



## Country Name Ethiopia

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# Livestock population

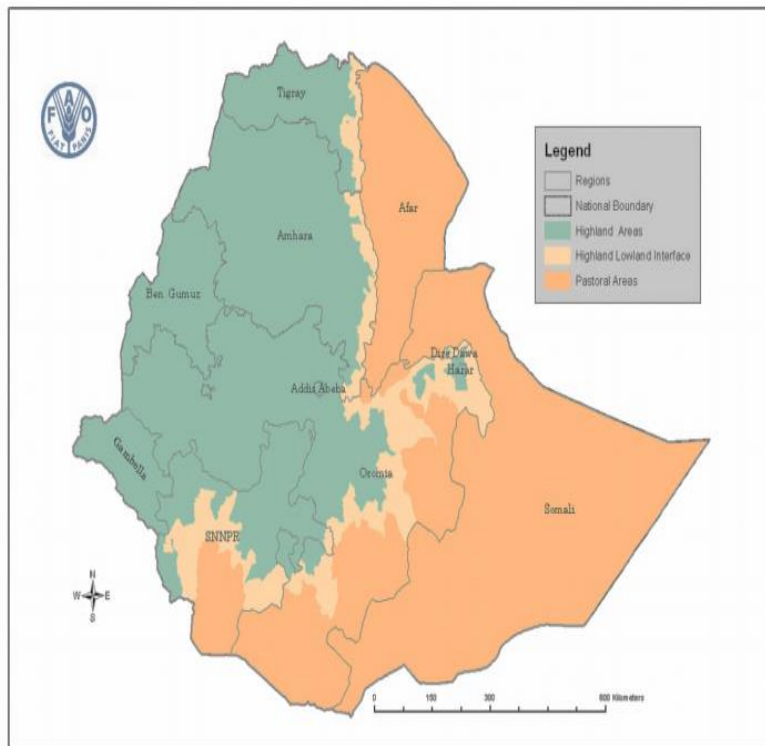
Species	Number in Million
Cattle	56.7
Sheep	29
Goat	29
Camel	2.2
Poultry	56.9

- **Contributes to 45 - 47% of the agricultural GDP.**
- **18 – 20 % to national GDP**
- **31% of employment**

CSA, (2014)



# Progress along Stage 1 - Component 1 livestock density and distribution (maps). Value chain analysis results



## Crop-livestock

- 80-85% cattle population of country
- 40% of the land area of the country
- Integration of crops and livestock is high
- **75% of cattle, 50% of sheep and 30% - goats**
- 85% of the total farm income

