

# Status of Global FMD Control Programs

Samia Metwally, DVM, PhD  
Animal Production and Health Division  
Food and Agriculture Organization of the UN  
Rome, Italy

[Samia.metwally@FAO.org](mailto:Samia.metwally@FAO.org)

Giancarlo Ferrari (FAO), Nadège Leboucq (OIE), Julio Pinto (FAO), Laure Weber-Vintzel (OIE)



Food and Agriculture  
Organization of the  
United Nations



GF-TADs  
GLOBAL FRAMEWORK FOR THE  
PROGRESSIVE CONTROL OF  
TRANSBOUNDARY ANIMAL DISEASES



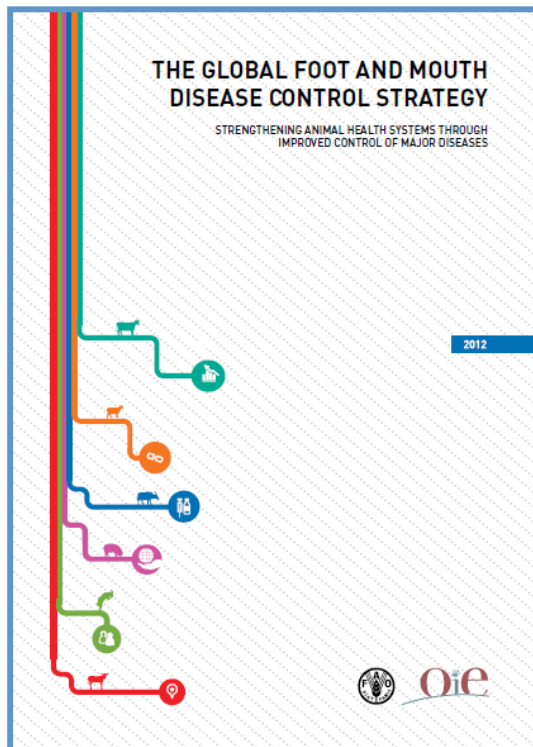
WORLD ORGANISATION FOR ANIMAL HEALTH  
*Protecting animals, preserving our future*

# The Global FMD Control Strategy

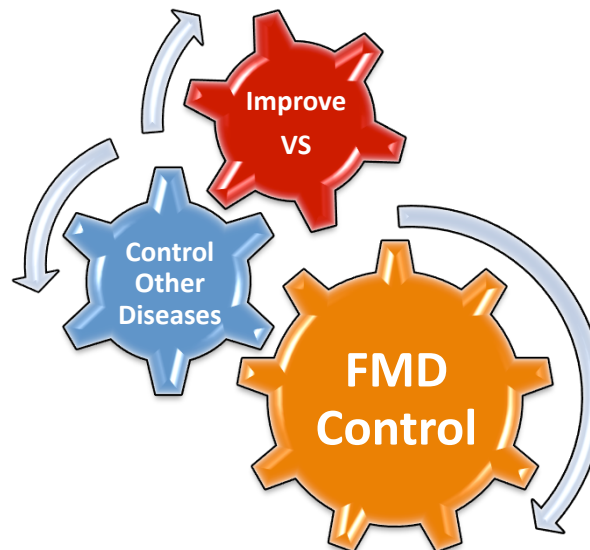
**Developed in 2012:** by the FAO- OIE FMD working group in consultation with the experts and regional representations

**Number of Countries:** 87

**Duration:** Fifteen years



## Components



Costing US\$ Mil (5 years)	
National Program	68
Vaccination	694
Regional	47
Global	11
	820

# Global Approach

- FAO-OIE FMD WG- coordinating GS implementation
- Global Network: OIE-FAO FMD reference laboratory network



- **Global list of leading experts; in**
  - Laboratory diagnostics
  - Epidemiology
  - Vaccine and vaccination
  - Socio-economics and economics
  - Disease management and control
- Languages: English, French, Russian and Arabic
- Well trained on PCP-FMD
- **If interested, send CV to**  
[FAO-FMD@fao.org](mailto:FAO-FMD@fao.org) & [OIE-FMD@oie.int](mailto:OIE-FMD@oie.int)

