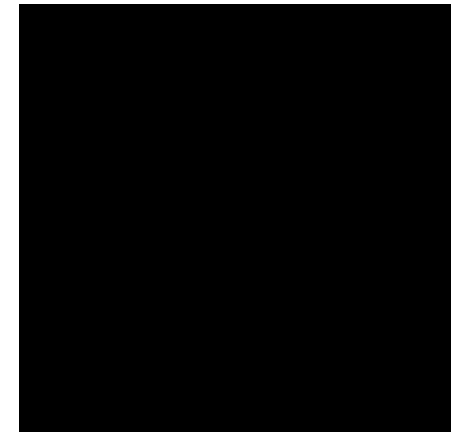
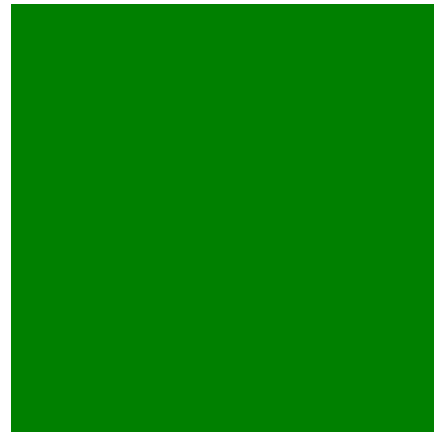
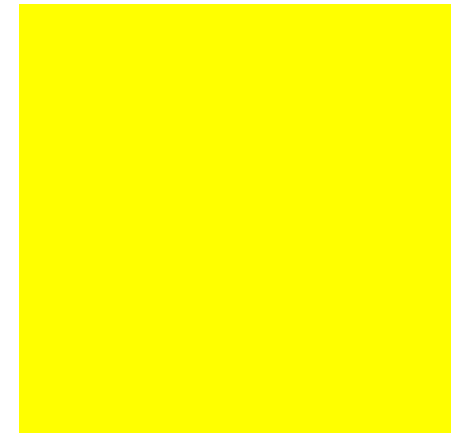
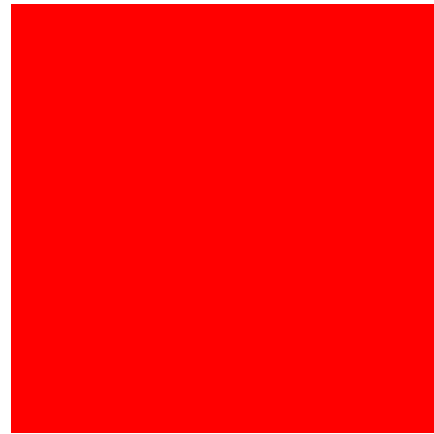




Trade: Then & Now

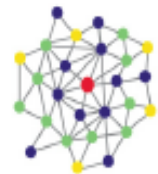
*National Grain & Feed Assn.
and Pet Food Institute
Feed and Pet Food Joint Conference*

*September 26, 2013
Indianapolis, Indiana*



Karil L.
Kochenderfer, *Principal*

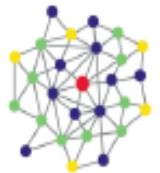
Global Trade, Government & Public Affairs
at the Cusp of Trade & Science



LINKAGES

+ Trade: Then and Now

- Demystify Trade: A Game for Everybody
- NTBs and the Continuing Rise in Importance of Food Safety Professionals
- Global Trade Negotiations:
 - Doha
 - Trans Pacific Partnership (TPP)
 - Trans Atlantic Trade & Investment Partnerships (TTIP)
 - China
- Traceability and Transparency
- VUCA: The New Normal



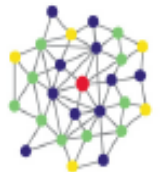
LINKAGES

+ THEN: 1988



U.S. Trade

- Making, Exporting Products
- Regional Markets
- Tariffs
- High Transport Costs
- Uncertain Quality
- Slow Turnaround



LINKAGES

+ NOW: 2013

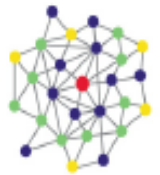


facebook



U.S. Trade

- Combining Ingredients
- Global Markets
- Non-tariff Barriers
- Low Transport Costs
- Relative Quality
- Quick Turnaround

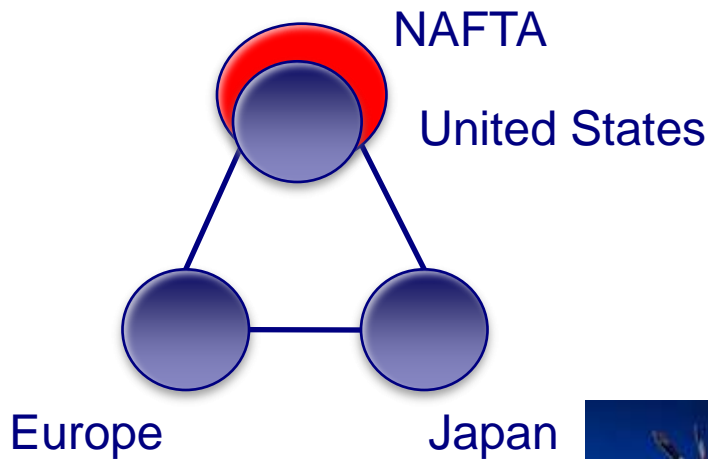


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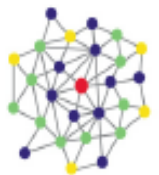
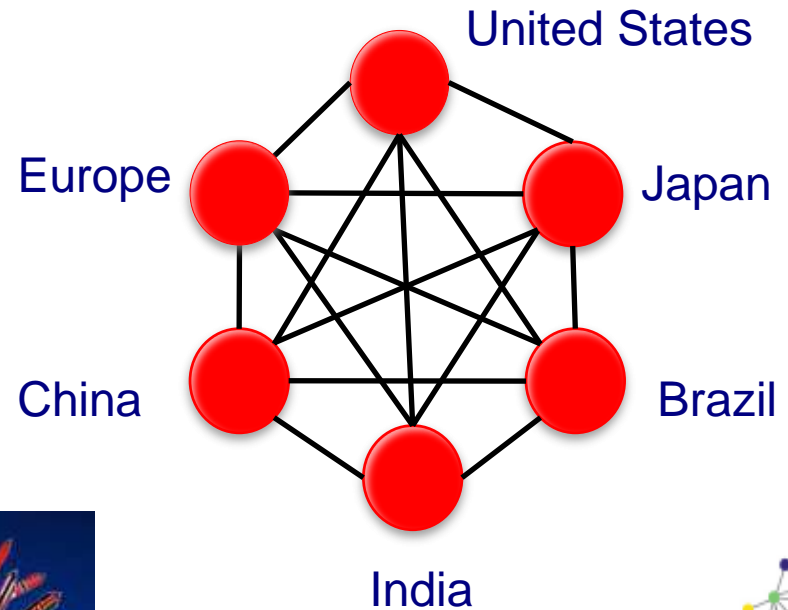
+ Complexity of Global Trade



THEN: 1988



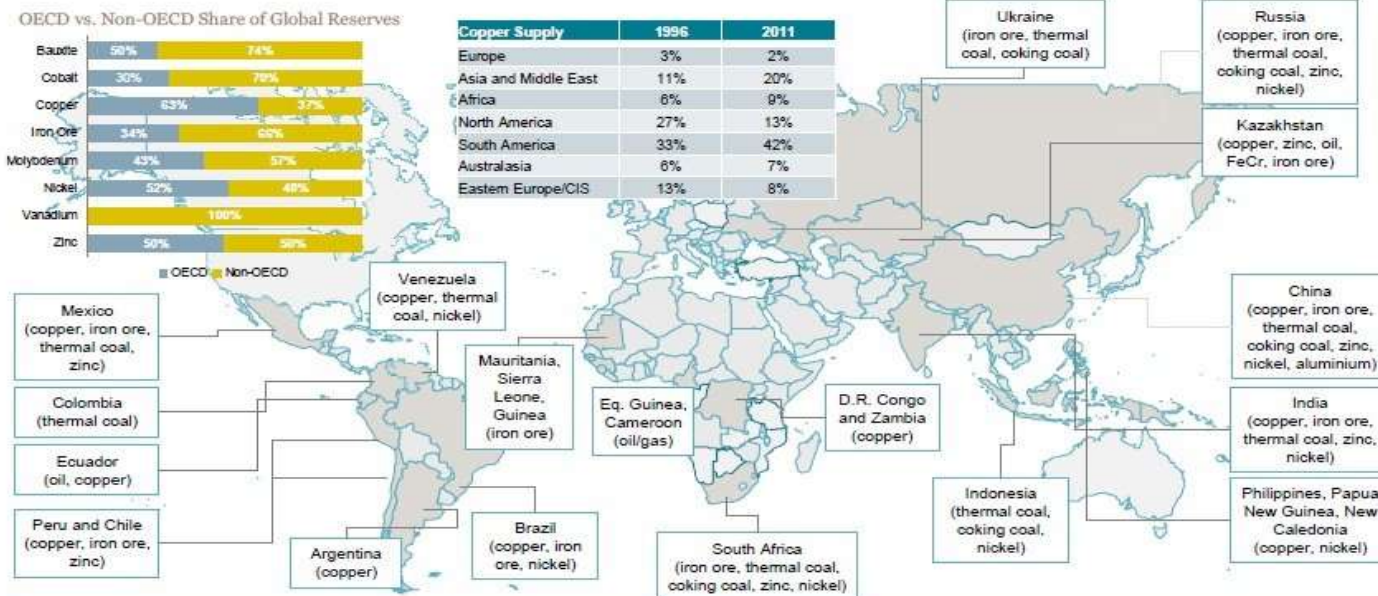
NOW: 2013



LINKAGES

+ Why?

