

Incentives and Constraints to Expanded and Viable OFSP Commercial Value Chain: The Case of Kenya

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SUSTAIN Roundtable meeting, Nairobi, Kenya

August 29-30, 2018

General research question

- What factors determine the early interest and adoption/uptake of OFSP processing by commercial partners in the urban food sector, and how can *incentives* be created (& *challenges resolved*) for private sector (co-) investments at different stages of program implementation?

Specific research questions

- *How* has the OFSP value chain developed – 2015 to date
- What outcomes and *why*: challenges & opportunities (incentives)
- *How* were the challenges resolved/over?
 - The institutional innovations used to overcome the constraints

Methods: 1. Qualitative method

- Based on case study approach
- Key informant interviews - total of 18 along the entire value chain
 - Based on a checklist of standardized jointly Team 1 developed Qs
- FGDs – 4 in total, 2 women only; 2 men only
 - Focused on farmers linked to OFSP commercial value chain
 - All members of farmer organizations: Coop society and Self Help Group
 - In addition, interviewed 2 independent farmers – for non-grp perspective
- Observations – participant and others

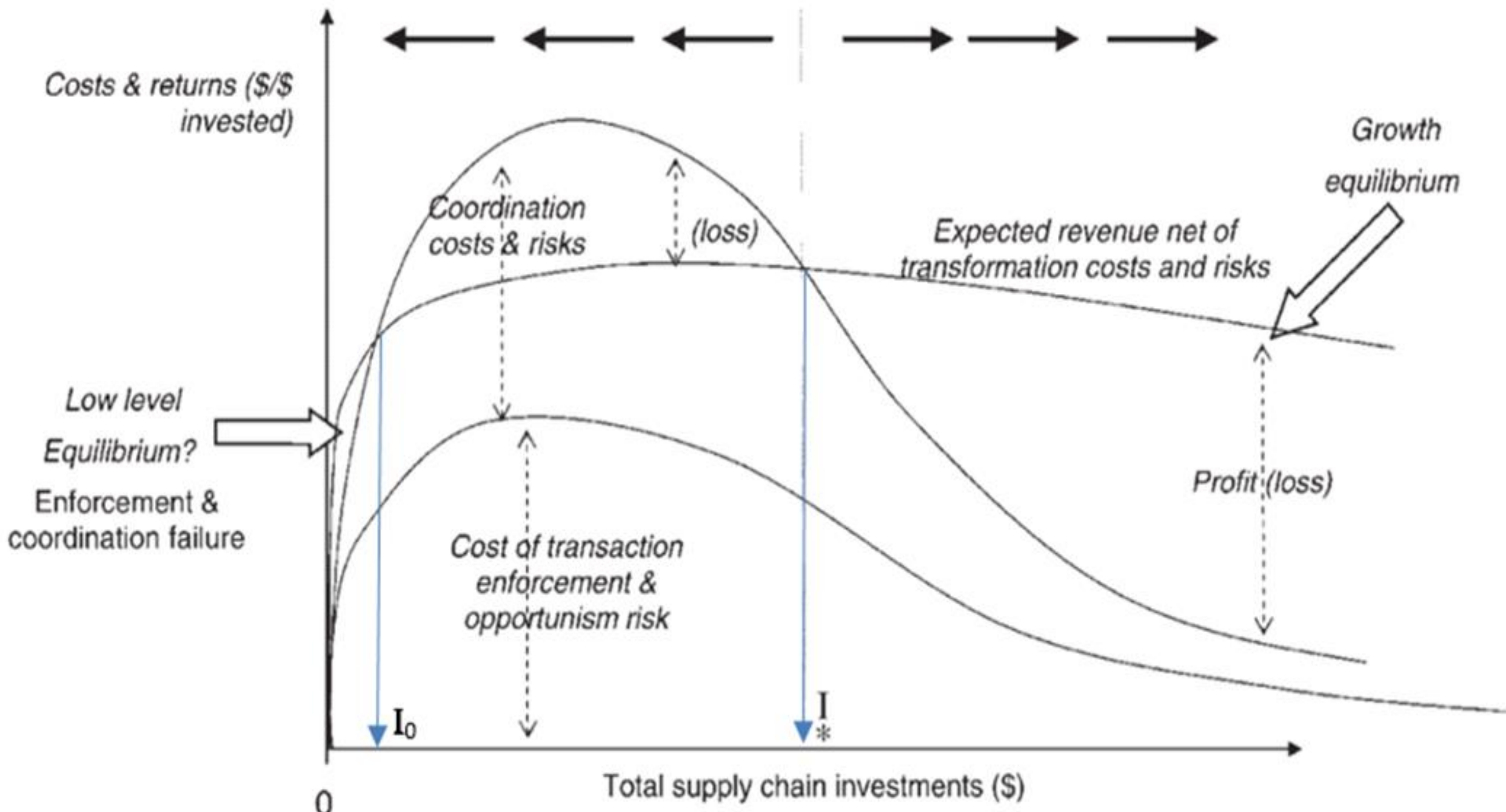
2. Consumer survey

- Focused on OFSP bread consumers in Nairobi
- Involved 141 consumers of OFSP bread
- Consumers randomly sampled and interviewed at point of purchase



Methods: Data and empirical analysis

- Data transcription – done in the field/same evening
- Data analysis – pulled together (i.e., triangulation) of evidence
- Empirical analytics anchored on 4 economic theories:
 - ✓ Transaction cost theory – search/screening, negotiation, monitoring, enforcing, re-negotiating agreements >> High TC lead to coordination failures
 - ✓ Commodity chain analysis – linking smallholder farmers to high value chains (supermarkets) – often has high quality standards >> marginalize small farmers
 - ✓ Contract theory/collective action – farmer organizations (groups or cooperatives)
 - ✓ Industrial organization – Location of the processing facility vs raw material source



What did we find?

