

Session A. Understanding the Complexity of Inclusive Agribusiness and Food Systems, Rural Development and Trade

Ajmal Abdulsamad

Senior Researcher
Duke University, Global Value Chains Center
January, 2018

Outline

- Conceptualizing ‘Inclusive and Sustainable Agribusiness’
- System Dynamics and Drivers of ‘Inclusivity and Sustainability’
- System Complexity and Measurement Challenges
- System Complexity and Changing Financial Landscape

'Inclusivity' framed as two issues:

1. The ability to participate in a particular market

Do export market requirements/conditions lead to exclusion of smallholders or SMEs?

2. Outcome or benefits of participation

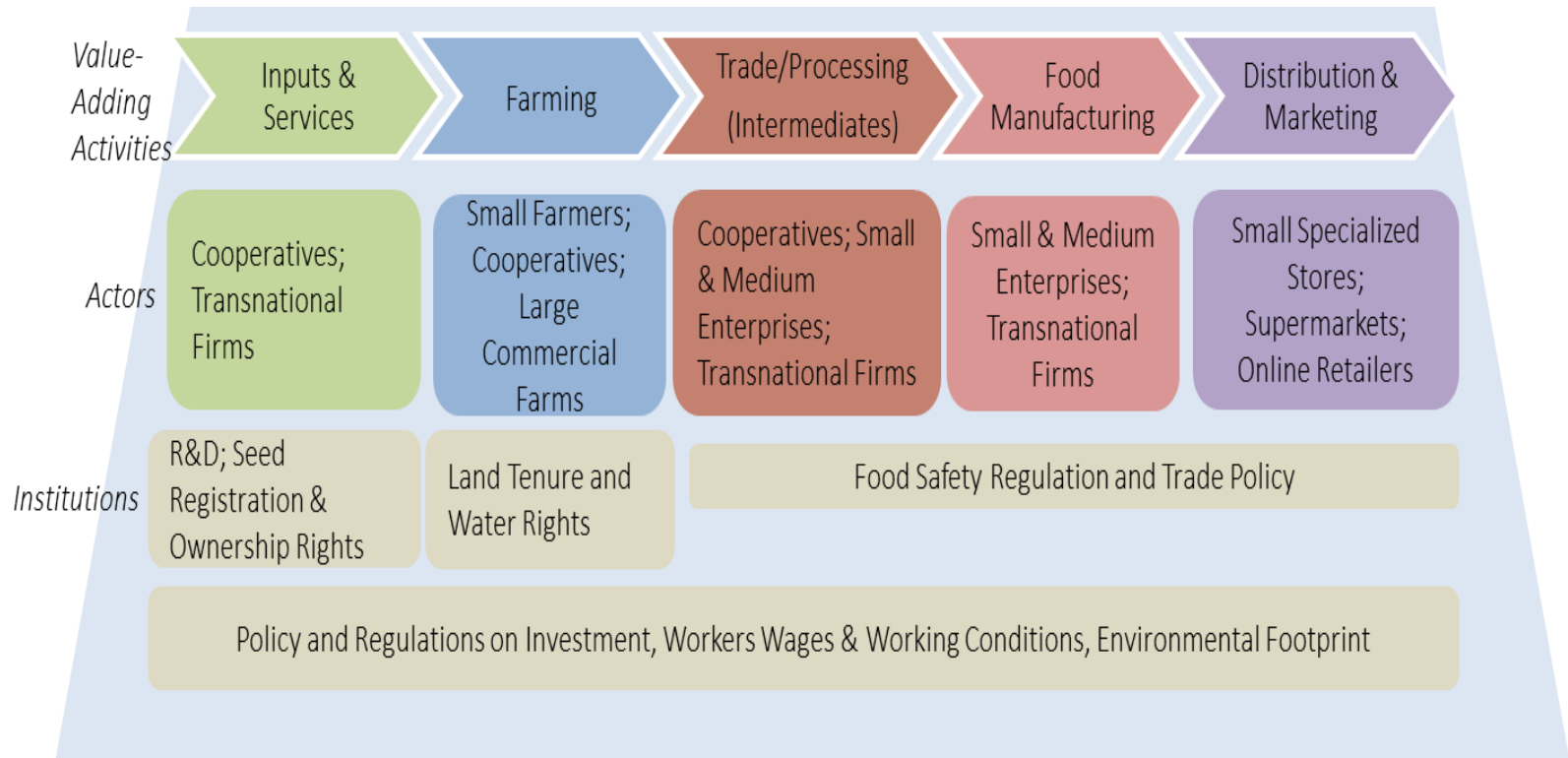
Do smallholders or SMEs experience higher income and/or lower risk in modern market channels (relative to traditional markets)?

