



Understanding vaccine demand in the endemic setting

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Source: C. Miller (Central Myanmar, SEACFMD Campaign)



Overview

What – our objectives and purpose

Why – identifying a need

How – methodology

Next – the way forward





Vaccines: current estimates and gaps

Annual FMD vaccine use by region *

	2011 ^a		2017 ^b	
Region	Doses (millions)	%	Doses (millions)	%
China	1600	68.1	1614 ^c	67.8
India	150	6.4	21 ^d	0.9
Rest of Asia	50	2.1	95	4.0
Africa	15	0.6	21	0.9
Middle East	20	0.9	71	3.0
Europe and Turkey	15	0.6	38	1.6
South America	500	21.3	520	21.8
Total	2350	100.0	2380	100.0

^a Hammond, 2011; Knight-Jones and Rushton, 2013

^b Mean annual use from 2015-2017 unless otherwise stated (OIE WAHIS, 2018)

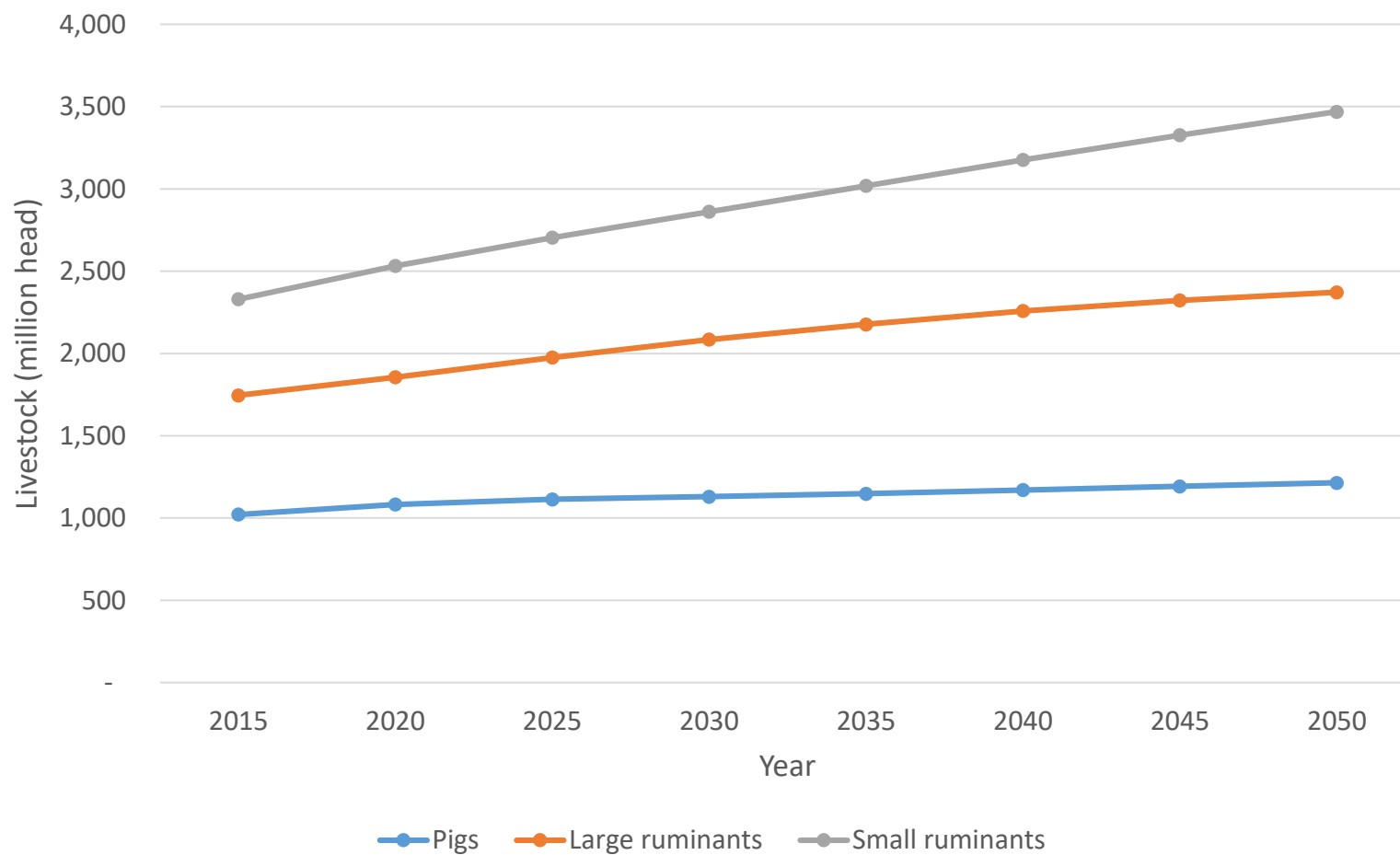
^c SEACFMD, 2018

^d Reported annual use for 2015 (OIE WAHIS, 2015)

