

# GF-TADS Africa

GLOBAL FRAMEWORK FOR THE PROGRESSIVE CONTROL OF TRANSBOUNDARY ANIMAL DISEASES











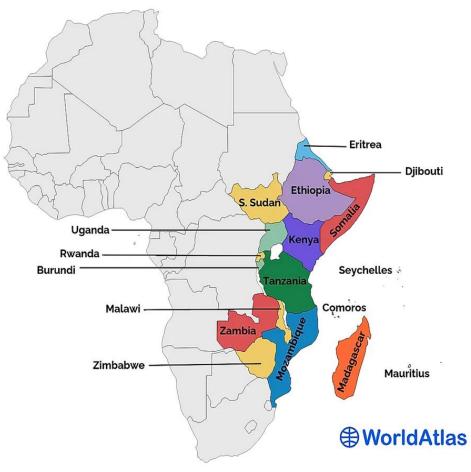
## VALUE CHAINS IN EASTERN AFRICA

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### Eastern Africa



- There are 18 countries and 2 dependencies in East Africa
- Seven of East Africa's countries are landlocked countries.
- Most populous sub region of Africa;Population 455 million
- ▶ 70% of the population live in rural areas.
- East Africa has some of the world's fastest growing economies, including Ethiopia, Rwanda, Tanzania and South Sudan

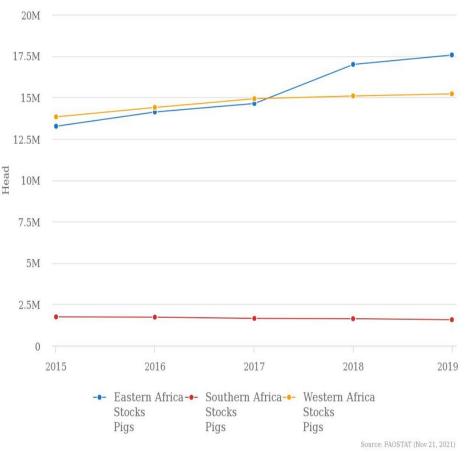


## Demographics of Pig Production in Eastern Africa

- Pig production is a dynamic and rapidly growing sector in the region.
- Growth is driven by a rising demand for pork and pork products.
- ▶ Recent estimates indicate that demand for pork and poultry products in East Africa will increase 4-fold by 2030.
  - Changing tastes
    - ► Increasing human population
    - Increased incomes
    - Urbanisation
- Small scale pig farming is the predominant production system > 70%, across the region but it's contribution to improving livelihoods and enhancing food security is limited by frequent disease outbreaks.
- Breeds kept indigenous, Exotic or crosses of the 2



## Eastern Africa Pig Population



		F1 .	V	W.1
Area	ltem	Element	Year	Value
Kenya	Pigs	Stocks	2019	596414
Madagascar	Pigs	Stocks	2019	1166555
Malawi	Pigs	Stocks	2019	7283584
Mauritius	Pigs	Stocks	2019	18643
Mozambique	Pigs	Stocks	2019	1635049
Zimbabwe	Pigs	Stocks	2019	298532
Rwanda	Pigs	Stocks	2019	1228465
Seychelles	Pigs	Stocks	2019	4618
Somalia	Pigs	Stocks	2019	3859
United Republic of	Pigs	Stocks	2019	523563
Tanzania				
Uganda	Pigs	Stocks	2019	2746453
Ethiopia	Pigs	Stocks	2019	36535
Zambia	Pigs	Stocks	2019	1207294
Burundi	Pigs	Stocks	2019	804013

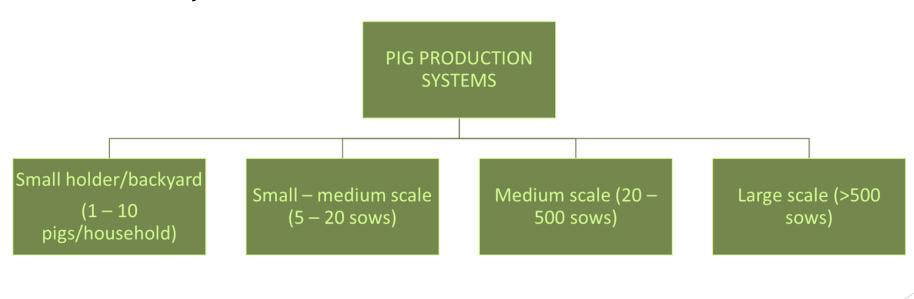


COUNTRY	Total meat producti on (all species, Tonnes)	Proportionate (%) contribution of each species to total meat production (2015 -2019 average)						
		Chicken	Cattle	Goat	Pig	Sheep	Camel	
Burundi	42,631.40	16	35	22	25	2		
Ethopia	684,811	10	50	12	0.3	13	4	
Kenya	750,756	10	63	6	2	4	10	
Rwanda	105,023	17	31	19	12	5		
Uganda	413,544	16	42	9	31	2		
Tanzania	562,938	14	68	7	3	4		