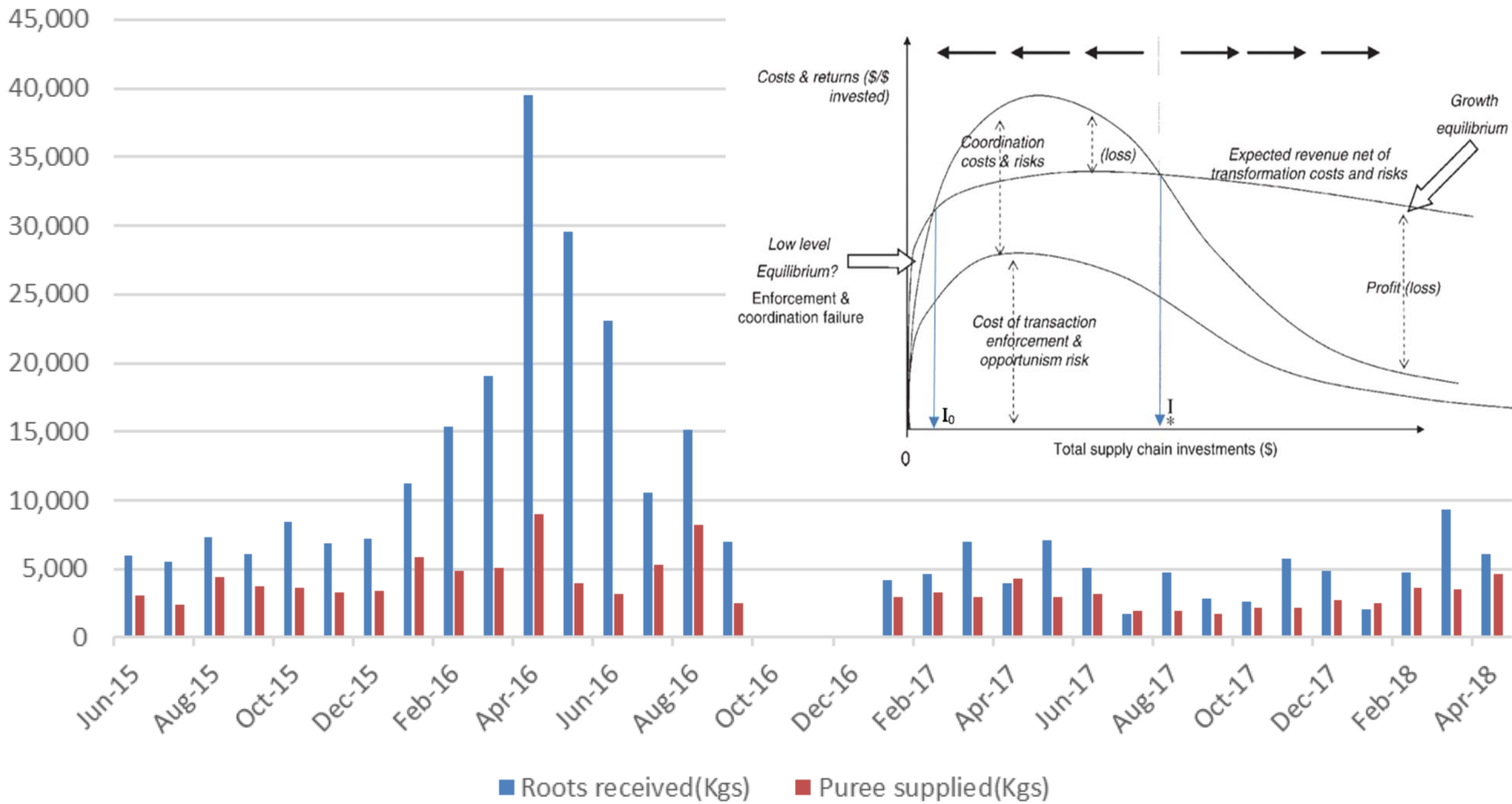
High transaction costs

- OFSP production targeted predominantly smallholder farmers
 - ✓ Geographically scattered – hence search and screening/monitoring costs
 - ✓ Produced small quantities – high aggregation costs
 - ✓ Fresh roots and puree are bulky, perishable
 - ✓ Attempts to work with individuals lead to high contract negotiation/enforcement costs
- Dealing with a more powerful buyer
 - ✓ High negotiation/renegotiation costs
 - ✓ Poor payment practices – timeliness
 - ✓ Order cancellations – hold up