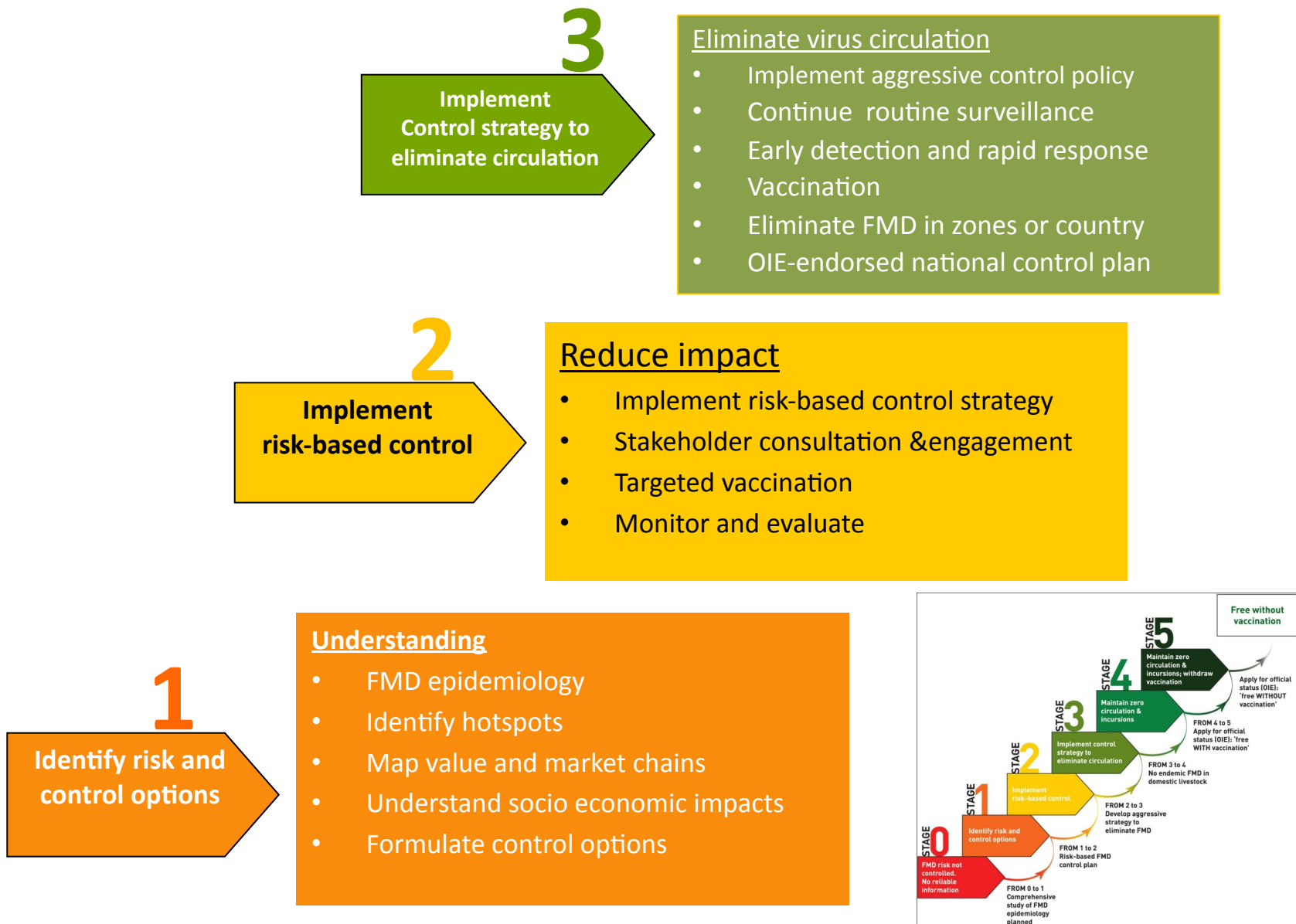
# National Approach

- Use of **PCP-FMD** guidelines as tool for implementation
- Countries' investment and control plans (FAO, OIE and donor support)
- Performance of veterinary services (PVS)
- Guiding documents being developed:
  - Post vaccination monitoring
  - Serosurveillance
  - Disease investigation
  - Socioeconomic guidelines
  - Templates for drafting control plans
- Training and webinars





