



APEC Workshop on Food Security

Tokyo, Japan

26 September 2012

Bruce Blakeman
Vice President, Asia Pacific
Cargill





Cargill is
an international producer and marketer of
food, agricultural, financial and industrial
products and services



Cargill is composed of over 75 businesses, operates in 65 Countries & has over 140,000 employees

Animal and aqua nutrition & feed

Financial & risk management

Commodity trading & processing

Food & beverage ingredients

Meats & proteins

Foodservice

Energy, petroleum & fuels trading

Health & personal care

Farmer services

Salt

Overseas shipping

Metals & minerals trading



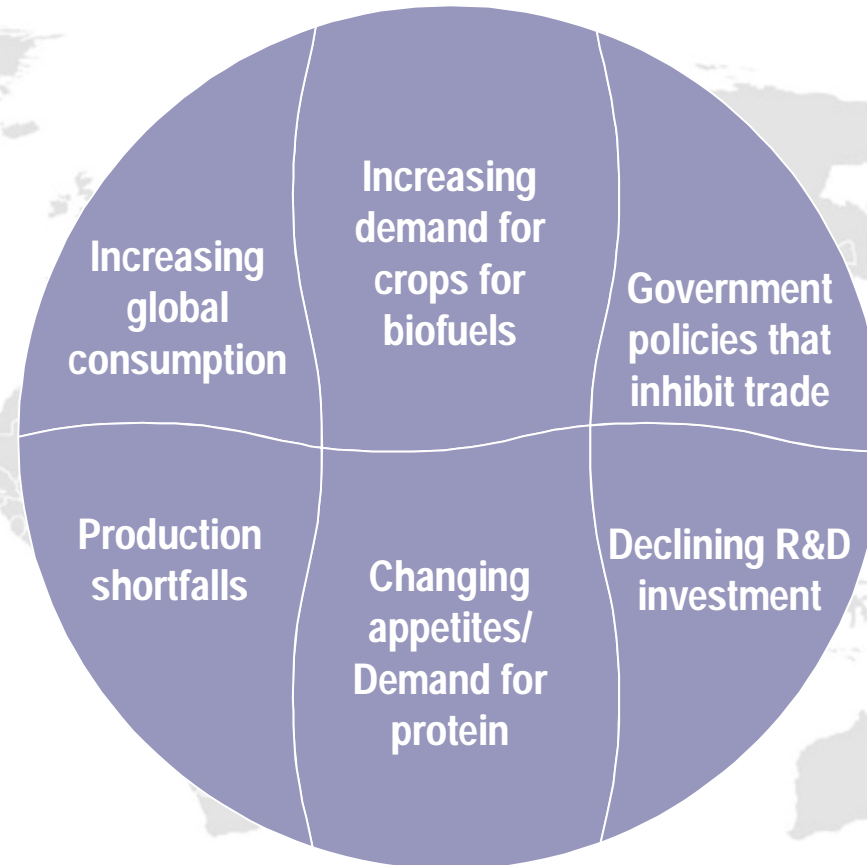


Can we feed the world? **YES!**



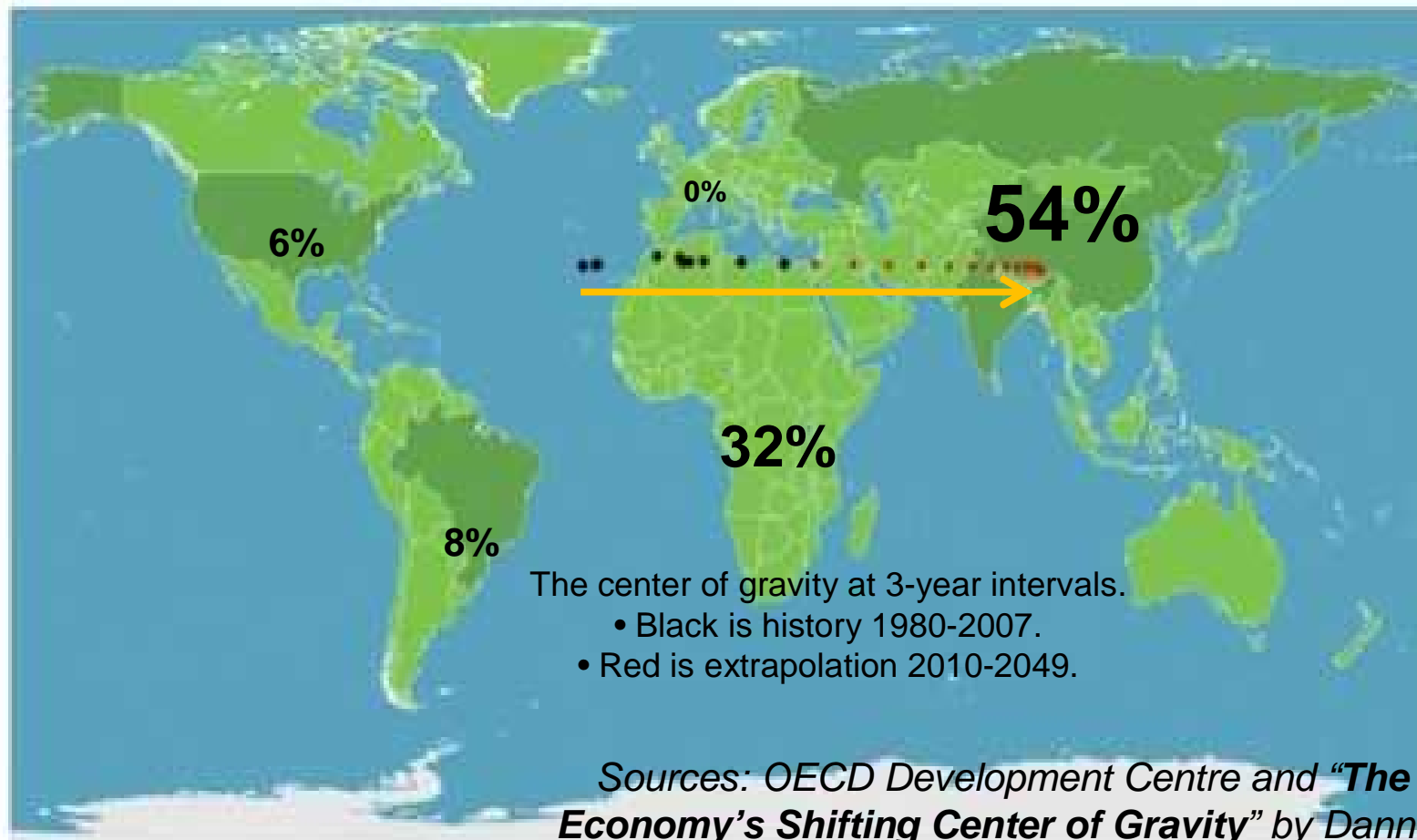
The Complexity of Food Security

In the mix:



