Market Access for Food Security

‘Smart Solutions for urban food supply’

19th January 2017

Build on what already exists: the Symbiotic Food System

Marc C. A. Wegerif

marc.wegerif@wur.nl

What am I going to talk about?

- Little background and note on methodology.
- Research findings in Dar es Salaam? From eaters to producers.
- Lessons and implications for interventions and policies. Including what is the Symbiotic Food System and why it works.

Some writing on this:

http://www.mdpi.com/2077-0472/6/3/40

http://www.mdpi.com/2071-1050/6/6/3747

https://ruralsociologywageningen.nl/2014/09/01/on-the-milk-trail-food-provisioning-in-dar-es-salaam/

https://ruralsociologywageningen.nl/2014/01/08/symbiotic-chicken-supplies-food-provisioning-in-dar-es-salaam/

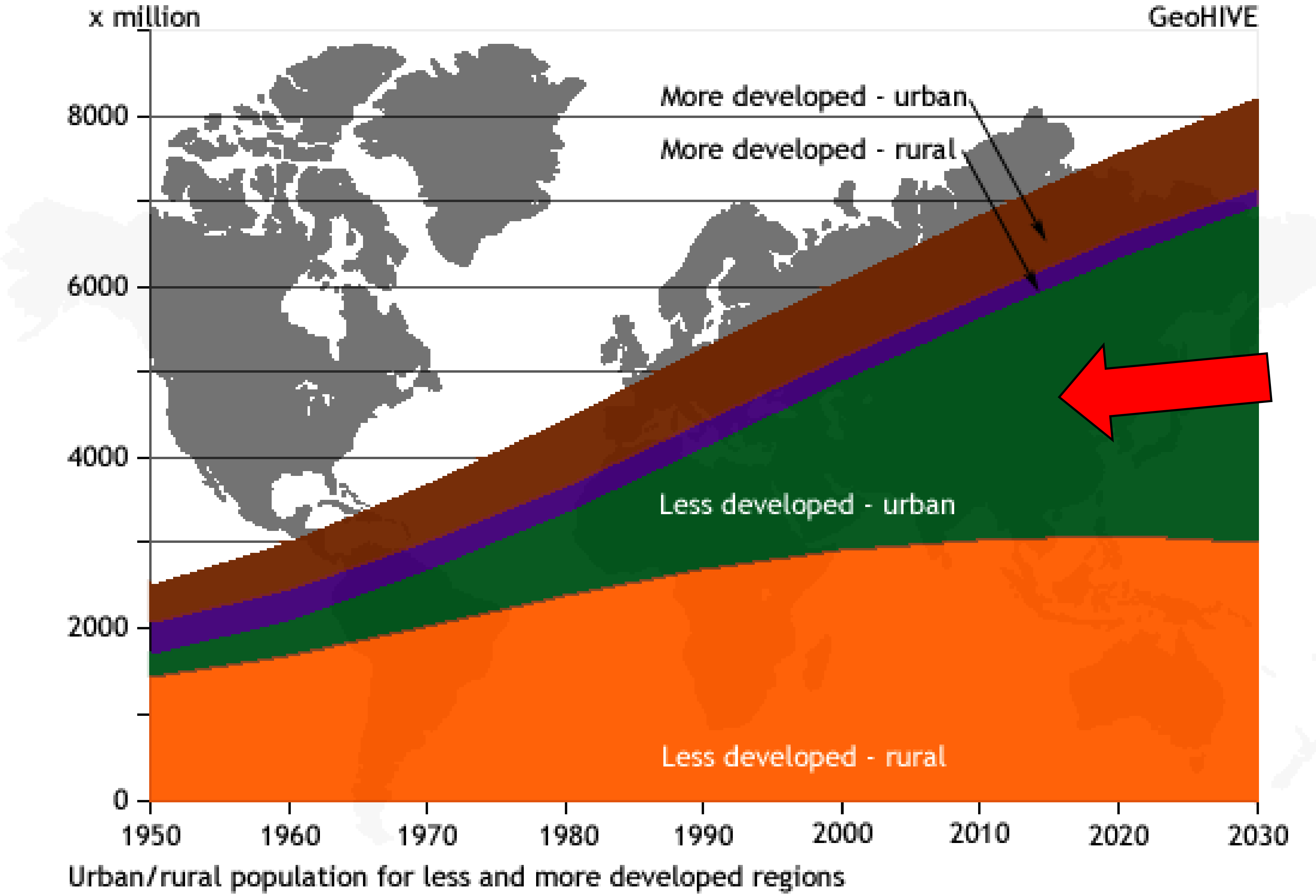
‘Developing’ world urbanisation is the food security challenge

Fastest Growing Cities:

9 of top 20 in Africa, 8 in Asia.

No EU City in top 100

http://www.citymayors.com



Dar es Salaam Tanzania's largest city, ± 4.6 million people

9th fastest growing urban centre in the world

Most staple foods produced in the country, not many imports, and by small farmers.

