	14.18
31	Addis Ababa	13.21
42	Tehran	11.00
44	Abidjan	10.71
45	Kano	10.44
50	Sana'a	10.05

Protein Consumption In TMEA



Big regional divides exist, MENA = 50% Poultry, SSA = 23% Poultry



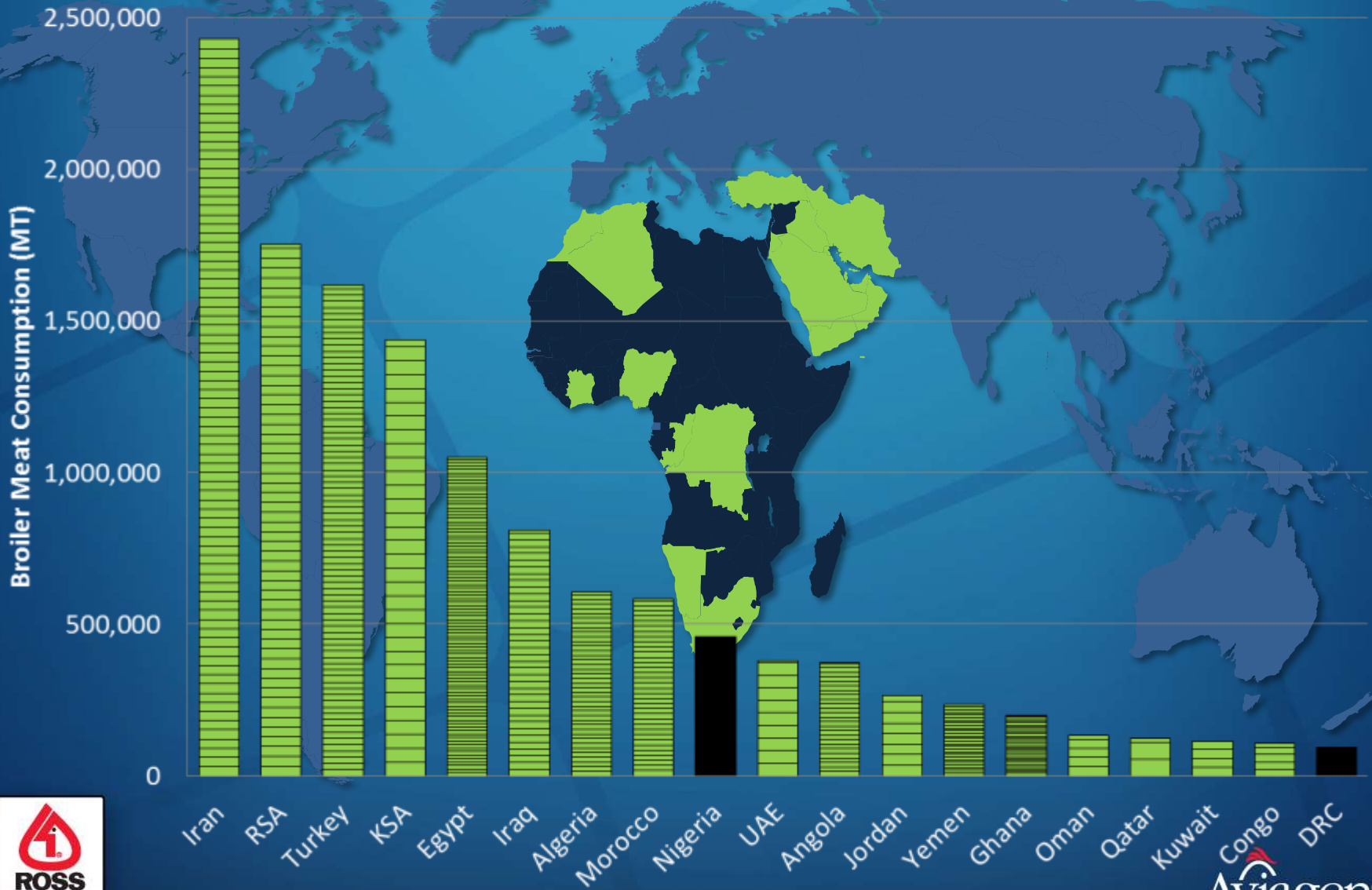
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Data adapted from GIRA 2015