Sustainability

Value chain actors account for the environmental footprint of their activities (energy/water/CO₂/soil degradation/etc.)

What's missing?

Agri-Food Value Chains: A Typical Production System



System Dynamics: How Has The System Changed And Its Influence On Inclusivity/Sustainability?

Changes in agri-food value chains can be summarized as:

- (i) extensive consolidation
- (ii) progressive modernization of sourcing strategies and trade relationships
- (iii) rapid organizational and institutional change

Source: Reardon, T., & Timmer, C. P. (2012). The economics of the food system revolution. *Annu. Rev. Resour. Econ.*, 4(1), 225-264.

Market Share of the Five Largest Grocery Retailers, by Country/Region, 2016

Region/Country	2016 Market Share of Five Largest Firms (%)	Region/Country	2016 Market Share of Five Largest Firms (%)
North America		Latin America	
Canada	57.7	Chile	51.2
United States	49.1	Peru	21.6
Mexico	44.3	Brazil	27.4
Western Europe		Middle East and Africa	
Denmark	78.9	Kenya	23.3
Belgium	63.9	Tunisia	10.5
France	59.8	South Africa	53.6
United Kingdom	58.8	United Arab Emirates	63.2
Eastern Europe		Asia-Pacific	
Bulgaria	36.6	Australia	77.5
Czech Republic	71.2	New Zealand	76.2
Hungary	56.5	South Korea	50.9
Poland	48.7	Thailand	36.6

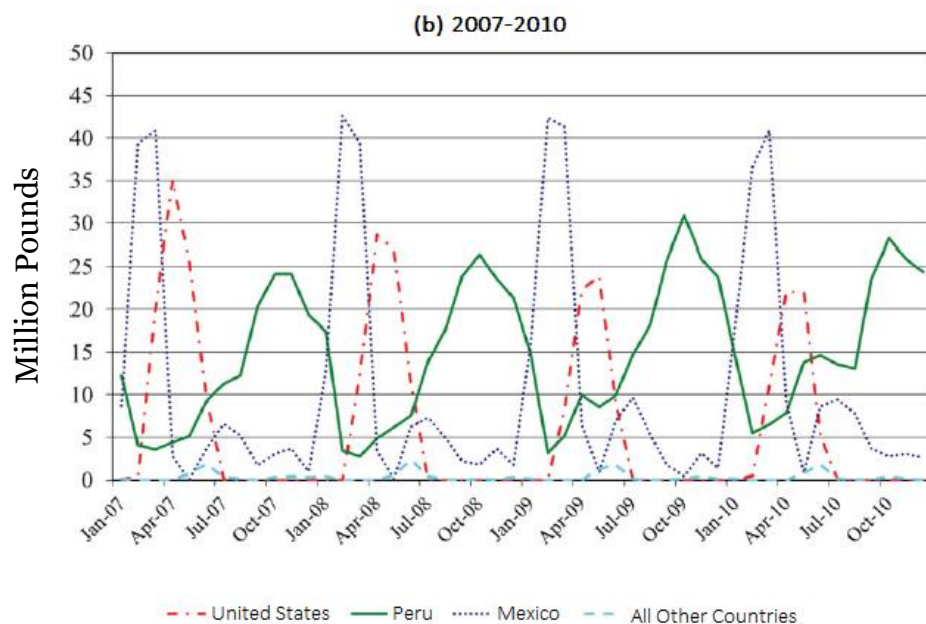
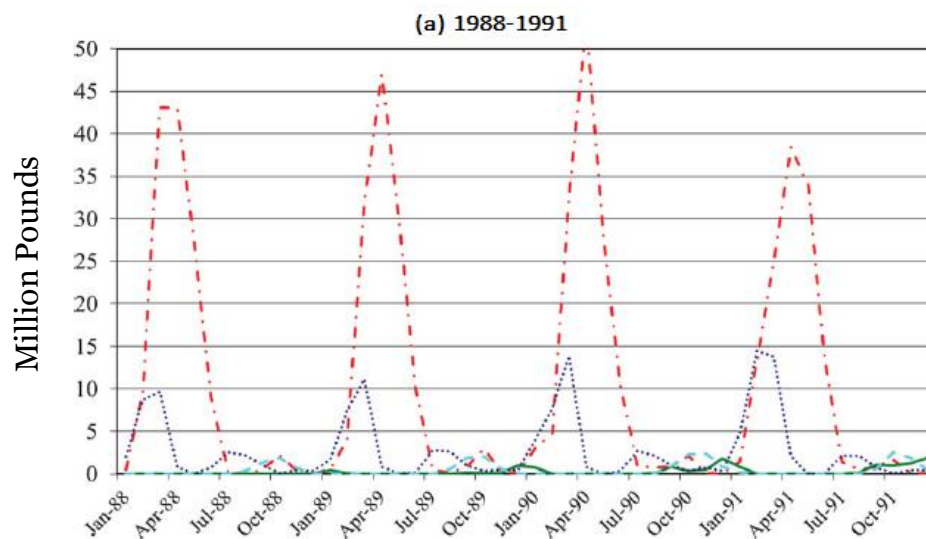
Source: Euromonitor