* Work ongoing to validate current estimates

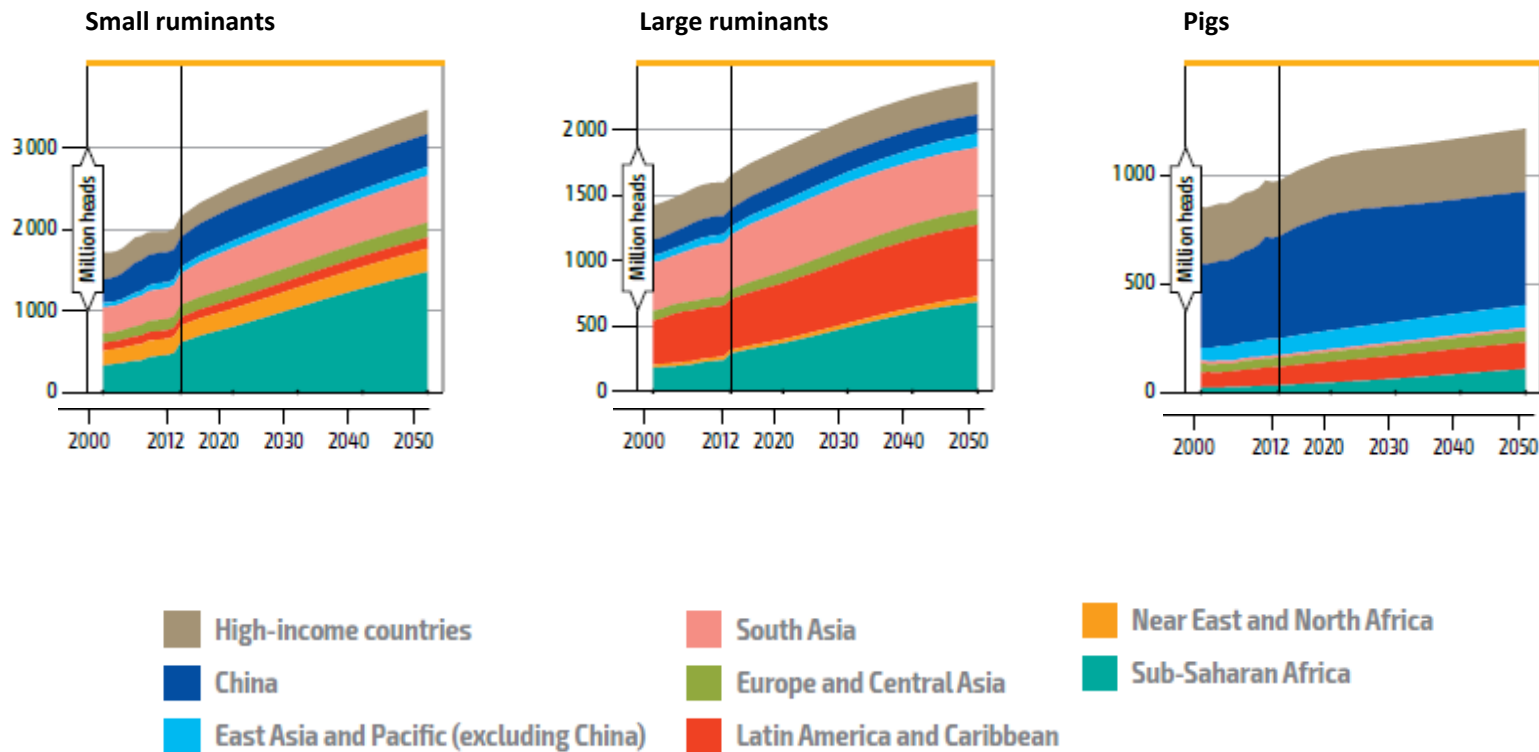


Projected global livestock population



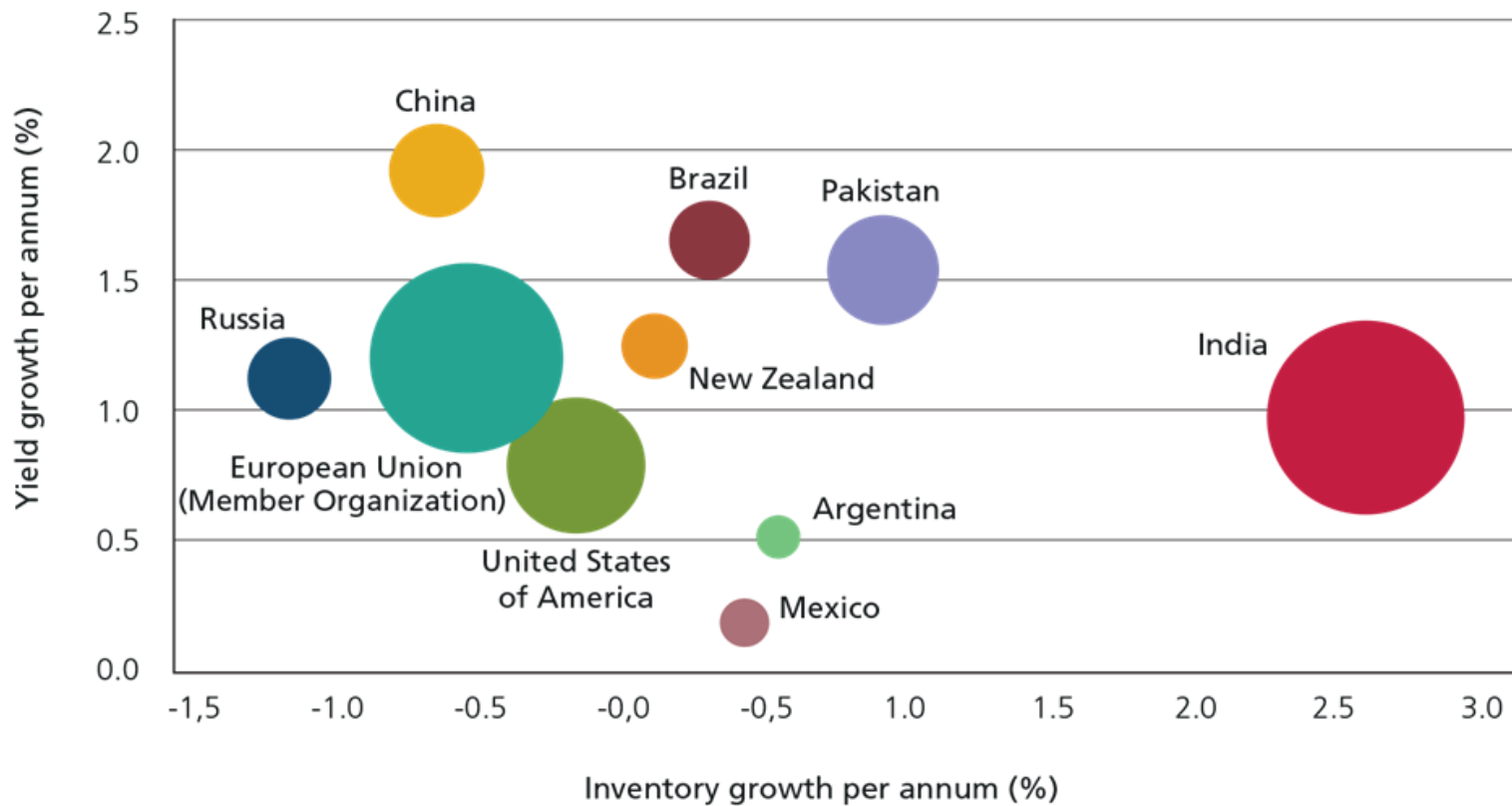
Data source: FAO (2018), *The future of food and agriculture: Alternative pathways to 2050*

Projected livestock populations by region



Source: FAO Global Perspectives Studies, based on simulations with the FAO GAP5 model and FAOSTAT (various years).