Population & economic growth are moving towards Asia from the West

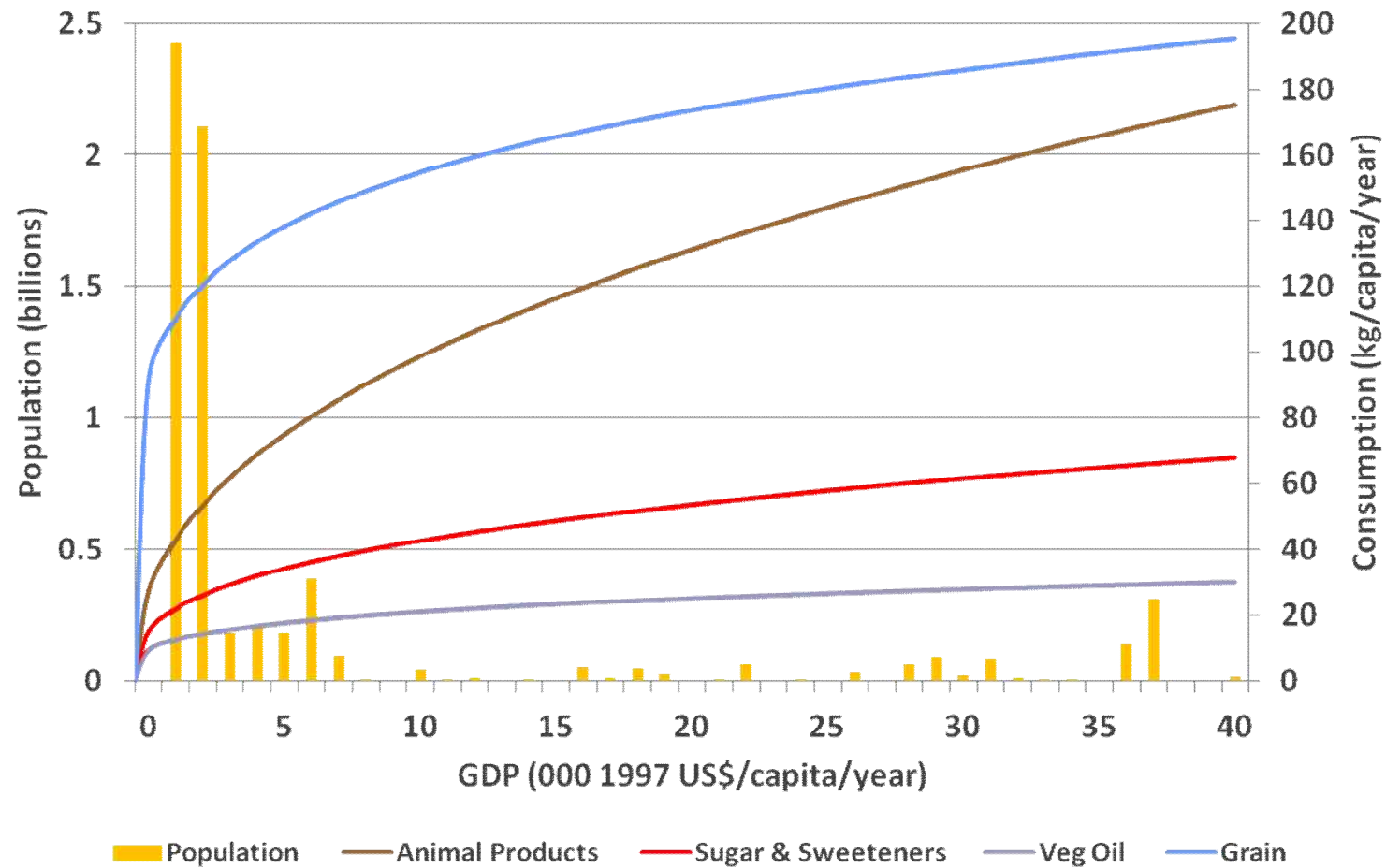
Population growth numbers plotted onto the notional map of centre of economic gravity.



Sources: OECD Development Centre and ***"The Global Economy's Shifting Center of Gravity"*** by Danny Quah (EconoMonitor, Aug 2010)

Food Consumption vs. Income

(Animal products includes meat, fish/seafood, eggs – no dairy)

