

# Quiet Revolutions in Aquaculture & Poultry Value Chains in Africa & Asia

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**Transformation of value chains in Africa and Asia has**

**... NOT been gradual**

**... but instead sudden, rapid, abrupt**

**... image of tidal wave**

# 1. Rapid Food system transformation driven by meta drivers & CONFLUENCE of 5 trends

## **Meta drivers**

- **income growth**
- **policy liberalization**
- **Public infrastructure investment**
- **Massive private investment (FDI & domestic)**
- **technology change and transfer (in each segment of supply chains) and cross cutting (e.g. internet)**

## **PULLED by Downstream demand**

**1) urbanization**

**2) diet change in urban and rural areas**

## **“FACILITATED ” by Midstream & Downstream**

**3) Transformation of the “Hidden Middle”:  
processing, wholesale, logistics (large & SMEs)**

**... and retail (supermarket revolution! FF!)**

## **FED by upstream**

**4) Farming intensification, commercialization,  
diversification**

**5) input value chain development**

### 3. Causing a Modern Revolution in value chains

**... FDI & large scale domestic investment**

**... supermarket revolution**

**... large processors**

**... modern wholesalers**

**... big seed/chemical companies**

**... big feed companies**

# 4. Quiet Revolution in the “Hidden Middle”

## 4.0. Overall

... Sudden & fast

... based on domestic markets & domestic investments

... data based on “stacked surveys” in all VC segments

## **4.1. Structural changes**

- a) Longer supply chains driven by urbanization**
  - b) Diversification & value added in supply chains driven by diet change**
  - c) Proliferation of 10's of 1000's of SMEs in processing, wholesale, 3PLS (transport, warehouse, cold storage)**
- ... Bart gave examples potato & rice Asia, teff Ethiopia**

## **d) Structural change: Bangladesh aquaculture value chain**

**... 1500% increase in aquaculture product in 25 years (from 30 to 70% of fish consumption)**

**... 600% increase in fish feed segment in past 10 years**

**... 300% increase in 10 years in SMEs in the HIDDEN MIDDLE: in wholesale, hatcheries, logistics**

**➔ Fish farming ALL for domestic (mainly urban) market**



- e) Structural change: Nigerian poultry complex**
- ... development of North-South maize supply chain, 1500 km**
- ... 600% increase in maize based feed sector in past 10 years**
- ... imports only 15% of consumption**
- ... huge jump in women based SMEs supplying small towns and secondary cities**

## 4.2. Conduct change

a) **Traditional systems up-ended, examples**

**... tied output-credit arrangements with traders, are disappearing (15,000 interviews in Asia, found 2% involved in tied credit; 8,000 in Africa, 3% in tied credit)**

**... shift from traditional rural brokers to town-based wholesalers & 3PLS**

**→ 85% of volume of maize traders in Nigeria moved via 3PLS (big gap in research)**

## **b) Widespread technology changes, for example**

**... shift from pastures to feed**

**... from capture to enclosure (chicken coops, fish ponds)**

**... and rapid development of input supply chains**

**→ 90% of small chicken farmers in Nigeria using anti-biotics**

**→ 70% of small chicken farmers in Nigeria and 80% of Bangladesh using commercial feed**