## Pastoral

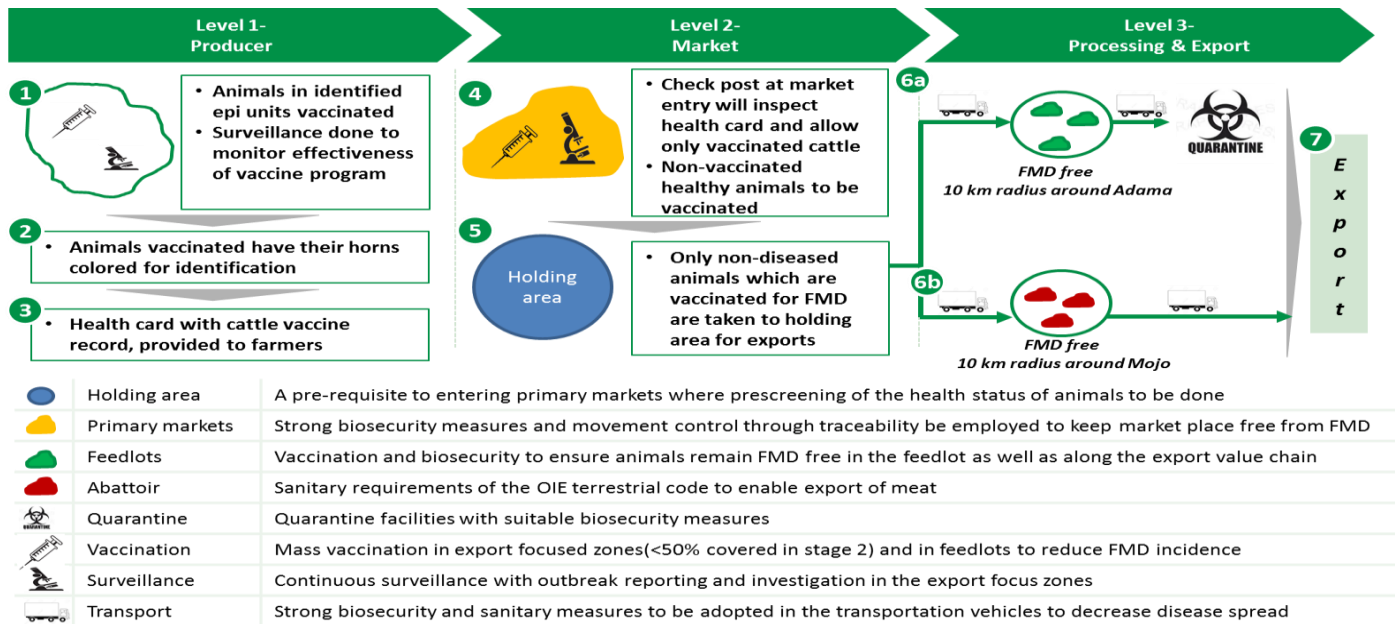
- 60% of the land area of the country
- LS are the main livelihood means (> 50% HH revenue)
- 95% of animals for export originate
- **15 - 20% of the cattle,, 50% of the sheep, 70% of the goat**

## Specialized

- Feedlots
  - Intensive Dairy
  - Commercial Poultry
- } less than 1% of the total cattle population



- Ethiopia's beef export value chain starts in the markets located in pastoral low land area of southern part of the country wherefrom 3-5 year-old bulls are procured and transported to feedlots via holding ground where they are fattened for 2-3 months before slaughter and processing for production of beef or exported as live animal
- FMD outbreaks affect the dairy production greatly as well, decreasing the productivity of dairy cattle so dairy cattle along this value chain were also included in control program . *Proposed FMD control strategy for Ethiopia*





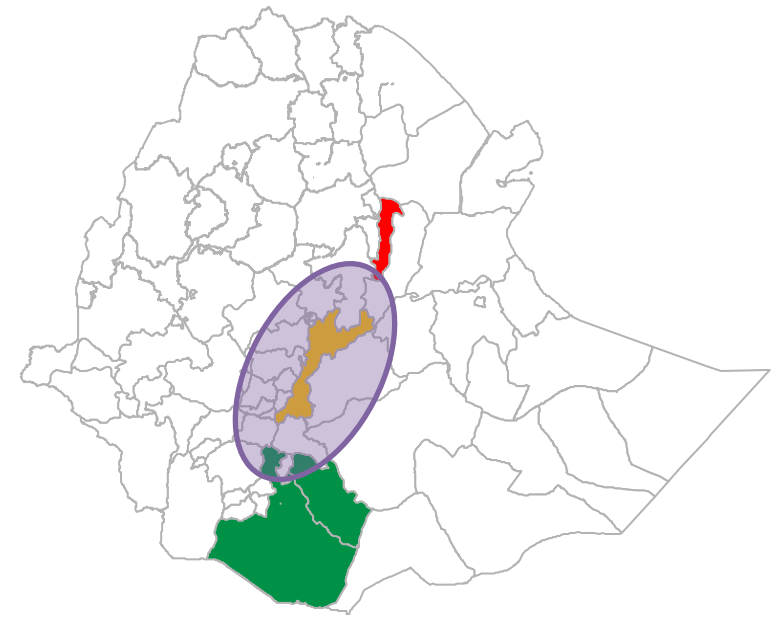
- Proposed to cover 2.5 M cattle in export sourcing areas and 1 M cattle in milk shed

Focus Areas	Qty.	Cattle nos.	Area (in sq. km)
Identified Epi units in Borena, Guji & Liben	-	2,000,000	64,000 or less
Key export markets	4 markets	-	4
Feedlots	60 feedlots	120,000	500
Quarantine	2 Quarantine	160,000	628
Abattoirs	4 Abattoirs	60,000	500
Milk shed	-	1,000,000	As applicable