Notes on methodology

- Follow the food (Cook), actor orientated (Long, Latour)
- From the eaters, the most important food for them
- NOT a project as starting point
- NOT from a predetermined outlet (e.g. supermarket)
- NOT starting with a particular crop and from the producers
- Not prejudging (e.g. ‘informal’ vs ‘formal’ etc…)

Hyden: “Instead of describing societal structures as deducted from a given model, my purpose has been to identify actual structural articulations.”

Important for food accessibility for most urban eaters

- Price
- Location
- Timing
- Flexible quantities
- Sharing
- Credit

Opportunities to earn an income

Urban population (a few Tz govt. statistics)
65% cook on charcoal, 24% on wood. Only 23% have refrigerator.
27% of HHs sometimes or often had a problem satisfying food needs.


Living situation impacts eating and food purchasing needs and decisions.

Supermarkets??

More expensive

Less Accessible (for producers also)

Not where most people shop

Shoprite (biggest supermarket chain in Africa) closed its 3 stores in Tanzania and sold to Nakumat from Kenya in 2014. Uchumi, oldest supermarket group in Kenya, pulled out of Tanzania in 2015.

Maize

Grain shops normally in market areas.

1,000s of small shops (dukas) across Dar

Around 2,000 independent maize millers in Dar, many used by a number of maize meal brands/distributers.

Even more maize meal distributors, most hire mills as they do not own

Here a trader is measuring with a bucket, he bought half a sack of maize from the woman farmer in Kiteto. He transports it on over 2 hour drive to Kibaigwa market where he sells to traders, mostly from Dar es Salaam.


Rice

From the same grain shops normally in market areas.