Regional Top Broiler Meat Consuming Countries

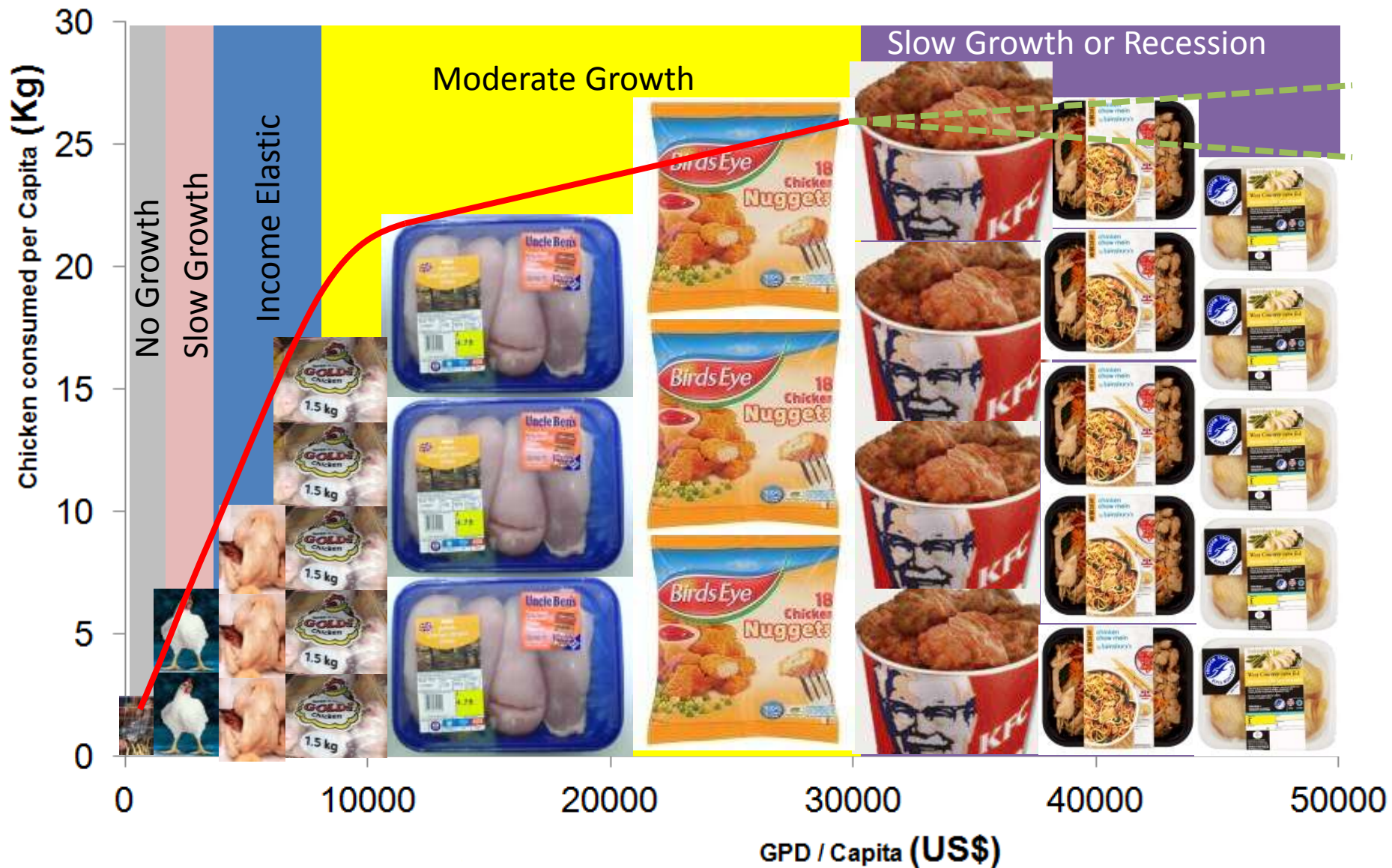
Each block represents the consumption of 1 Million Population



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Changes in How we Consume Chicken with Income



The Rise of Global Fast Food



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The Rise of Multi-National Grocers