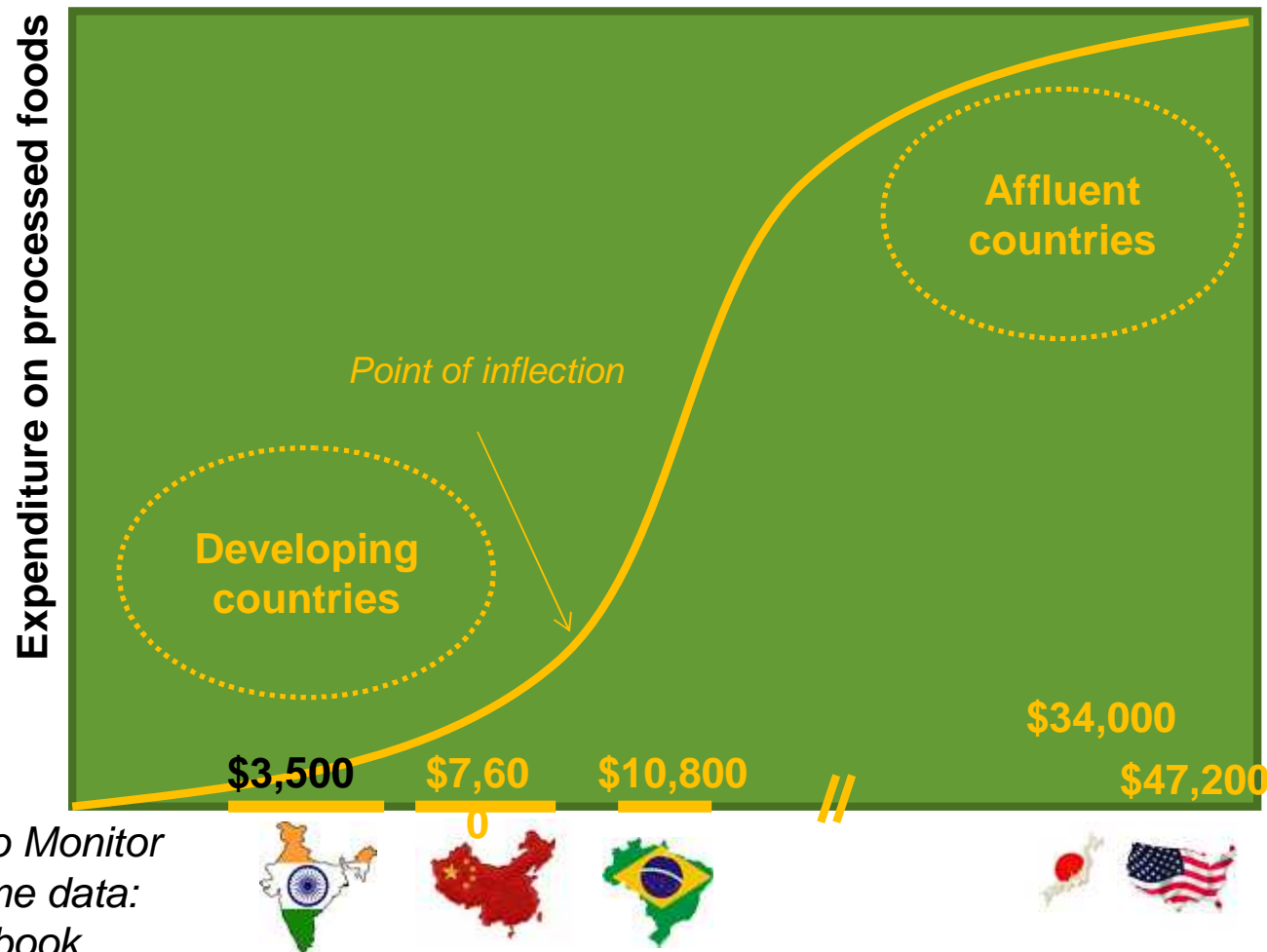


Source: Internal Cargill Analysis

What *drives* food demand?