Opportunistic risks/Coordination failure

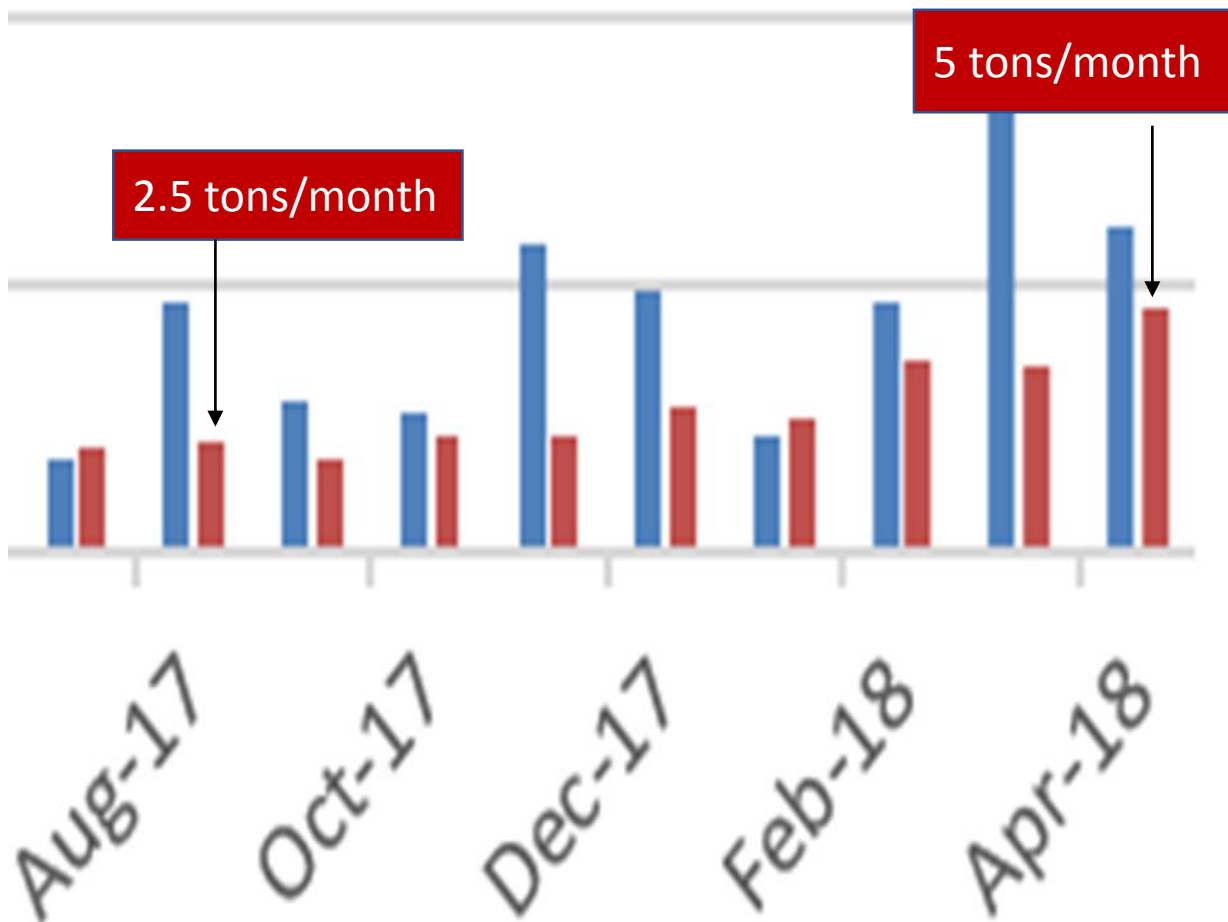
- Differences in information available to transacting parties - more informed party will act in best interest
 - ✓ Can manipulate parameters to own advantage
 - ✓ Price setting & resetting
- Non-alignment of aspirations and expectations
 - ✓ x% OFSP bread
 - ✓ Full-throttle production of baked products
 - ✓ Lack of consensus on what OFSP bread/buns really were – specialty vs normal
 - ✓ Extensive mobilization of OFSP root production supply
- >> lack of coordination among actors