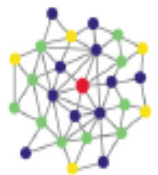
Emerging markets dominate global reserves of key commodities



Increasingly, frontier geographies are where the best reserves of key commodities globally are located. In addition to having significant absolute volumes of reserves these locations often also contain the highest quality reserves, whether measured by grade or cost of production.

Source: Bloomberg, Global reserves source: U.S. Geological Survey Mineral Commodity Summaries. Copper supply source: 2011: Brook Hunt, WBMS, 1996: Metalstatistik 1986-1996.

GLENCORE | 17



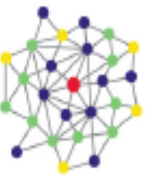
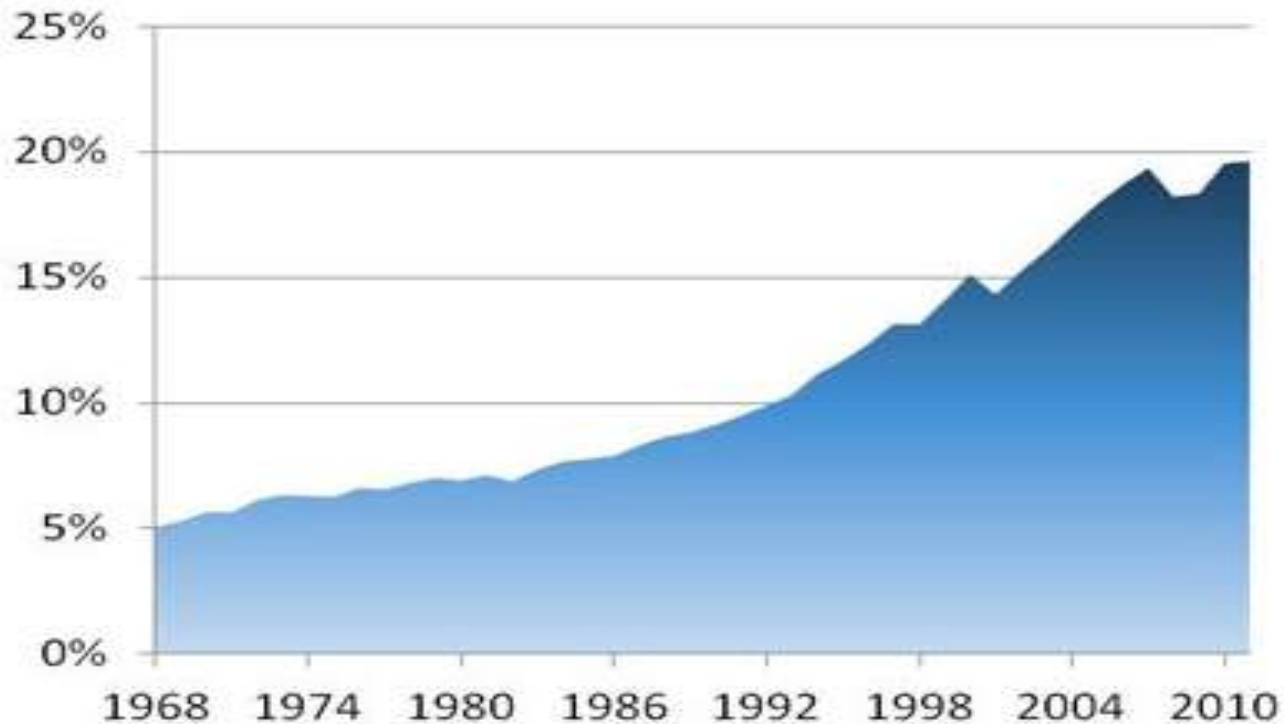
LINKAGES

+ Increased Global Trade

Global Trade Fuels Growth

World Imports & Exports as a % of GDP

Source: OECD period ending 12/31/11



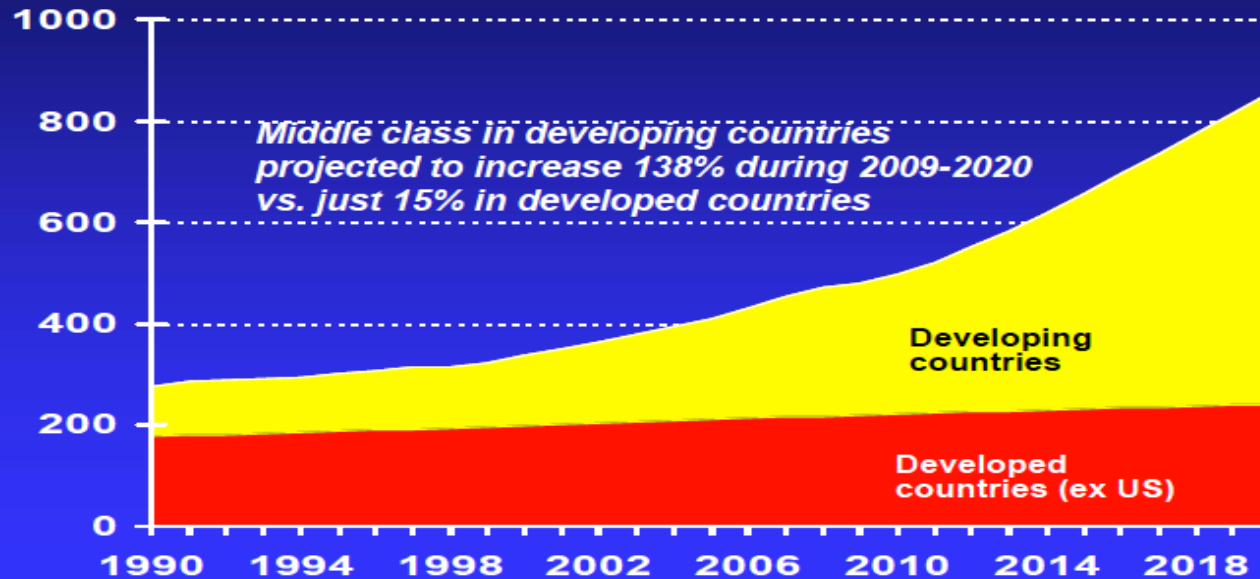
LINKAGES

+ Expanding Middle Class

“Middle Class” Outside the U.S. Expected to Double By 2020 – Approaching 1 Billion Households

Worldwide food consumption will be impacted

*Foreign households w/real PPP incomes greater than \$20,000 a year
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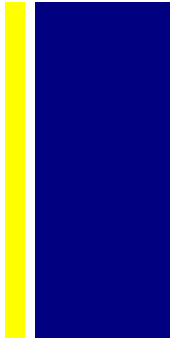
Source: Global Insight's Global Consumer Markets data as analyzed by OGA



LINKAGES

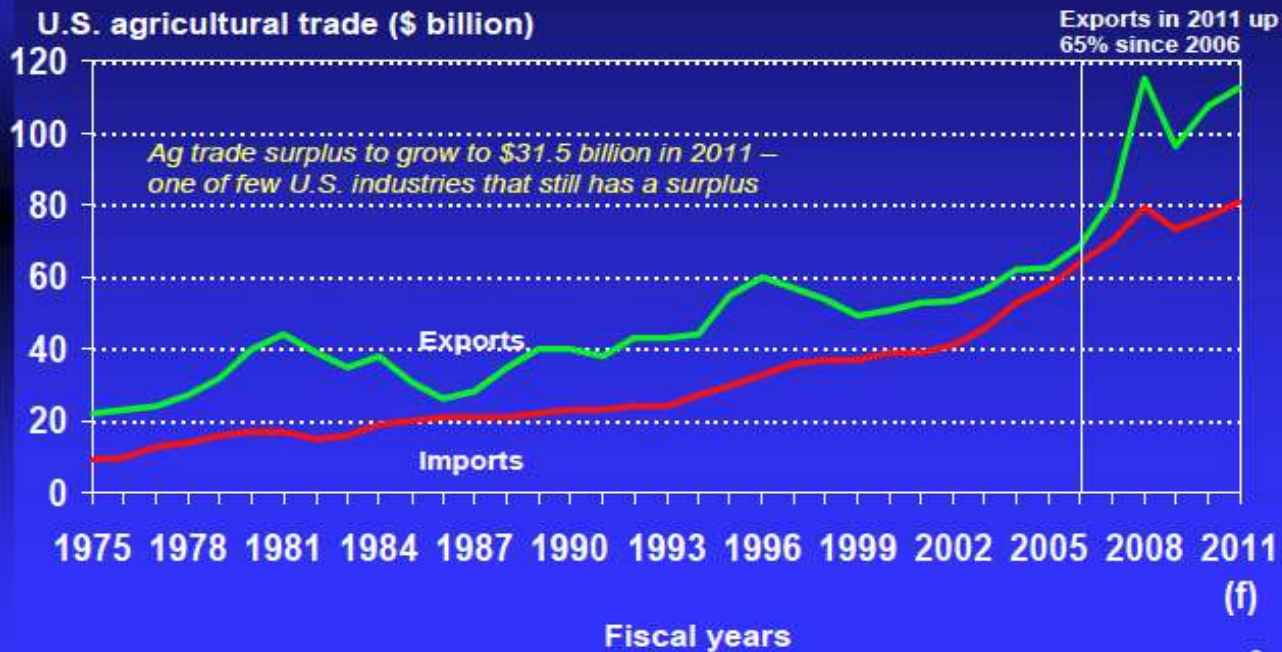


Increased Agri-food Global Trade

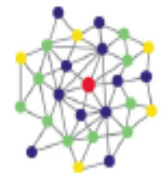


Booming Exports Are A Major Growth Factor For the U.S. Food and Agricultural Sector

Exports rebound to near record \$113 billion in 2011 on rising demand in developing countries, falling dollar, and higher prices