**Not part of the control program- will not be provided vaccine subsidy but vaccines made available for farmers to buy**

- Animals within 10 km radius of feedlots, abattoirs and quarantines are considered in the above table, for implementation of control plan

- Focusing on these prioritized areas will lead to effective implementation of control plan



Export areas- Borena, Guji and Liben  
 Feedlots and Abattoirs area  
 Quarantine area (Mile, Jigjiga)

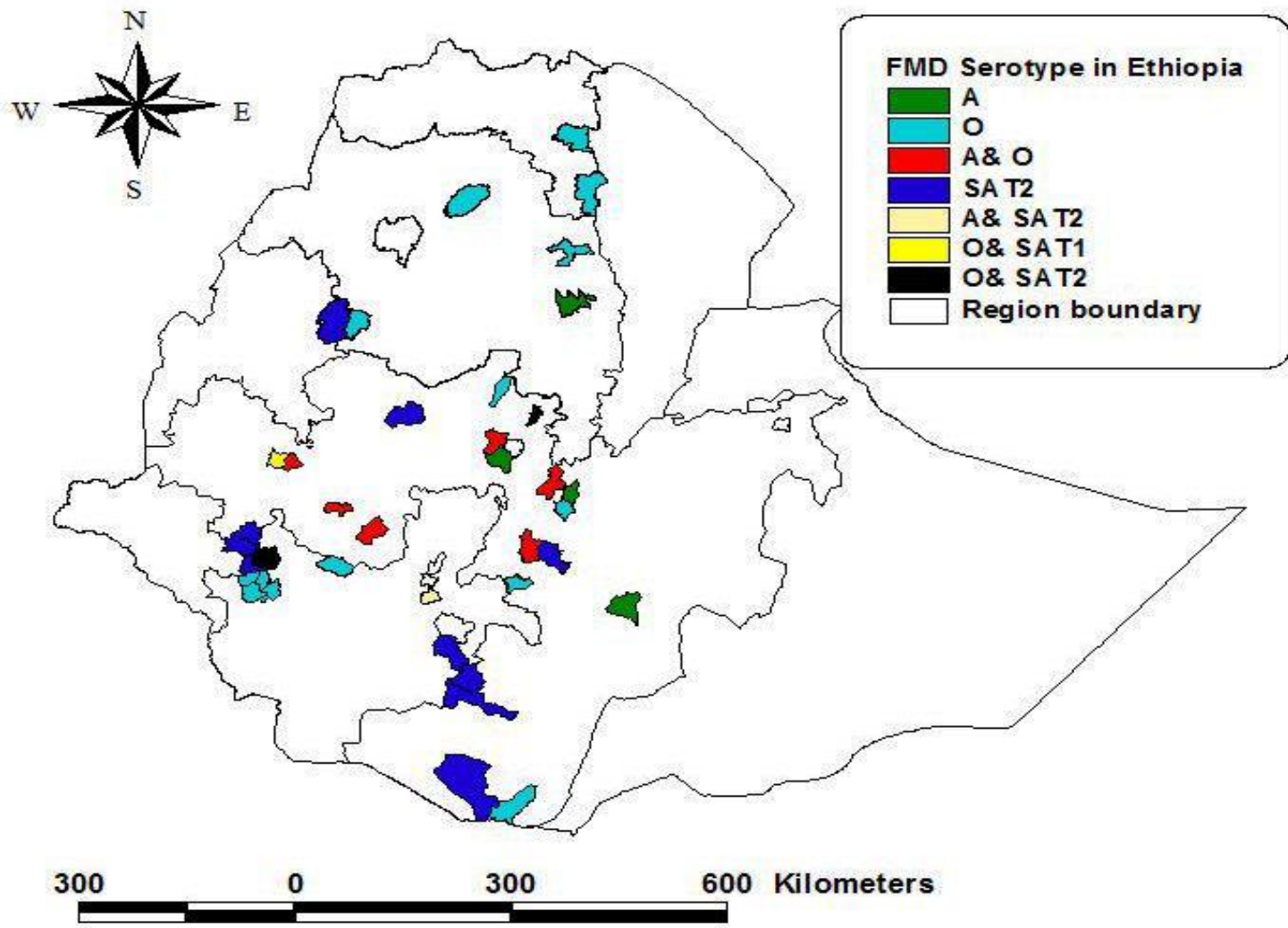


# Progress along Stage 1 - Component 1

## No of FMD outbreaks serotypes identified

Region	No outbreaks	Serotype Identified
Oromia	16	Serotype O, A, SAT 2 and SAT1
AmHara	6	Serotype O,A, SAT2
SNNPR	5	Serotype O
Addis Ababa	2	Serotype O, A, SAT 2 and SAT1
Tigray	3	Serotype O, A, SAT 2
Somali	1	Serotype O,
Benishangul gumz	2	Serotype O
Afar	1	Serotype o
<b>Total</b>	<b>35</b>	

- Response to outbreaks, is usually Vaccination for dairy cattle and export animals