But... the failures spurred and reinforced institutional innovations

Recovery?

Production expanding



Other players entering the chain

- Large bakery firm started OFSP bread production
 - ✓ Targeting western Kenya market
 - ✓ To expand to other markets
- New puree processor
- >> Injected competition

Strategy #2: Collective action

- Farmer organizations – identified and screen farmers, monitored production, received roots (product aggregation)
 - ✓ Reduced transportation and transaction costs
 - ✓ Shares/reduces some of the risks
- Farmer organizations acted as a platform for:
 - ✓ Distribution of clean planting material
 - ✓ Joint agronomic and postharvest handling training – quality specifications, harvest regime
 - ✓ Negotiation/renegotiation of price
- Organi experimenting with 2 other approaches
 - ✓ Controlled group approach
 - ✓ Individual farmer growers



Strategy #3: Vertical (backward) integration

- Securing sweetpotato vine production for sustainability
- Setting up own production unit - will sell roots under interlinked credit scheme
- High risks:
 - ✓ Diseases/weather
 - ✓ Side-selling – can be reduced by monitoring



Strategy #4: Location of processing facility

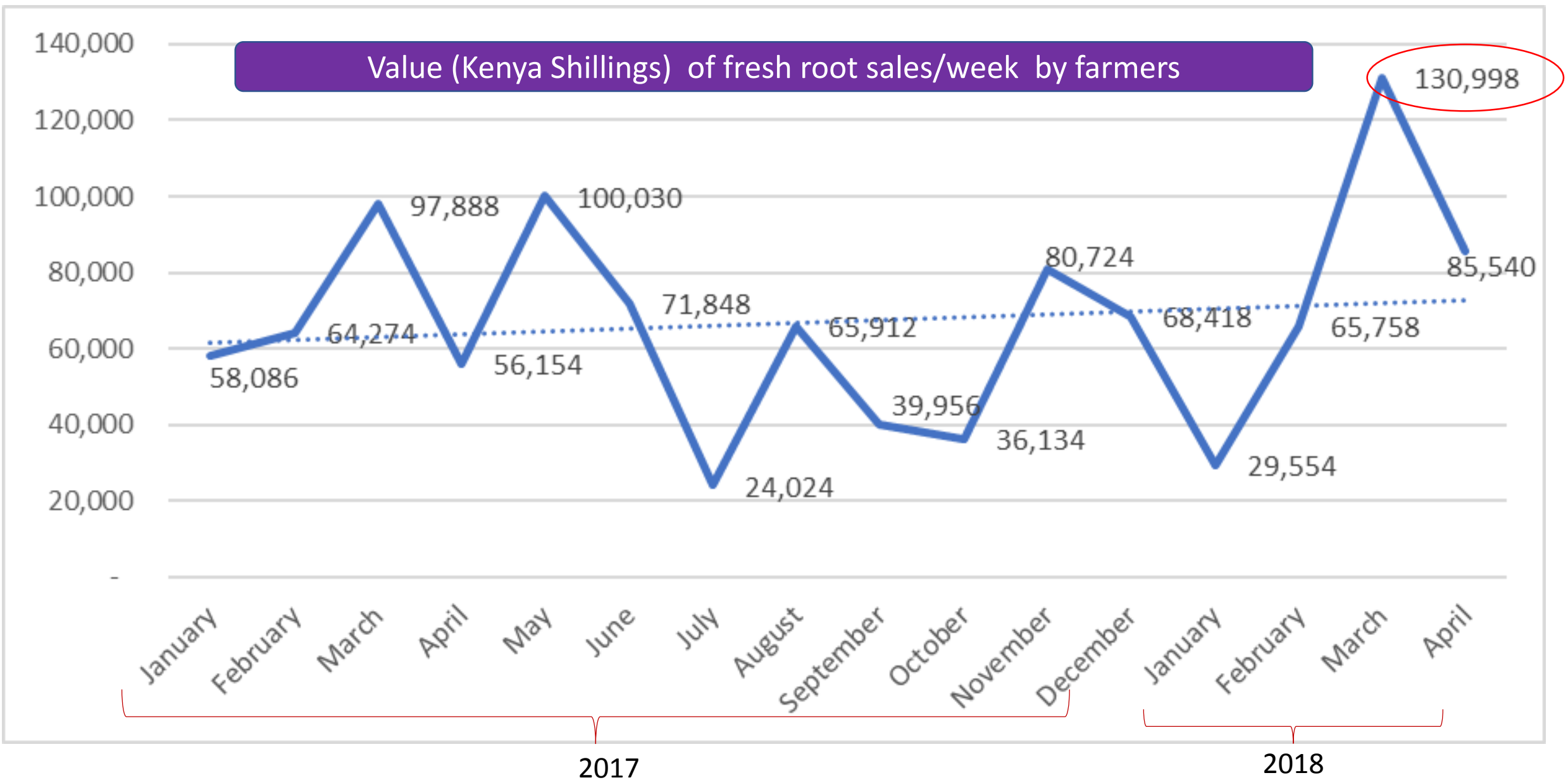
- Bulkiness of raw materials (fresh roots) can drive up transportation costs
- Fresh roots perishability requires tight control/coordination of logistics to reduce waste/losses:
 - ✓ Timely harvesting
 - ✓ Quick shipment to facility,
 - ✓ Proper post-harvest handling, etc
- >> Explains why Organi is situated in Kabondo (Homa bay) – leading SP producer
- The alternatives (costly)
 - ✓ Cold chain – refrigerated trucks, cold storage facility, simple use of ice blocks
 - ✓ Preservatives to extend shelf life
- OFSP bread baked in Nairobi >>> fresh puree transported with ice blocks

Strategy #4: Market competition

- Entry of new players, stirred investment in the value chain
- New OFSP product producer – expansion of sales to new markets
 - ✓ Major bakeries likely to compete on “healthy/nutritious” brand image – to protect market share of the health conscious consumers
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- Organi setting up new factory, investing in raw material sourcing, aggressive market search – consolidate first-mover advantage?
- New puree processor(s) - Safe Produce Solutions Ltd, others,..

