

Republic of Yemen



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Introduction

- Map of Yemen
- Area - about 550,000 Sq.m
- Human Population - approx. 23 millions with annually growth 3.5%
- 75% of the population living in the rural areas. 75-80% of those own or work with animals.
- Poorest people own some animals, but they do not own the land.

YEMEN



Introduction- continue

- Yemen divided into 5 Agrozones:
- 1. Coastal - Tihamah
- 2. Northern - high mountains
- 3. Medal highland
- 4. Southern Uplands
- 5. Eastern - dry, desert

Livestock sector

- Animal in Yemen and their population:
- Small ruminants (Sheep and Goats) - 19 millions.
- Cattle - 1.6 millions
- Camels - 250,000
- poultry - about 90 Millions about more then 70% B.
- donkeys
- horses
- rabbits
- cats and dogs
- Wild animals- deer, foxes, hayna, tigers

Farming system

- Extensive type:
 - in the villages:
 - cattle - 1-2 heads in the mountains, 5-50 head in the Tihamah
 - Sheep & Goats - 30 to 200/300 heads
- Intensive type:
 - around cities- about 7 diary farms(\approx 400)
 - some fattening farms
 - poultry - from 10,000 to 300,000



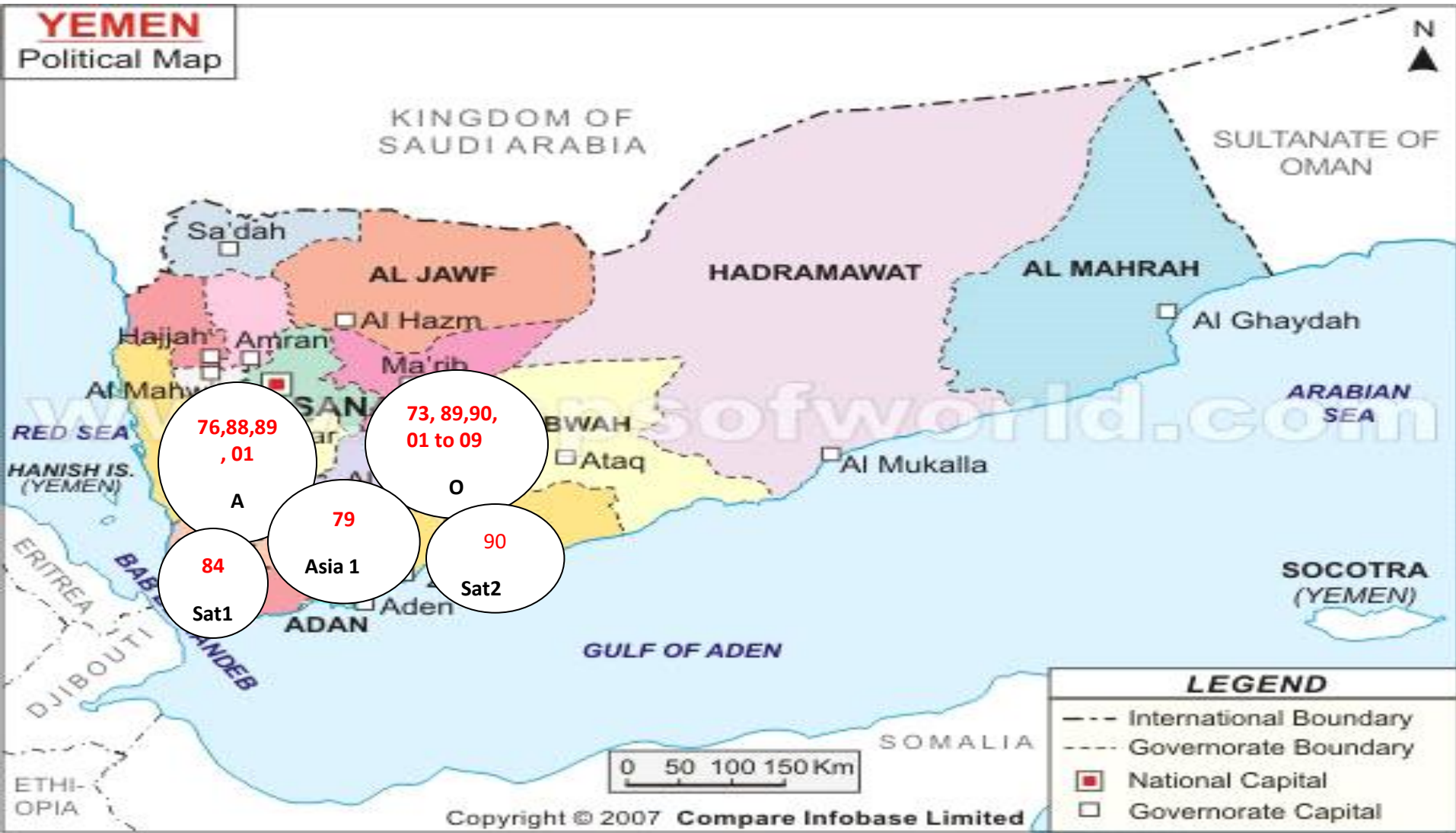
Surveillance System

- HQ - Sana'a
- Regional- 7 Units
- Governorates U.- 21
 - Passive - reports
 - Active:
 - react with reports
 - cluster Abortions
 - RP-like symptoms
 - deaths
 - Survey(random, purposive)

Disease Control

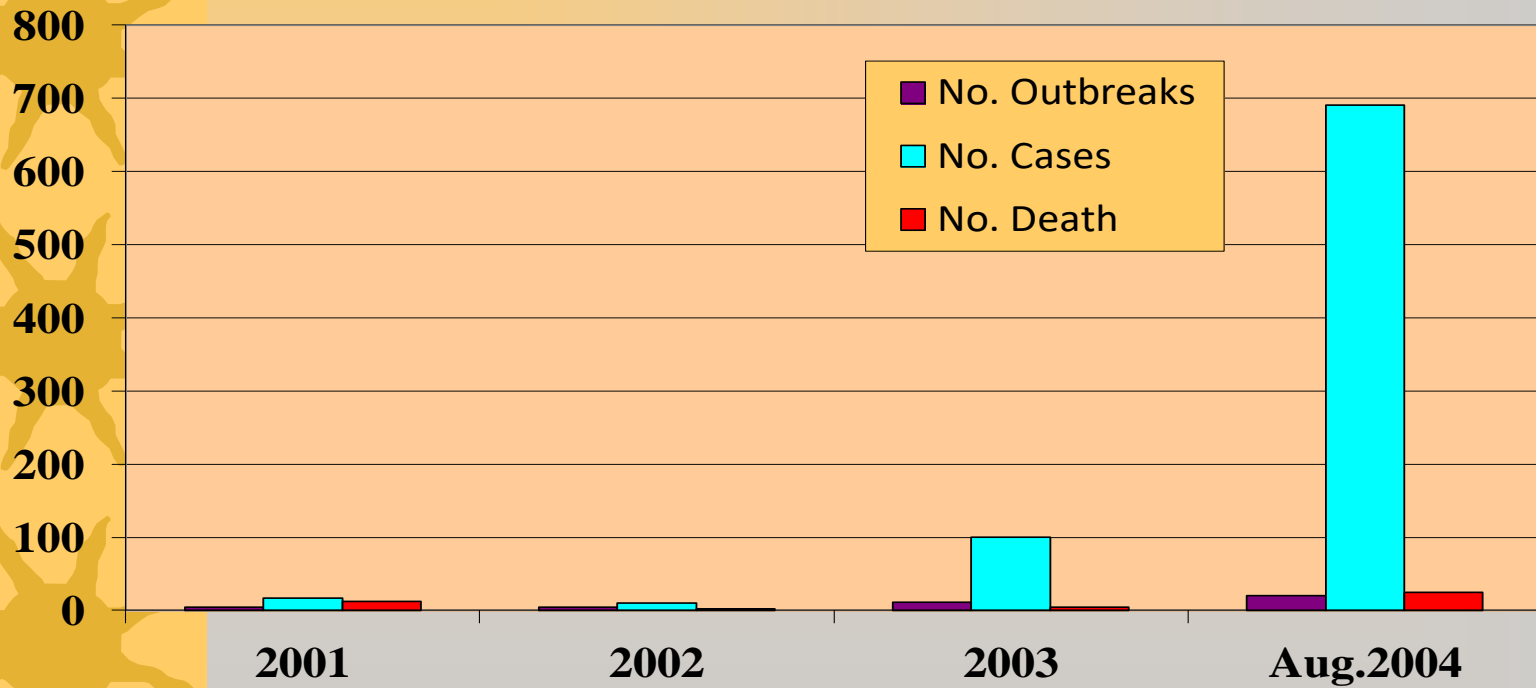
- Vaccination:
 - PPR
 - Sheep & Goat pox
 - FMD - dairy and fattening farms (Bivalent O, A)
 - poultry vaccines- private
 - Clostridium vaccines- private