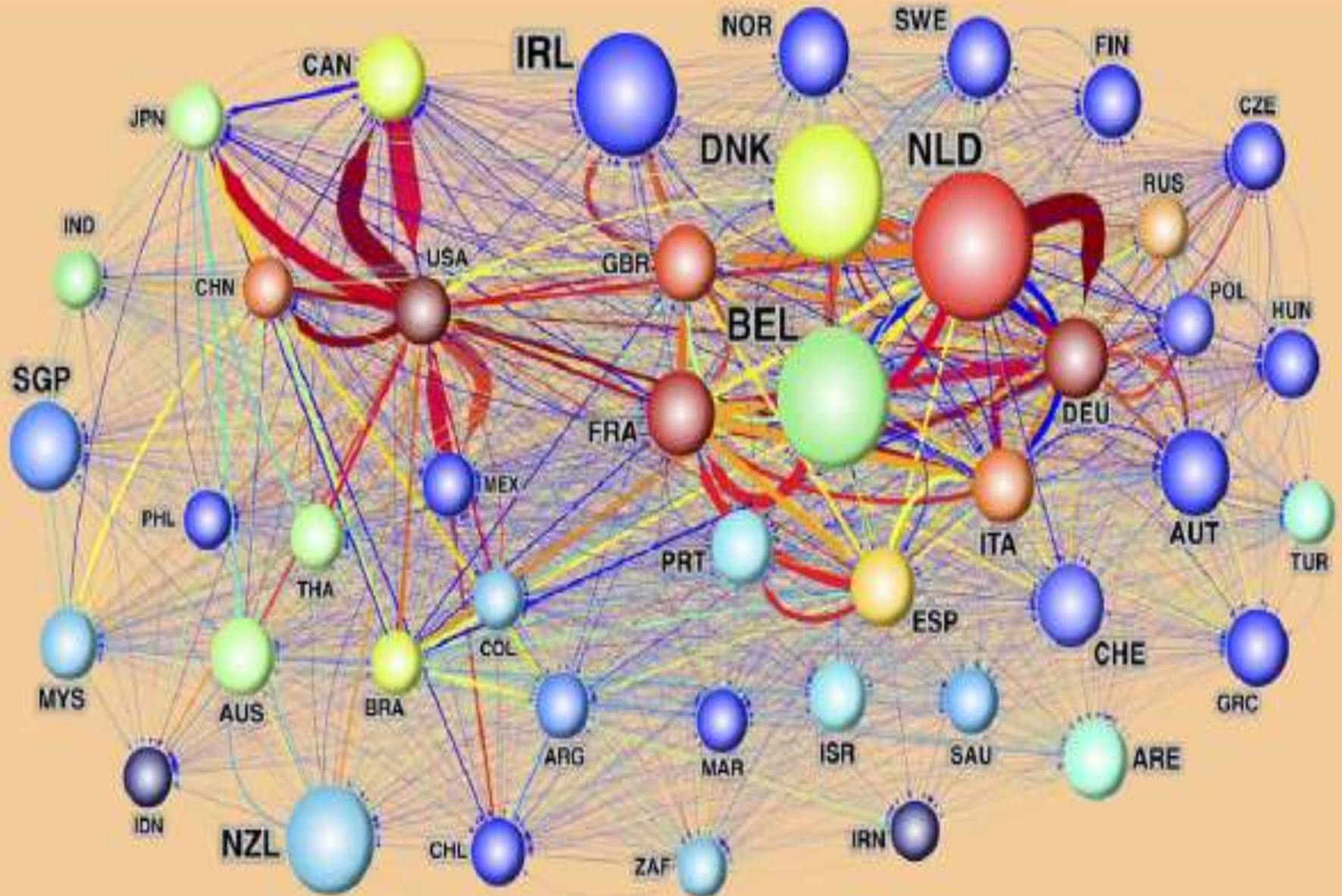
2009-2012
Strongest Four
Years for U.S.
Ag Exports Ever



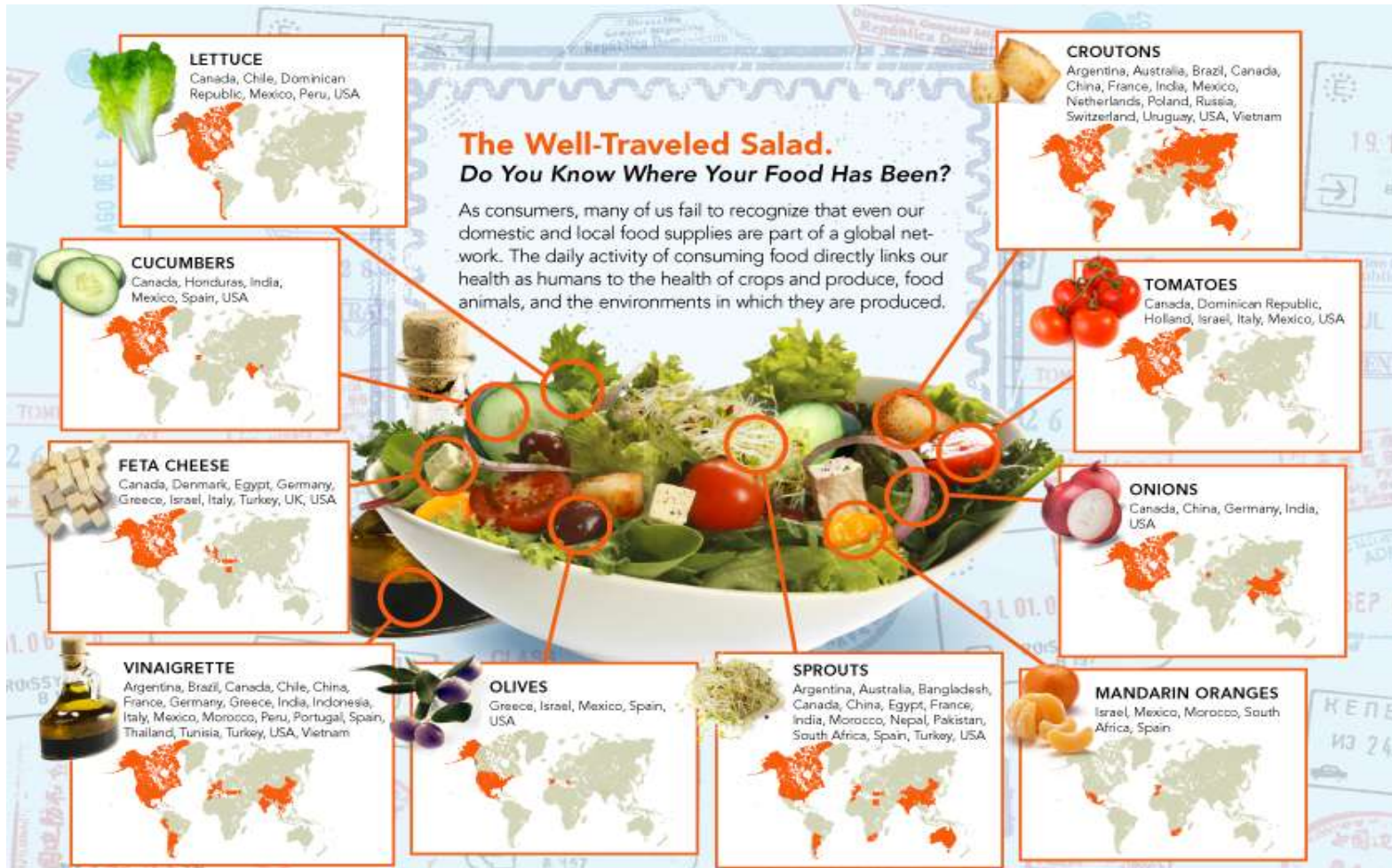
LINKAGES

+

Complexity of Global Trade



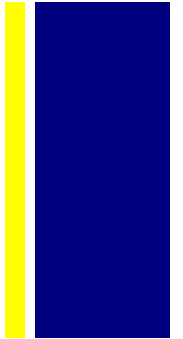
+ “The Well-traveled Salad”



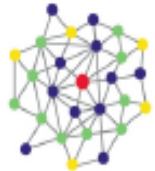
LINKAGES



World Trade Organization (WTO)



- Uruguay Round
 - Negotiations led by U.S., Europe and Japan in 1986
 - 44 countries
 - Address Manufactured Goods and Services, Intellectual Property and Agriculture
 - Rules-based Trade
- #1 Rule: *Non-Discrimination*
 - All Members Treated Equally (National Treatment)
 - Lower Tariffs
 - Address Non-tariff Barriers
- Dispute Settlement Body
- Agriculture
- Current Membership: 180 Countries



LINKAGES



Sanitary & Phytosanitary Measures (SPS)

Can Discriminate!

- To Protect Plant, Animal and Human Health & Safety
- Agreement on Sanitary and Phytosanitary Measures (SPS) stipulates basis for acceptable discrimination
 - *Need for a Risk Assessment; “Proportionality”*
 - *Reliance on International Standards: Codex, IOE*

Examples

Food Safety Standards (Pathogens)

Pesticide MRLs

Food Additives/Novel Foods

(Pharma Agents, Packaging Contact Materials, Biotech Events)

Health & Nutritional Labeling

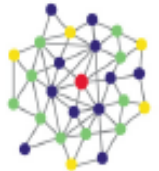


+ As Tariff Barriers Have Decreased, Non-tariff Barriers (NTBs) Have Increased, Creating Market Distortions



What are NTBs?

- ✓ Pre-market Approvals
- ✓ Ingredient Testing
- ✓ Product Standard Certifications
- ✓ Food Safety Regulations
- ✓ Pesticide Residue Levels
- ✓ Labeling Requirements
- ✓ Import Documentation



LINKAGES

+ Non-Tariff Barriers (NTBs) = Regulatory Barriers to Trade



What are NTBs?

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...



+ Non-Tariff Barriers (NTBs) = Regulatory Barriers to Trade

What Are NTBs?