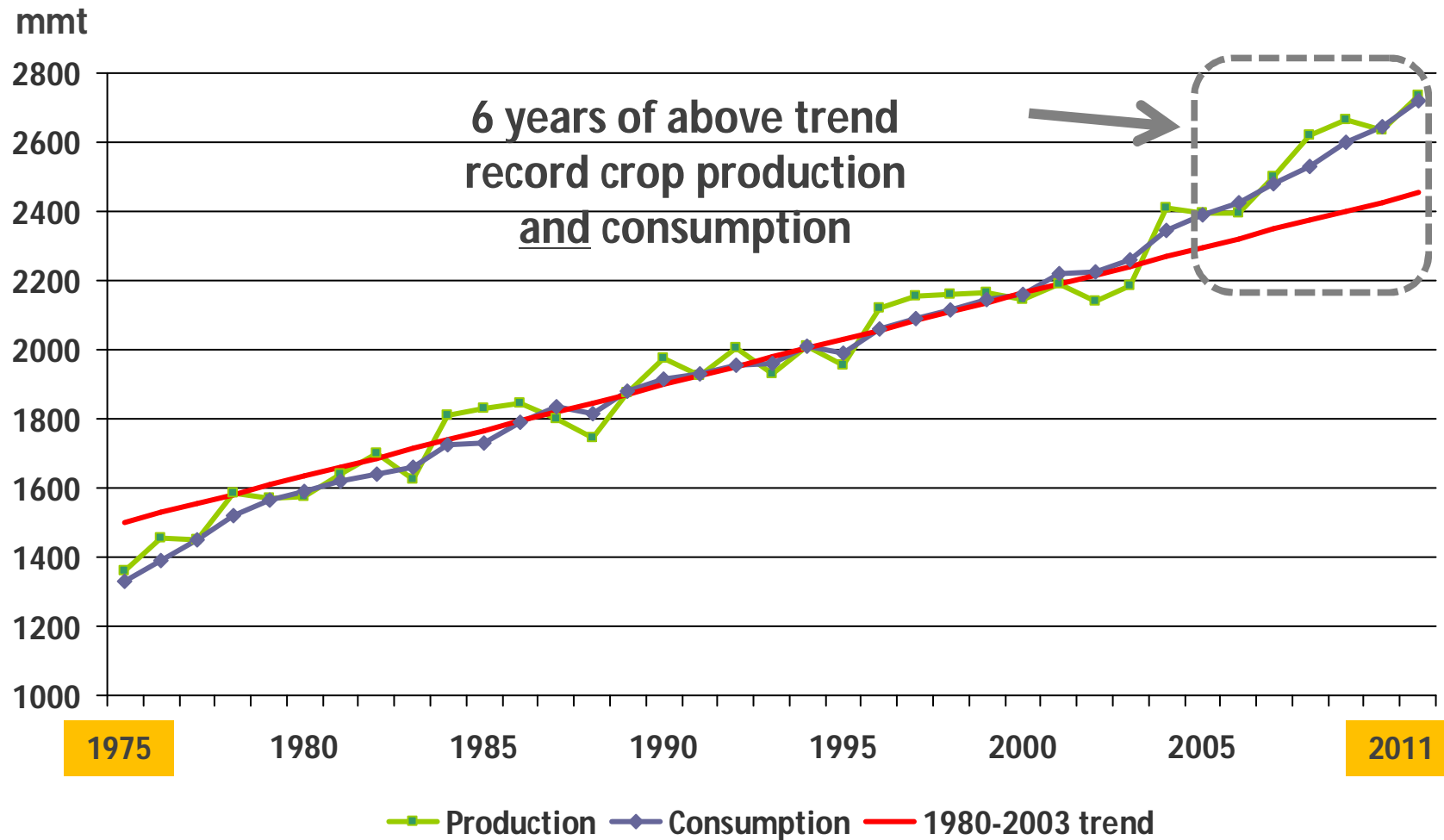
Processed food demand: the S-curve

Real per capita disposable income in PPP terms



Based on Euro Monitor
Source income data:
CIA Fact book

Global Production and Consumption of Grain, Rice and Major Oilseeds

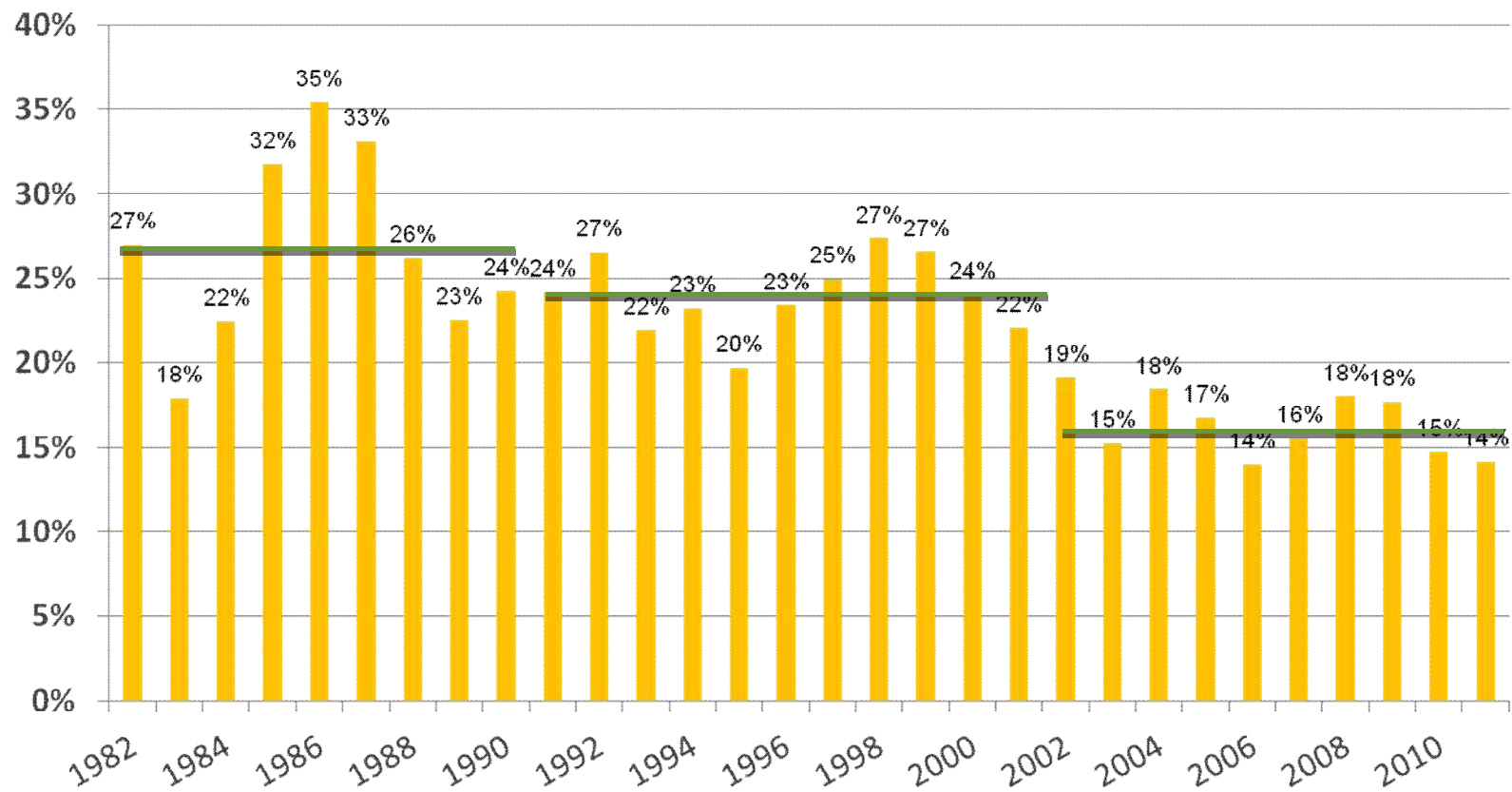