Rice also largely bought from the 1,000s of small shops (dukas) across Dar

Average farm size in Tz 1.3Ha

Over 90% of rice grown by small farmers

1.2million HHs grow rice

Rice paddy production doubled 2004-14

Thank You China

And

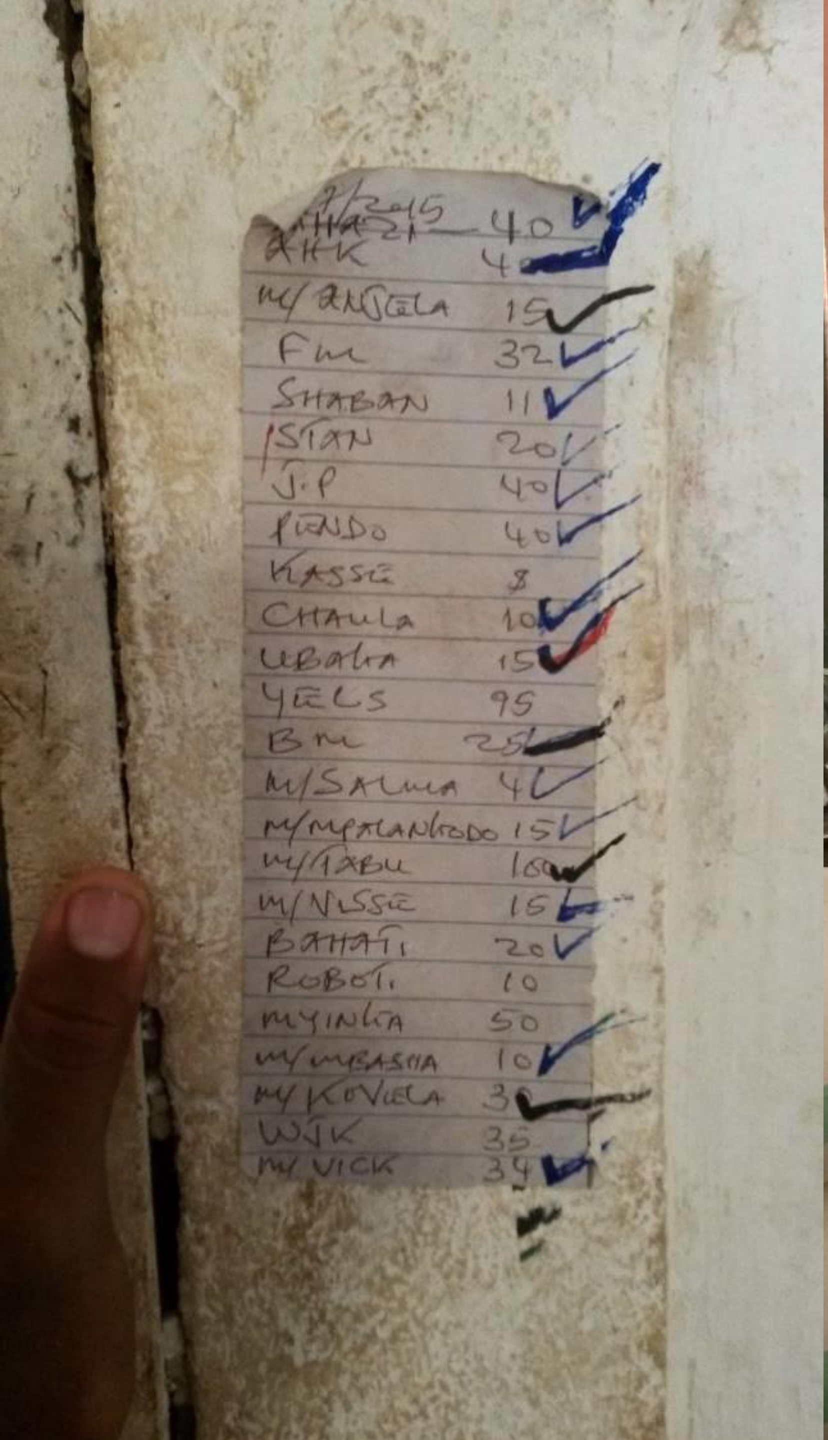
State Investment

Ubaruku, Mbeya Region, 800kms from Dar es Salaam

3,000Ha irrigated estate. Only few 100Ha used by estate the rest by small farmers.

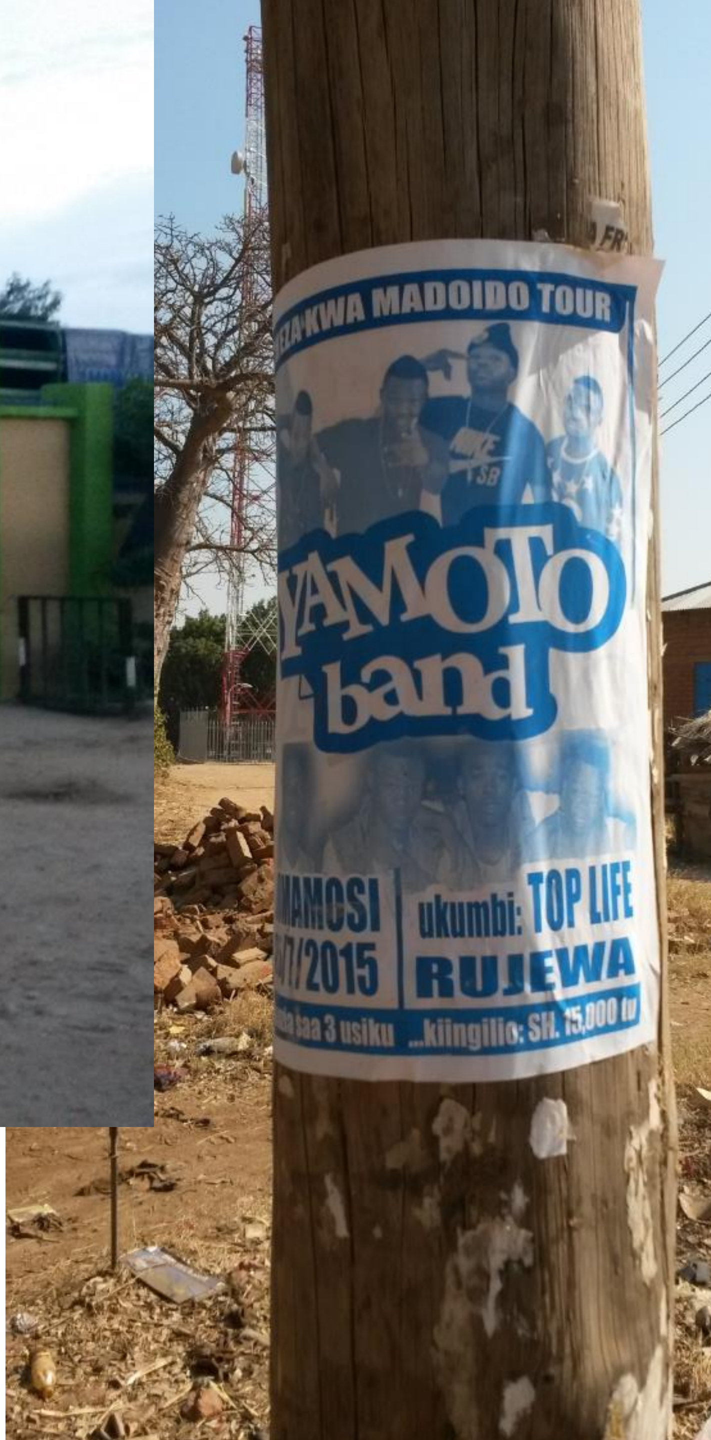
Rice farmer in Ubaruku bringing her rice to the husking machines where she will also meet traders

Traders waiting for their turn to husk rice


AKK 4
M/ANJELA 15
FM 32
SHABAN 11
ISTAN 20
J.P 40
PENDO 40
KASSE 8
CHAULA 10
UBAKA 15
YELS 95
BM 25
M/SALMA 4
M/MPALANGODO 15
M/TABU 10
M/NISSE 15
BAHATI 20
ROBOTI 10
MYINKA 50
M/MBASHA 10
M/KOVELA 30
WJK 35
M/VICK 34


Husking machines all owned by local business people, many also were/are farmers. All providing husking service to farmers and traders

Loading up for journey to Dar es Salaam. One truck normally carries load for a number of traders.



