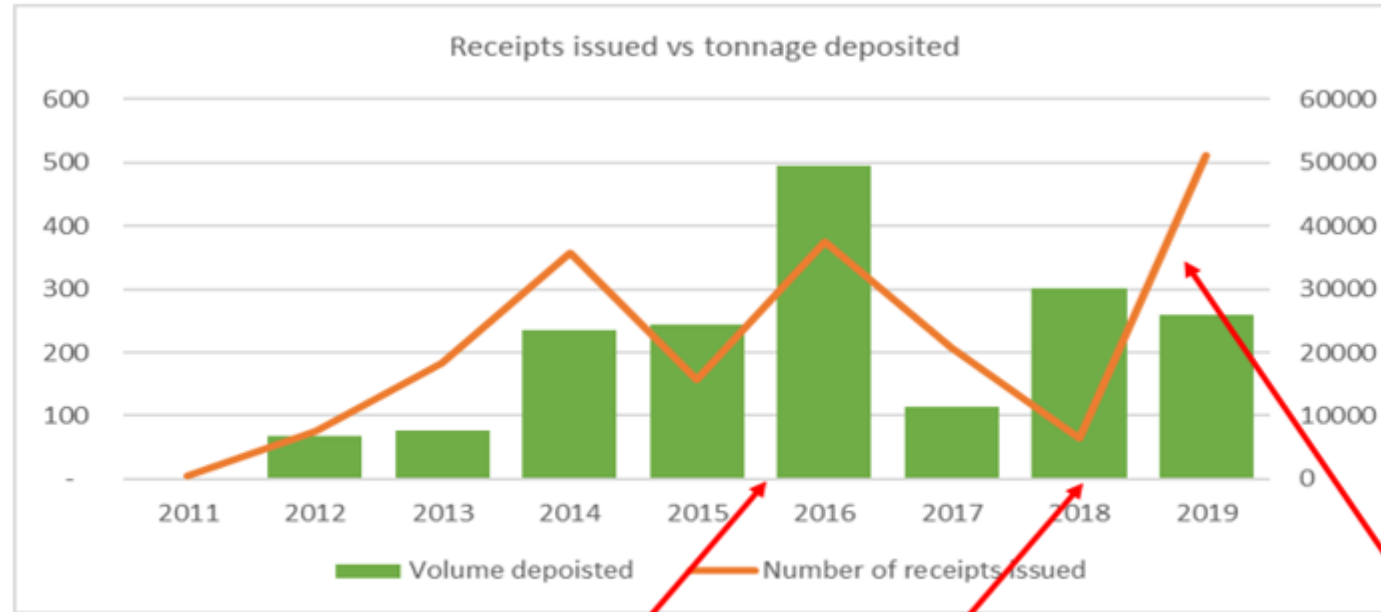


The Warehouse Receipt System

- in Market Context

Kristian Schach Moller

Total Volume on WRS about 150,000 MT



Forward Contracts Peak

Commodity under Collateral Management

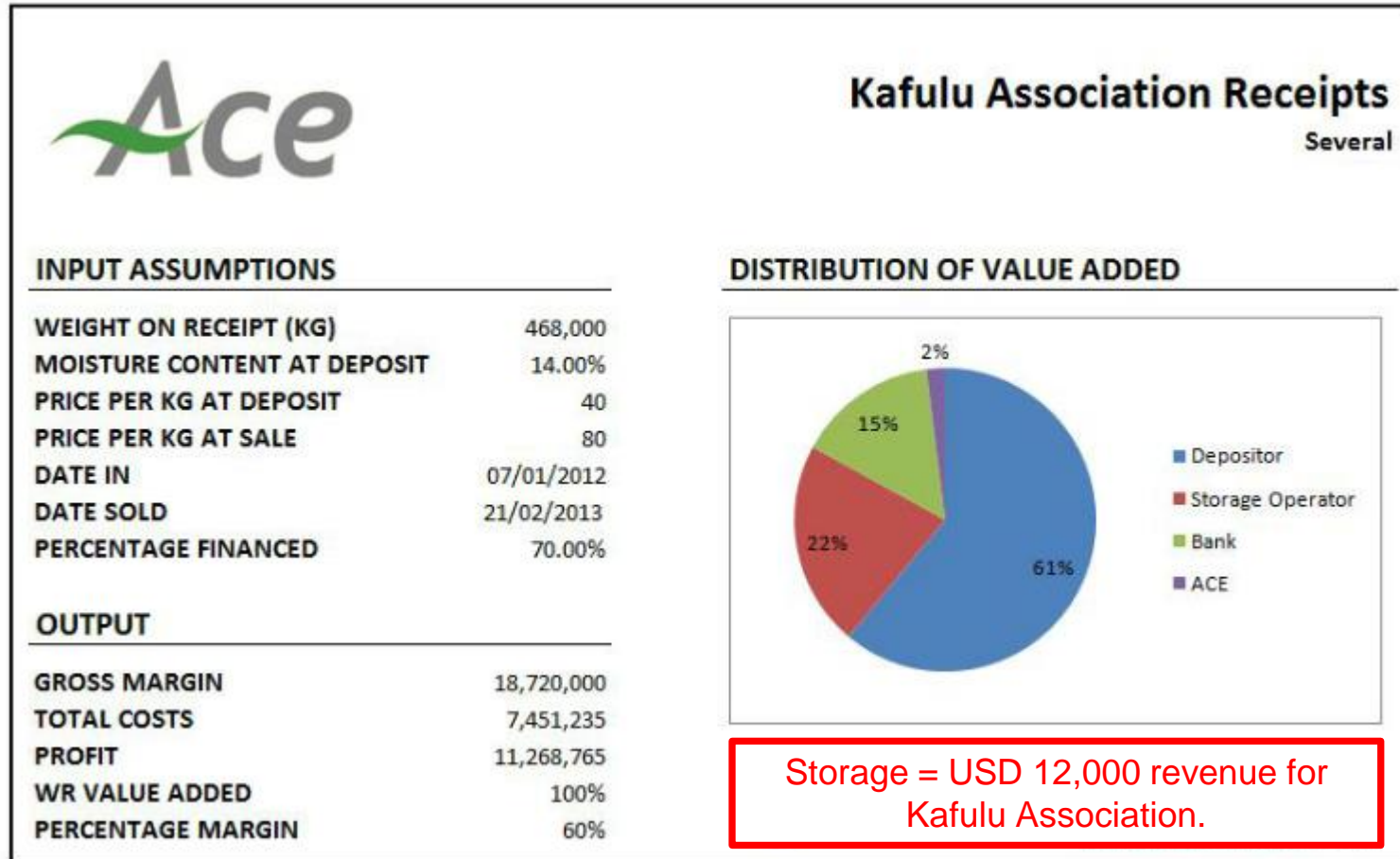
Small holder Trade facilitation

Haircut Finance

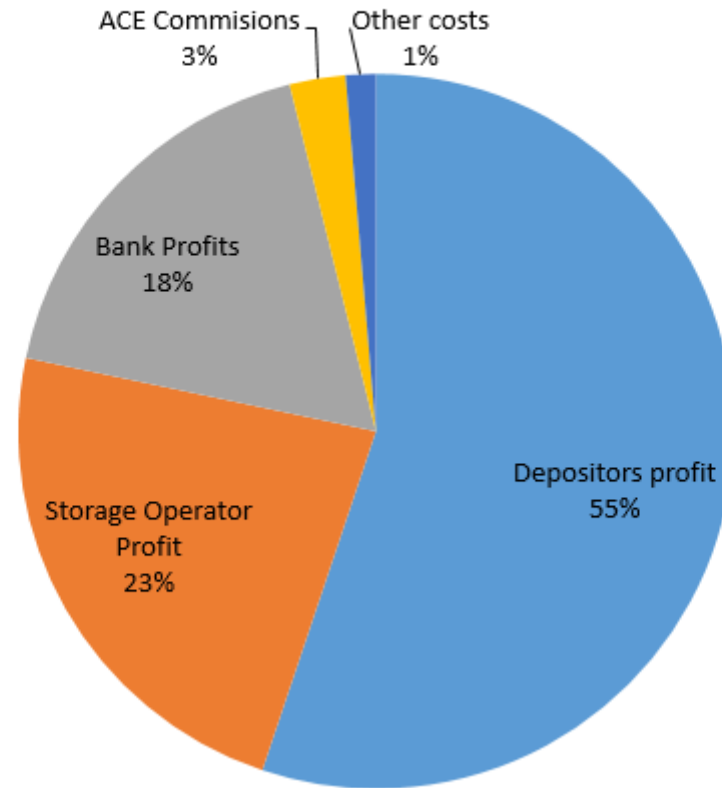
Forward Contracts

Collateralized Finance

- A catalyst for finance in agriculture
 - Haircut finance - access to finance for all agricultural participants
 - Forward contract finance - trade finance / end buyer access to finance. Market Liquidity.
 - Collateralized finance - large scale participants access to finance. Market Liquidity.
- Access to professional storage - reduction in PHL and quality losses. Access to insurance and markets
- Delivery mechanism - Structured Supply Chain. Supply is guaranteed - no supplier can default