- ✓ More Onerous than Tariffs
- ✓ Uncertain, Time-consuming, Procedures
- ✓ Cumbersome, Overlapping Bureaucracies
- ✓ Costly Testing & Certification Requirements
- ✓ Overlapping Administrative Paperwork



LINKAGES

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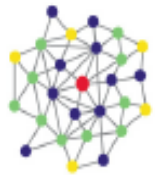
Every FS/QA Manager is a Global Manager!

+ How Address NTBs?

- Over 1500 Regulations Annual (Up from 650 Ten Years Ago)
- Non-intentional: Lack Regulatory Sophistication, Capacity
- Intentional: To Protect Domestic Economy?
- WTO Requires “Notification,” “Consultation” with Trading Partners

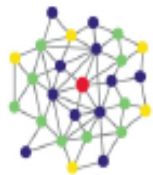
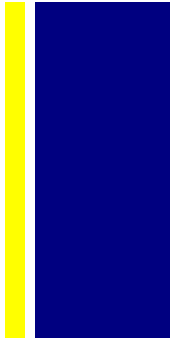
notifyus@nist.gov; USDA FAS GAIN Reports

- Need to Strengthen SPS Agreements – “SPS+”
 - Easily and Immediately Accessible
 - Translated into English
 - 60-day Comment Period
 - Government Response to Comments



LINKAGES

+ Doha Development Round



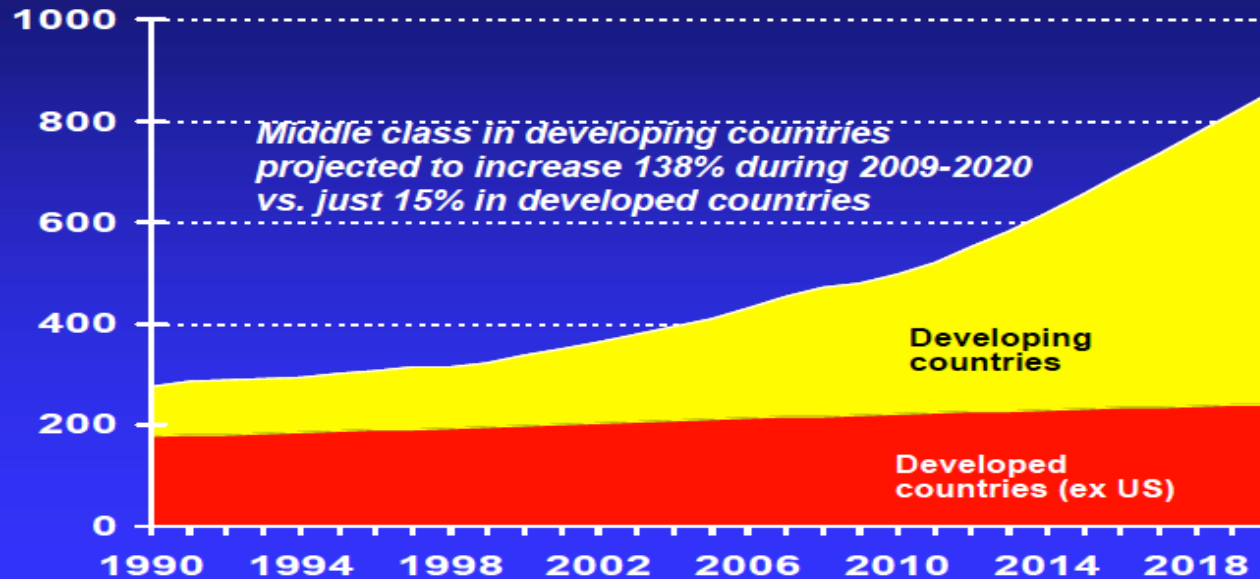
LINKAGES

+ Expanding Middle Class

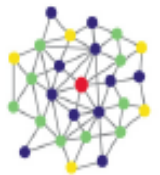
“Middle Class” Outside the U.S. Expected to Double By 2020 – Approaching 1 Billion Households

Worldwide food consumption will be impacted

*Foreign households w/real PPP incomes greater than \$20,000 a year
(in millions of households)*



Source: Global Insight's Global Consumer Markets data as analyzed by OGA

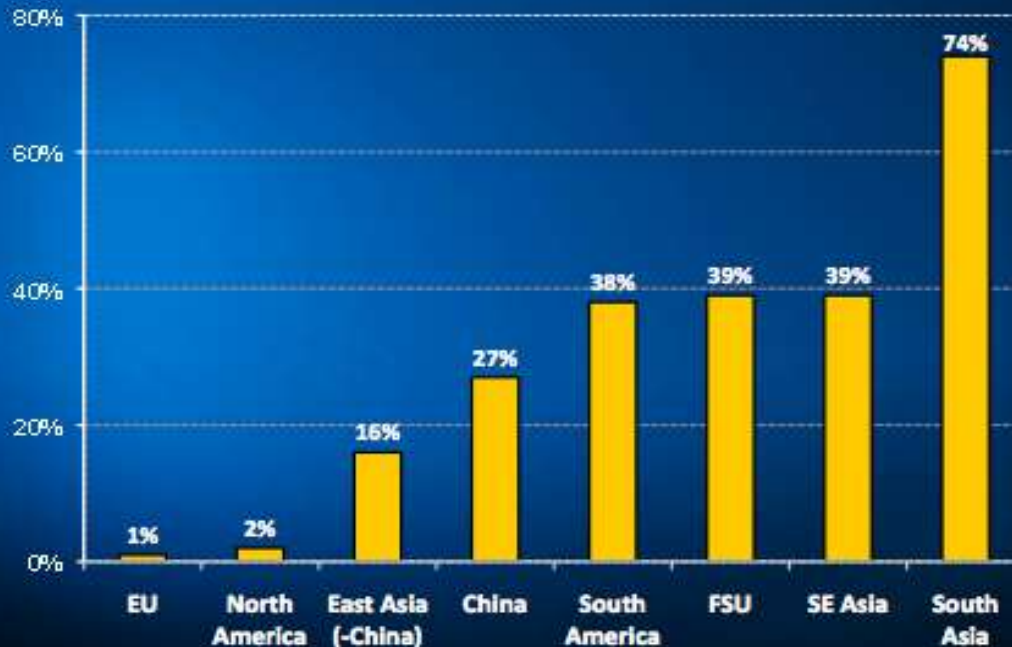


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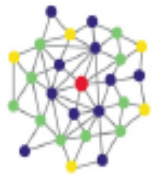
+ Growing Demand for Meat

Meat Demand Growth Focused in Developing Countries

Changes in Beef, Pork, and Poultry Consumption
2002 vs 2012



Source: USDA Production, Supply & Distribution Database

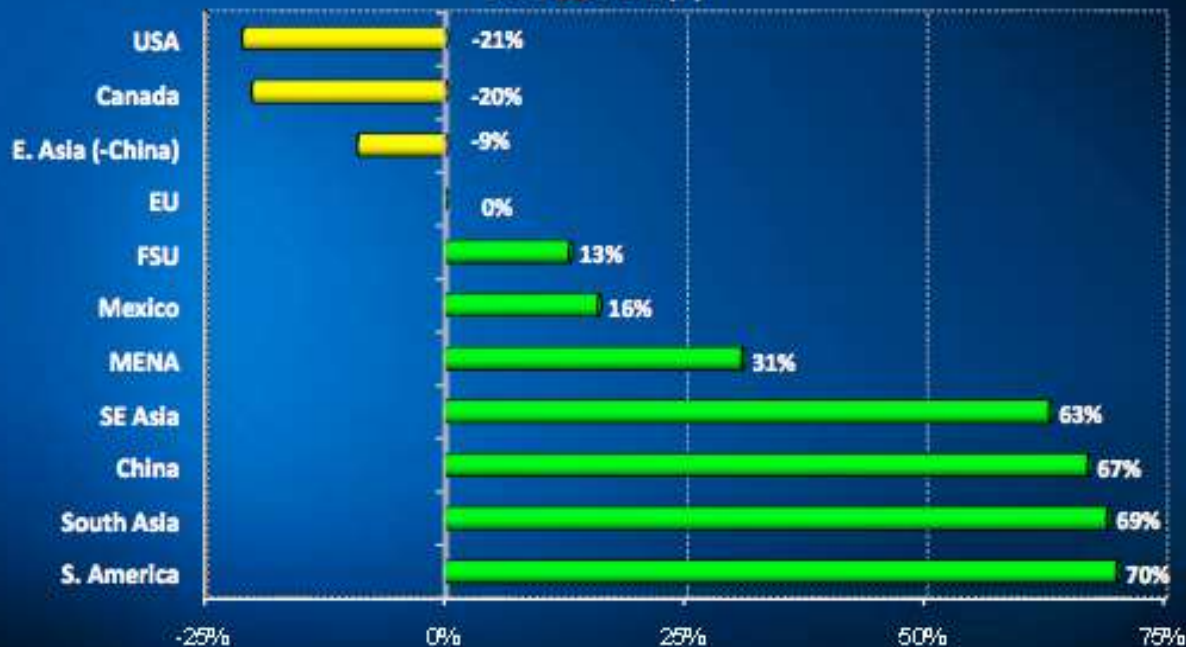


LINKAGES

+ Soaring Demand for Feed ...

