global value chains

kampala, uganda
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what does uganda export?
where does uganda export to?
what does uganda export to germany?

81% Coffee, not roasted
what uganda export to the netherlands?

Live plants with roots: 32%
Cut flowers, fresh: 21%
Coffee, not roasted: 8%
Tobacco, raw: 16%
Cocoa beans, whole: 3%
Fish fillet or meat: 13%
What Uganda exports to Denmark?
what did denmark exports to uganda?
what does denmark export?
what does uganda import?
where does uganda import from?
what does kenya export?
where does kenya export to?
what does kenya export to the netherlands?

Cut flowers, fresh: 68%

Legumes:
- Turbojets, turbo propellers and other gas turbines: 4%
- Spark-ignition reciprocating or rotary internal combustion piston engines: 2%
- Fruit juices: 4%
- Fish fillet or meat: 0.4%
- Dates, figs, pineapples, avocados, guavas and...: 0.53%
- Onions: 5%
- Plants used in perfumery, in pharmacy or for insecticide: 0.49%
- Other: 0.28%

Other: 32%
what does kenya export to the netherlands

$450M USD

- Tea: 38%
- Legumes: 22%
- Cut flowers, fresh: 20%
- Other vegetables: 6%
- Cabbages, cauliflower, kohlrabi, kale, broccoli: 1%
- Plants used in perfumery, in pharmacy or for insecticide: 1%
What does Kenya export to Denmark?
what does kenya import from denmark
what does tanzania export?
where does tanzania export to?
what does tanzania export to switzerland?
what does tanzania export to switzerland?

Gold

$921M USD

96%
what does tanzania import?

The chart illustrates the percentage of Tanzania's imports, with Petroleum oils, refined accounting for 28% of the total imports. Other significant imports include Telephones, Wheat and meslin, Palm oil, crude, Raw sugar, cane, and Polymers of propylene or...
where does tanzania import from?
What does Tanzania export to Denmark?

- Coffee, not roasted: 33%
- Fish fillet or meat: 31%
- Locust beans, locust seeds: 18%
- Tobacco, raw: 15%
what does tanzania import from denmark?
very different trade profiles

- complexity
- value added

- where are organics?
- HIGH VALUE PRODUCTS!
- VALUE CHAINS?
increased importance of value chains

1. increasing demand for high value products in local markets!
2. increasing exports of high value products
increased LOCAL demand for H-V products

- consumption of high-value crops such as fruits and vegetables
- in developing countries increased with 200% in the period 1980-2005,
- consumption of cereals stagnated in that period (World Bank, 2008).
Growth of local demand for H-V products

- increasing incomes and
- urbanization
- reflected in the rapid growth of modern food industries and
- retail chains (“supermarkets”) in urban market segments
- (Gulati et al., 2007; Reardon et al., 2003)
factors behind food industry growth:

- liberalized investment policies and the
- inflow of Foreign Direct Investment (FDI) in developing country food sectors
- FDI stocks expanded:
  - from less than 10% of GDP in the early 1990s in most developing and emerging countries
  - to 25% in 2005 in Southeast Asia and the transition countries
- 30% in Africa and Latin-America (UNCTAD, 2010).

In the majority of African countries the agri-food sector accounts for a vast share of FDI inflows (UNCTAD, 2010)
2. increased high valued exports

- high-value food exports:
- fruits and vegetables,
- meat and milk products, and
- fish and seafood products – from developing countries increased
- with more than 300% in the period 1980-2005
- and now constitute more than 40% of
- total developing country agri-food exports (World Bank, 2008).
Figure 1. Changing structure of developing countries\textsuperscript{1} agro-food exports, 1985 – 2005
African high value exports

- exports of fruits and vegetables has increased
  - from 1.9 billion USD in 1990 to
  - 5.6 billion USD in 2007
  (FAOSTAT, 2010).

- Several African countries;
- including very poor countries such as Côte d’Ivoire, Ethiopia, and Senegal have
- become important suppliers of fresh fruits and vegetables to EU markets
is shift from traditional to non-traditional important?

• First, Decreases vulnerability from dependence on commodities
  • shift from traditional to high value exports implies more diversified export portfolios
• Second, value per unit or per weight is much higher as compared to typical traditional tropical exports such as coffee, tea and cocoa.
  • This creates opportunities for rural income mobility and
  • poverty reduction among smallholder producers in developing countries.
implications on structure & chains

(1) the increasing number and stringency of standards – both public and private - for quality and safety;

(2) a shift from a fragmented sector to consolidation in the chain (mostly at the level of processing, distribution and/or retail);

(3) shift from spot markets transactions in traditional wholesale markets to increasing levels of vertical coordination, including value chain finance
from private to public standards

- number of producers under GlobalGAP certification.