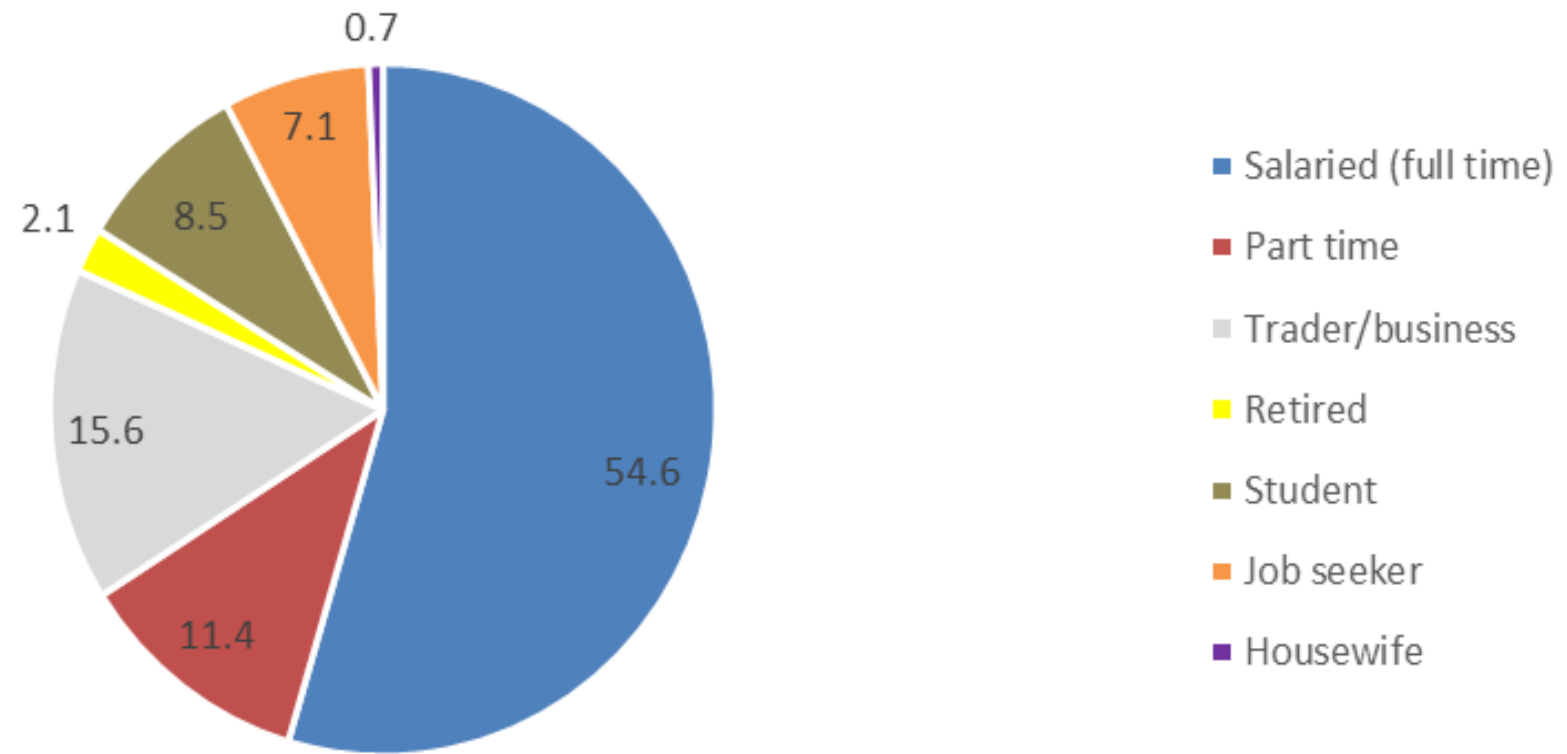
>> Likely to see launch of new OFSP products (CIAT?)

Winners? >> Smallholder farmer, rural communities



Consumer study finding

Who is buying OFSP bread?



- 95% buy OFSP bread because of nutritional value

Findings (summary)

- OFSP root/puree procurement/processing characterized by:
 - High transaction costs - unorganized widely spread root producers/suppliers
 - Opportunistic risks – posed by power differences at puree transaction levels
 - Coordination risks – actors fail to act for common good
 - Coordination failures – Low investments (low level equilibrium) by Organi and Tuskys
- Resolved through several institutional innovations
 - 4Ps – provided services for which market fails
 - Collective action - Coop Society, Self Help Groups
 - Contracting – mainly informal (Organi) >>> formal (Safe Produce Solutions Ltd)
 - Vertical (backward) integration to seed system
 - Market (competition) – more actors joining puree production, OFSP bread baking
- Winners – rural farm economy, smallholder farmers, consumers

Thank you!!!