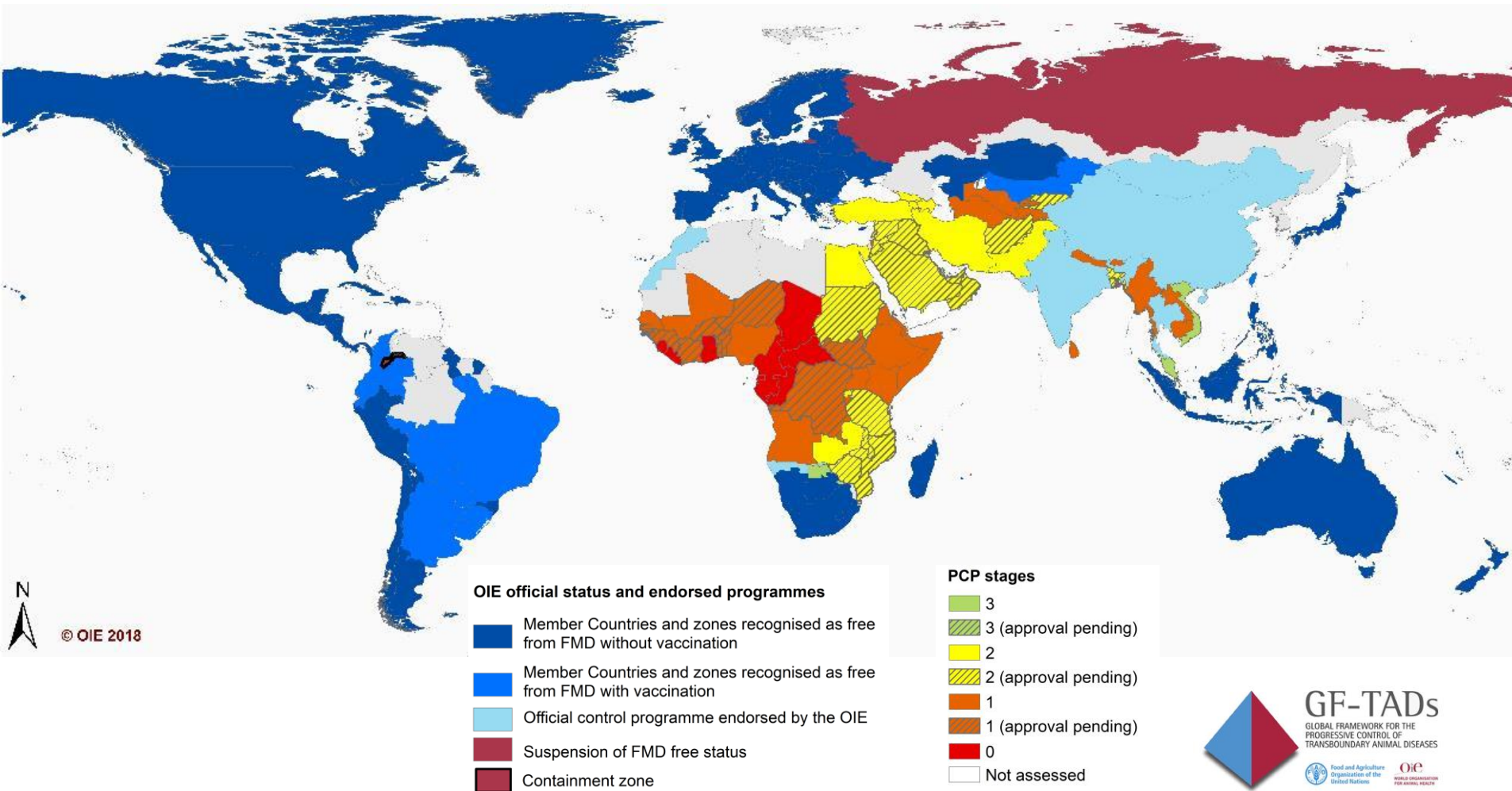
Growth in milk production between 2018 and 2030



Source: FAO 2018, Aglink-Cosimo projections.