Global and Country-Level Market Share of Largest-Three Brand Food Manufactures, 2016

Agri-Food Category	World Market Share of Top 3 Brand Firms	Country-Level Market Share of Top 3 Brand Firms
Baby Food	45%	Brazil (91%), USA (79%)
Breakfast Cereals	46%	Indonesia (78%), Italy (73%), Canada (69%)
Chocolate Confectionery	38%	Brazil (70%), India (61.4%), Czech Rep. (60%)
Frozen Desserts and Ice Cream	31%	Finland (80%), Mexico (78%), Bulgaria (75%)
Processed Fruit and Vegetables	10%	Philippines (70%), New Zealand (67%), Thailand (58%)
Soup	39%	Argentina (94%), Costa Rica (90%), Poland (76%)
Yoghurt and Sour Milk Products	28%	Canada (64%), France (58%), Russia (51%)
Edible Oils	14%	Japan (69%), Azerbaijan (65%), China (60%)

Consolidation is not limited to the post-farming segments. The **pre-farming segment** of agricultural inputs is now controlled by **six multinational firms** in seed and agrochemical markets (Monsanto, Syngenta, DuPont, BASF, Bayer, Dow).

Progressive Modernization of Sourcing Strategies and Trade Relationships: Beyond Standards

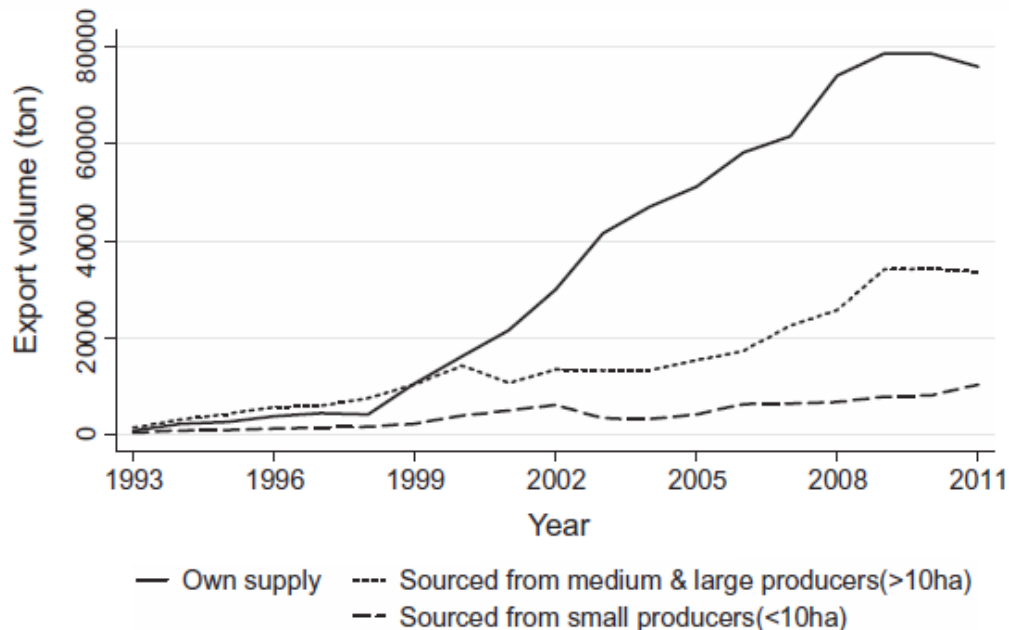


- Changes in U.S. fresh asparagus market by source of supply
- Narrow seasonal market window