 - WFP farmer procurement modality
 - WRS logistic for Limbe Leaf Tobacco food production
 - WRS will be supply chain for new pigeon peas factory (still on feasibility)
- Market information
 - Stock Levels
 - Price data
 - Export data coming with the Export Mandate regulation.
- Legal Protection of buyers and financiers.
 - Warehouse Receipt Act defines roles and responsibilities for participants
 - RBM COMEX Directive regulates the Comex
 - Comex is defined as either/or a warehouse receipt system, trading platform and/or a clearing house.



The Distribution of warehouse receipt added value – the value gain of the receipt.



Profit per Year - Weighted

Commodity	With WR Financing				Without WR Financing		
	Year of Storage	Percentage Profit for Depositor	Total Volume Stored (MT)	Number of WRs	Percentage Profit for Depositor	Total Volume Stored (MT)	Number of WRs
Beans	2015	17.5%	48.8	2	0.0%	0.0	0
	2016	22.3%	15.1	3	-6.8%	17.0	2
	2017	0.0%	0.0	0	342.6%	6.2	1
Cow Peas	2016	-58.0%	10.7	3	-51.3%	8.3	2
	2017	0.0%	0.0	0	-7.5%	16.0	1
Groundnuts	2017	0.0%	0.0	0	50.9%	94.6	2
	2018	0.0%	0.0	0	-14.8%	24.5	5
Maize	2011	15.5%	98.3	3	78.2%	4.1	1
	2012	26.0%	619.6	57	50.1%	12.4	1
	2013	-24.4%	1390.5	38	0.0%	0.0	0
	2014	-5.4%	3346.1	99	33.4%	127.4	20
	2015	45.6%	205.7	12	61.2%	216.8	20
	2016	-24.3%	996.3	60	3.8%	808.1	100
	2017	-6.1%	4.8	1	7.8%	526.6	47
	2018	0.0%	0.0	0	-0.5%	102.1	5
Pigeon Peas	2013	19.2%	54.6	2	59.2%	9.3	1
	2014	1.7%	32.3	6	13.6%	8.8	4
	2015	152.2%	21.7	7	28.2%	1.0	1
	2016	-105.3%	558.2	37	-9.9%	452.0	25
	2018	0.0%	0.0	0	61.4%	1.7	1
Soya	2012	-6.7%	5.7	1	0.0%	0.0	0
	2014	-0.5%	17.0	3	0.0%	151.9	2
	2015	20.3%	286.1	40	20.7%	6.8	2
	2016	-16.4%	31.0	6	-3.4%	108.2	29
	2017	0.0%	0.0	0	3.0%	161.4	38
	2018	0.0%	0.0	0	-7.3%	5.1	2