A lodge in Ubaruku and one of the most popular bands in the country coming to perform in the neighbouring village. Indicating?

Rice market at Mwananyamala in Dar with dozens of rice traders.

Rice price

	TSh Price per Kg of rice (after husking)	Gross % of retail price received by each actor.
To rice farmer	1,000	66.6%
To local rice trader	1,200	13.3%
To Dar es Salaam Trader (discounted to buyer like Mangi)	1,300 - 1,400	6.7% - 13.3%
Mangi selling at the duka	1,500	13.3%
Nb: These are gross prices and all actors incur expenses. These prices also vary with rice quality, negotiations between particular actors and through the seasons.		

Green Vegetables
(Mchicha/Amaranth)

Places to buy

Door to door, gengeni (fruit and veg stall), markets.

Urban agriculture is a large source of green vegetables. Selling to the public and to traders (normally at a discount)

Mama Mchicha, sells direct and to a number of traders. Sent her kids to college, built houses, bought daladala

Much of the green veg supply is also from peri-urban areas and from out of town, trucked in and traded in larger markets like Ilala

Milk – Raw Milk vs Value Chain (Tanga Fresh)

Dar es Salaam Region, 32,398 cattle, 24,372 are improved dairy cattle. The average herd size 5 head of cattle.

Pwani Region 255,258 cattle. 28,507 improved dairy cattle. Average daily yield per milking cow 4 litres in wet season, 3 litres in dry season

Tanga Region, where Tanga Fresh source most of their milk, average heard size 10. Total cattle population 732,130, 41,639 improved dairy cattle

Nationally 72% of herds are 10 or less cattle

Tanga Fresh collection centre left and dairy below. They have about 50,000 litre a day capacity

Tanga Fresh

- Buys from close to 6,000 dairy farmers, mostly small-scale
- 80% milk (Fresh and Mtindi) to sold in Dar
- Buying and selling prices set by the Board
- The grey blocks in illustration indicate the management overhead