History of FMD Disease in Yemen

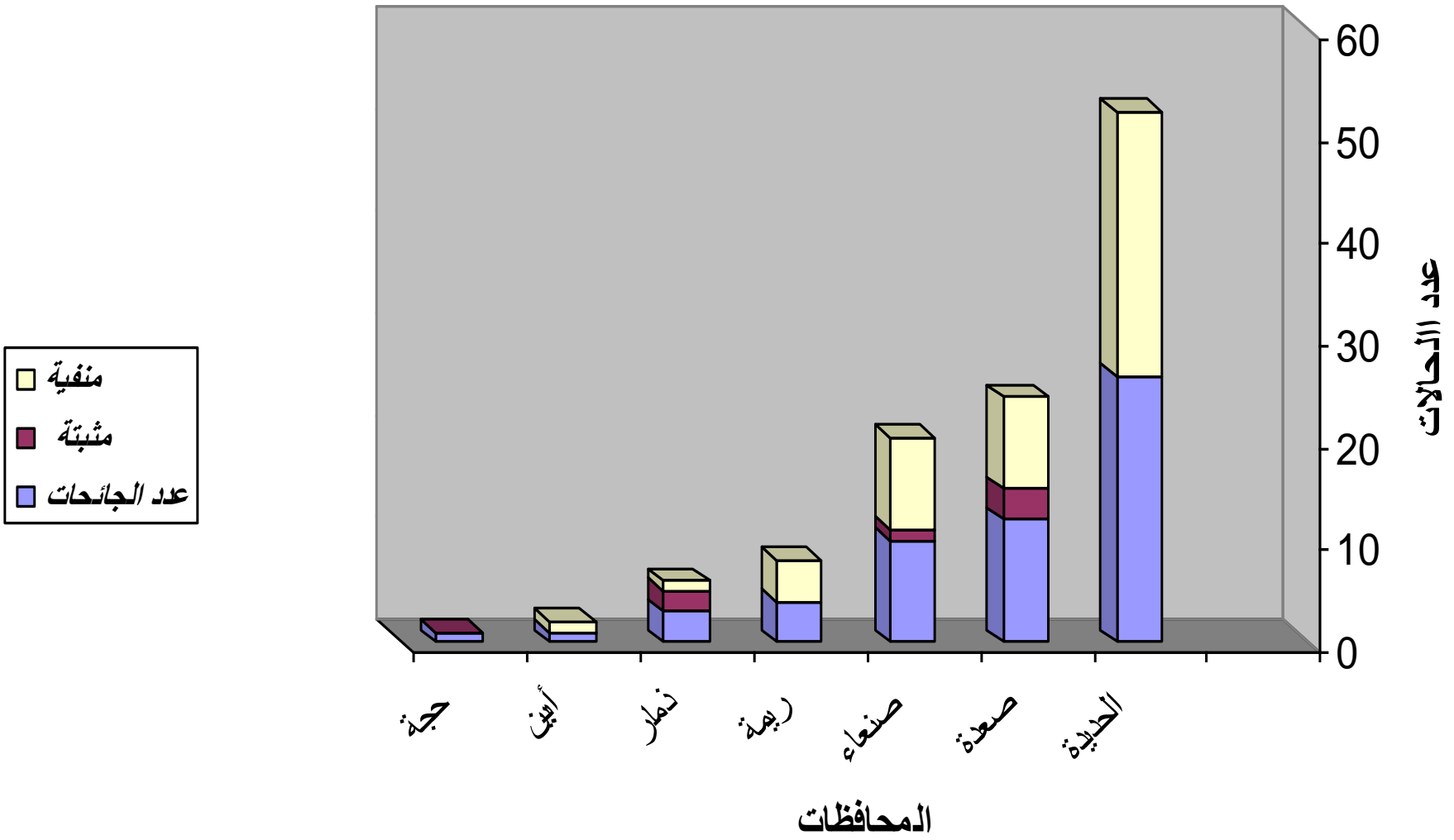


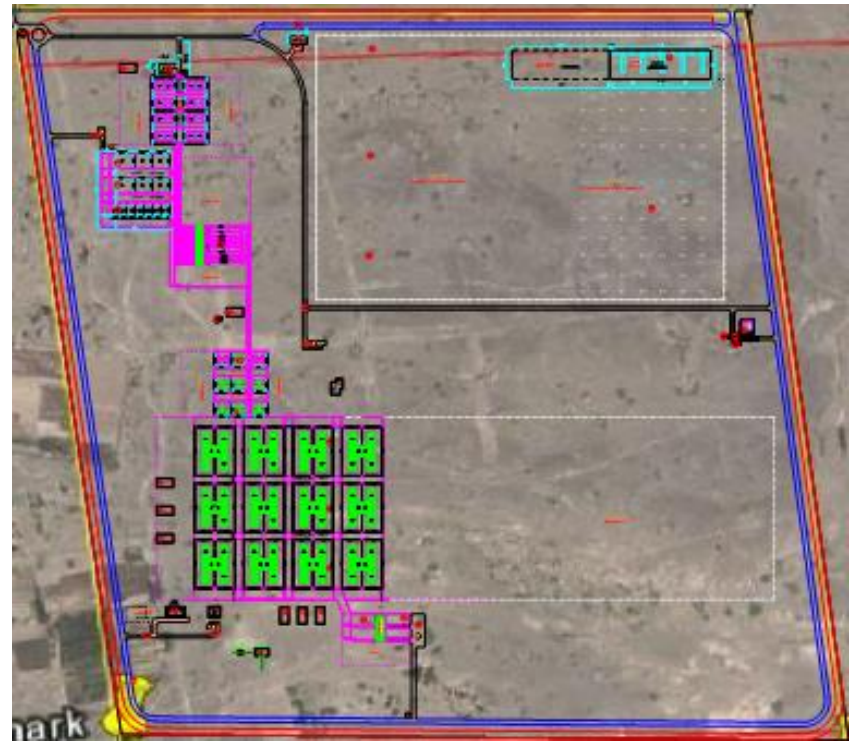


