



# World Ag Forum

## Role of the private sector in securing a food production base



**Bruce Blakeman**

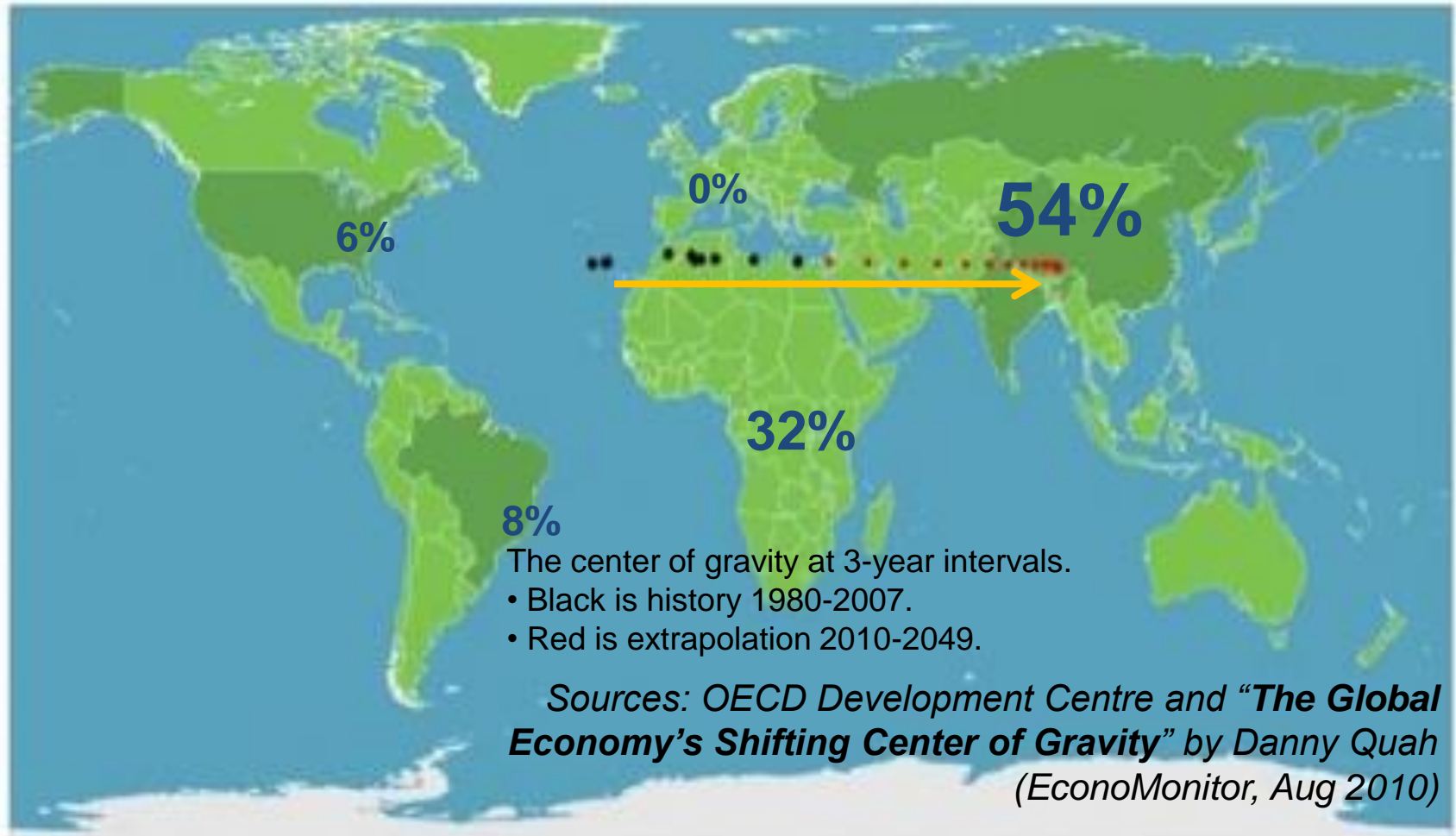
**Singapore**

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# Role of the Private Sector - Summary