... Which Leads to Rising Feed Demand In Developing Markets

Changes In Grains and Oilseed Meals In Feed Consumption
2002 vs 2012 (P)



Source: USDA Production, Supply & Distribution Database

Stagnant,
Changing
Demand

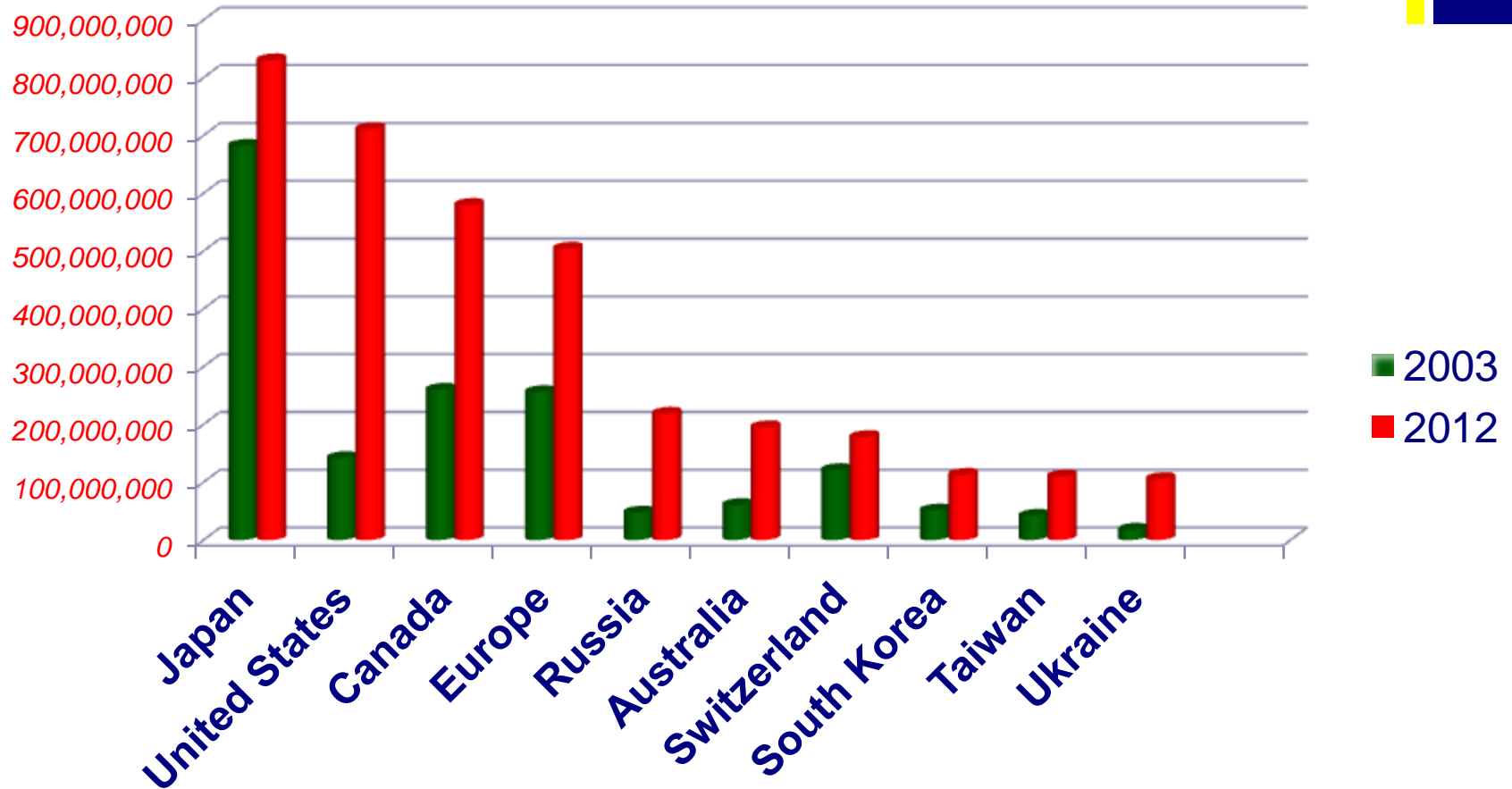
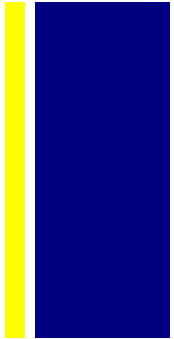
Rising Incomes
leading to Rising
Demand for
Meat



LINKAGES



Pet Food* Exports: Top Ten Markets



* = Dog and Cat Food

+ Trans Pacific Partnership

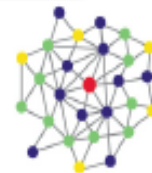


LINKAGES

+ Trans Pacific Partnership



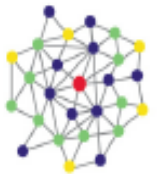
| Country | Rank | Imports | Exports | Total | Balance |
|--------------------|----------|--------------------|------------------|--------------------|--------------------|
| Australia | 21 | 7,997.8 | 18,243.7 | 26,241.5 | 10,245.9 |
| Brunei | 152 | 41.6 | 96.8 | 138.4 | 55.2 |
| Chile | 31 | 6,047.2 | 8,693.5 | 14,740.7 | 2,646.3 |
| Malaysia | 18 | 23,252.0 | 8,911.8 | 32,163.8 | (14,340.1) |
| New Zealand | 53 | 2,535.8 | 2,048.8 | 4,384.6 | (487.0) |
| Peru | 42 | 4,234.6 | 4,355.8 | 8,590.4 | 121.2 |
| Singapore | 15 | 15,586.90 | 19,923.6 | 35,511.5 | 4,335.8 |
| Vietnam | 30 | 12,366.8 | 2,966.6 | 15,333.4 | (9,400.2) |
| Total TPP | 5 | 72,063.7 | 65,240.6 | 137,304.3 | (6,823.1) |
| Pacific Rim | | 564,706.6 | 240,561.4 | 805,268.0 | (324,145.2) |
| World | | 1,549,163.5 | 936,745.0 | 2,485,908.5 | (612,418.5) |



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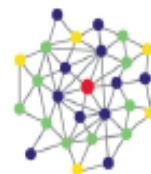
+ Trans-Atlantic Trade & Investment Partnership

- Together constitute largest, oldest global trading block
- Upwards of \$500 billion or 47% of global trade
- Economic Engine for the World: Need Domestic, Global Jumpstart
- Intense Frictions
 - US-EU Disputes Constitute 47% of WTO Dispute Panels
 - Many center around Agri-food Issues: Beef Hormones, Biotechnology
 - Role of Agriculture: Food Production v. Multi-functionality
- Real Trade Losses and Regulatory Inspiration to Others



LINKAGES

+ Trans-Atlantic Trade & Investment Partnership



LINKAGES

+ China: *“Demand on Fire”*



- Tops U.S. Agri-food Exports; Will continue indefinitely
- \$2 to 20 billion US imports in a decade
- Not just for commodities, but also high-value processed foods
- 122 million Chinese moving to East Coast cities over the next decade
- ***160 v. 9 cities of 1 million+ population***
- ***6 vs. 37 cents of \$1 spent on food***

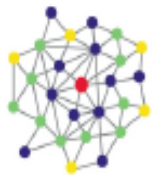
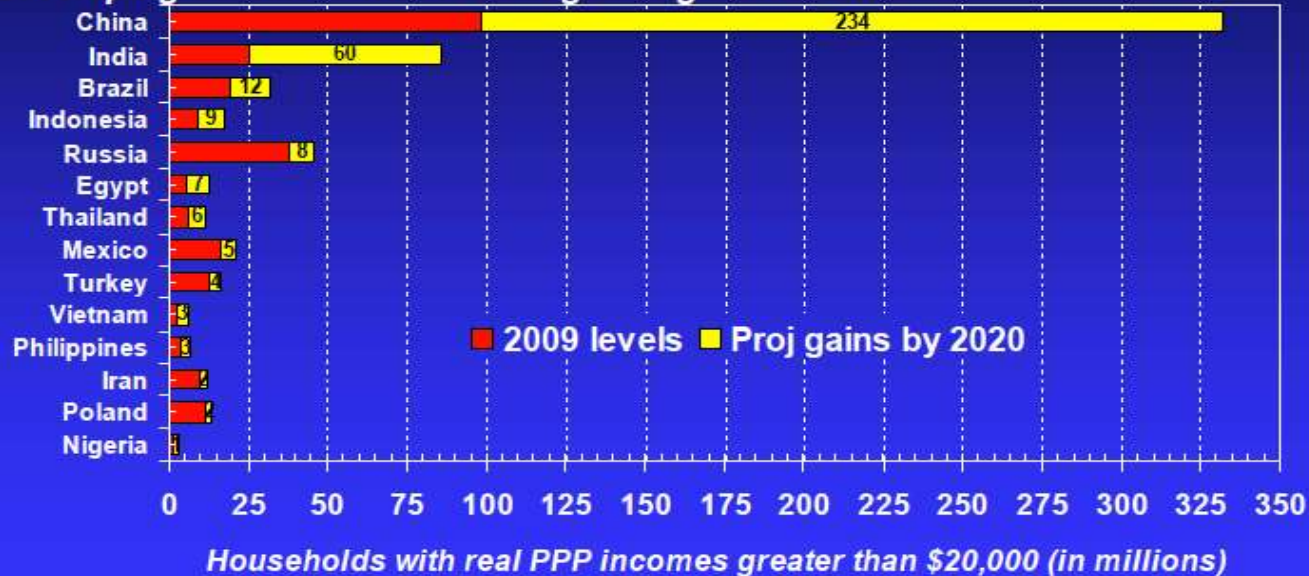
LINKAGES

+ Expanding Chinese Middle Class

“Middle Class” in Developing Countries Could Reach 616 Million Households By 2020, Up 138% From 2009 Levels