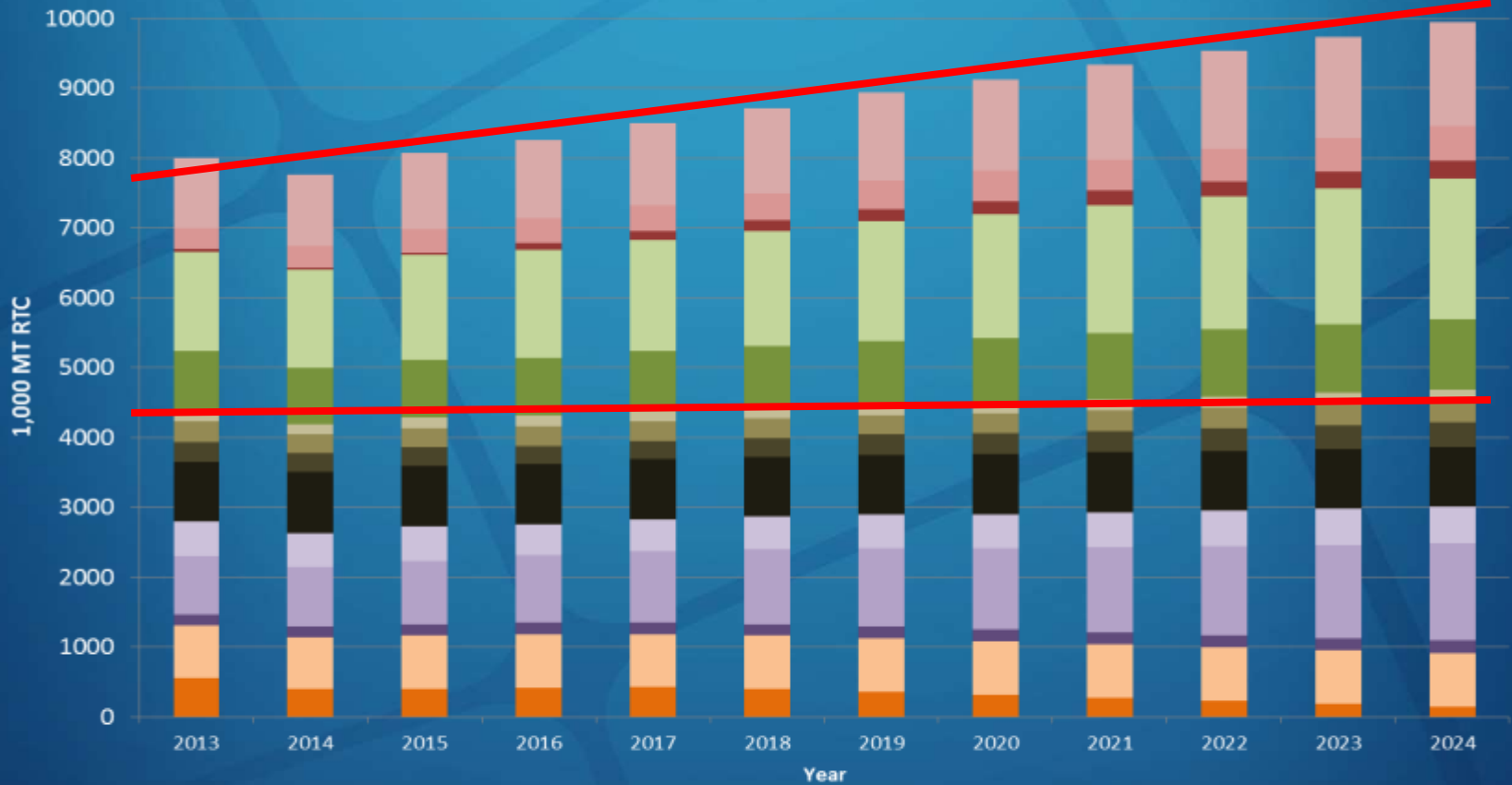


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Importers

Major Importers of Chicken and Turkey Meat Projected Imports



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- Russia
- EU
- Canada
- Mexico
- C. America/Caribbean
- Japan
- Hong Kong
- China
- South Korea
- Saudi Arabia
- Middle East
- North Africa
- West Africa
- Sub-Sahara



USDA Long-term Projections, February 2015

Local Exporters

- Turkey
 - Currently only regional exporter of size
 - High degree of market protection
 - Based on production surplus
 - Main markets:
 - Iraq (50%)
 - Russia – Closed due to sanctions
 - Tajikistan and Angola
 - Islamic State is preventing access to some markets
 - Iraqi import taxes make Turkish product \$225 more than Brazilian product.
 - Surpluses are likely to increase driving down prices
- Iran
 - Wants to be largest Muslim exporter in 5-7 years
 - Currently using floor space for about 8 Million PS, but capacity is 15 Million