Most of the losses were experienced in 2013 and 2016 receipts

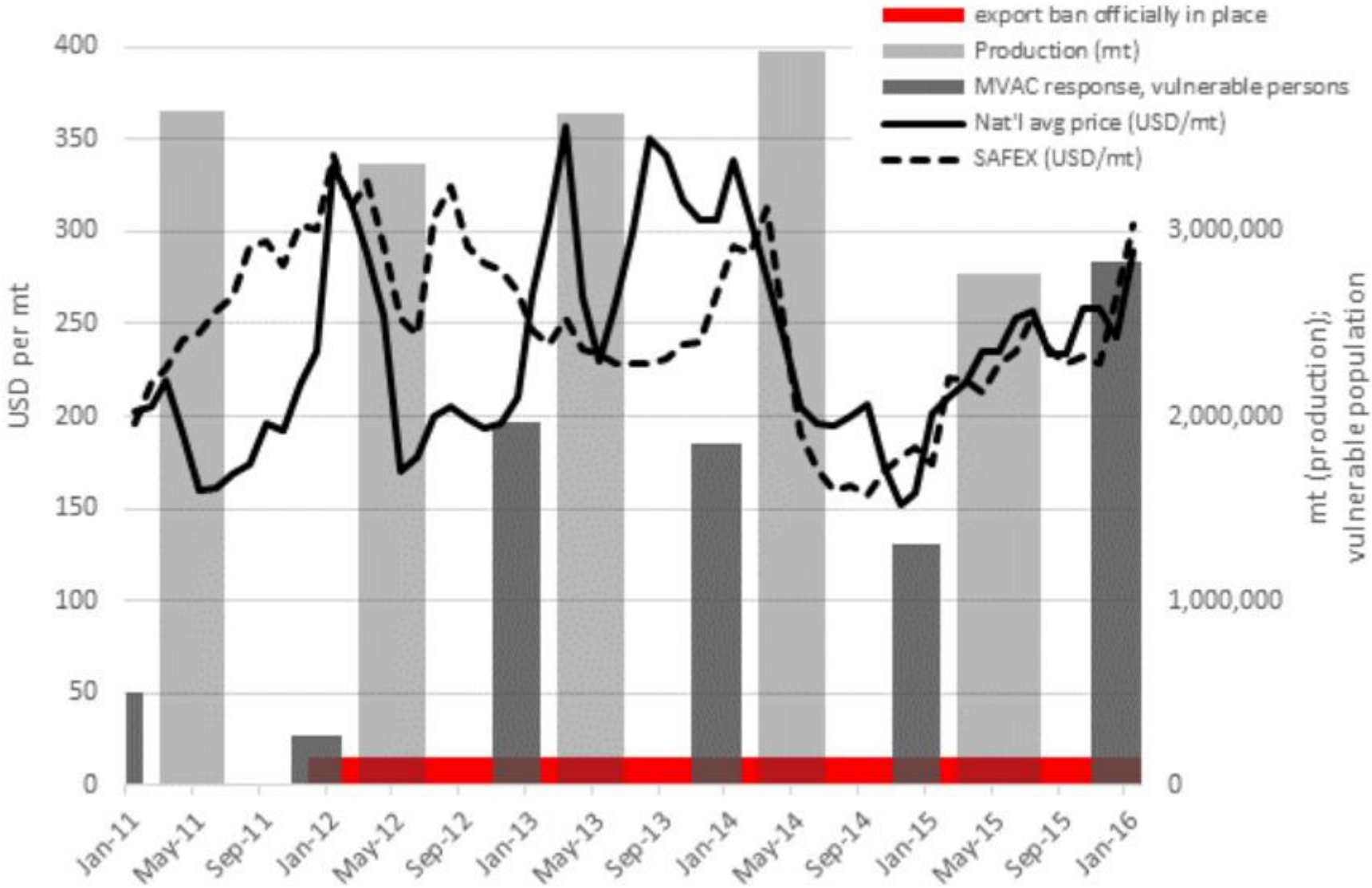
The “risky” benefits for smallholders.

Average Profit for Depositors	
2011	30%
2012	25%
2013	-17%
2014	9%
2015	45%
2016	-27%
2017	16%

2013 by Commodity	
Maize	-20%
Pigeon Peas	23%

2016 by Commodity	
Beans	-3%
Cow Pea	-49%
Maize	-11%
Pigeon Peas	-82%
Popcorn	177%
Rice	-94%
Soya	-21%
Sunflower	236%