# Progress along Stage 1 - Component 1

## 1- description of surveillance activities:

### 1.1 Passive Surveillance in 2014-2017

	Disease	Species	OBn	PAR	Cases	Morb Rate	Deaths	Mort Rate	CFR
2017	FMD	Bov	51	1961488	3634	0.2	35	0.02	0.96
2016	FMD	Bov	40	235,879	5,234	2.2	81	0.03	1.55
2015	FMD	Bov	74	1,055,637	25,602	2.4	66	0.01	0.26
2014	FMD	Bov	45	759,960	4,710	0.6	94	0.01	2.00
Sum			210	4012964	39180	0.7	276	0.07	1.0
Average			52.5	1003241	9795	0.175	69	0.02	0.24





- **ADNIS** Cell phone based near to real time disease notification and investigation system developed and being **piloted in 280** locations.
- **DOVAR-II** Disease Outbreak and Vaccination Activity Reporting system meant for collection of disease OB & vaccination data on monthly basis from Districts, *planned for expansion to accommodate data coming from abattoirs, quarantine sand laboratories.*
- Regular reports are sent to **OIE and AU-IBAR**



## 1.2. summary of active of FMD in whole region

### Result of CSS data

#### FMD

- Over all prevalence

	Frequency	Percent
<b>Negative</b>	8440	79.21%
<b>Positive</b>	2215	20.79%
<b>Total</b>	10655	100.00%