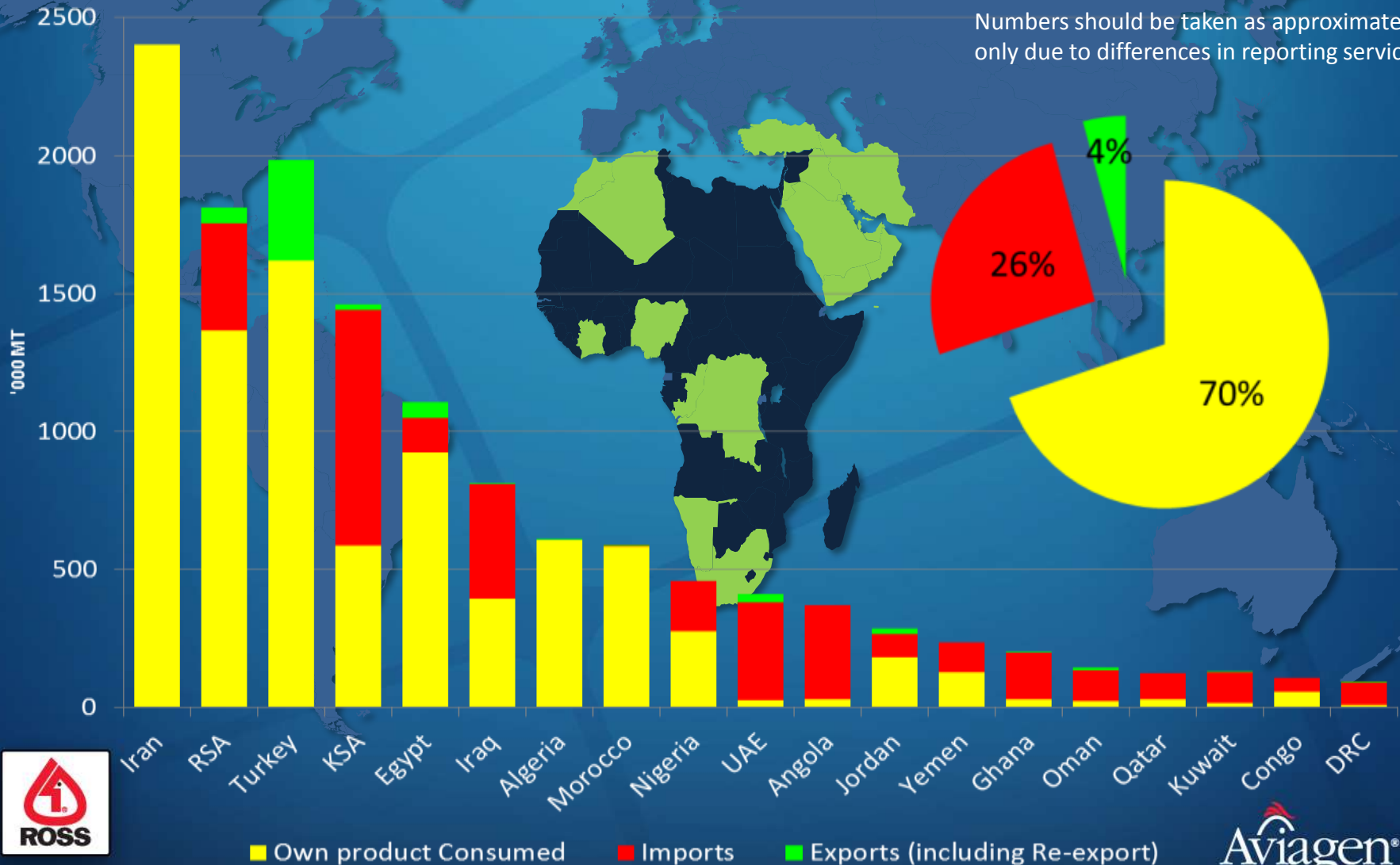
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Balance of Trade

Balance of Poultry Trade Regional Top Consuming Countries

Numbers should be taken as approximate only due to differences in reporting services