- Buyers' demand for consistency, quality, and timely delivery
- Exporters' supply chain coordination
- Smallholder-dominated supply chain – perishable product

Ferrier, P., & Zhen, C. (2014). The producer welfare effects of trade liberalization when goods are perishable and habit-forming: the case of asparagus. *Agricultural economics*, 45(2), 129-141.

Peru's Asparagus Export Industry: Inclusive and/Sustainable?

Trend in Sources of Supply for Asparagus Exporter Firms from Peru, 1993-2011



•Peru:

- World's leading exporter
- US\$420 million annual export value
- 70,000 on- & off-farm jobs

But,

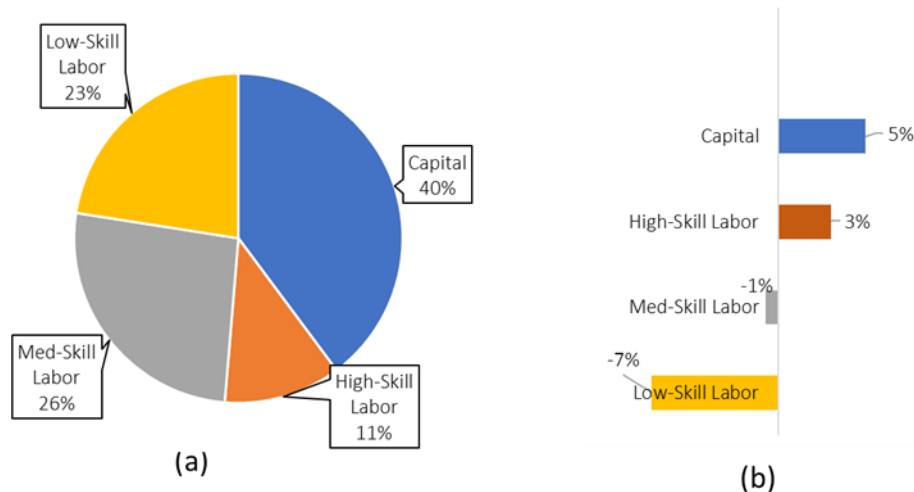
- Smallholders marginalized

•10-17 firms, mostly vertically integrated farming

•Weak water resource regulation – overexploitation of ground waters with severe environmental consequences for future agricultural production in the region

System Change: Value Distribution Between Factors of Production

- Food GVCs have become increasingly **technology- and capital-intensive**
- Income opportunities for **low-skilled labor** have considerably **declined**
- Nearly 86% of value-added is concentrated in pre- and post-farming segments