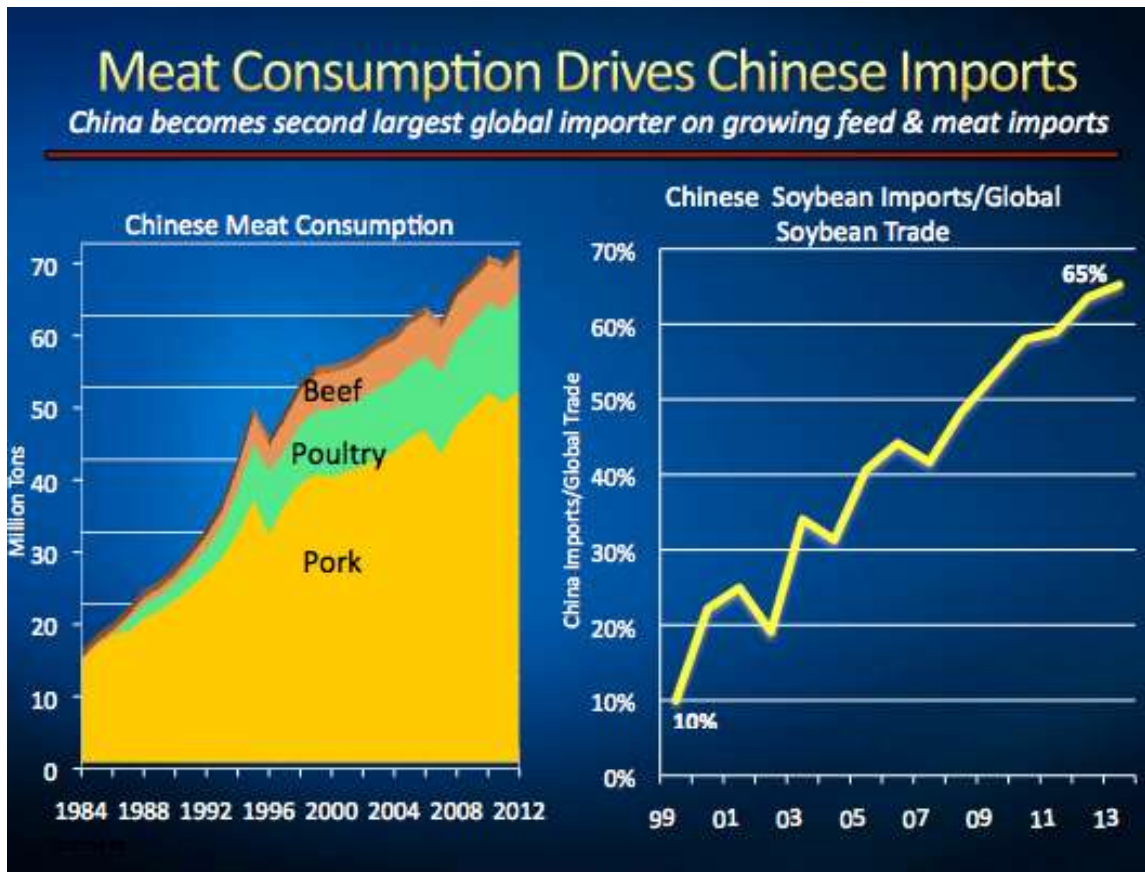
25% of households in these countries are middle class. By 2020, this could increase to 49% and the impact on food consumption will be large

Developing countries with fastest growing “middle class”