Figure 7: Maize prices, production, and food insecurity, 2011-16

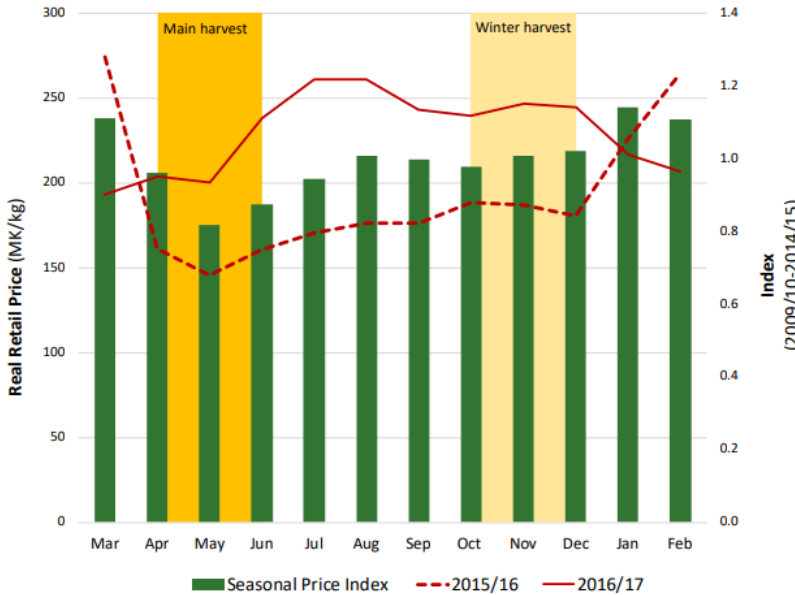


- World Bank Report

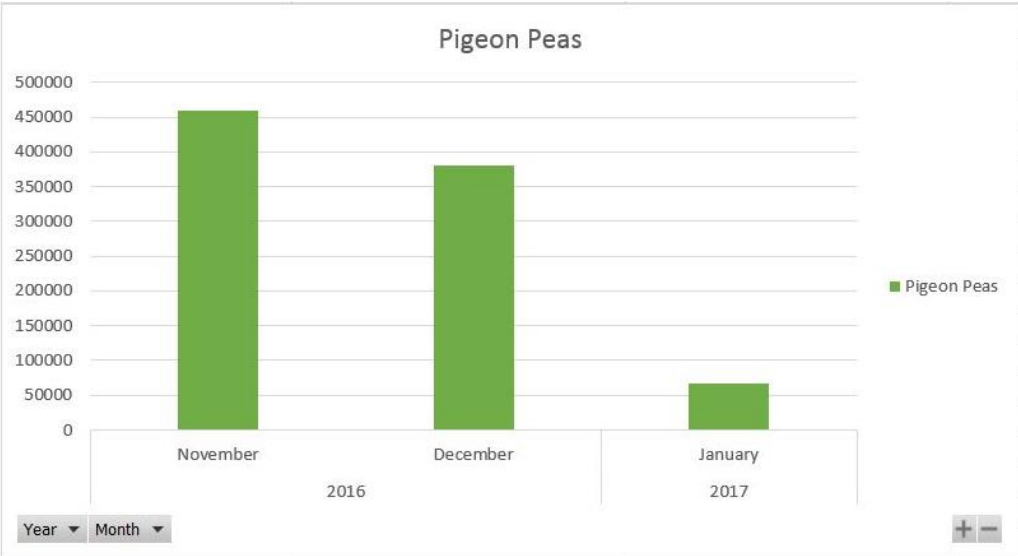
Prices began to fall in January 2014 in anticipation of a bumper harvest (3.98 million MT). With the presidential election in May 2014, political action contributed to the falling price. Government funding for ADMARC increased by over 300 percent (in nominal terms) from 2012/13 to 2013/14, enabling ADMARC to ramp up subsidized maize sales in early 2014 before the elections. Prices fell through the harvest period, but, in contrast to previous years, maize prices continued to fall as the lean season approached, reaching a 7-year low of US\$ 153 in November 2014, more than US\$ 100 less than the price in Zambia at the time. In the face of these low prices, government considered lifting the export ban on maize in late 2014, but, in the end, opted to keep it in place.

- India stopped importation of Pigeon Peas in January 2017 - Price collapsed
- Export Ban on Maize when Malawi had enough maize
 - Import of maize for food response and informal maize flipped the market into oversupply. Prices dropped towards season end. Private sector and ADMARC stuck with maize.
- Reported numbers of fraud in the collateral management industry - banks retracting finance.

Figure 2. Seasonal price patterns for maize compared to maize prices, 2015/16 and 2016/17.



Source: Authors' construction from monthly prices of the Government of Malawi's Agricultural Market Information System.



Source: Pigeon Peas traded on ACE

- The Warehouse Receipt System is not the root cause for any loss on the system.
- There is no exorbitant fees exploiting depositors
- The WRS doesn't cause market volatility
- After the markets crash in 2017, some commentators were quick to announce that the WRS has failed.
- The WRS has NOT failed - the market has failed!

**The problems of the WRS is
merely a mirror image of the state
of the agricultural market**

- These market failures have significant impact in food security.
 - When private sector was “forced” to carry maize stock into 2017/18 season, it meant they were not buying any new season maize - no one other than feed manufactures touched maize
 - Extreme low prices throughout the 2017/18 season - low rural income affect Malawi's economy.
 - When farmers see low prices at planting time they are likely to plant other crops. They will only plant for own use - small yield losses will cause country wide food insecurity.
 - Private sector remember 2017 Government “treatment” regarding export ban
 - Private sector will not buy stock and hold it to lean season. We currently only have about 30,000MT of private sector maize.