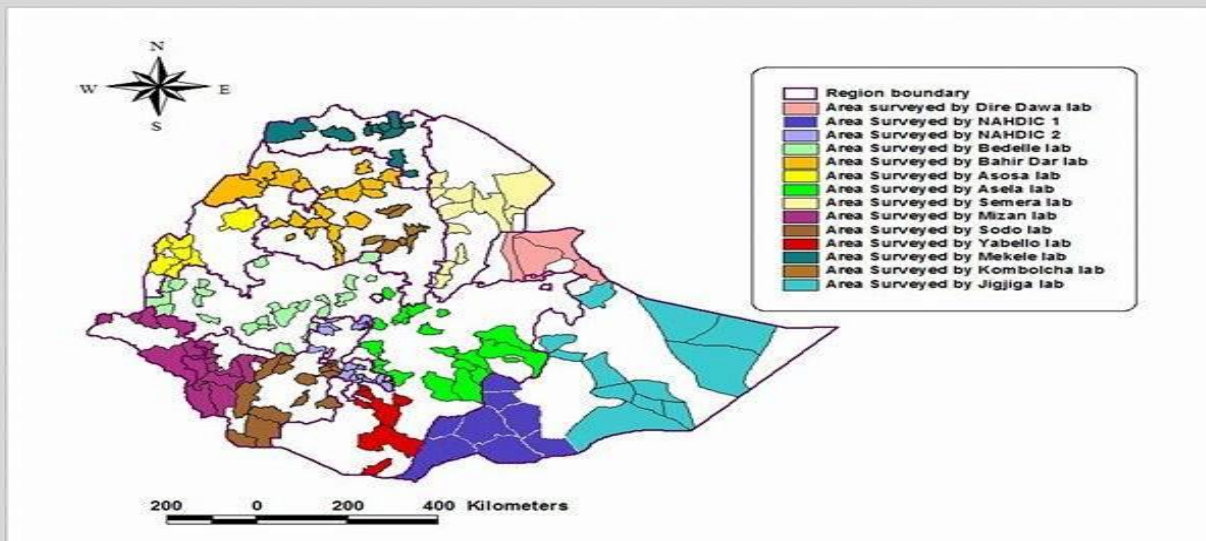
#### FMD prevalence in Regions

Regions	Frequency			
	Negative	Percent	Positive	Percent
Amhara	1316	89.58	153	10.42
<b>Benishangul G</b>	413	53.64	357	46.36
Dire dawa	194	83.26	39	16.74
Gambella	182	77.12	54	22.88
Oromia	2793	77.56	808	22.44
SNNP	1898	74.99	633	25.01
Somali	1237	89.38	147	10.62
Tigre	407	94.43	24	5.57

Wilson 95% Conf Limits



## National Surveillance of Trade sensitive Trans-boundary animal diseases (2017)

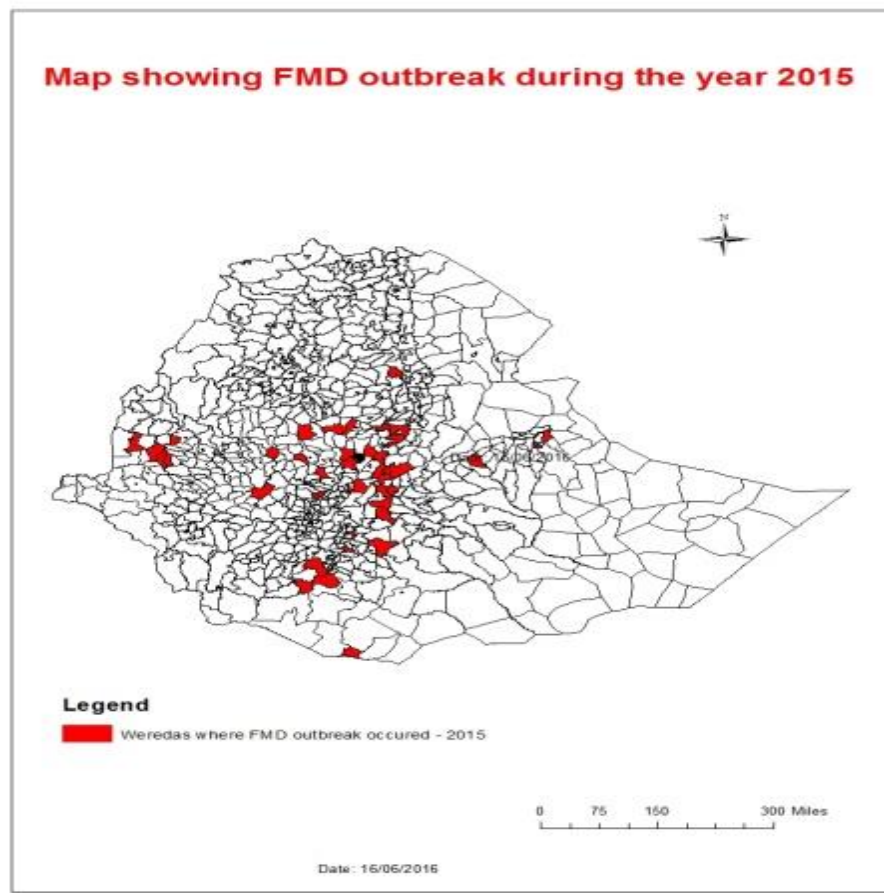


Disease	Species	Number of samples collected	Type of test used	Number of positives	Prevalence	Remark
FMD	Bovine	11705	3 ABC NSP C-ELISA	2170	18.5%	Samples were collected from all regions except AA
CBPP	Bovine	11705	C-ELISA	2247	19.2%	
PPR	Ovine & Caprine	12081	C-ELISA	3428	28.4	
RVF	Bovine, caprine & ovine	5495	C-ELISA	0	0%	