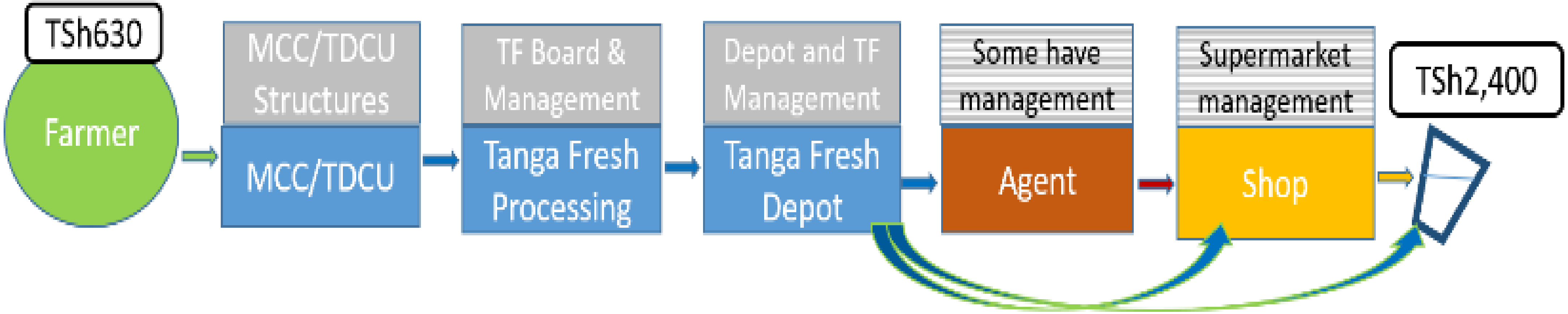
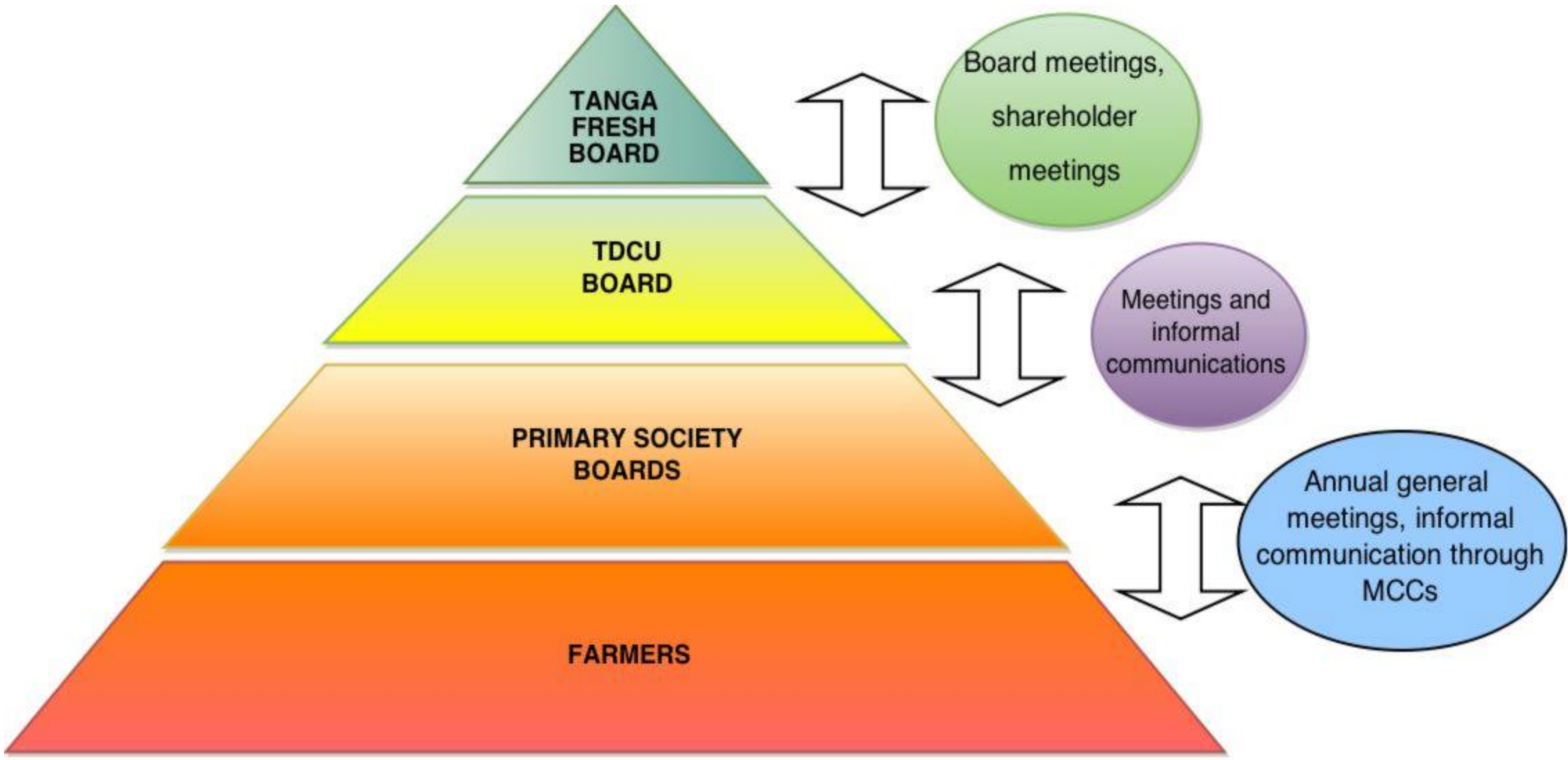