## Pig Production Systems

Free range/Extensive Small - Medium Scale/Semi - Intensive Large Scale/Intensive systems





### The Pork Value Chain in Eastern Africa

#### INPUT SUPPLY

- Live pigs
- Feed, water
- Vet. and lab Services
- Extension

#### **PRODUCTION**

- Feeding
- Mgt. of the animal

#### **MARKETING**

- Buying (traders, marketing groups)
- Transporting

#### **PROCESSING**

Slaughtering
Chilling
value addition
Packing

Distribution

#### **CONSUMPTION**

Domestic

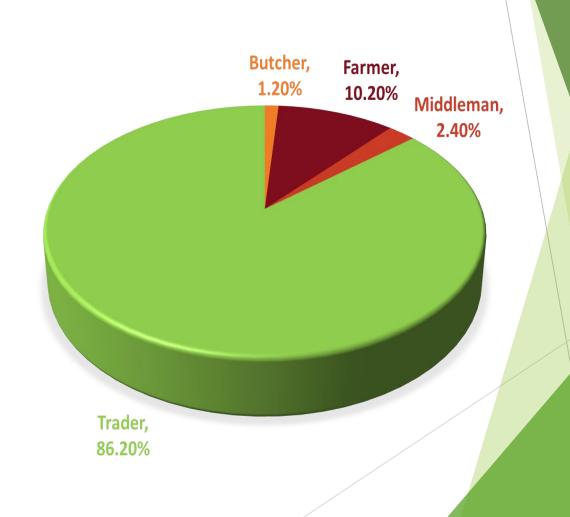
Export

## 1. Free Range (Backyard)/Extensive

- Less than 10 pigs
- Pigs left to roam freely and in some cases are housed in the evenings.
  - Owners don't own land
- Poor access to Veterinary, Extension, financial and market information services.
- Poor husbandry and health management practices.
- Poor genetics characterised by inbreeding absence of appropriate breeding strategies.
- Breeding stock/pigs sourced from neighbours.
- ► Feed options scavenging from dumpsites, swill, kitchen leftovers, market spoils.
- ► Market weight is low and pigs take long to attain this >10 months
- Low input and gain
- ► High sales occur mostly during festivities or disease outbreaks

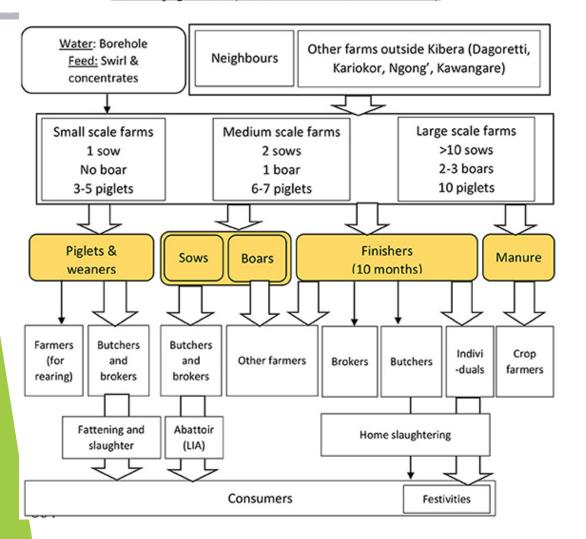


- Butchers and traders move from homestead to homestead and village to village - fattening &/or slaughter.
- Transport modes pick ups, saloon cars, boda bodas, bicycles.
- Local slaughter small to medium size slaughter houses, slaughter slab.
- Consumption mostly local pork joints, butchers.