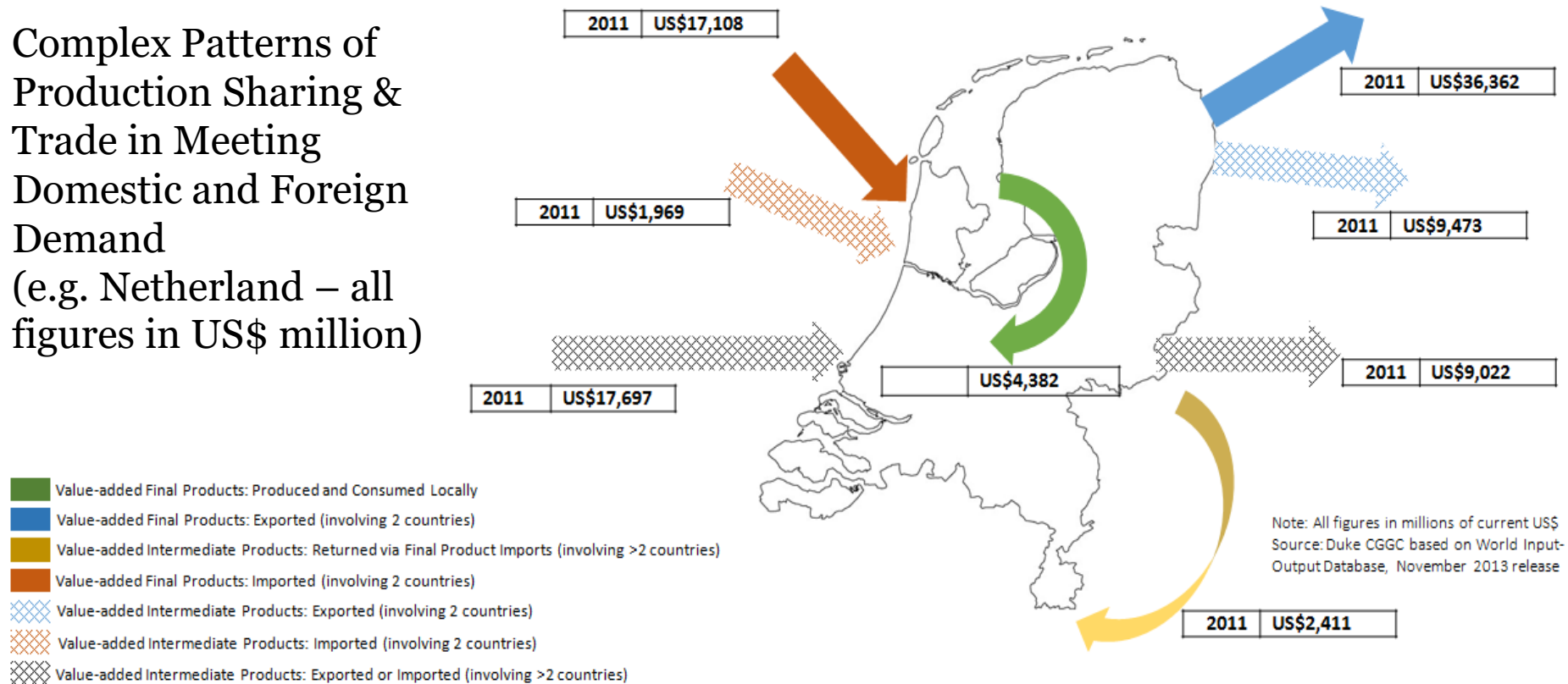
Distribution of Value-Added between Capital and Labor Categories in Food Global Value Chains: (a) 1995; (b) Change between 1995 and 2011

System Complexity and Measurement Challenges

- **First generation** of trade statistics (e.g., UNComtrade)
Allowed only measurement of **gross trade values**
- **Second generation** of trade statistics (e.g., WIOD, or TiVA)
“Upgraded” measurement to illustrate **trade in value-added**
- The **unit of observation**, however, for both is ‘**country**’
- **Aggregated statistics at 2 digit ISIC** (International Standard Industrial Classification)
- **Limited geographic** coverage, particularly, developing countries

System Complexity and Measurement of Challenges

Complex Patterns of Production Sharing & Trade in Meeting Domestic and Foreign Demand
(e.g. Netherland – all figures in US\$ million)