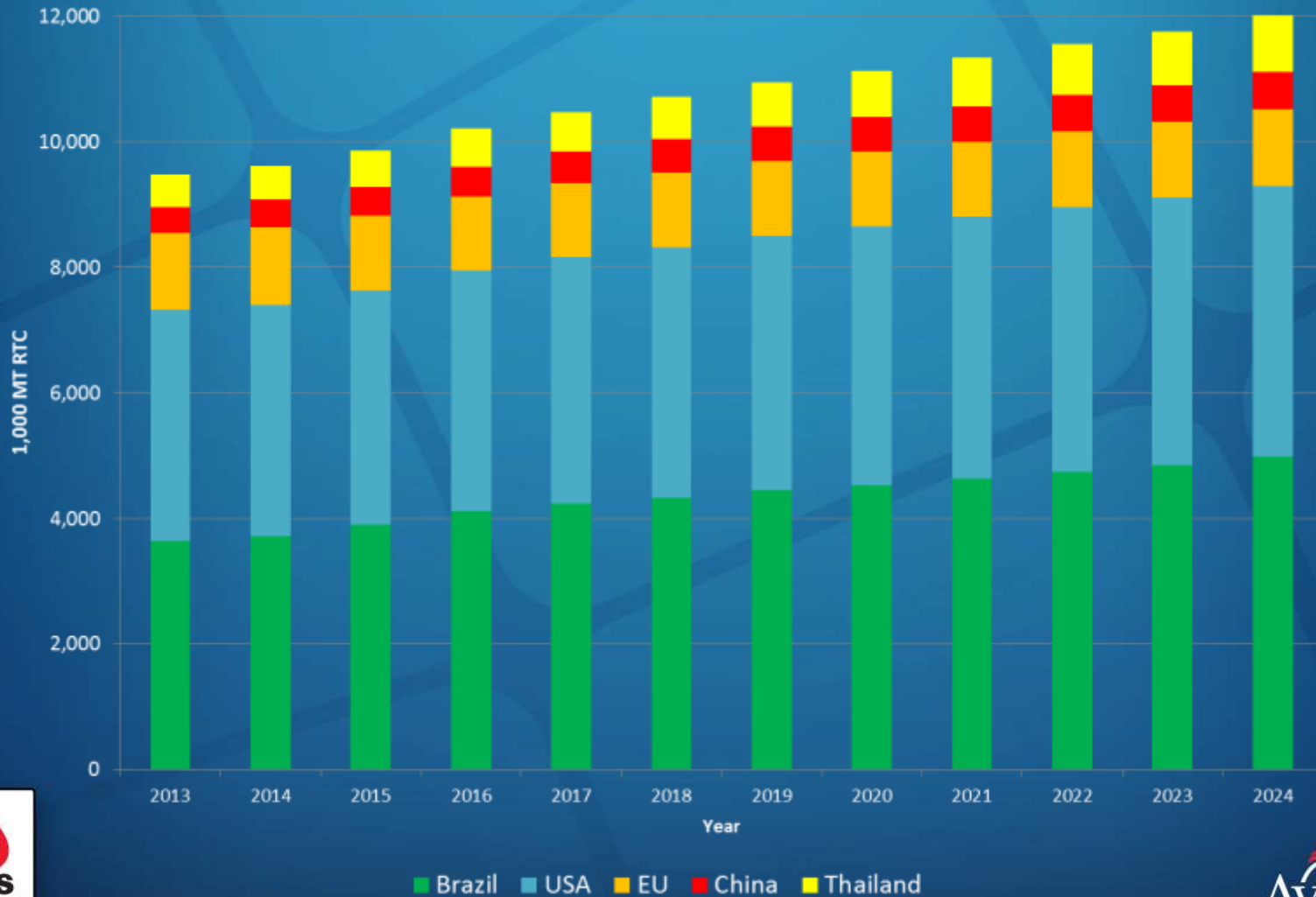
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Adapted from various sources including TradeMap, FAO, USDA, GIRA

Global Exporters

Major Chicken and Turkey Meat Exporters Projected Exports



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USDA Long-term Projections, February 2015



Global Exporters

- USA

- Generally low value products, surplus to domestic requirements.