LINKAGES

+ With Changing Tests and Diets



Traceability



Producer

Processor

Packager

Marketer

Retailer

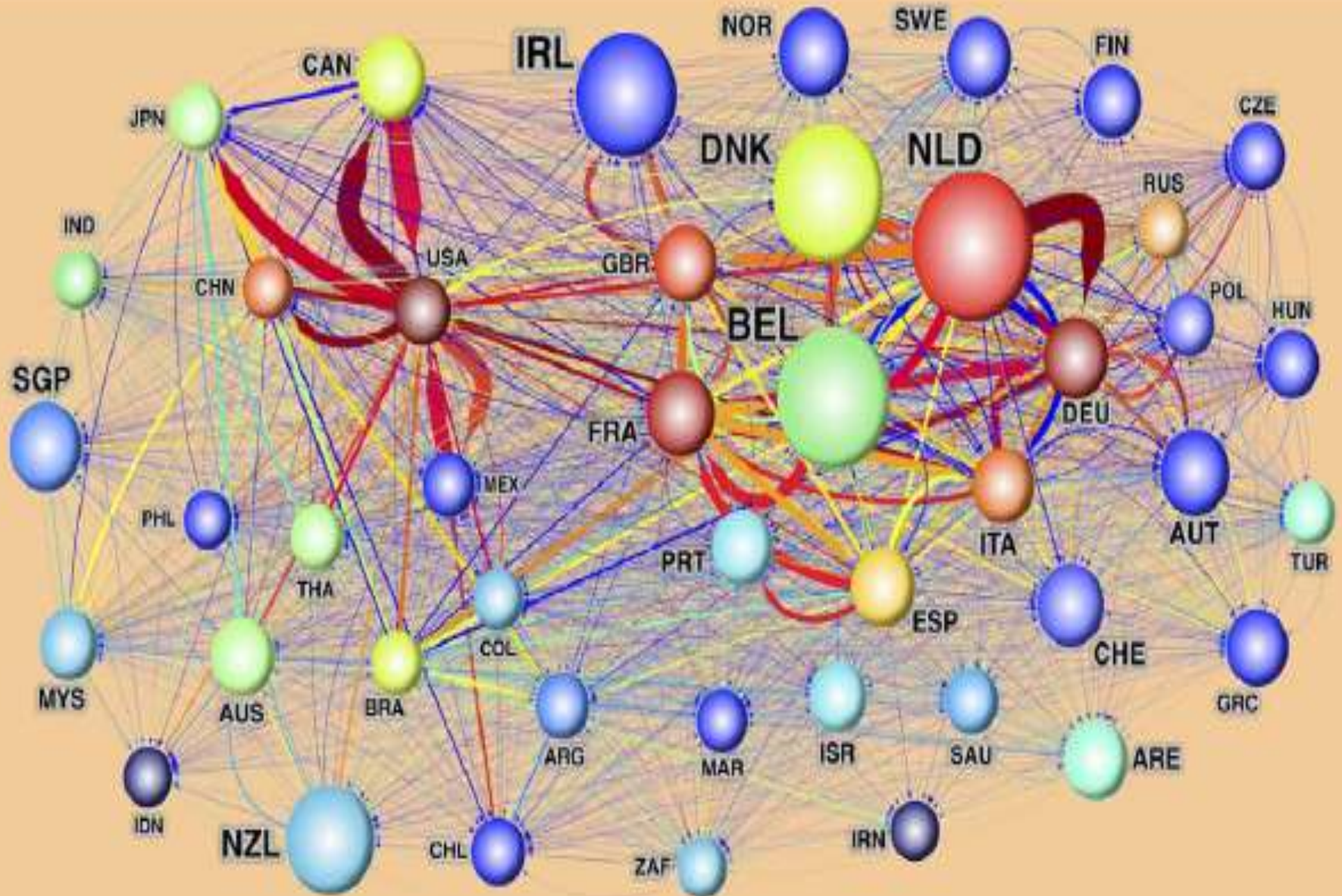
Advertiser

Consumer

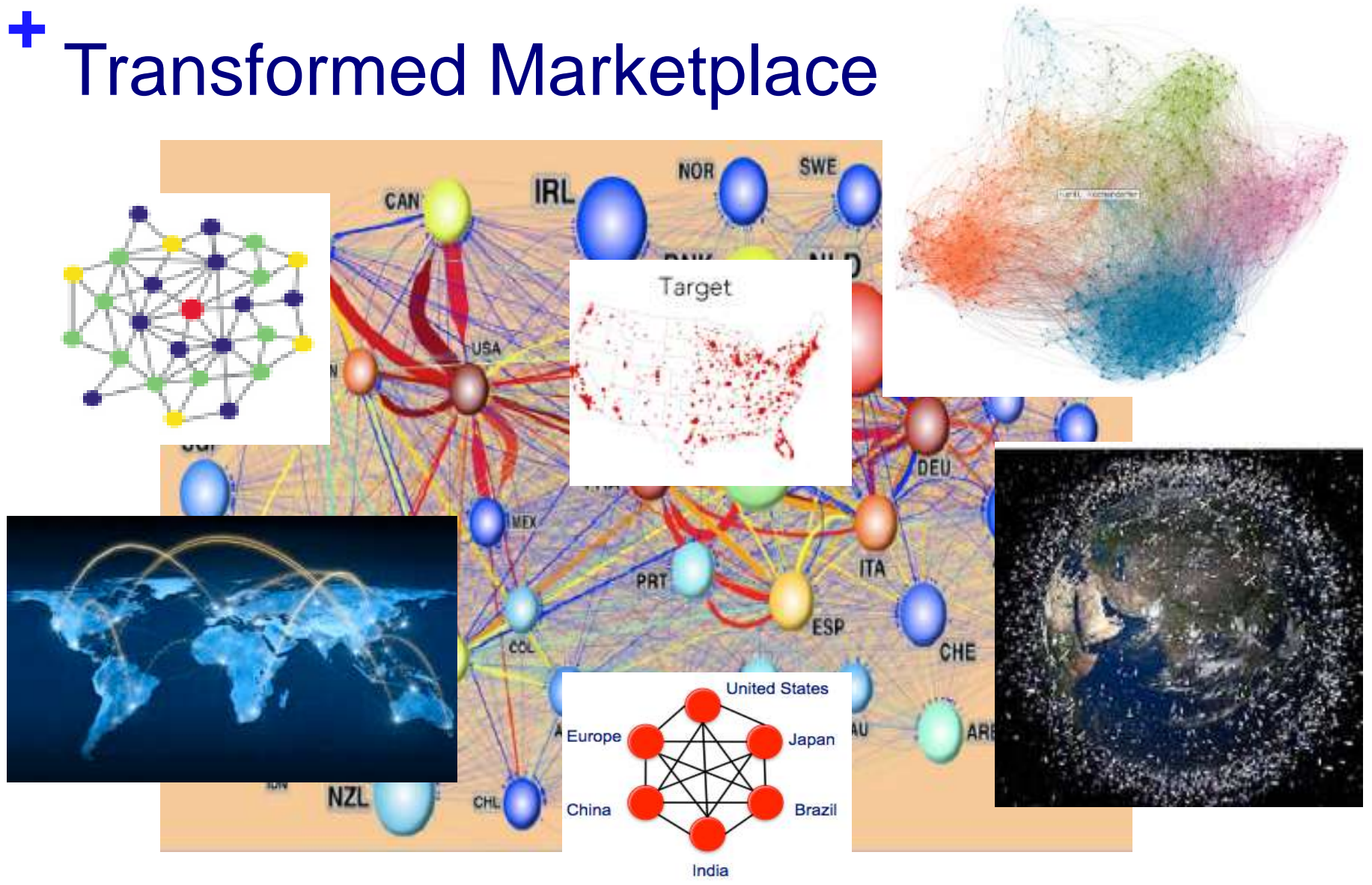


+

Complexity of Global Trade

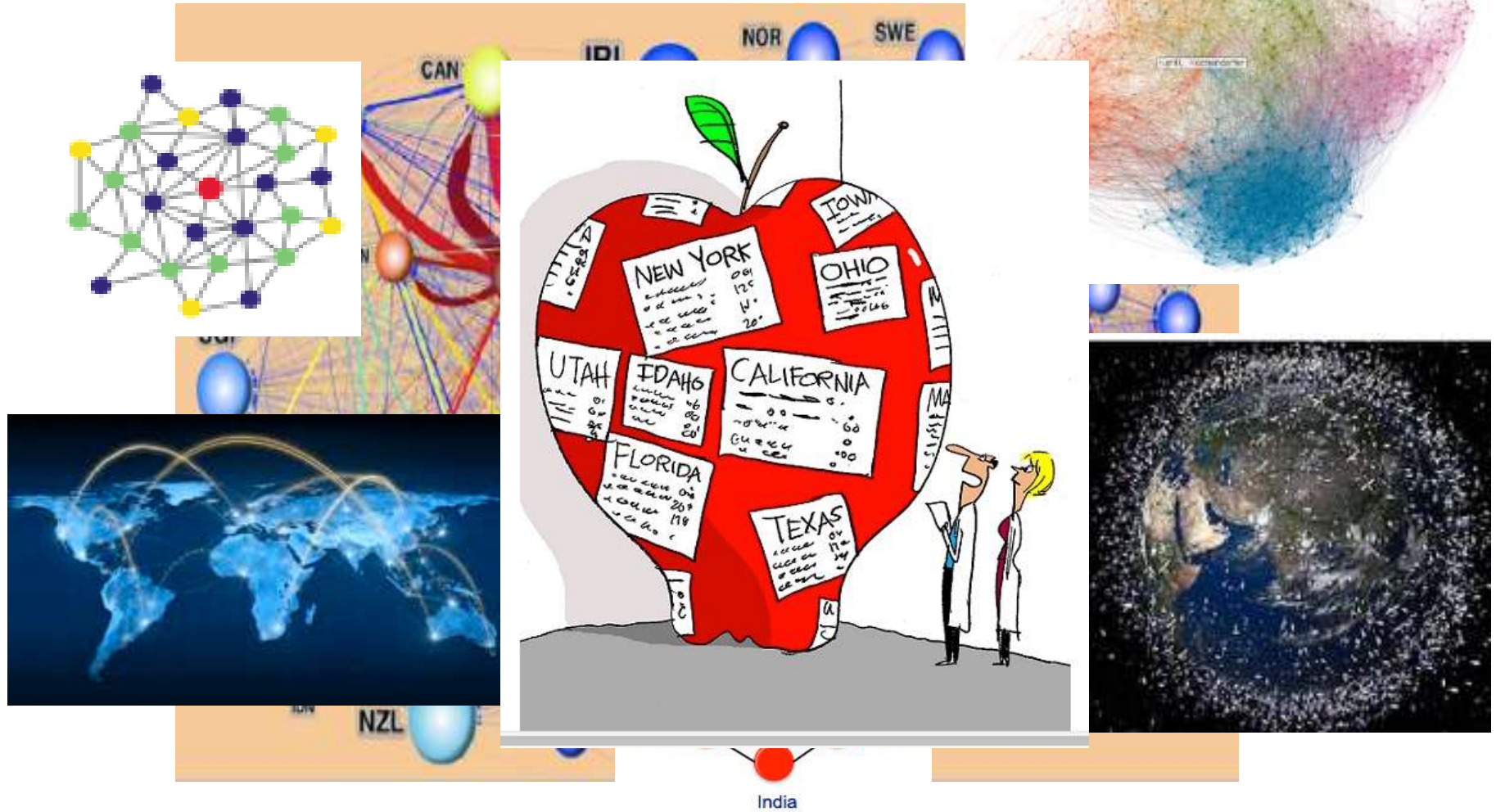


+ Transformed Marketplace



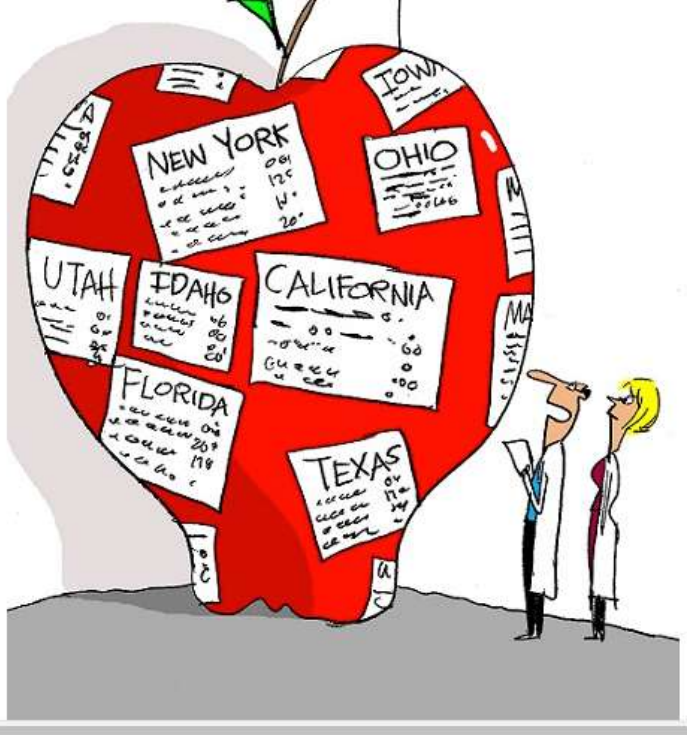
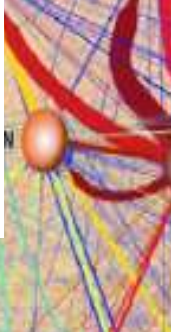
Today, all managers are global managers operating in a global environment.

+ Transformed Marketplace



Today, all managers are global managers operating in a global environment.

+ Tran



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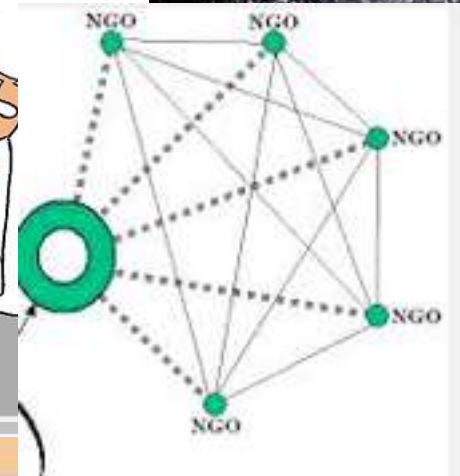
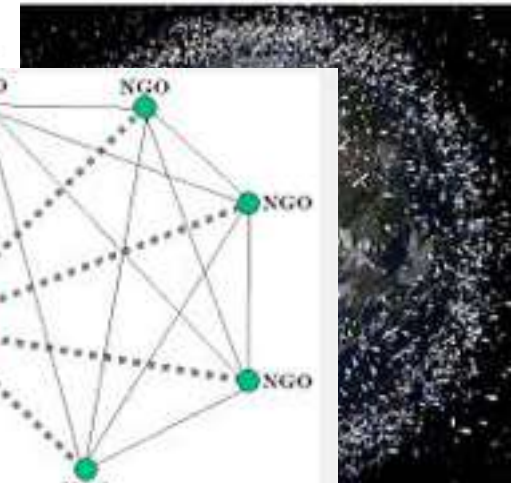
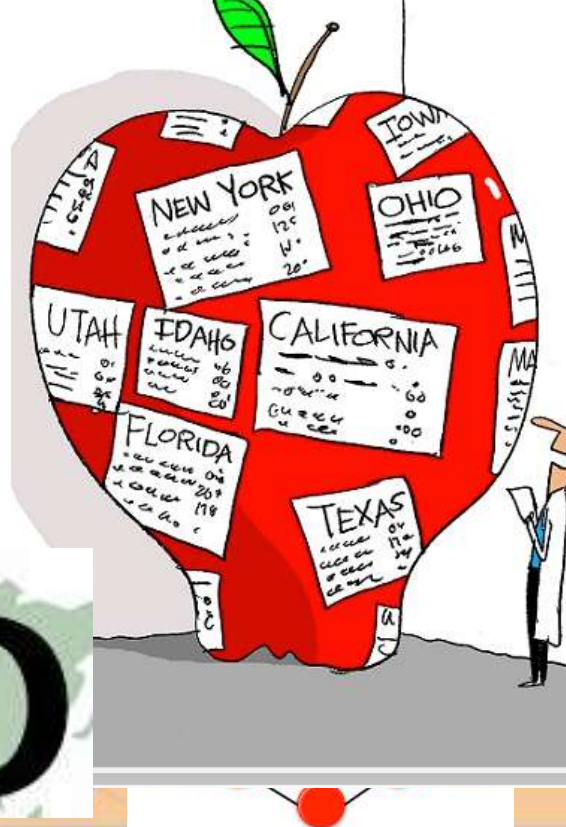
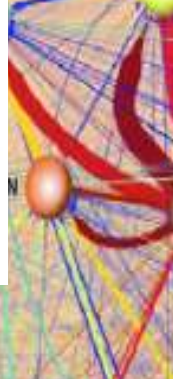
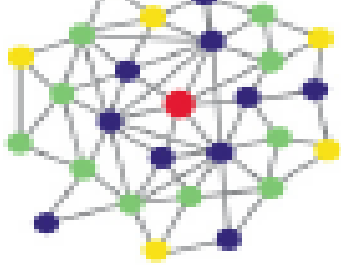
India

Today, all managers are global managers operating in a global environment.