## 2. Results of the surveillance

- number of outbreaks and distribution during last 2-3 years (maps)





## Progress along Stage 1 - Component 1

### Socio-economic impact

- Summary data on socioeconomic analysis and conclusions (if carried out)
- Cattle production in Ethiopia contributes significantly to the food security of pastoralists as milk and meat.
- 32% of the total means of food, social and economic contributions as from livestock production (Tarku et al 2013)
- FMD is an important trade-sensitive disease.
- Currently, Ethiopian cattle export has been restricted to only a few countries
- Producers and the broader private sector are significantly impacted due to this condition since they do not have access to lucrative markets of Asia and rest of Africa.



## Progress along Stage 1 - Component 1

### Identification of risk hotspots

- Pastoral areas are semi-arid, conditions fluctuate widely (specifically during draught periods) such that a grazing land and water point that is extremely attractive at one time becomes virtually unusable in another, making animal movement frequent and unpredictable.
- These seasonal mobility of cattle across woreda, zone, region and national boundaries yields the opportunity for uncontrolled mixing of cattle and greater chance of FMD transmission and spread.



- Animals are purchased/sold in live-animal markets, where frequent mixing gives ample opportunities to be infected.
- Presently live animal markets are considered to be the major hotspot for virus transmission and difficult to be put under control.
- This dynamic system of animals moving in and out for markets certainly contributes to maintain and further spread the virus.



## Summary of the situation

- FMD is endemic throughout the country.
- Disease occurrence is widespread.
- Apparently prevalence in pastoral areas is higher than in mixed crop-livestock systems.
- Thus, its importance in these areas has increased since 1984.
- Identified serotypes are: O, A, SAT 2 & SAT 1. Serotypes **O & SAT 2** have the highest prevalence





- Direct effects of FMD on livestock health is unclear because of limited studies. (Mazengia *et. al.* 2010; Tariku Jibat *et. al.* 2013).
- Indirect effects are however apparently marked demonstrated by trade ban & lack of access to markets outside Africa & Middle East.
- Factors such as open borders with uncontrolled movement & large pastoralist areas in south & east of country, vaccine shortage make FMD management problematic



# Progress along Stage 1 - Component 1

Control measures, if implemented (Implemented control measures, if any (vaccination, movement controls, biosecurity, biosafety, awareness campaigns.)

- Implantation is not yet started
  - Vaccination carried out in dairy sector
  - In feed lot for export purpose
- The following were considered in control plan
  - Set-up Program Management Unit for the implementation of control plan
  - Strengthen and improve the on going surveillance system for FMD
  - Strengthen the prevention and control system in prioritized sourcing areas
  - Improve the legislation framework



# Progress along Stage 1 - Component 2

## Activities to strengthen the veterinary services

*Include a description of compliance with the OIE PVS Critical competencies (could be the format of a table or graph) – Indicate the date of the PVS mission **May 2011***

Critical competencies relevant to PCP-FMD Stage 1	Score required	Current score (OIE evaluation or self-evaluation)	Comments (if any)
I.2.A. Professional competencies of veterinarians	3	2	
I.3. Continuing education	3	4	
I.6.B. External coordination	3	3	
II.3 Risk analysis	3	2	
III.1 Communications	4	3	
III.2 Consultation with stakeholders	3	2	
IV.1 Preparation of legislation and regulations	3	3	



## Progress along Stage 1 - Component 3

### Synergies to control other TADs

1. **Describe** FMD-related activities that contribute to control other major TADs (e.g. PPR, CBPP) (movement control, vaccination, surveillance, farm biosecurity, training/workshops, etc.)
2. **Describe how** Strong veterinary services contribute to the control of other major diseases (technical skills, governance, vaccination campaign, etc.)
3. **Describe how** laboratory capability contributes to the control **of** other diseases