- Europe

- Mixture of high and low value products

- Brazil

- Generally purpose produced for export and customer requirements



- China

- Generally specialized products to other Asian countries

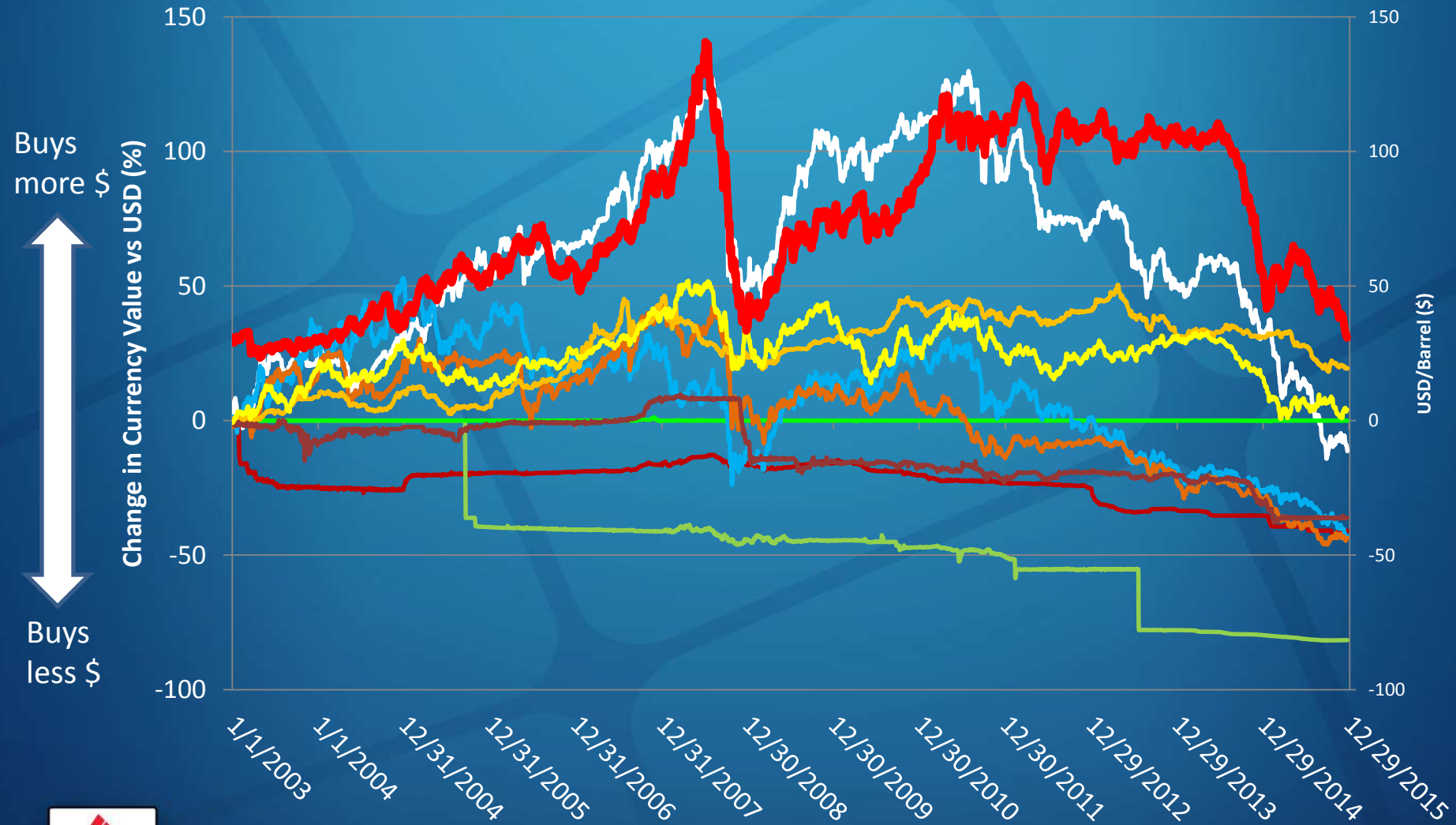


- Thailand

- Generally value added, further processed and cooked



Percentage Change in Currency Value Versus US Dollar from 1/1/2003 and OPEC Crude Oil Price



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— AED — BRL — EGP — IRR — SAR — ZAR — TRY — THB — NGN — EUR — OPEC Oil Price