Source: USDA

Grains – Less Room for Error

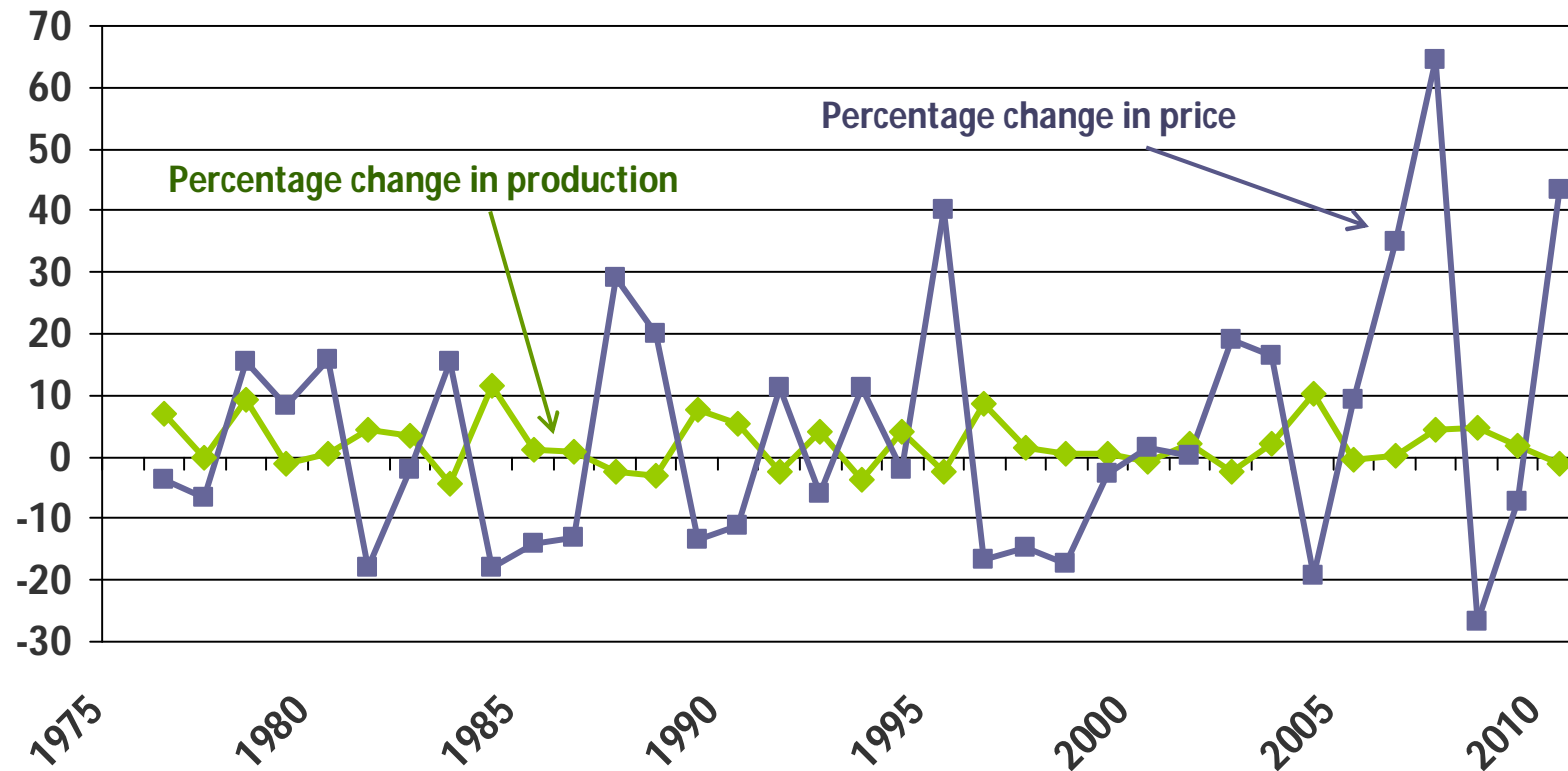
WORLD COARSE GRAIN STOCK % OF USAGE

SOURCE: USDA



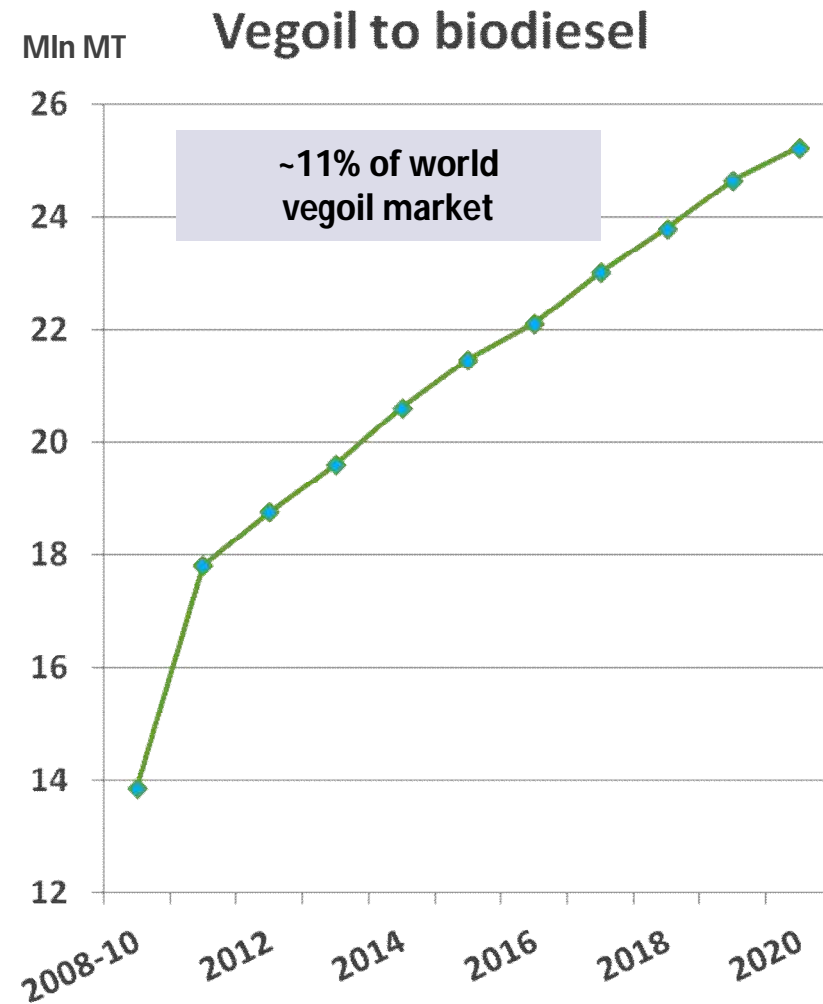
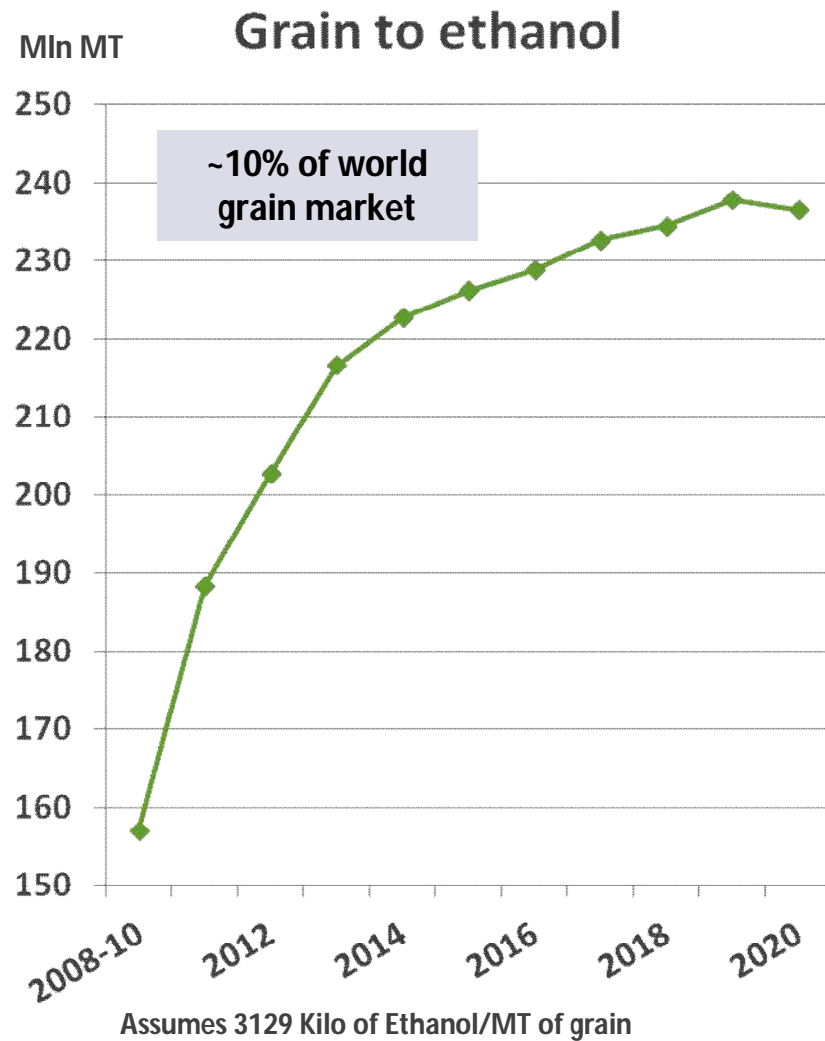
Global Food Production vs. Price