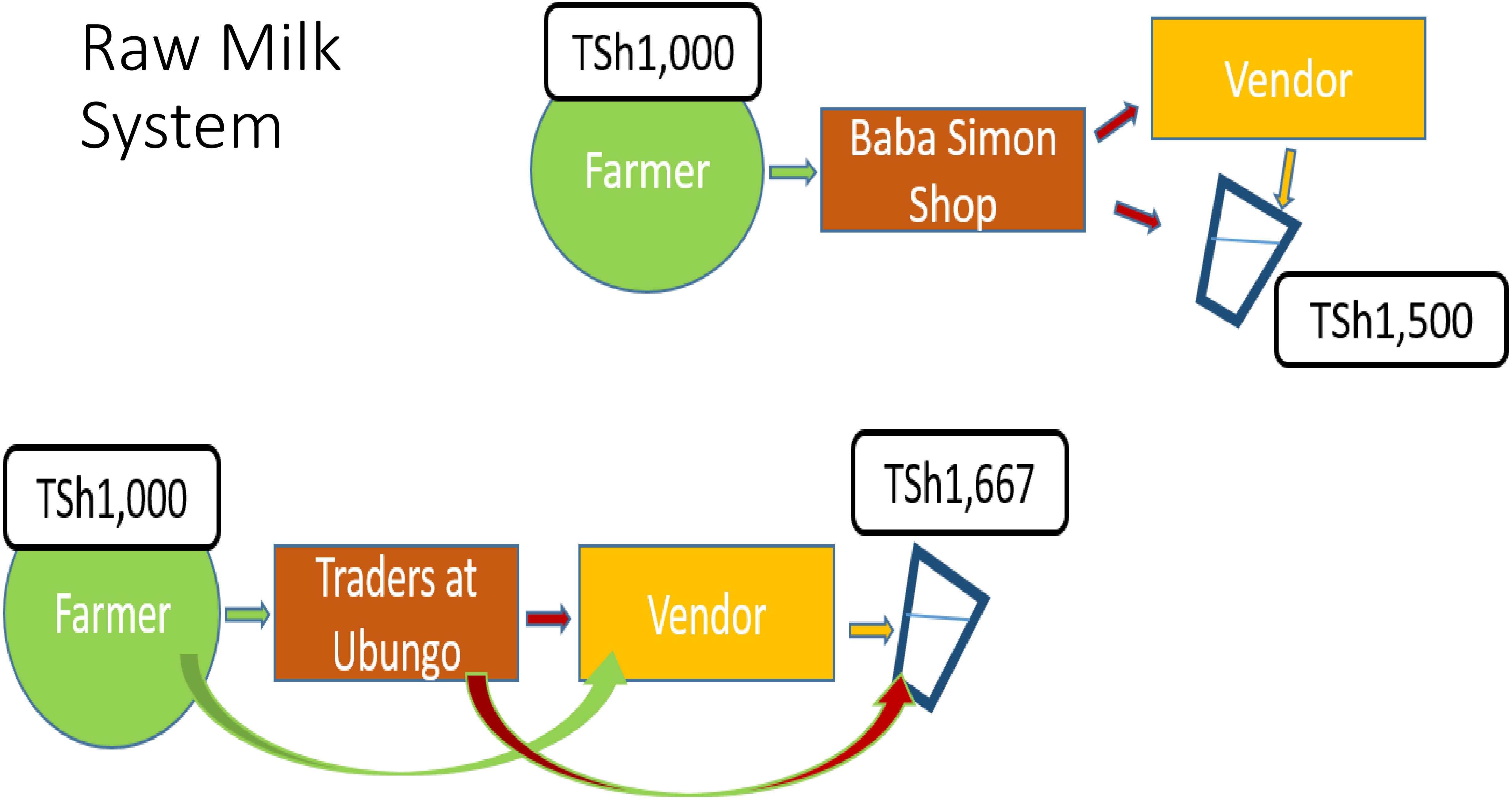