*1 slide*



# Progress along Stage 1 - Component 3

## Synergies to control other TADs

### 1. Describe FMD-related activities

- FMD is endemic in Ethiopia with several outbreak reports every year. The national prioritization exercise for animal diseases of socio-economic & trade significance including humans conducted by MoLF identified the following priority diseases in order of their hierarchy based on scores i.e. PPR, FMD, anthrax and Brucellosis (MoLF, 2016).
- PPR control is currently underway in pastoral areas which is being implemented jointly by MoLF and FAO



## 2. Describe how Strong veterinary services contribute

- Ethiopia has a tiered government system consisting of a federal government overseeing ethnically based regions, comprising zones, districts (Woredas), and neighborhoods' (Kebele or peasant associations).
- Ethiopia is divided into nine ethnically based administrative regions subdivided into seventy zones and two chartered cities (Addis Ababa and Dire Dawa). It is further subdivided into 685 Woredas and several special Woredas.

The activity of veterinary service:-

1. Strengthening the prevention and control systems of vaccination, biosecurity and animal movement control in prioritized export sourcing areas, markets, feedlots, abattoirs and quarantines
2. Improving the legislation framework for disease control and
3. monitoring and Evaluation, program management of the control program



**3. Describe how** laboratory capability contributes to the control of other diseases. The control strategy focused:

1. Strengthening the diagnostic capacity at both National Animal Health Diagnostic and Investigation Centre (NAHDIC) and regional veterinary laboratory
2. Strengthening and improve the ongoing surveillance system for FMD.



# Gaps and request for support

List the main gaps that need to be addressed

– Identified gaps are grouped into different categories as follows:-

## A. Surveillance and diagnosis

- Disease reporting is not up to the standard as per OIE requirement in terms of percentage of districts reporting, sensitivity, timeliness and inclusion of laboratory and other information sources
- Weak capacity in conducting risk analysis
- Weak active disease surveillance, outbreak investigation and monitoring to identify circulating viruses and efficacy of vaccination campaign
- Limited capacity for lab equipment installation, calibration and maintenance
- Limited access to foreign exchange to procure lab consumables, reagents and diagnostic kits
- Low capacity on diagnostic techniques at the regional veterinary laboratories
- Absence of quality management system in the regional labs
- Limited information exchange and harmonization of activities among IGAD countries





## B. Disease prevention and control

- Lack of an officially endorsed national FMD control plan
- Low capacity for FMD vaccine production both in quantity and quality
- Affordability of available vaccines and lack of willingness to pay among farmers and pastoralists
- Low level of understanding on bio-security measures among the producers
- Legal frameworks supporting disease prevention and control including movement control are not approved and enforced
- Weak cross- border coordination and harmonization of disease control activities
- Lack of capacity for rapid detection and investigation
- Limited infrastructure for cold chain maintenance



## C. Extension, communication and awareness creation

**W**weak capacity of the veterinary services to deliver effective extension and communication activities

## D. Research and development

- Weak understanding of the role of wildlife and small ruminants in FMD transmission and spread
- Low level of understanding of the epidemiological situation and its socio-economic impact



# Needs for support from development partners to address those gaps.

(Support may include training on diagnostic, epidemiology, workshop on design of surveillance, vaccination strategy, animal movement at national/regional ..etc)

- Conducting risk analysis and identifying rout path of FMD
- Identification of epi -unit in control areas
- Efficacy of vaccination campaign and how to control efficacy vaccine
- Limited information exchange and harmonization of activities among IGAD countries
- Bio-security measures that will be taken
- Cross- border coordination and harmonization of disease control activities

## Research and development

- understanding of the role of wildlife and small ruminants in FMD transmission and spread
- understanding of the epidemiological situation and its socio-economic impact



# Provisional PCP-FMD Roadmap for {Etiopia }

## 2017-2025

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Estimation in 2012														
Estimation in 2017							1	1	1	1	2	2	2	2





# Summary

- FMD endemic in all of part of the country and control measures are al most at an early stage so implementation needs to be strengthened
- Vaccination , biosecurity, and animal movement control are the main measures to control FMD so east African country needs to collaborate on this area
- Diagnosis and surveillane of FMD in country should be done including all possible risk areas.
- Countries with region needs to collaborate on different aspect of FMD control with other trans boundary disease this area too.