(production of grain, rice, major oilseeds, PO, FSHM vs. corn/soybean/wheat futures price index)



Source: USDA

Biofuels Volumes – a Major Shift



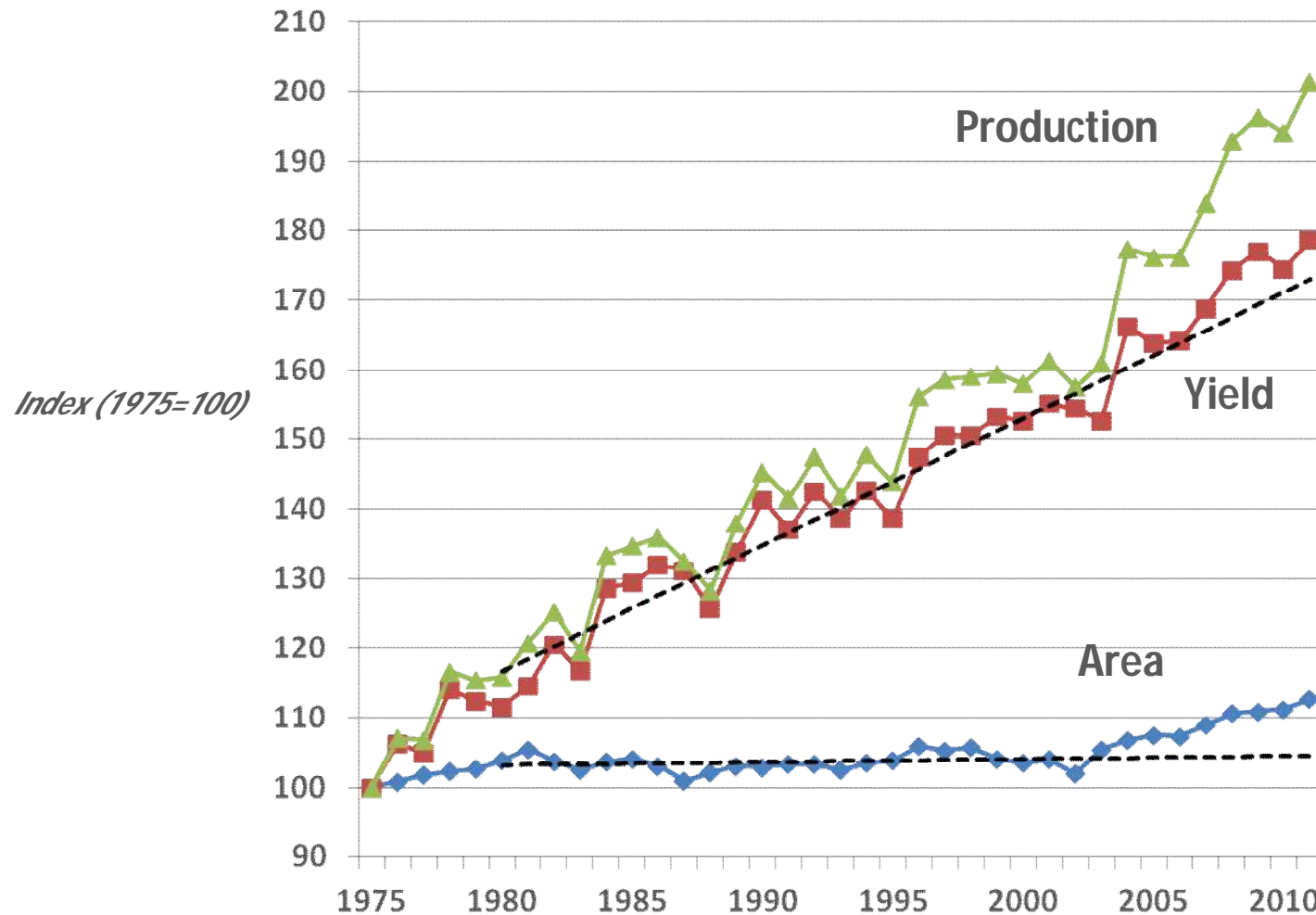
Source: OECD/FAO/USDA

So what needs to happen?

- Increase farm productivity – increased yields
- Liberalize trade of food
 - Trade agreements
 - Standards harmonization/SPS
 - Quotas
- Increased investment in logistics
- Allow flexibility in biofuel mandates
- Tap Africa's potential

Key Driver of Production Growth: Yield Increase

Genetic improvements and fertilizer intensification drive supply expansion through yield -- acreage has not been a significant supply drive until recently



Source: USDA

Comparative Advantage

The world will always raise the most food the most economically if every farmer plants the right crop for the soil and climate, and then trades with others.