Figure 6 - Tanga Fresh milk supply model

Tanga Fresh Structure

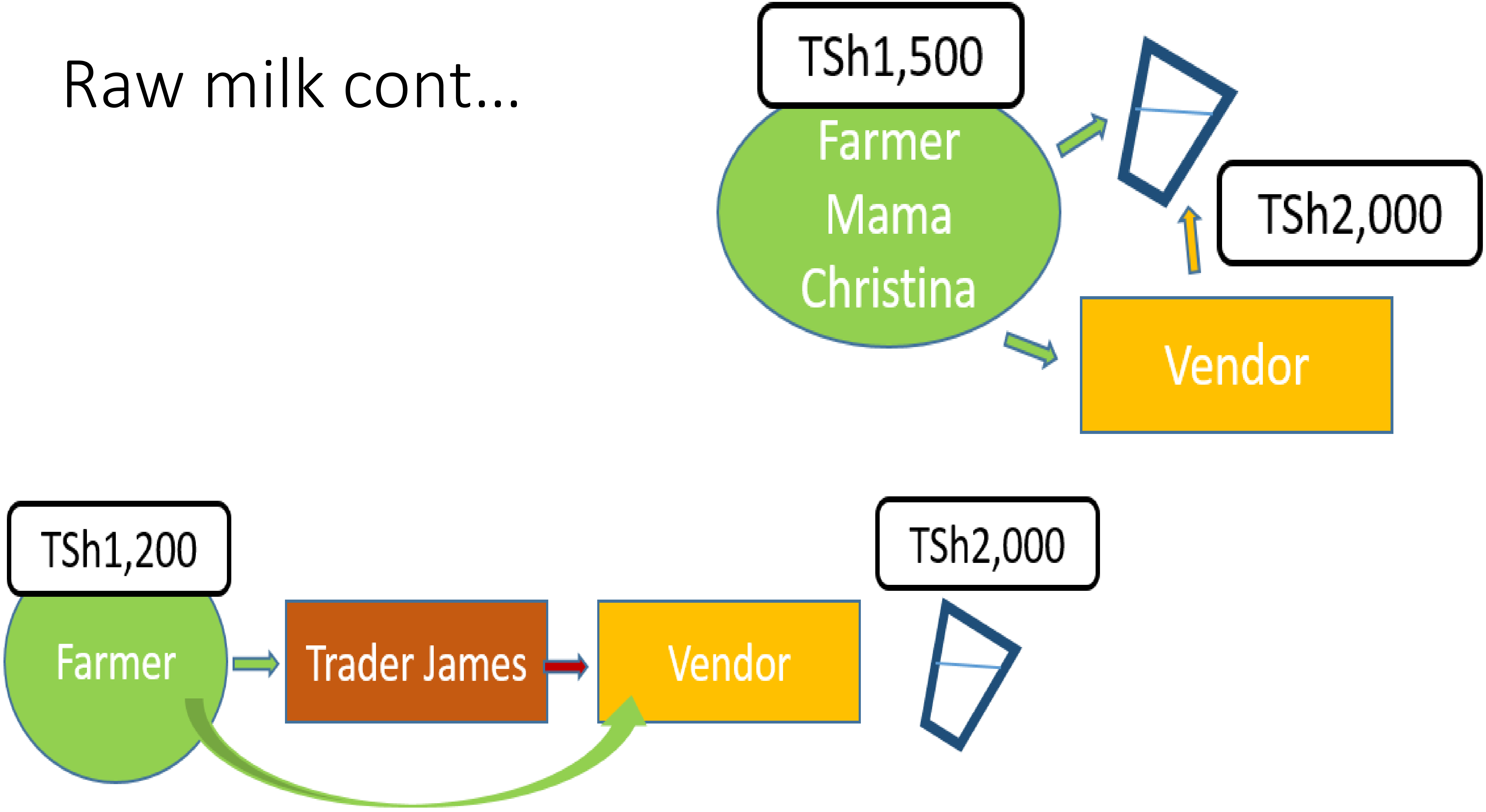


Raw Milk System



Urban dairy farming

Raw milk cont…



Supplier	Payment to producer. Fresh milk, TSh per litre	Cost to eater. Fresh milk, TSh per litre	% to producer
Tanga Fresh	630	2,400	26.3%
Motorbike distribution	1,200	2,000	60.0%
Mama Christina	1,500	2,000	75.0%
via Ubungo wholesale market	1,000	1,667	60.0%
Baba Simon	1,000	1,500	66.7%

Some issues and differences

- The obvious one, the raw milk system - that I see as part of the Symbiotic Food System (SFS) - gives better prices ot producers and lower prices to eaters.
- Preferences… or Ignorance… (people prefer and have reason to prefer the raw milk, value chain proponents dismiss this preference as ignorance rather than trying to understand it)
- Distance from decisions, and making every decision (the small farmer and trader feels alienated from Board decisions in Tanga Fresh, is direclty involved in making decision in SFS)
- Price setting by board, vs negotiation (Tanga Fresh sets prices in a board meeting once a quarter. Farmers and traders in SFS vary prices daily and even per customer)
- Dry season and wet season and price fluctuation (market prices fluctuate with changing supply levels, but Tanga Fresh keep prices fixed.)
- Corporate structures, vs owner operators
- Favouring big and corporate, vs only selling through small and local (Tanga Fresh prioritise delivery to supermarkets at expense of small retailers when supplies are low)

What the ‘experts’ say, ‘Value Chains’…

Value chain and modernisation advocates dismiss the raw milk/SFS despite seeing that it is actually more competitive, which is strange especially given that they argue the value chain approach is market driven. Here are some examples.

- Sumberg refers to “the predominance of direct marketing of milk”, but this is not seen as a good thing, it is “a problem that was to plague Tanzania Dairies Ltd… it is difficult for a modern dairy processing plant to compete and survive if some producers are allowed to go directly to the consumers with raw milk.” (Sumberg, 1997)(p. 279).
- “irrespective of any government policy or programmes...there has been a dramatic increase in the number of grade dairy cattle kept within the city limits” (Sumberg, 1997)(p.285)

- Dr George Msalya of Soikoine University of Agriculture is quoted in the Citizen newspaper on 8th June 2015 as saying "Milk production and marketing face chronic problems of low output, compromised quality and dominance of informal market"
- Managing Director of Tanga Fresh says that "there are many who bring raw cannot even sell fresh milk in town because of raw milk… There is competition with raw milk sold in town because it is cheaper and also for lack of knowledge about milk processing. They can see the cream on top, so they think Tanga Fresh has taken away cream, they don't see cream floating, so it's a process of educating"
- Minten et al., 2009 Green Pea 'value chain' (*this is not just a milk or Tanzania issue*) in Madagascar cannot compete with local producers, even selling to supermarkets in the capital city. Despite contracts and high levels of supervision "another enforcement problem is avoiding "side-selling"- a problem which is a general concern in modern supply chains with contracts" (p.1734).

- Seville et al., 2011 in a study of a wide range of reports on value chain initiatives, found that “formal chains tend to provide greater income security but not necessarily higher prices”. They also found that producers that already had higher education levels and more assets were more likely to benefit from linking to formal value chains, thus reducing the benefit to the poor (ibid).
- Minten et al in Madagascar also note that the farmers benefitting from the value chain were better educated. They are also all within a close distance of the capital city.

So why does so much attention and so many resources go into such value chain development and so little into the existing SFS in places like Dar es Salaam?