FMD outbreaks



الحمى القلاعية



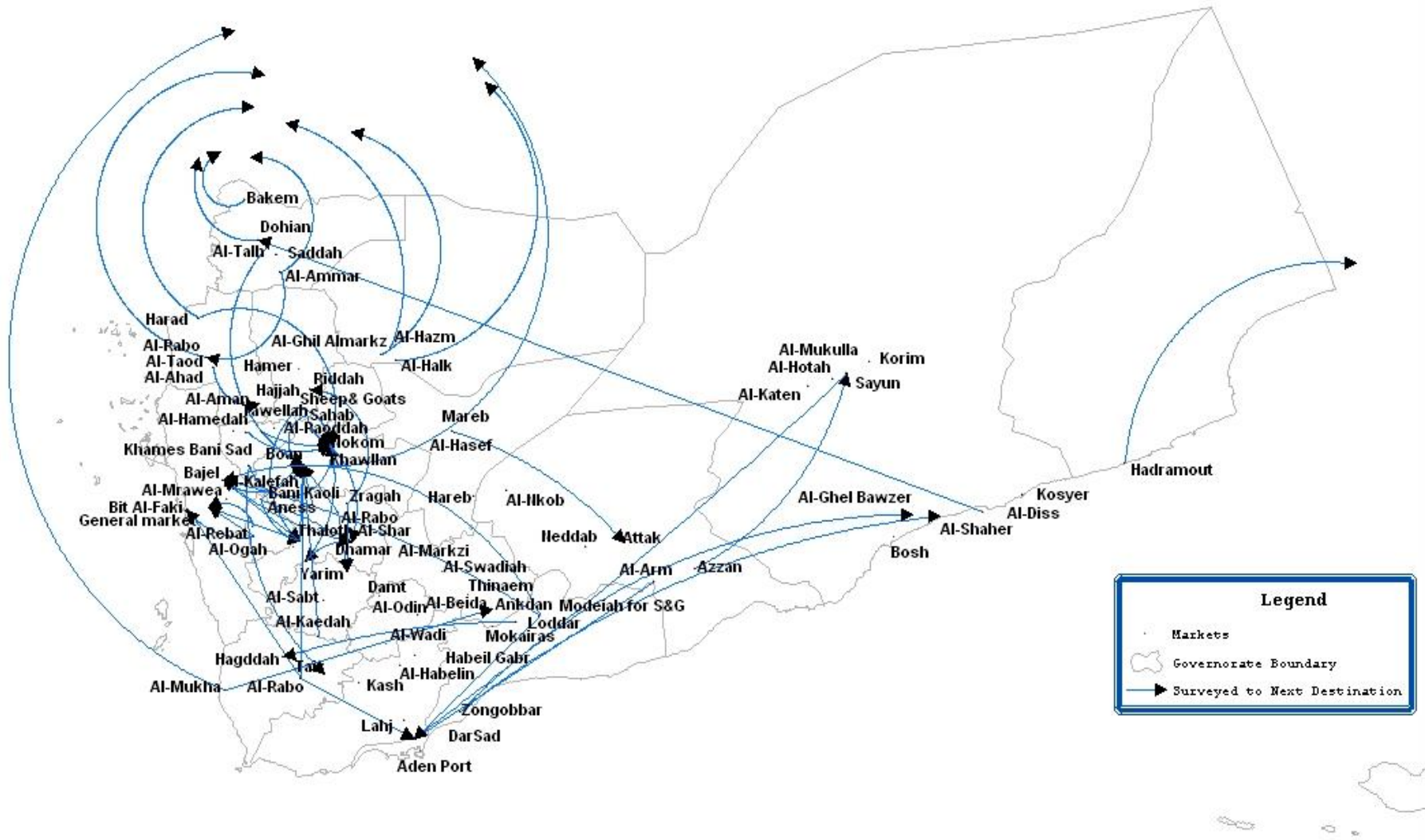




Routes of Yemeni livestock movement between Regional Markets Surveyed to Next Destination Markets