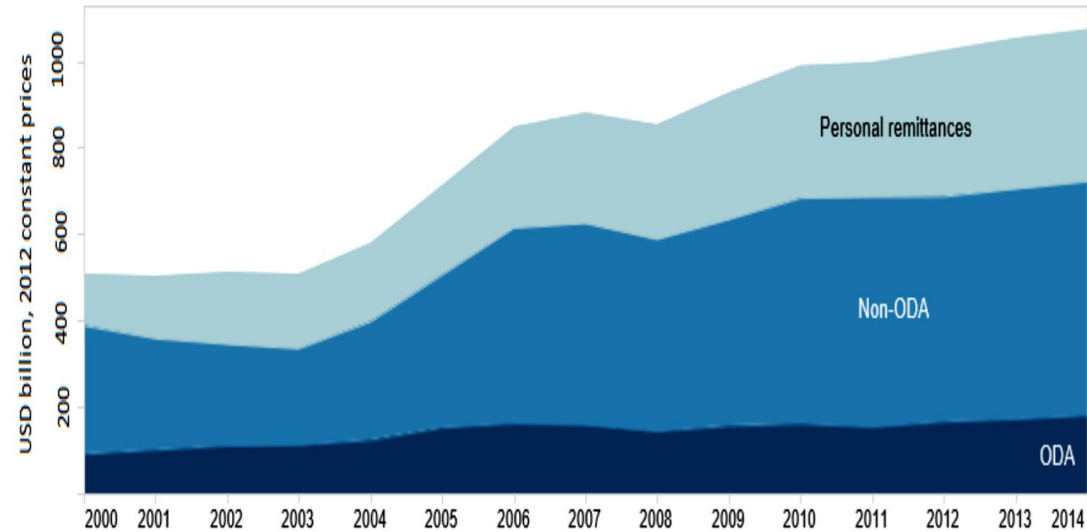
Source: Duke GVCC based on World Input-Output Database, November 2013 release

System Complexity and Changing Landscape of Financial Flows to Developing Countries

1) Official Development Assistance (ODA) an increasingly smaller share of financial flows to developing countries

2) ODA as a Share of Developing Country GDPs:

- Multilateral aid flows peaked at 0.43 percent in 1992 and fell to 0.15 percent since then
- Bilateral flows has since the 1990s has fallen from 1.25 in 1990 percent to 0.43 percent in 2016.



Note: Financial flows represent three year moving average of adjusted gross disbursements for:

- ODA: Official Development Assistance, includes bilateral and multilateral flows
- Non-ODA: FDI, other private flows including grants, and officially-supported export credits
- Personal remittances

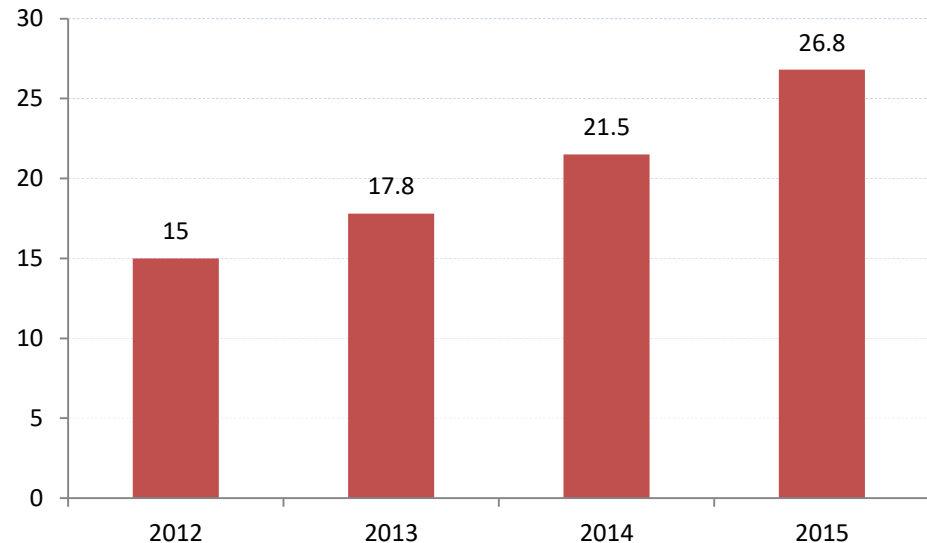
Source: OECD, Development Co-Operation Directorate, Development Finance Statistics

The Need for Partnerships to Leverage Official Development Assistance Flows

- In 2012-15, development fund interventions have **mobilized USD 81.1 billion** from the private sector