Global FMD Situation in 2018

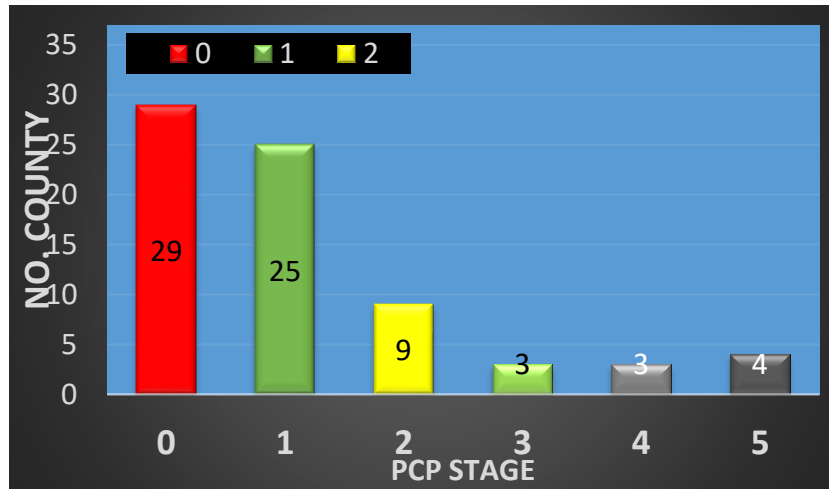




Global PCP-FMD progress

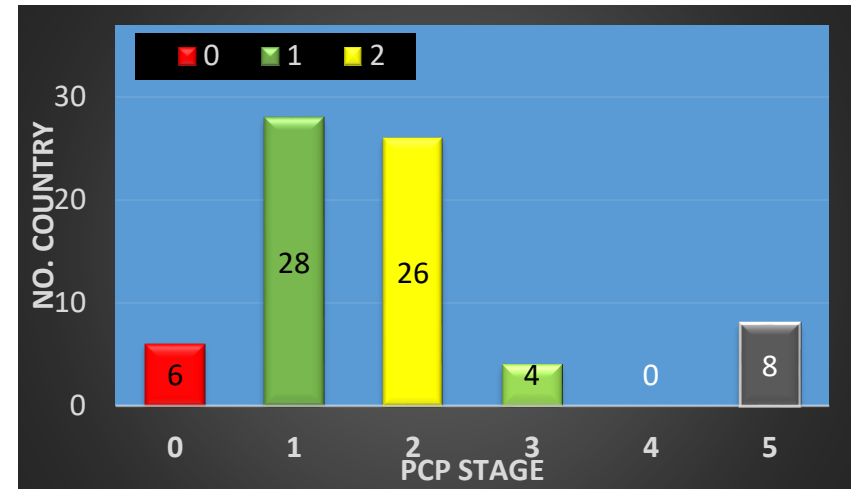
PAST

2012



CURRENT

2018



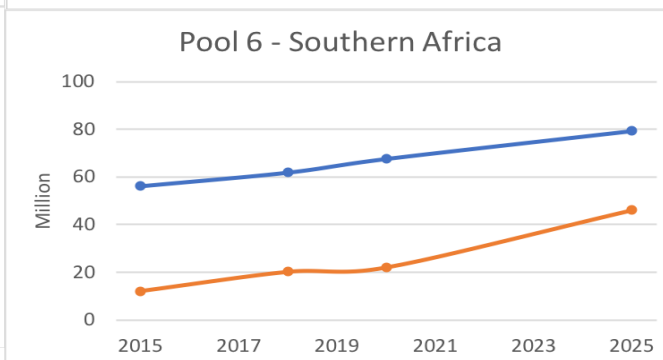
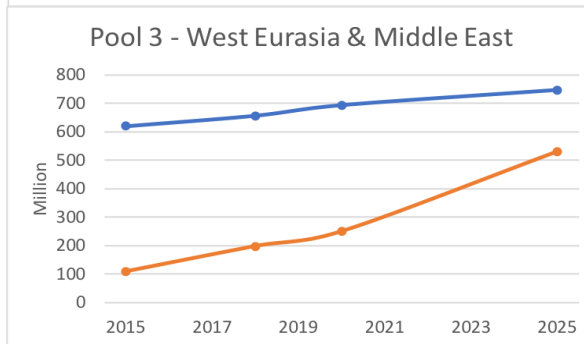
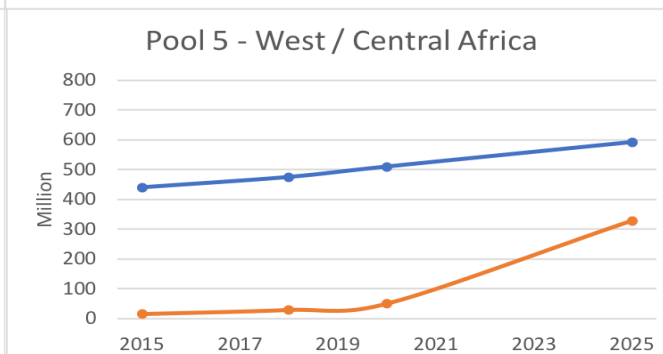
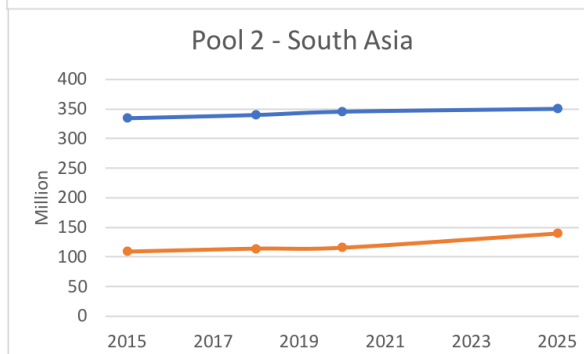
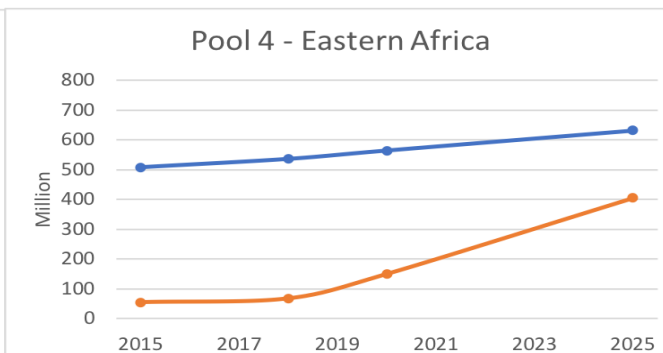
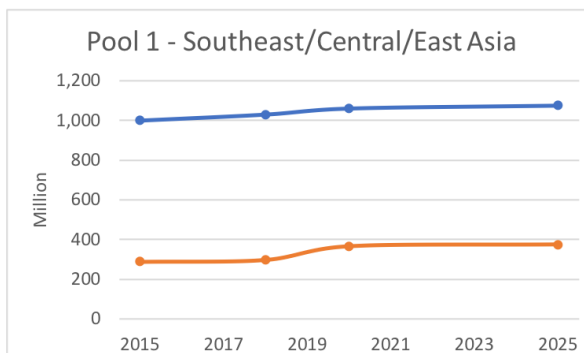
FUTURE

- Projected livestock populations – FAO FOFA 2050 (2018)
- Forecast progress along the PCP-FMD – GF-TADs (2018)
- Estimated vaccine coverage – OIE WAHIS (2018); GF-TADs (2018); Expert opinion



Future trends?

Projected livestock population and vaccine need by FMD pool



Assumptions

- All species vaccinated
- Accuracy of reported use
- Estimates of coverage
- PCP-FMD progress