Prices 11 Feb 2016



USD 28.59



USD 27.15

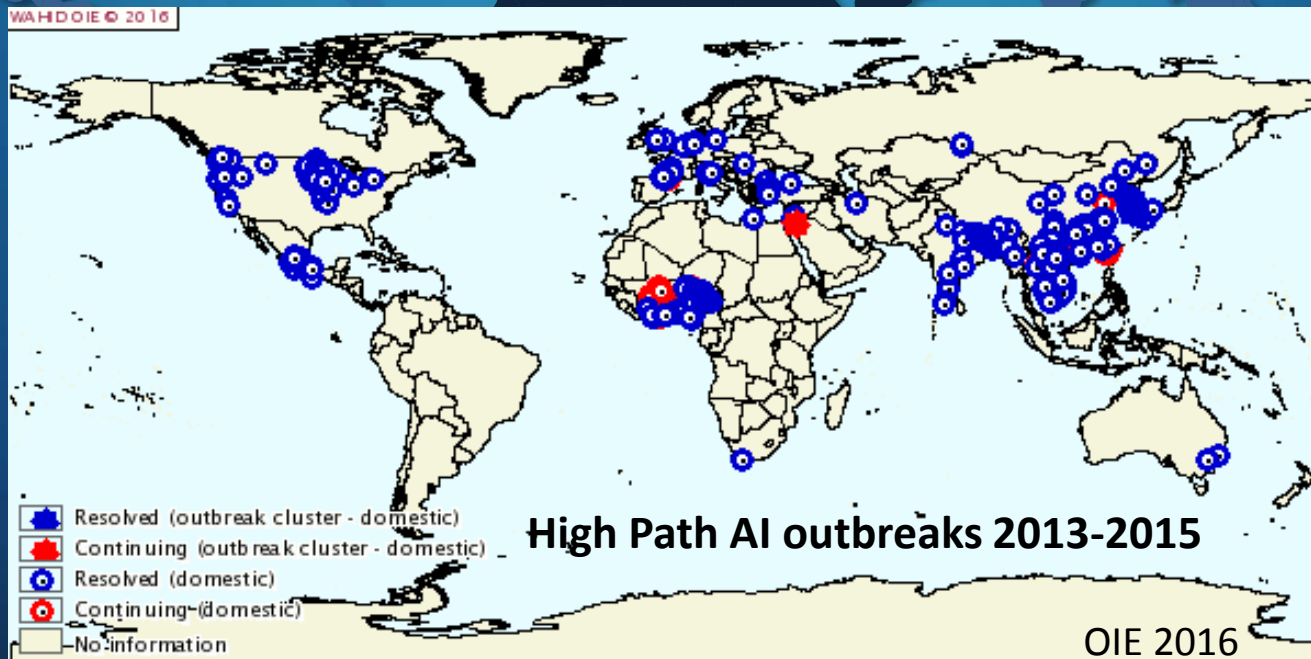


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Disease

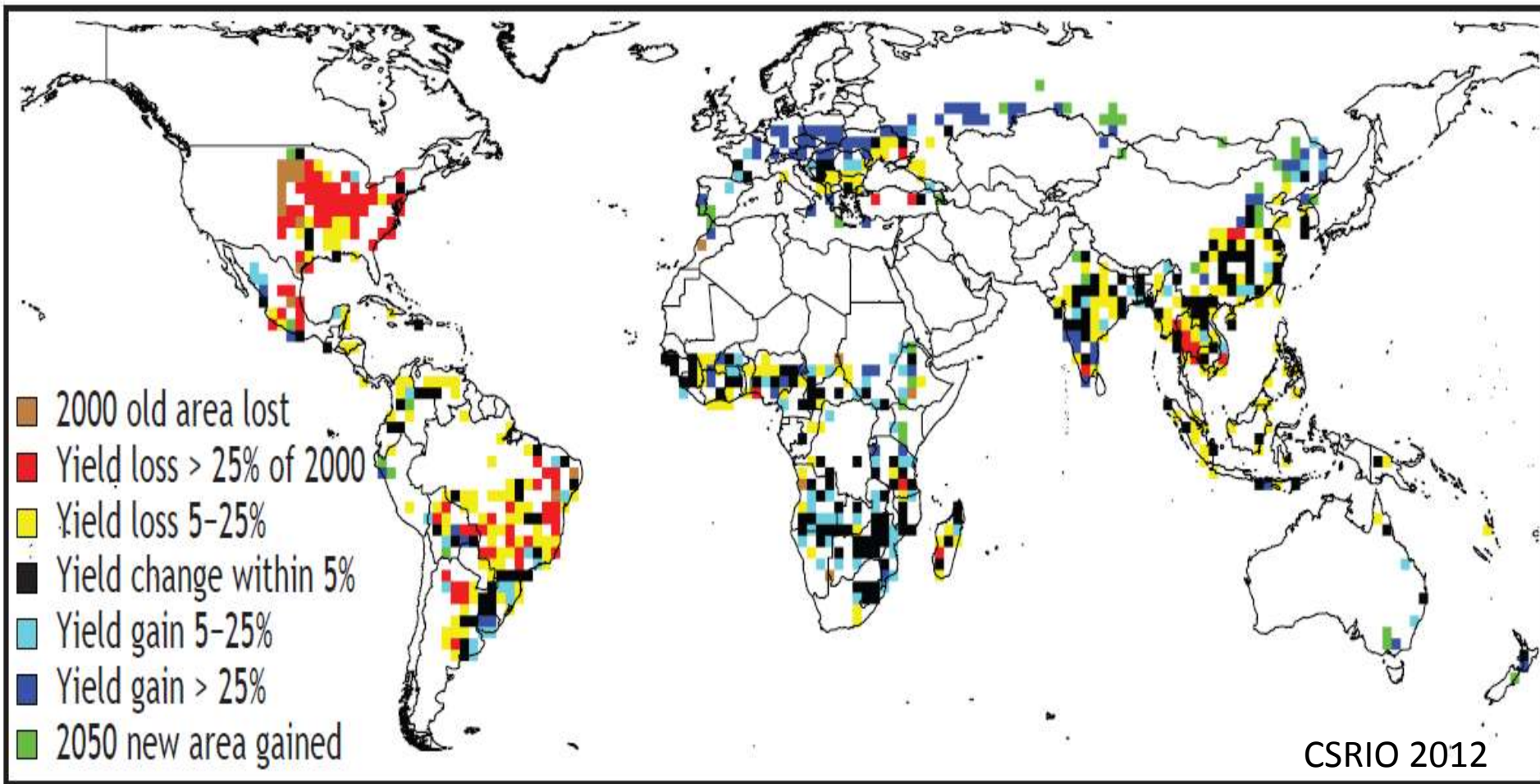
- Most countries in the region have avoided the worst of high path AI (so far).
- However other diseases that have a significant economic impact are highly prevalent in the region.
- Increased biosecurity and surveillance is critical.