- Total ODA in 2015: US\$131.6

Annual Flows of Private Sector Finance to Development, US\$ Billion

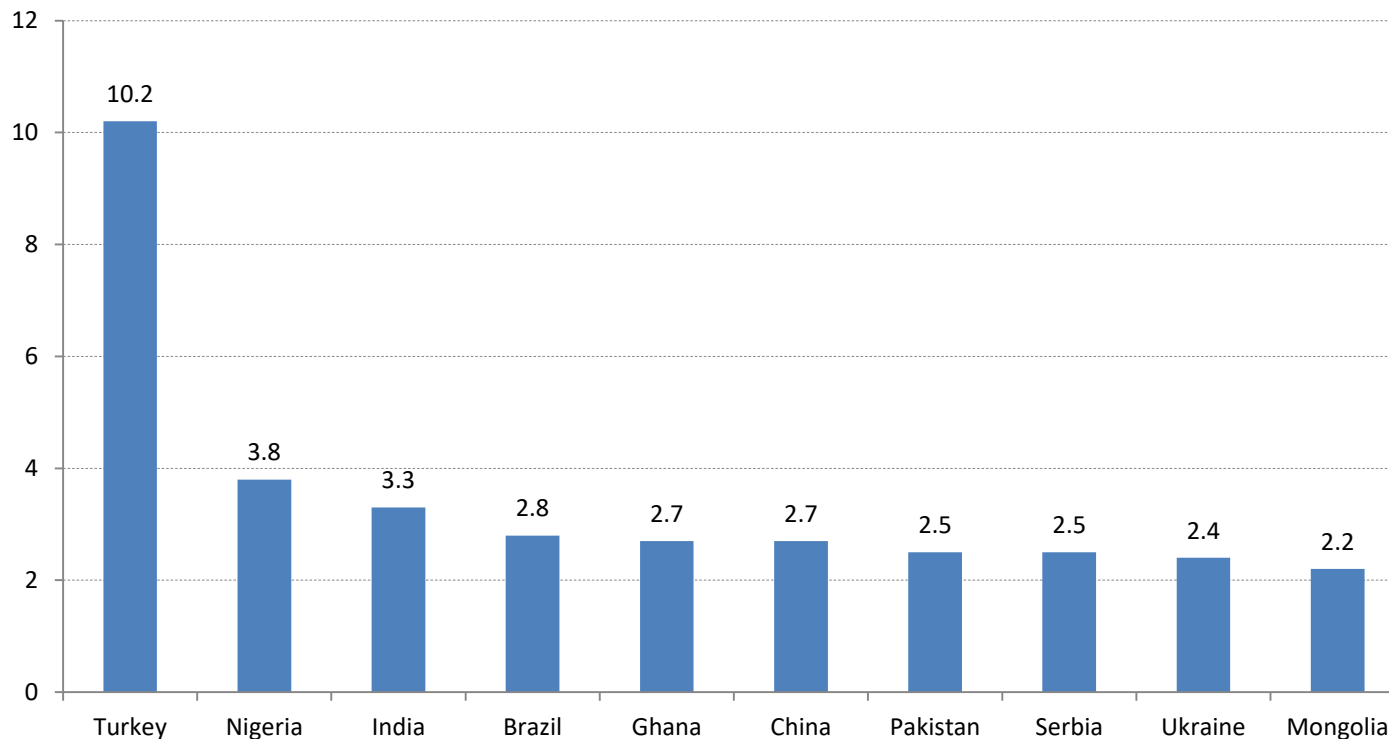


Note: Different financial products: guarantees, syndicated loans, shares in collective investment vehicles, direct investment in companies and credit lines

Source: Benn, J. Sangare, C. and Hos, T. (2017). Amounts Mobilized from the Private Sector by Official Development Interventions

How Can We Ensure Achievement of Inclusive Development Objectives?

Top 10 Beneficiary Countries in 2012-15, US\$ Billion



Note: Different financial products: guarantees, syndicated loans, shares in collective investment vehicles, direct investment in companies and credit lines

Source: Benn, J. Sangare, C. and Hos, T. (2017). Amounts Mobilized from the Private Sector by Official Development Interventions

Key Takeaways/Questions

- Conceptual clarity– interpretation of concepts vary and systemic consensus is not easy to achieve
- Relations between actors/agents in the system are not power neutral
- What do project managers need to know so interventions do not reinforce existing power-dependency relations in the system?
- How can we realistically measure and understand systems and system dynamics? Frameworks?
- How can we more effectively leverage limited project resources to achieve inclusive systemic change?
- How does the ‘project funding model’ itself enhance or undermine the ability to trigger system change?