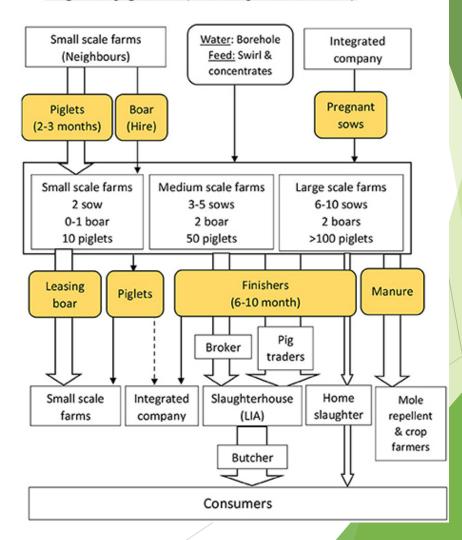


## Sources and movements of pigs, the types of people involved and commodities traded. Courtesy - Murungi et al 2021

Kibera pig farms (Nairobi informal settlements)



Dagoretti pig farms (Nairobi peri-urban area)





### Transport modes

Photos courtesy - World Animal Protection





## 2. Small - Medium Scale/Semi - Intensive

- > 5 500 sows.
- Improved genetics, sourced from private and government institutions and sometimes from neighbours.
- ▶ Use of communal boars. A.I in some cases
- ► Feed commercial supplemented with swill/kitchen waste whilst others do their own mixing.
- Improved husbandry practices coupled with access to Veterinary and extension services.
- Housing provided Semi permanent or permanent using locally available materials.
- Majority are farrow to finish units with a small percentage selling off weaners.
- Improved access to markets and market information.
- Higher market weights at a younger age.
- Better biosecurity knowledge and implementation.



- Farmers sell directly to slaughter houses or to butchers & traders. May be contracted.
- Higher number of pigs sourced from one farm.
- Medium large size slaughter houses or own slaughter slabs.
  - Lairage running water Chillers/Cold rooms Meat inspection
  - Stunning and bleeding area Waste management Trained personnel
- Transport better organised Pick ups, trucks.
- Consumption local butchers, pork joints, further processing.

#### Courtesy - Murungi et al 2021 Kiambu County Nairobi County Homabay, Kajiado, Nakuru, (Kikuyu, Wangige, Bungoma, Kakamega and (Dandora, Kariobagi, Dagoretti, Uthiru, others Kibera, Mathare) Gikambura) 25% 5% 75% Large scale Small scale Medium scale (Over 50 pigs) (20-49 pigs) (1-19 pigs) 10% 20% 70% Broker Butchers Transport (Mainly pick ups) Large traders Medium traders Small traders Abattoir (500-1000 kgs/day) (300-500 kgs/day) (150-300 kgs/day) **Butchers** lairage 10% 60% 30% Abattoir Slaughter men Pork, Head, Legs, Intestines, stomach, Live pigs Blood Fur Liver and Kidney Manure heart & lungs Transport (Mainly motorcycles and some vehicles) Small Other Offal traders Traders Crop farm Burnt Lagoons City Market Own processing Butcheries & Traders Butcheries company hotels Roadside Pet Vendors Owners Butchery Hotels Other private abattoirs Consumers





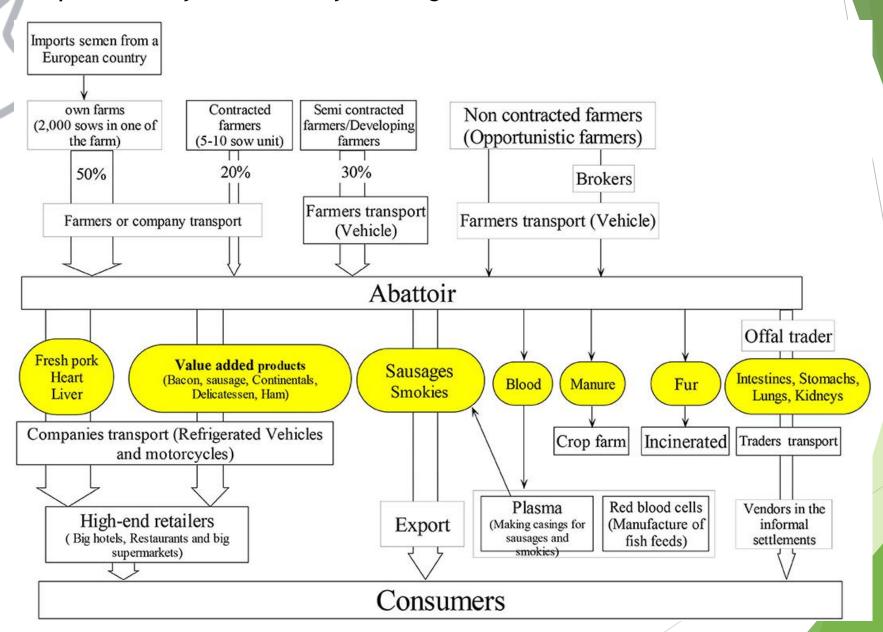
## 3. Large Scale/Intensive Systems

- > 500 sows
- World class genetics often imported from Europe with breeding strategies in place.
- ► High investments Modern housing, management, labour, piped & treated water, biosecurity and better gains.
- Vertical integration common.
- ► A.I favoured over natural mating.
- ► Feeds High quality commercial feeds, suited to the different classes of pigs.
- Access to good veterinary services coupled with high biosecurity leads to low diseases burden and mortality.
- ► High market weight at a young age < 6 months.
- ► Waste management strategies manure, carcasses.
- Structured and better market access.
- Examples Farmers Choice Ltd Kenya, Breeds, Feeds and Meats Uganda