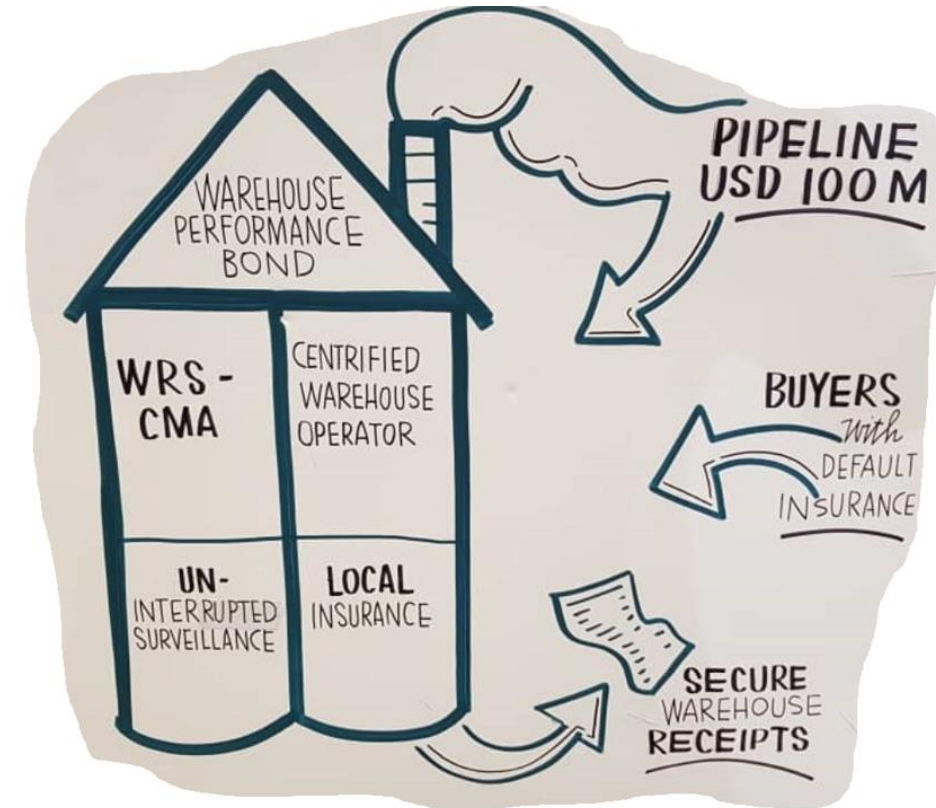
Perpetual Food Insecurity Cycle

The fix – bring back incentives for commercial maize production and trade.

- In general depositors are making profits depositing in the WRS
 - The WRS is very vulnerable to systemic risk
 - Domestic Export bans - Ban on Maize
 - Foreign Trade restrictions - Indian import stop of peas
 - Food intervention - excessive food importation
 - Haircut finance no longer operational after 2017 losses. No access to finance for small scale operators - negative rural impact.
 - Trade Facilitation doesn't utilise the WRS
 - Cost of aggregation - cheaper for buyers to buy from 15MT trader at gate. This is ok!!
 - Hard for ACE to deliver cash settlement
 - Trade was always a chicken/egg situation - Aggregation before buyers - buyers before aggregation
 - WRS will be backbone of Export Mandate for ACE. Export will have to be traded or endorsed by a licensed commodity exchange.
 - Financial Institutions are starting to register finance on the registry to get the legal protection of the new regulation. Volumes going up.
-

Design and implement risk mitigation and management tools for regional agricultural trade and financing

- Develop tools that will enable the performance of the contract/warehouse receipt where there is a default by warehouse operator
- The integrity of the warehouse receipt relies on the performance of the operator/issuer of the warehouse receipt, therefore look at alternative mitigation products to ensure this security to the market place
- Building trust and confidence in the warehouse receipt system **improves acceptance and ultimately liquidity the market place**



Design and implement price risk management tools for regional agricultural trade and financing

- In the absence of instruments to manage price risk, it will be very difficult to truly develop the liquidity of the local agricultural market
 - Develop innovative price risk management solutions look to propose and then test these proposals with actual transactions to develop the local price risk management products
 - Look to explore OTC option contract between suppliers and dedicated buyers
 - Provided there are other correlated markets, look to use derivative instruments from other markets as a proxy hedge
 - As production increases and markets evolve, explore viability for specific deliverable futures contracts to off lay price risk in the domestic market
 - Structured trade finance can only really succeed once there are price risk management products available
 - **With price risk management tools available this ensures hedging capabilities and supports liquidity**
-

Discussion