- Providing markets for farmers
- Improving productivity, yields & food safety
  - Innovation and Technology
  - Training and Knowledge dissemination
- Finance and Risk Management
- Logistics
- Promoting sustainability
- Addressing Africa

# Population & economic growth are moving towards Asia from the West



# Comparative Advantage

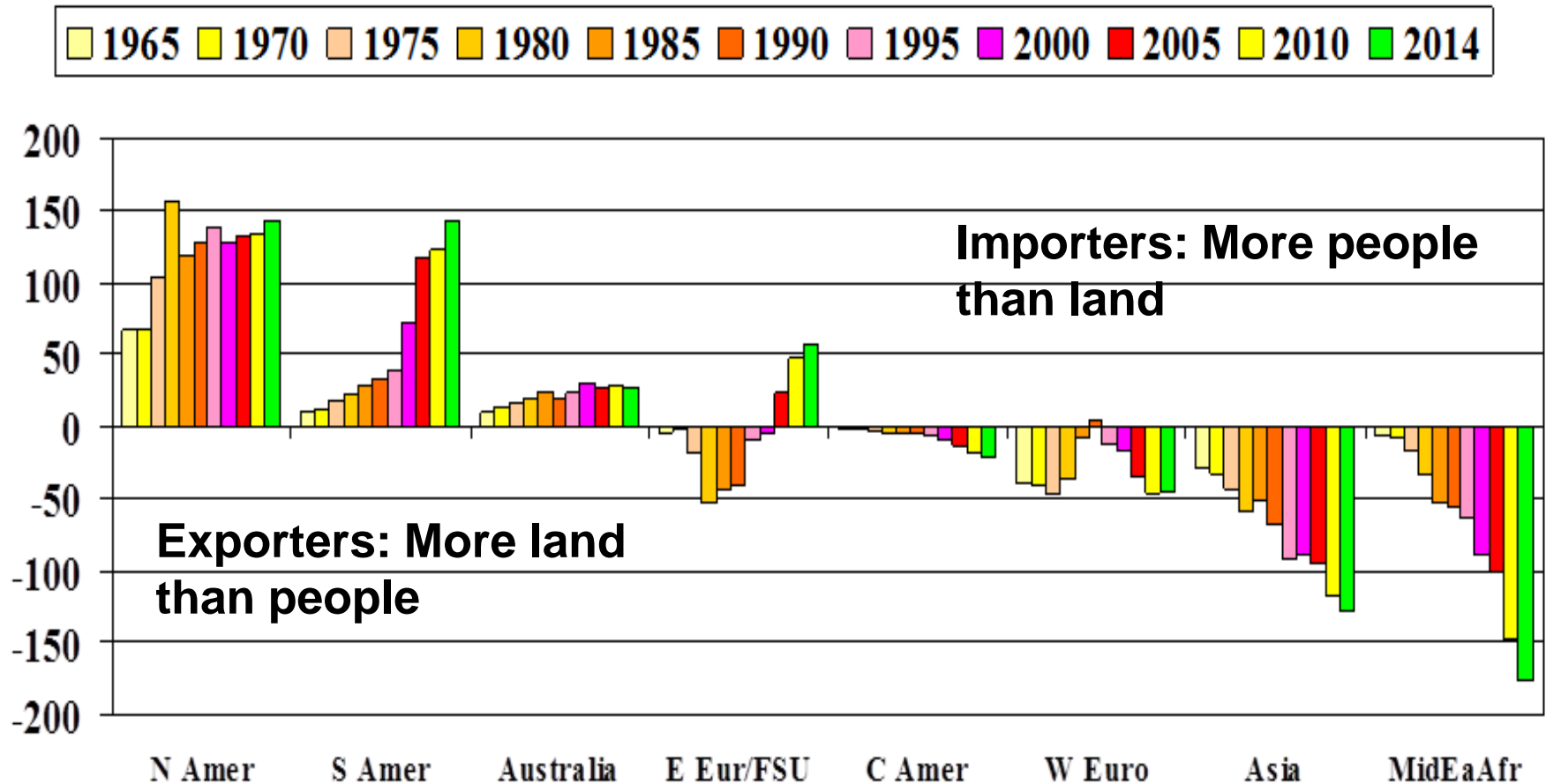
The world will always raise the most food the most economically if every farmer plants the right crop for the soil and climate, and then trades with others.



