State of Feed Reserves and Transport in Ethiopia

Lemma Gizachew, FAO-Ethiopia

25 January 2018



Feed Reserves & Transport

- Part of feed value chain
- **OPractice intended to**
- Even out temporal & spatial feed supply
- ✓ Sustain livestock prodⁿ & reproduction, and protect livestock asset
- ✓ Minimize misuse & wastage of feed resources
- **OScope & complexity**
- ✓ Reflect stage of livestock industry
- Determine extent of livestock subsector's vulnerability
- **OTypical features**
- ✓ Under developed & surrounded by complex challenges



Characteristics of Feed Reserves in Ethiopia

oSmall scale & limited market-orientation

oStored in loose & dried form

 OUnorganized & marked difference across prodⁿ systems

oInadequately guided by knowledge

oLittle consideration to quality & safety issues

Characteristics of Feed Transport in Use in Ethiopia

 Varies depending on scale of operation & distance covered

Physical form limits DM transported

Safety issues receive little consideration



Characteristics of Feed Transport in Use in Ethiopia



• Transport cost prohibitive

 ✓ 0.5-1.0 ETB/kg concentrate from Addis to Hammer or Moyale; 4.67 ETB/kg hay for similar distance

Feed hauling trucks rarely comply agreed terms

- Transport operators signing agreement often subcontract to other transporters
- ✓ Trucks transporting hazards substances could be used prior to cleaning
- ✓ En route hygienic conditions rarely observed (e.g. packaging, cover against rain)
- Truck don't keep complete records (source, quality description, weight) that used to ensure traceability

Costs of Underdeveloped Feed Reserve & Transport Systems

- oUnderperformance of livestock sector
- Milk production (225 vs 500 kg for indigenous cattle; 1,500 vs >3,000 kg in crossbreds)

 Slow growth rate e.g. age at 1st calving (4-years vs <3-years in indigenous cattle)
OWidespread food insecurity

 Mismatch of potential & actual economic benefits



Costs of of underdeveloped Feed Reserve & Transport Systems...

Figure 1. Affected core breeding stock & feed requirement (US\$)



 Increased vulnerability to climate change induced feed crisis

 Abrupt drop in animal body condition & cessation of milk prodⁿ, & corresponding food insecurity & malnutrition

Huge loss of livestock asset (e.g. 60-80 % cattle, 25-35% shoats & 25-40% camels lost to 2011 La Niña; and 65-90 % of cattle & 50-70 % of shoats to 2016 El Niño

 Intensified conflicts over resource use



Costs of Underdeveloped Feed Reserve & Transport Systems..



Compromised Feed & food safety
Animal health & survival put at risk with likelihood of double economic loss

 Animal products become unsafety for human use (e.g. 2016 incidence of Aflatoxin)

○Eroded trust & caused lasting damage on feed industry
✓ Below potential operation of industries



Summary of Feed Reserve Challenges

Part of feed value chain	Challenges	
Feed reserves	Huge gap in supply & demand of feed reserves	
	Restricted to dried form of storage	
	Limited use of processing & densifying technologies	
	Improper storage - exposure to rain & sunlight damage	
	No established grading system for quality & quantity	
	No adherence to safety standards	
	Limited market orientation & weak actors linkage	
	Scope of operation small & often untimely	F

Summary of Feed Transport Challenges

Part of feed value chain	Challenges
Transport	DM transported often small due to loose physical form
	High cost of transportation
	Low traceability due to incomplete record & violation of
	terms of agreements
	Limited safety consideration
	Cover long-distances & cut across different prod ⁿ systems
	Cause feed price distortion & at times lead to collapse of emerging dairy & feedlots

Practices and Technologies Successfully Promoted



P → P → P → P → P → P → P h

Positive dev't in local availability of forage during periods of scarcity due to

- Expansion of grazing reserves (group kalos) & stock exclusion areas along watersheds
- Prodⁿ & use of forage crops along river banks/backyards
- ✓ Preservation excess forage in the form hay
- ✓ Collection/processing browse pods (e.g. Prosopis/Acacia)

 Stimulation feed/forage planting materials marketing system



Practices and Technologies Successfully Promoted



✓ Successful introdⁿ & use of alternative feed /feed technologies
✓ Increased use of non-conventional feeds e.g. sugarcane by-products
✓ Prodⁿ & commercialization of MNBs in drought prone areas

 Growing interest for urea-molasses and EMOs treated & ensiled materials (+Ve nutritional quality/several batch per season)

Way Forward

- Support dissemination of technologies increasing local availability feed to be reserved for bad times
- ✓ Feed dev't thru spate irrigations, improved watershed mng't
- Backyard & irrigated fodder bank dev't thru incentives (access to prime land),
- Promote conservation of less competitive feeds (e.g. water hyacinth, vegetable wastes, canning industry by-products, coffee pulp)
- Efficient use of locally available feed resources (cactus, Acacia/Prosopis pods, bagasse/molasses, urea treated CRs)
- ✓ Reduced post-harvest losses



Way Forward

OBuild capacity of feed value chain actors with respect to
✓ Practical training on proper timing & techniques of feed conservation

- Support increasing private investment on pelleted & densified feed prodⁿ leading to reduced transport cost
- Encourage private engagement (provision of incentives and replacing free distribution of by voucher based system))
- ✓ Reduce feed transport cost through increased use of TMR
- Encourage public & private investment on feed warehouse structures at strategic locations
- Improve across country movements & local availability of feed thru innovative business models (franchising schemes)

Way Forward

 OPut in place minimum standards & enforcement mechanisms ensuring feed safety & quality

- Enforce proper labelling of transported feed (origin, feed description, weight, feed safety features, etc.)
- Observance of feed transport agreements, maintenance of relevant transported feed records

 Meet minimum hygienic conditions of trucks & en route protection of feed against weather related & other damages
Putting in place functional feed quality & safety regulatory system

Thank You!