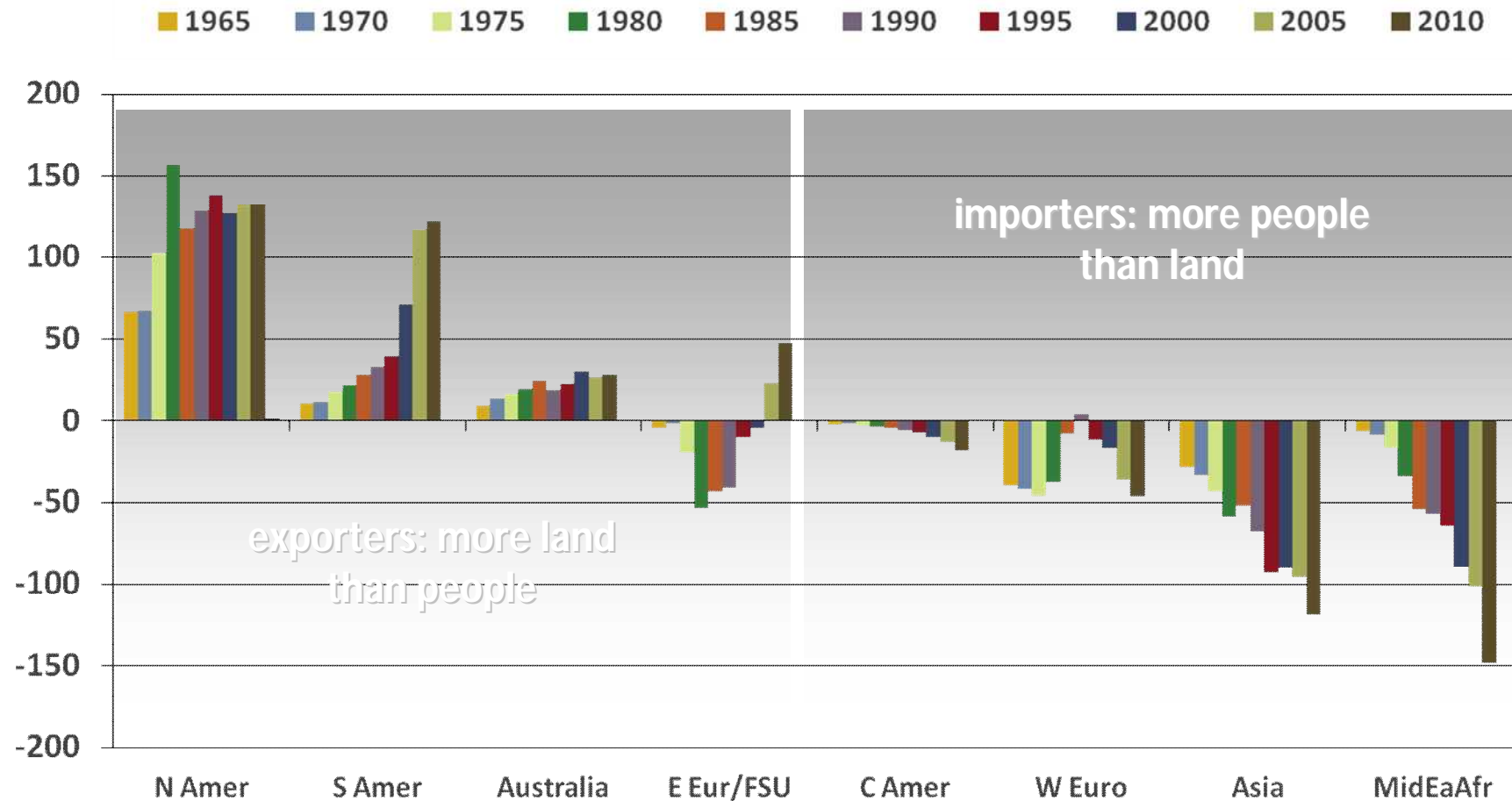
David Ricardo

Increasing Productivity

- Provide farmer training, especially to small holder farmers
 - Governments need to invest in extension services
- Give farmers access to the best technology – seeds, growing techniques, fertilizers, insecticides
- Provide certainty of land ownership rights to farmers
- Provide financing to farmers
- Allow clear market signals to farmers so they can make decisions on what & how much to grow
 - Price discovery to farmers

World Food Flows

(grains, rice, oilseeds, meals, oils, feed equivalent of meat – net interregional in mmt)





Free Trade Facilitates Access to Food

- Global food supplies fluctuate less than local harvests
- For food to move from areas of surplus to areas of deficit, it must be traded
- Countries need to commit to “no export bans” on food
- New trade agreements need to be negotiated
- Behind the border issues need to be addressed:
 - Harmonization of Standards
 - SPS equivalency recognition
 - End Import Quotas

Investment in Logistics

- A recent study estimated that 40% of all crops in India goes to waste because of lack of proper storage and cold-chain -- so an incredible amount of food is wasted because we cannot get it from the farm to where it is needed
- Governments need to increased investments in ports, rail and roads to move crops to market
- Farmers and the private sector need to invest in on-farm storage and cold-chains

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 ²
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
TOTAL	30.102
AFRICA	30.221

In addition to the well known social issues of *illiteracy* and *immaturity*, 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*).