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Estimated Yield Effect of Climate Change – Un-irrigated Maize



Change

Drivers

- Universally acceptable
- Increasing Income
- Rising Population
- Urbanization
- Convenience
- Food Security
- Often Government support
- Preference for local and fresh

Brakes

- High & rising production costs
- Relatively cheap imports
- Disease control and mortality
- Infrastructure
- Environmental control
- Lack of cold chain
- Preference for “village” bird



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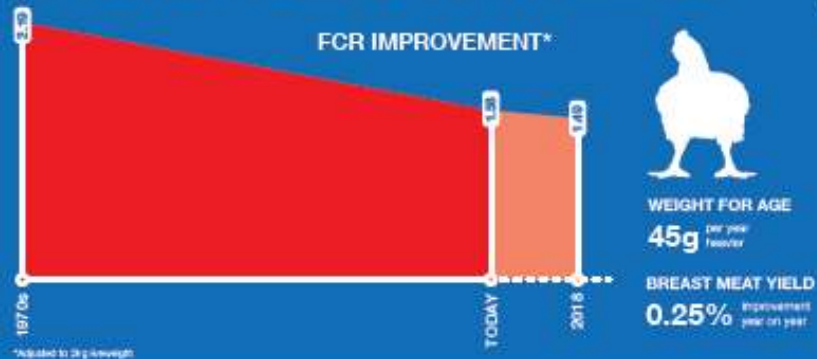
ROSS® CELEBRATES 60 YEARS OF SUCCESS



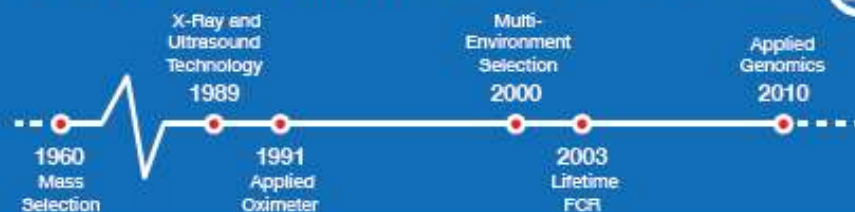
ROSS' GLOBAL IMPACT¹



IMPROVED PRODUCT PERFORMANCE²



PIONEERING SCIENTIFIC INNOVATIONS



DIVERSIFIED PRODUCT PORTFOLIO



SUSTAINABILITY IMPROVEMENTS³



REFERENCES 1. Aviagen® market survey. 2. Genetic predictions from Aviagen Breeding Program verified by product trials. 3. Internal global feed savings evaluations based on estimates from Ross (2015).

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