- six-fold over 15 years:
  - from around 20,000 in the mid 1990s
  - to around 120,000 in 2011

(Maertens and Swinnen, 2014).
importance of supermarkets

• In most of South America, East Asia
  • (outside China),
  • and South Africa
• the average share of supermarkets in food retail went
• from only 10% – 20% in 1990
• to 50% – 60% by the early 2000s

(Reardon et al., 2003).
increase in private standards v/s public

- An illustration of the spread of private standards is the number of producers that are GlobalGAP certified.
- This number increased six-fold over the past decade and a half:
  - from around 20,000 in the mid 1990s
  - to around 120,000 in 2011
- (Maertens and Swinnen, 2014).
Table 1: Smallholder procurement in Sub-Saharan African export supply chains

<table>
<thead>
<tr>
<th>Country</th>
<th>Commodity (group)</th>
<th>Year of survey</th>
<th>Share of exports sourced from smallholders</th>
<th>Number of smallholder producers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ghana</td>
<td>Fruits &amp; vegetables</td>
<td>2006</td>
<td>45%</td>
<td>3,600</td>
</tr>
<tr>
<td></td>
<td>Pineapples</td>
<td>2006</td>
<td>10-15%</td>
<td>300 - 400</td>
</tr>
<tr>
<td></td>
<td>Papaya</td>
<td>2006</td>
<td>95%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vegetables</td>
<td>2002</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>Pineapple</td>
<td>1997</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mango</td>
<td>2002</td>
<td>&lt; 30%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Banana</td>
<td>2002</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>Senegal</td>
<td>French beans</td>
<td>2005</td>
<td>52%</td>
<td>600 - 900</td>
</tr>
<tr>
<td></td>
<td>Tomatoes</td>
<td>2006</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Kenya</td>
<td>Fresh fruit and vegetables</td>
<td>2002</td>
<td>± 50%</td>
<td>12,000 - 80,000</td>
</tr>
<tr>
<td>Madagascar</td>
<td>Fresh vegetables</td>
<td>2004</td>
<td>90-100%</td>
<td>9,000</td>
</tr>
<tr>
<td>Zambia</td>
<td>Vegetables</td>
<td>2003</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Fruits &amp; vegetables</td>
<td>1998</td>
<td>6%</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Maertens et al. (2009)
Table 2: Motivations of small farmers to supply high-value chains

a. Cotton farms in Kazakhstan

<table>
<thead>
<tr>
<th>Reason for contracting (%)</th>
<th>Most important reason (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guaranteed product sales</td>
<td>9</td>
</tr>
<tr>
<td>Guaranteed price</td>
<td>4</td>
</tr>
<tr>
<td>Access to credit</td>
<td>81</td>
</tr>
<tr>
<td>Access to quality inputs</td>
<td>11</td>
</tr>
<tr>
<td>Access to technical assistance</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
</tr>
</tbody>
</table>
small holders

### b. Vegetable farms in Sub-Saharan Africa

<table>
<thead>
<tr>
<th></th>
<th>Madagascar 2004</th>
<th>Senegal 2005</th>
<th>Most important reason (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for contracting (%)</td>
<td>Reason for contracting (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stable income</td>
<td>66</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Stable prices</td>
<td>19</td>
<td>45</td>
<td>15</td>
</tr>
<tr>
<td>Higher income</td>
<td>17</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Higher prices</td>
<td>11</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Guaranteed sales</td>
<td>66</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>Access to inputs &amp; credit</td>
<td>60</td>
<td>63</td>
<td>44</td>
</tr>
<tr>
<td>Access to new technologies</td>
<td>55</td>
<td>17</td>
<td>0</td>
</tr>
<tr>
<td>Income during the lean period</td>
<td>72</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

Source: Minten et al., 2006; Maertens et al., 2006; Swinnen, 2005
the progrov approach & contribution

• we are taking a micro approach:
  • focus on farmers
  • focus on consumers
  • unit of analysis: transactions
  • TRANSACTIONS COSTS IMPORTANT!

• governance

• implications of governance choices
what we learned from progrov

• missing markets ?
• credit ?
• implementation

• THE MISSING LINK !
I'M A WITCH... WHAT ARE YOU?

AN ECONOMIST.
agricultural economics vs rural economics

• Agricultural economics has been principally concerned with the economics of agriculture as a sector.
• The elementary unit of analysis is the farm
• The major fields of analysis are
  • farm production
  • the marketing of agricultural commodities
  • the demand for food,
  • the performance of product and factor markets,
  • the linkages between agriculture and other sectors of the economy and the rest of the world
• sustainability in resource use, and
• agricultural and food policy.
rural economics & rural policy

• Rural economics and the design of rural policies to achieve rural development constitute a broader subject than agricultural economics.
• with a spatial as opposed to a sectoral definition.
• The elementary unit of analysis is the household, with the farm as a typical subset of economic activity.
The fields of application of rural economics

- resource allocation by households and their choices of income strategies,
- the emergence and performance of agrarian institutions
- income levels achieved by specific categories of rural inhabitants
- poverty and inequality,
- income and food security,
- the satisfaction of basic needs (in particular access to public goods and services such as health and education)
• intergenerational equity
• and the broad characterization of the quality of life for rural households
• (which includes features such as individual freedoms, the range of available opportunities and "capabilities" [Sen (1985)], community relations
• and congeniality, the rule of law and respect of human rights, political rights, etc
evolution of rural economic policy

- WWII-1980s: two contradicting approaches:
  1. modernization – free market
  2. radical dependency – role for the state

devolution economics !

