Food System Transformation & SDGs1&2: Implications for General & Differentiated Policies

Tom Reardon, MSU January 11, 2018 Rome

Talk overview

Part 1: general trends in food system transformation

... with implications for general policies

Part 2: typology of transformation situations

... with implications for differentiated policies

1. General trends in food systems ... with GENERAL policy implications

1.1. Urbanization

- a) Growth of urban share in population
- → now majority of countries' food consumption (thus main market for farmers)
- ... Nigeria: 50% of population, 60-70% of food to cities
- ... Indonesia: mango farming is a poverty alleviator: 75% of mangoes go to cities (1% exported)
- → supply chains to feed cities stretch FAR into rural areas: "urban affected" rural areas grow, "hinterlands" shrink
- ... Nigeria: Northern maize 1000km to feed Southern cities

- b) Differentiation: rapid growth of secondary & tertiary cities and towns
- → Small towns/cities big opportunity for rural marketshed areas
- > demand for commuting labor
- demand for commodities
- > supply of midstream supply chain services
- > supply of upstream ag services
- ... Nigeria: rural women chicken/egg farmers selling a LOT to small/medium towns
- ... Myanmar: small towns are bases for mobile combine services to rice farmers & pulse mills

1.2. Rapid rise of rural nonfarm employment (RNFE)

- → Reardon et al. SOFA 1998: 40% or more of rural incomes, key to poverty alleviation, risk management
- → Past 15 years research emphasizes much of RNFE linked to supply chains (wholesale, processing, logistics, food prep, retail)
- ... Nigeria: 80% of that is by rural women
- → New research shows RNFE main source of cash to finance farm inputs (Nigeria, Liverpool-Tasie)
- → Links back to towns: Rise of town-rural commuting
- ... half of India RNFE

- 1.3. Food consumption transforming in urban AND rural areas ... AND by the poor
- a) Rapid rise of processed & prepared (away from home) food purchases
- → Now half of rural & 2/3 of urban purchased food
- → Important to liberating women's labor time
- → Source of employment:
- ... Senegal & Nigeria: prepared millet/milk dishes vending major new source of jobs for women

b) Rapid diversification of diets into non-grains

- →50 to 75% of diets in value terms
- > employment impacts on poor
- ... Bangladesh: fish farming employs 2x the labor of rice farming per acre
- → enhanced by supply chain services having more impact on poverty & hunger:
- ... India: potato cold storage boom
- ... Nigeria: maize-based feed up 600% in 10 years

- c) Large share of rural diets is purchased
- ... 45% in Eastern/Southern Africa
- ... 70% in Nigeria
- ... 80% in Bangladesh
- → Rapidly rising importance of RURAL to RURAL and URBAN to RURAL supply chains
- → Effectiveness of supply chain direct impacts on hunger on demand side (not just incomes)

1.4. Supply chains rapidly growing

- ... post-farmgate is 60% of cost of food (think not just urban now, but rural too)
- → important to RNFE: low entry barrier jobs for poor
- → important to profitability of and cash for farm investments
- → But also challenge: river of urban products into rural areas to compete (Reardon/Stamoulis/Pingali 2007)
- ... Tanzania: current Sokoine/MSU study on urban maize/wheat/oil products into rural areas

1.5. GENERAL policy implications of general trends

- a) SDG1 & 2: Policies to enable private-sector (SME & large firm) development of supply chains to cities AND rural areas
- ... to link SMEs and small farms to main sources of effective demand
- b) SDG1&2: policies to help rural suppliers respond to the main motor of demand: non-grains & feed grain

c) SDG1: Policies to enable COMPETITIVENESS of rural SMEs & farmers in urban and rural marketsd) Policies to build market infrastructure of small cities/towns

→ overall: Need MAINSTREAM supply chain & competitiveness policies in SDG1 & SDG2 strategies

- 2. Typology of transformation situations ... with implications for differentiated policies
- 2.1. Initial concepts:

Three differentiated processes that make for distinct transformation ... and policy ... situations

- a) Stages of product cycle: (kiwi example)
- a.1) Niche \rightarrow
- **a.2) commodity** (bulk, not quality differentiated, competition on cost) →
- a.3) differentiated products (quality/safety differentiated, competition on quality)

- b) Stages of structural change b.1) Grain sector: J curve of concentration (Tanzania example)
- ...Parastatal distribution & milling (plus parallel market) → liberalization →
- ...Proliferation of SMEs milling/distribution (with branding/packaging) with urbanization/diet change (QUIET REVOLUTION)
- ...Concentration (large mills emerge), start compete out small mills (MODERN REVOLUTION)
- b.2) non-grain sector
- "/" (rising concentration from fragmented base)

c) Stages of value chain transformation

...**traditional** (fragmented local, niche, labor intensive) ->

... transitional (long supply chains, fragmented with SMEs, commodity, labor intensive)

... modern (long supply chains, concentrated, product differentiation, capital intensive

d) KEY: Policies & strategies need to be differentiated according to the value-chain stage of the area and the product

... as opportunities differ

... as challenges differ

... and as capacity of actors differs

2.2. Two situations/examples

a) Shift from traditional to transitional, niche to commodity (from our studies)

a.1) examples

... Northern Nigeria peri-urban/rural women chicken enterprises for town/city market

... Senegal & Northern Nigeria urban/peri-urban women prepared millet/milk dish processing/vending

... Bihar cold storage SMEs development

... Tanzania SME maize milling

a.2.) Differentiated policies/programs, examples

... basic skills/training

... basic infrastructure (sanitation, electricity, wholesale markets)

... "business environment", regulations rationalization

... Business development/information to meet commercial requirements (e.g. packaging) to compete in towns

- a.2.) Differentiated policies/programs, examples
- ... basic skills/training
- ... basic infrastructure (sanitation, electricity, wholesale markets)
- ... "business environment", regulations rationalization
- ... Business development/information to meet commercial requirements (e.g. packaging) to compete in towns

b) Shift from transitional to modern, commodity to differentiated product (from our studies)

b.1) examples

... aquaculture in Bangladesh (domestic market), Indonesia (export market): quality, non-traditional species adoption, commercial practices, etc.

... sunflower oil in Tanzania (domestic market competing with imported oil): quality, packaging, commercial practices (Tschirley, Olabisi)

... feed mill upgrading in Nigeria (disease management, quality differentiation, logistics) (Liverpool-Tasie)

- b.2.) Differentiated policies/programs, examples
- ... advanced/state of art skills/training
- ... advanced/custom adapted infrastructure (electricity type, specialized infrastructure)
- ... "business environment", commercial regulations, public standards geared to private standards
- ... Business development/information to meet commercial requirements to compete nationally & internationally

3. Conclusions

- a) Dynamic trends
- ... and heterogeneous situations
- b) Need differentiated policies/strategies adapted to stage of food system evolution by location and product and market
- c) Notice the analogy to differentiated strategies to go from first round of globalization to second round in "non traditional exports" debate