- Produce high numbers.
- Deal with medium large scale slaughterhouses.
- Payment done on cold dressed weight after slaughter.
- Welfare friendly transport, mostly trucks.
- Value addition Fresh and processed products.
- Market High end retailers (hotels, restaurants, supermarkets), export.

## Sources and flows of pig and pork meat in a nearly fully integrated production system. Courtesy - Murungi et al 2021



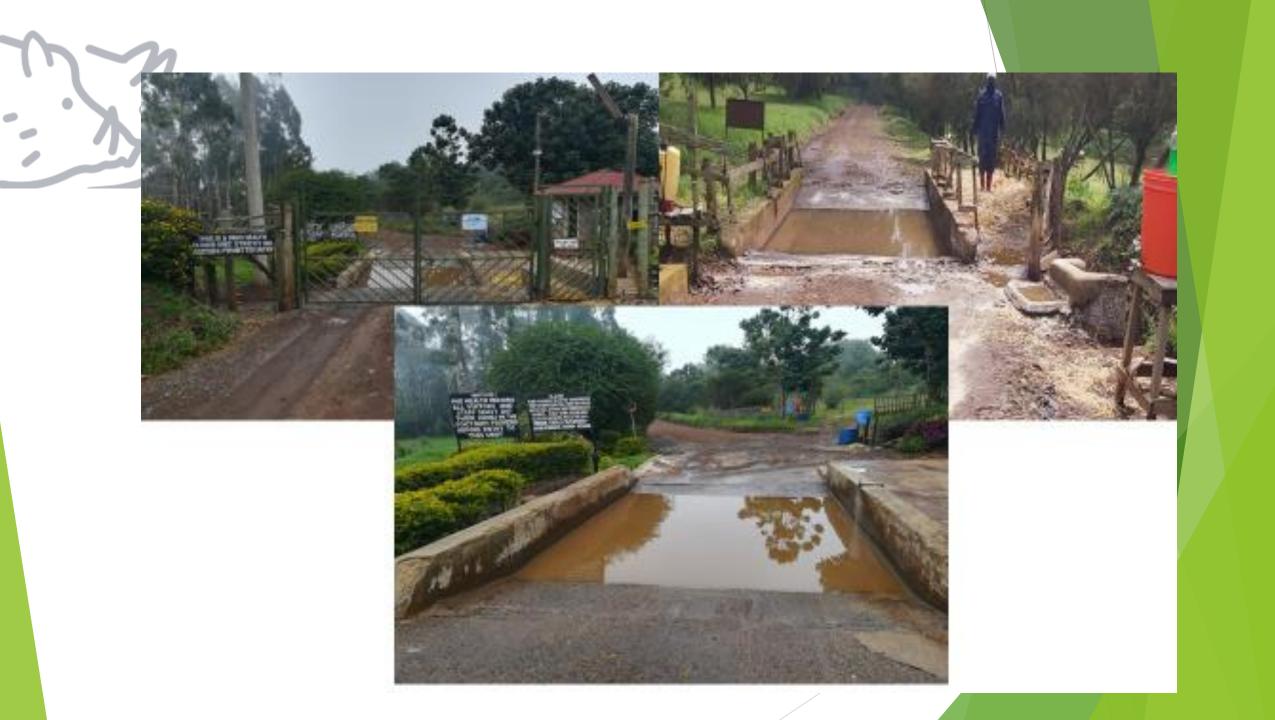




























- Murungi et al 2021: The Nairobi Pork Value Chain: Mapping and Assessment of Governance, Challenges and Food Safety Issues.
- Dione. M, et al 2017: Enhancing Biosecurity along Uganda's Pig Value Chains.
- ▶ Dione et al 2016: Qualitative Analysis of the risks and practices associated with the spread of ASF within the small holder pig value chains in Uganda.
- Lichoti et al 2017: Pig Traders' Networks on the Kenya Uganda border highlight potential for mitigation of African Swine Fever virus transmission and improved ASF disease risk management
- ► FAO Livestock Country Reviews Pig Sector, Kenya. 2012
- Yamo 2021 Animal welfare in pig production.