David Ricardo

# World food flows - Asia is a net food importer and its imports are growing

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



# Providing Markets for farmers

**THIS MEANS FOOD NEEDS TO BE ABLE TO MOVE FROM AREAS OF SURPLUS TO DEFICIT**

- 16% of global crops cross international borders
- Price discovery: Farmers need clear price signals from destination markets to make decisions on what crops/livestock to grow to maximize profitability & manage price risk
- Providing information on supply and demand to help farm planning
- Contract farming
- Providing local & efficient logistics to move crops/livestock to market
- More & more large food companies are buying directly from farmers
- Investments in local storage, cold chain and processing

# Improving productivity, yields & food safety

## INNOVATION & TECHNOLOGY

- Developing crop productivity tools & technologies
  - Innovation in new seeds and crop inputs to increase yields
  - New soil & water management/irrigation technologies
  - Mechanization
- Livestock and aquaculture feed development & practices
  - More efficient feeds for livestock & aquaculture
  - Utilizing new & sustainable feed inputs
- Animal welfare & handling practices
- Developing new pharmaceuticals for animals
- R&D for new technologies & new applications for crops/livestock
- Satellite & drone data for precision agriculture & deforestation monitoring
- Communications on price discovery to farmers

# Improving productivity, yields & food safety

## TRAINING & KNOWLEDGE

- Training on crop care, harvesting, storage & processing
- Animal welfare & efficiency training
- How to properly use ag technologies
- Good Ag practices training
- Food Safety training practices for both human & animal health
- Food standards training
- Technology uses to communicate with farmers to answer questions and provide information, ie, weather, prices, diseases, inputs, pests, etc
- Sustainability training & certification



# Financing

## RISK MANAGEMENT

- Providing financing for crop inputs while crops are in the field
  - Loans
  - Mirco-financing
- Price risk management tools
  - Forward selling to lock in prices to manage price volatility

# Logistics

## CROPS & LIVESTOCK NEED TO MOVE FROM THE FARMS

- Storage
  - Hold crops to get higher prices
- Trucks, rail & boats/barges
- Local processing

# Sustainability

## THE PRIVATE SECTOR IS LEADING ON SUSTAINABILITY

- Agriculture needs to become more sustainable
- The private sector with civil society are working to set sustainability standards
  - RSPO
  - Soy Moratorium
  - RTSB
- The private sector is driving sustainability practices down to the farm level
  - Training farmers on sustainable practices & land use
  - Helping small holders get sustainability certification
  - Providing incentives & paying premiums to small holders for growing sustainably certified crops

# 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>

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!



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## 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. of 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	Gabon	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
TOP 100 TOTAL		132.632.524	89,34



United States



Europe



India



Japan



China

# Policies governments need to address to secure a food production base

- Land Rights for small holder farmers
- Trade Policies that allow for the movement of safe food from areas of surplus to areas of deficit
  - NTB's & NTM's are increasing
- Science-based policies on food safety, food standards & food regulatory approvals
- Standards harmonization/equivalency
- Government leading on approvals and communications on new technologies
  - GM & NPBT's
- Investment in infrastructure
  - Crop storage/cold chains
  - Roads & Ports
- Increased government funding for ag R&D