What can we conclude??

Multitudes of small-scale interdependent actors deliver food at a city feeding scale every day with no vertical or horizontal management or ownership. And delivers in a way that works well for the majority of eaters.

The food system is working and growing; 2million more Dar resident in 14 years.

But how and why is it working?

How do people start?

Essential for inclusivity – or not - and reproduction of the system

- Relatives, friends, “competitors” assist with knowledge, information and mutually beneficial collaborations
- Accessible levels of capital required often obtained from farming or saving from other work in the sector or elsewhere
- Hard work (own labour) and “apprenticeship” learning on the job opportunities (e.g. ton boy, rice traders, duka owners)

These factors can also make the difference for many between being exploited labour, or being a future farmer or entrepreneur yourself

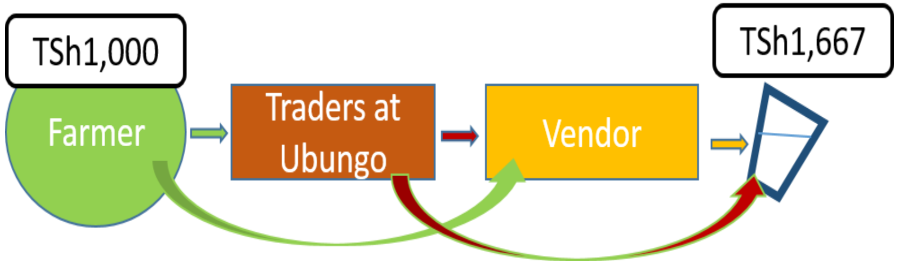
Symbiotic Food System (Symbiosis as the core organising principle)

- Multitudes of small-scale interdependent actors in symbiotic relations are (more and **less** formalised) together delivering food at a city feeding scale.
- The scale and mode of operation (cultural repertoires) fit from the farmers to the eaters and it is a ‘wakulima’ (Tanzanian farmers) mode of ordering.
- Symbiotic relations between: ‘Competitors’; Actors providing different services in the system; Complimentary services beyond the immediate relation; Selling and Buying to each other; Skills/Knowledge sharing…
- ‘Economic’ factors of competition, supply and demand etc… exist, but these and the cultural repertoires create parameters for each other.
- Growth through replication, not ‘scaling up’.

Is SFS ‘economically’ competitive? *Yes!*

(putting aside other social advantages or disadvantages for a moment)

- No (or low) management overheads even in a complex multifunction and multi-actor system needing high levels of collaboration (see the management overheads in the Tanga Fresh system below right, compared to that of SFS below left).
- No (or low) extraction of profit for absent shareholders or lenders.
- Low labour costs due to use of family and ‘apprentice’ labour. Loyalty with low labour costs. Not exploitative if it offers path to ownership.
- Efficient utilisation of capital inputs (without management costs). E.g. trucks and machines fully utilised.



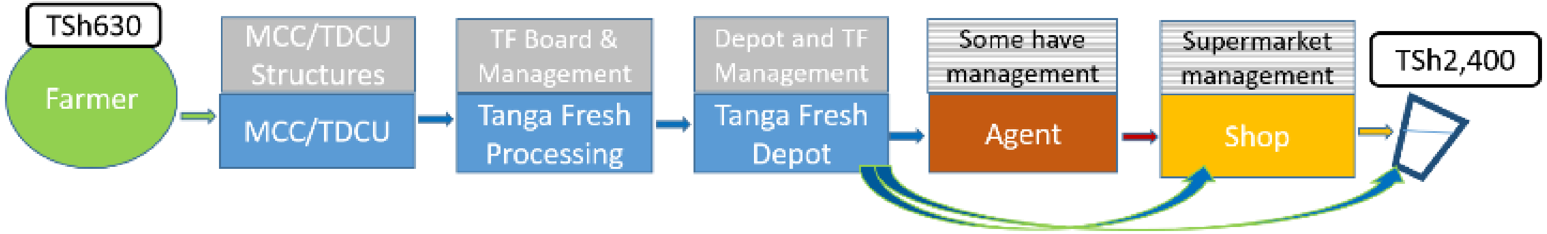


Figure 6 - Tanga Fresh milk supply model

Some debates and concluding points

- Small traders are just survivalist doing this as they have no other choice (e.g. Davis, "Planet of Slums") *[No, many reject wage employment, have more agency, choosing their business and creating better lives]*
- Many NGOs, funders and academics promote "value chains" linking farmers to the "formal sector" (e.g. Weatherspoon and Reardon say facilitate farmer and processor adaptation to requirements of supermarkets) *(No, the supermarkets give bad deal, unequal power relations, supermarkets are not inevitable or needed. "Formalization" notions are based on negative attitudes and normative assumptions)*.
- Understand what is there, value it, build on it, create an enabling environment for the symbiotic food system.

Thank You