Alternatives

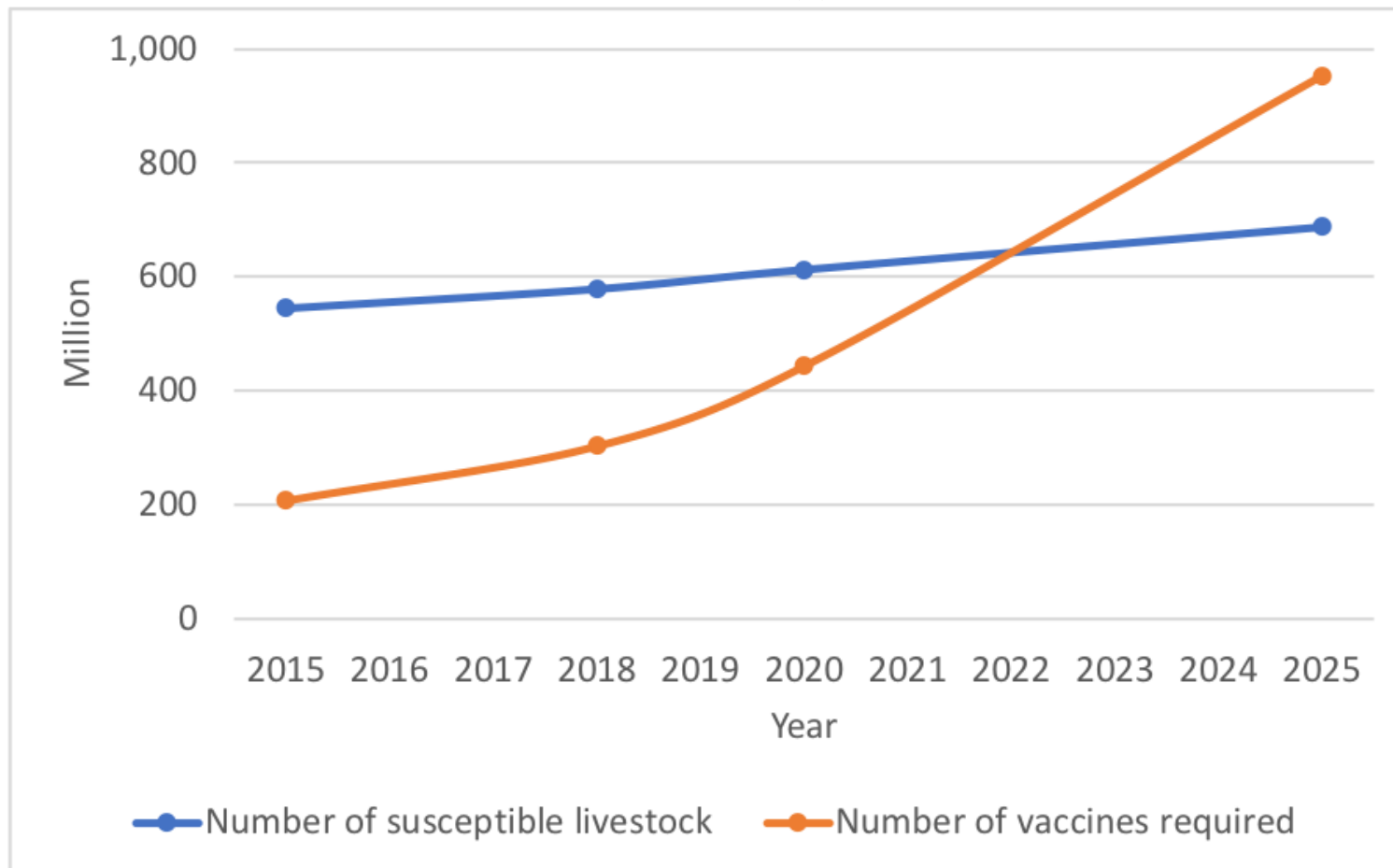
- Stratify by species
- Exclude big players
- Increased granularity
- Include emergency use

■ Number of susceptible livestock
■ Number of vaccines required
x axis = year



Future trends?

Large ruminant population trend in endemic countries*
and vaccine needed to support PCP-FMD



*Excluding China



Key Messages

- 1. Countries are committed to continuing progressive control**
- 2. There is a current lack of equitable vaccine distribution**
- 3. The 'at risk' population of susceptible livestock is increasing**
- 4. Demand for vaccine is projected to rise – how will we meet this?**



The Way Forward



- Understand the drivers for demand and uptake
- Develop better predictions of growth and demand
- Address the barriers to supply
- Explore novel approaches for vaccine supply

Global Vaccine Security

“Adequate volumes of affordable, accessible and effective vaccine to support the progressive control of FMD”



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Questions?



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