1970-1980: 2nd development decade: failure

proposals to reconcile growth & equity
• 1980s: restoring the role of the market
  • neo-liberal policies
  • washington consensus
1990s new perspectives in rd

- market
  - globalization

- state
  - decentralization of governance
  - participatory democracy
  - property rights and access to land
  - environmental externalities

- civil institutions
four sets of institutions ard

- sector: private & public
- communities & civil society organizations
the role of agriculture

- The WDR divides developing countries into
  - urbanizing countries, mostly in Latin America (but also including South Africa), with 255 million people;
  - transforming countries, mainly in East Asia and MENA, with about 2.2 billion rural people,
  - agricultural countries, mostly in SSA, with 417 million rural people.
• In the agricultural countries, the sector accounts for 32% of GDP growth and two thirds of employment.

• Growth in agriculture can drive economywide growth and mass poverty reduction, as it has in East and Southeast Asia and, to a lesser extent, in South Asia.
• In transforming countries, agriculture contributes 7% of growth, but 79% of all poor are still rural.

• The role of agriculture in these countries is to reduce poverty and confront rising rural/urban income disparities.
• In urbanizing countries, rural areas still have 39% of all the poor.
• Even though the share of the sector in GDP is small, it has been the fastest-growing sector in this country group for over a decade
• Brazil and Chile as the shining examples.
• The sector therefore provides major investment opportunities for commercial enterprises
• and a large number of smallholders. It is needed to reduce remaining rural
• poverty.
Christiansen et al. (2006) find that in low-income countries, including in Africa, the “participation effect” from agricultural growth on the poverty head count on average is 2.3 times larger than the participation effect from nonagriculture. Relative to the service sector, the impact is even larger at a factor of 2.5 on average and 4.25 in sub-Saharan Africa.
• These differences do not primarily follow from the large share of agriculture in these economies

• but rather from the much larger elasticity of overall poverty to agricultural GDP than to nonagricultural GDP.

• impacts are dependent on the use of the right technology (e.g., focused on nontradable food versus tradable export crops; land versus labor saving) and its targeting (small versus large farmers).
value chains and rd: short chains

- 1. Face-to-face
- 2. Spatial proximity
- 3. Spatially extended
1. *Face-to-face*

purchases a product direct from the producer/processor on a face-to-face basis. Authenticity and trust are mediated through personal interaction. The Internet also now presents opportunities for a variant of face-to-face contact through on-line trading and web pages.
2. **Spatial proximity**

Products are produced and retailed in the specific region (or place) of production, and consumers are made aware of the ‘local’ nature of the product at the point of retail.
3. *Spatially extended*

where value and meaning laden information about the place of production and those producing the food is translated to consumers who are outside of the region of production itself and who may have no personal experience of that region.
• improving the investment climate;
• a big push toward closing the infrastructure gap with other regions of the world;
• a greater focus on innovation as the primary motor for productivity growth and enhanced competitiveness; and
• institutional and human capacity
beyond the market: the basic needs


What makes the poor miserable:

• lack of health care
• lack of tolerably good schools
• lack of basic facilities important for human well-being
• lack of elementary freedoms

• policy recommendation:
  the state to invest in social infrastructures
market first

• j. bhagwati & a. panagariya “why growth matters”

• growth is necessary to create wealth to invest in infrastructure
the cart and the wagon
african renaissance monument, dakar
tabitha karanja, keroche breweries
compare & contrast

• 50 meters tall on 100 m hill
• higher than statue of liberty
• cost: 21 m euros
• ticket 7 euros

• 15000 bottles/hour
• 5% market share
• broke a multinational monopoly
niche strategy

• According to United Nations statistics then, 56% of Kenyans lived below the one dollar a day poverty mark
• which simply means a huge population was not targeted by the existing multinational
• This fact would then reveal why the illicit brew industry thrived much as people
• went for the cheap although dangerous brews
• not only because of lack of funds
• but also lack of choice.
compare & contrast: two african stories of development

african renaissance monument in dakar, senegal

- 150 meters tall (taller than statue of liberty)
- cost: 21 m euros
- ticket 7 euros

tabitha karanja, ceo keroche breweries, kenya

- 15000 bottles/hour
- 5% market share
- broke the multinational monopoly