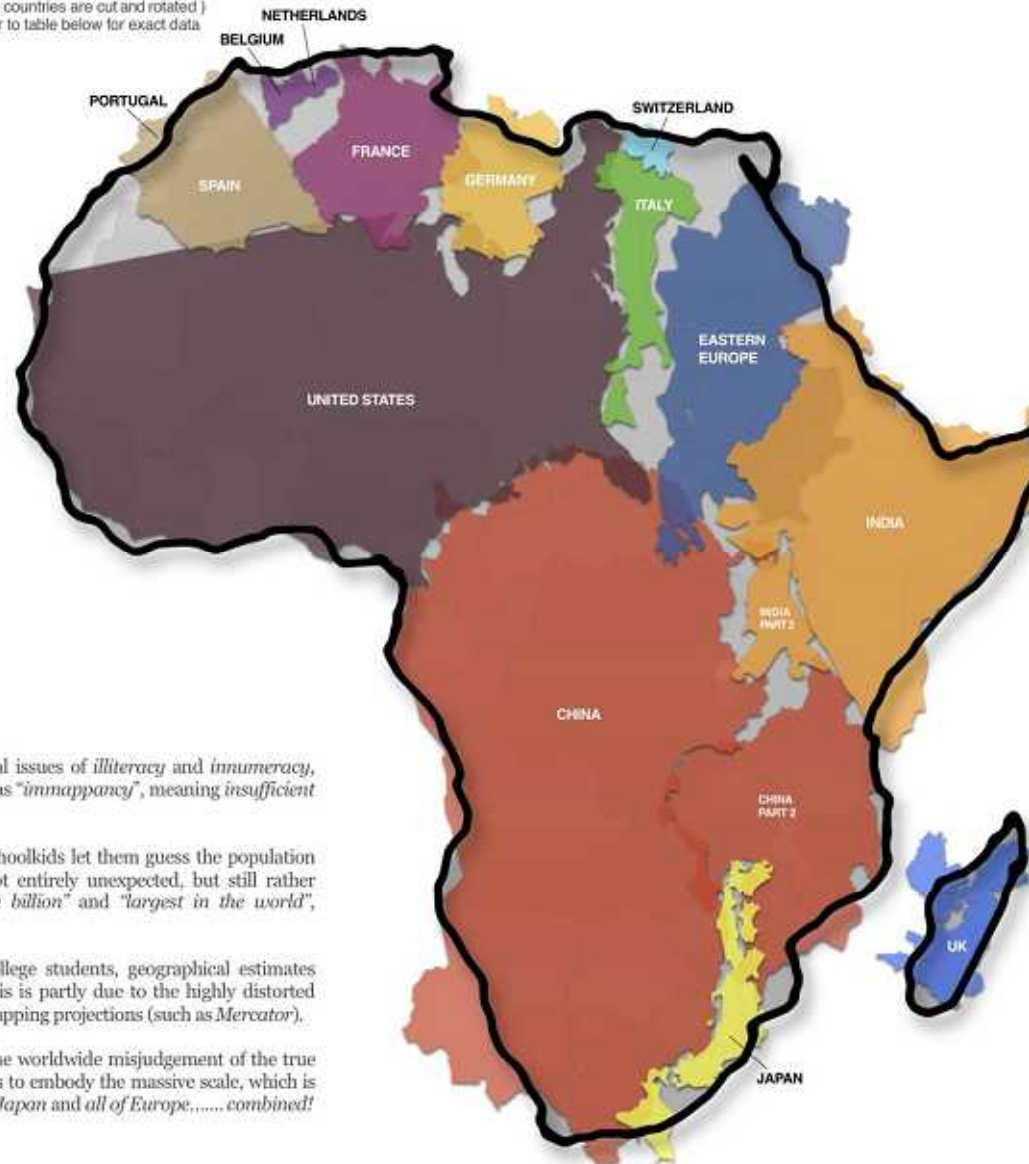
A particularly extreme example is the worldwide misjudgement of the true size of *Africa*. This single image tries to embody the massive scale, which is larger than the *USA*, *China*, *India*, *Japan* and *all of Europe*,.....combined!



No Rights Reserved This work is placed in the Public Domain

Top 100 Countries

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



		AREA km ²	%
1	Russia	17.098.242	11,90
2	Canada	9.884.670	6,70
3	China	9.598.961	6,50
4	United States	9.629.391	6,40
5	Brazil	8.514.877	5,70
6	Australia	7.692.024	5,20
7	India	3.287.263	2,20
8	Argentina	2.780.300	1,90
9	Kazakhstan	2.374.000	1,60
10	Sudan	2.505.813	1,70
11	Algeria	2.381.741	1,60
12	Congo	3.344.858	1,60
13	Greenland	2.166.086	1,50
14	South Africa	2.140.000	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	1.628.790	1,10
19	Mongolia	1.564.100	1,10
20	Paraguay	1.283.216	0,86
21	Chad	1.284.000	0,86
22	Niger	1.267.000	0,86
23	Angola	1.246.700	0,86
24	Malawi	1.194.382	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	923.769	0,62
33	Venezuela	912.850	0,61
34	Honduras	824.716	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	0,46
41	Algeria	652.580	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	587.541	0,39
47	Botswana	582.000	0,39
48	Kenya	580.367	0,39
49	Yemen	527.368	0,36
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	446.560	0,30
57	Sweden	441.270	0,30
58	Iraq	438.317	0,29
59	Paraguay	408.752	0,27
60	Zimbabwe	390.757	0,26
61	Japan	377.930	0,25
62	Germany	365.714	0,24
63	Rep. of Congo	342.000	0,23
64	Finland	338.149	0,23
65	Vietnam	331.212	0,22
66	Malaysia	330.803	0,22
67	Norway	325.820	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	Gabon	267.668	0,18
76	Western Sahara	266.000	0,18
77	Ecuador	256.381	0,18
78	Guinea	245.857	0,17
79	United Kingdom	242.900	0,16
80	Uganda	241.038	0,16
81	Ghana	238.500	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	199.551	0,13
87	Senegal	196.722	0,13
88	Syria	185.180	0,12
89	Cameroon	181.000	0,12
90	Uruguay	178.215	0,12
91	Suriname	163.820	0,11
92	Tunisia	163.810	0,11
93	Nepal	147.181	0,10
94	Bangladesh	143.598	0,10
95	Tajikistan	143.100	0,10
96	Greece	131.957	0,09
97	Nicaragua	130.375	0,09
98	North Korea	120.530	0,08
99	Malawi	118.081	0,08
100	Eritrea	117.600	0,08
TOP 100 TOTAL		132.832.526	89,34



African Agriculture Today

- Africa net importer of food and agricultural products, despite its vast resources
- Factors: population growth; low agricultural productivity; poor policy choices; lack of infrastructure; weak institutions
- Lack of land ownership rights
- Low yields and low land use

Summary

- We can feed the 9 billion people in 2050 with the technology we have today
- The main point, however, is we need the public and private sectors to work together to address food security
- Food security is not just about growing more food (which obviously has to happen) but we also need to provide the right policy environment to allow the free flow of food to go from where it grown to where it is needed to feed the world's population.
- Countries need to work together to develop trade agreements and standards & regulatory harmonization to allow the movement of food
- Investments need to be made in small holder training and food logistics





Nourishing ideas. Nourishing people.™