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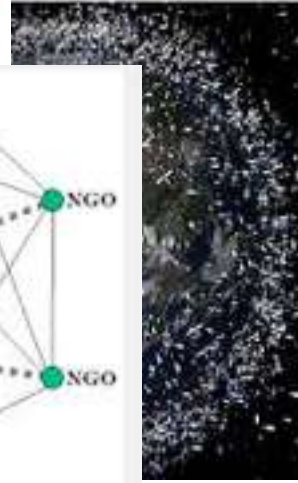
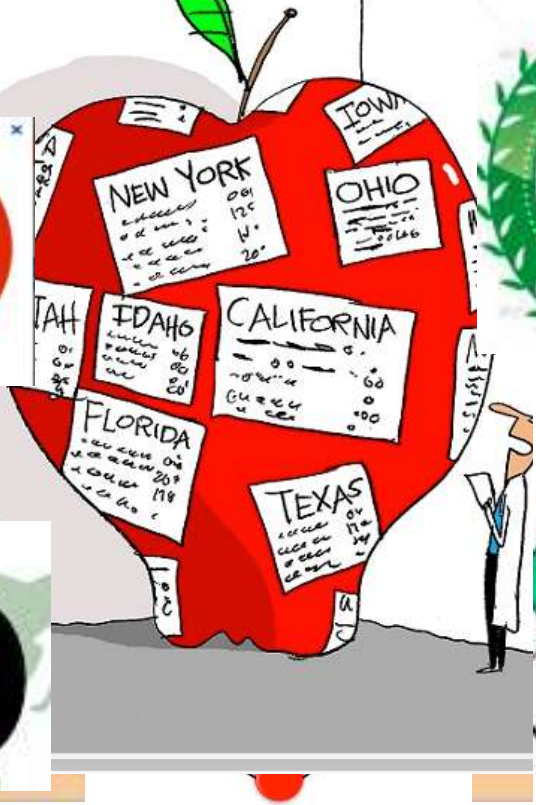


NGO

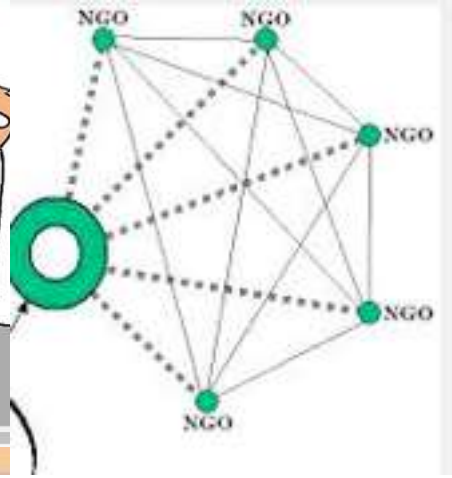
India

Today, all managers are global managers operating in a global environment.

+ Trans



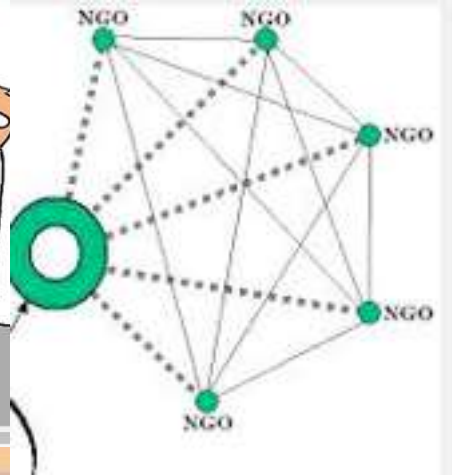
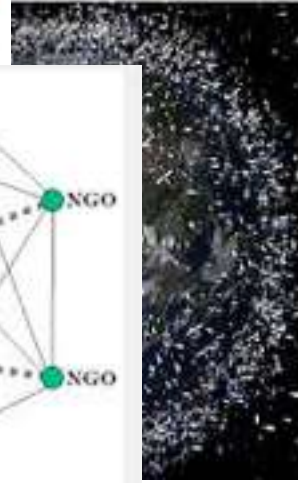
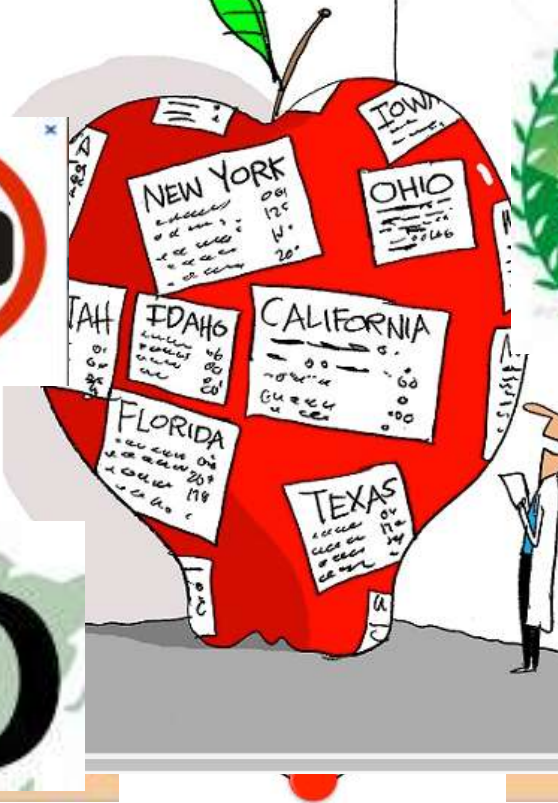
NGO



India

Today, all managers are global managers operating in a global environment.

+ Trans



India

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+ Trans



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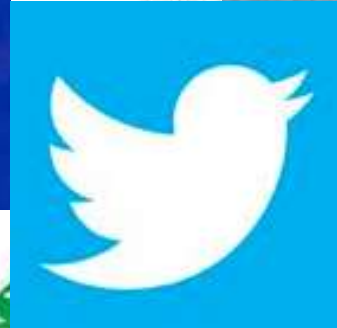
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+ Trans



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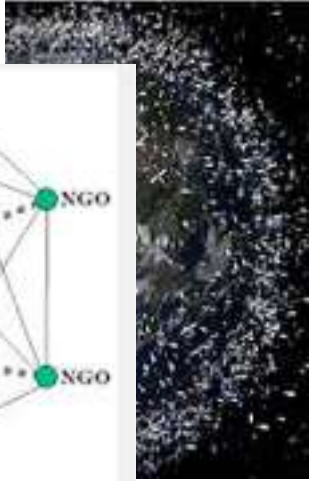
+ Trans



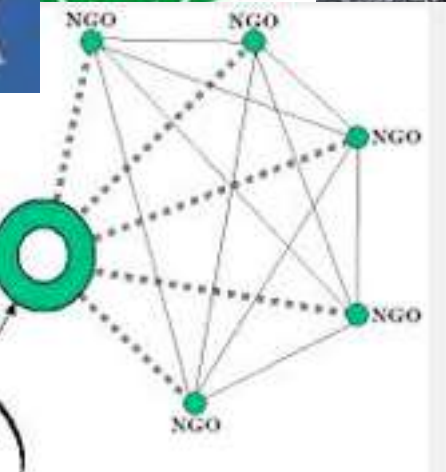
change.org



facebook

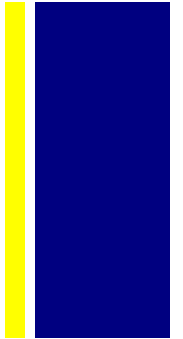


NGO



India

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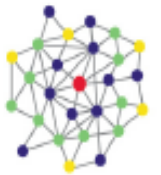
VUCA

Volatility

Uncertainty

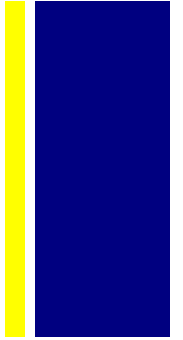
Complexity

Ambiguity



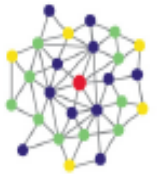
LINKAGES

+ “The New Normal”



“The New Normal is No Normal. It is dynamic, not fixed with countries rising and shaping the multi-lateral trading system – no longer just the United States and Europe. Rising economies will be joining new networks, in diverse combinations and constantly changing patterns. These new networks will be displacing old hierarchies.”

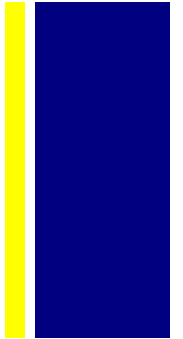
“Having eyes and ears around the world is critical”



LINKAGES



How to be a Global Operator?



“It’s about creating LINKAGES”

Identify “Hot Nodes”

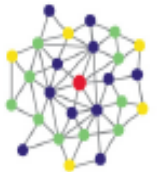
Leverage Your Resources; Take a Leadership Role

Avail Yourself of Government Resources (US and Others!)

Think, Operate in an Integrated Global Manner

Learn the Rules: Science, Transparency

Create Management Systems that Work For You



LINKAGES



Thank You!



Health and
Wellness

Sustainability

Biotechnology

Food Safety

Karil L.
Kochenderfer, *Principal*

Global Trade, Government & Public Affairs
at the Cusp of Trade & Science