The Survey was made by
ARD, INC
for the LMT in Feb., 05

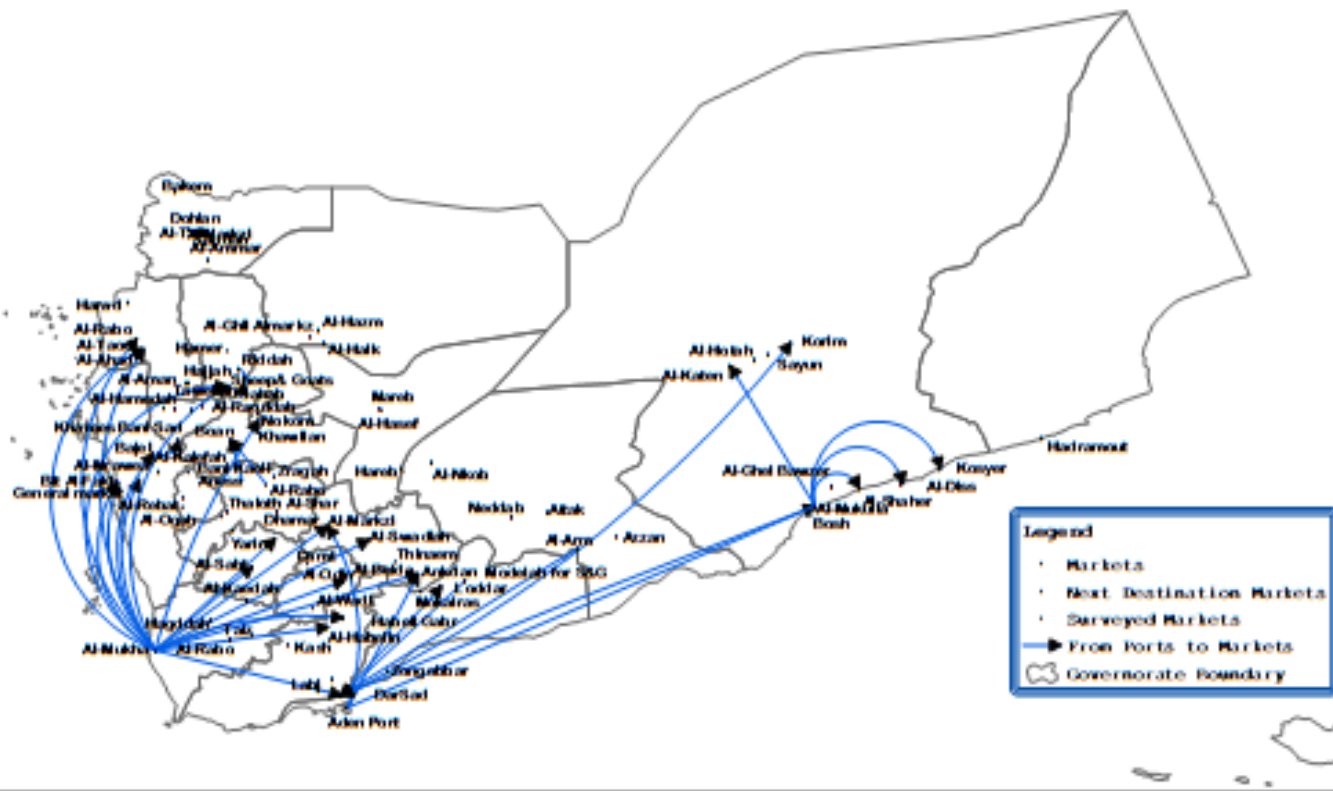




Routes of Movement of Livestock From Ports of Entry to Markets



The Survey was made by
ARD, INC
for the LMT in Feb., 05



Report on FMDV O/Yemen/2006

Software: IQ-TREE 1.6.12
 No. of Taxa: 150
 Data File: fmdv1megids/indiv/2006a.meg
 Data Type: Nucleotide (Coding)
 Analysis: Phylogeny reconstruction
 Tree Inference:
 Method: Neighbor-Joining
 Phylogeny Test and options: Bootstrap (1000 replicates; fast)(1000)
 Include Sites:
 Gaps/Missing Data: Pairwise Deletion
 Color Rationale: rank2nd-3rd-Noncoding
 Substitution Model:
 Model: Nucleotide, Kimura 2-parameter
 Substitutions to include: d: Transitions + Transversions
 Pattern among Lineages: Same (Homogeneous)
 Rates among sites: Uniform rates
 No. of Sites: 300
 No. of Bootstrap Reps = 1000
 Only bootstrap values of 70% and above are shown

N.J. Knowles & J. Wadsworth, 15/03/2007



Report on FMDV O from Yemen in 2008-2009

Batch: WRLFMD/2009/00015

Software: IQ-TREE 1.6.12
 No. of Taxa: 134
 Data File: fmdv1megids/indiv/2008a.meg
 Data Type: Nucleotide (Coding)
 Analysis: Phylogeny reconstruction
 Tree Inference:
 Method: Neighbor-Joining
 Phylogeny Test and options: Bootstrap (1000 replicates; seed=54238)
 Include Sites:
 Gaps/Missing Data: Pairwise Deletion
 Color Rationale: rank2nd-3rd-Noncoding
 Substitution Model:
 Model: Nucleotide, Kimura 2-parameter
 Substitutions to include: d: Transitions + Transversions
 Pattern among Lineages: Same (Homogeneous)
 Rates among sites: Uniform rates
 No. of Sites: 300
 No. of Bootstrap Reps = 1000
 Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 5 July 2009



Thank you