# Progressive Control Pathway for FMD

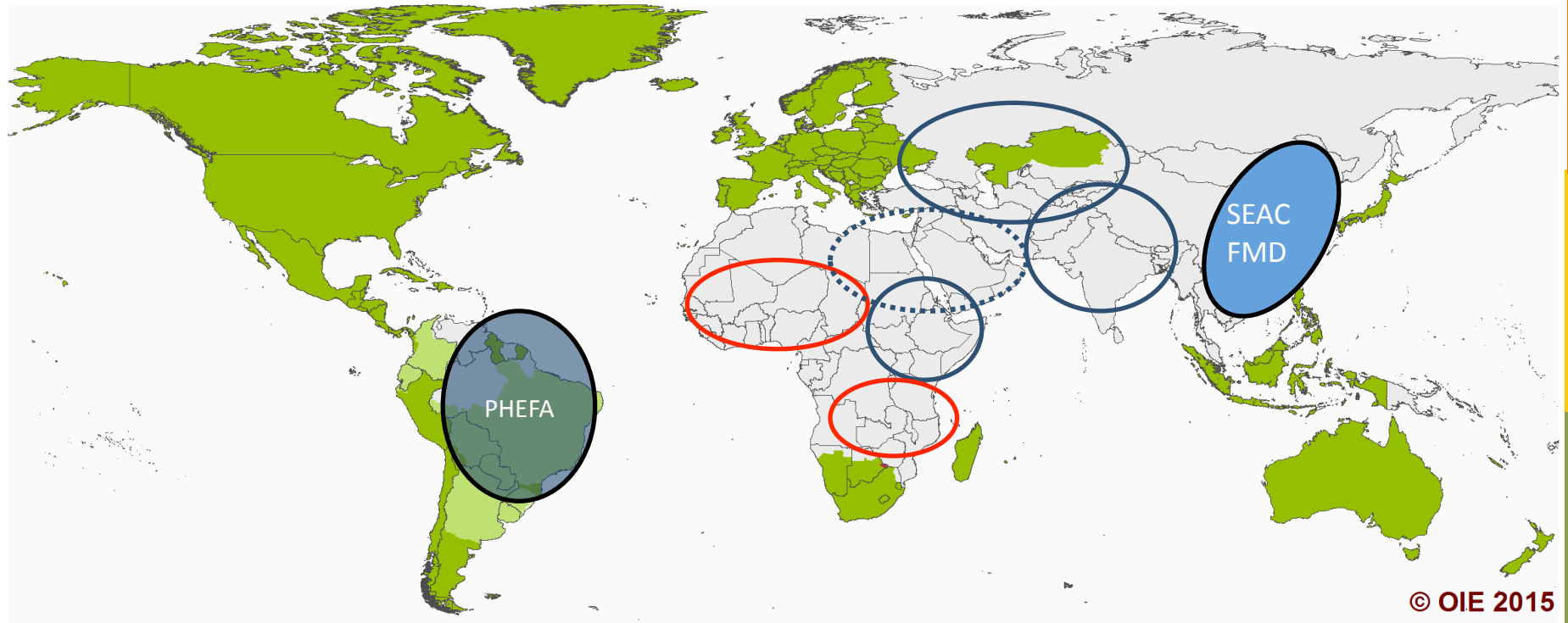




# Regional Roadmap Meeting Convened Since 2012



## OIE Member Countries' official FMD status map


Last update May 2015

[Click on a specific region to zoom in](#)



 Member Countries/zones recognised as free from FMD without vaccination  
 Member Countries/zones recognised as free from FMD with vaccination

 Suspension of the status free without vaccination  
 Suspension of the status free with vaccination

 Countries/zones without an OIE official status for FMD

# Regional Approach

- Regional control strategy
- Regional roadmap meetings for country assessment (PCP stage)
- Regional laboratory and epidemiology networks
  - Eastern Africa: EARLN and EAREN
  - West Africa: RESOLAB and RESEPI
  - West Eurasia: WELNET and EPINET
  - SAARC: epidemiology and lab networks
  - ME: not established



# Regional Roadmap Platform

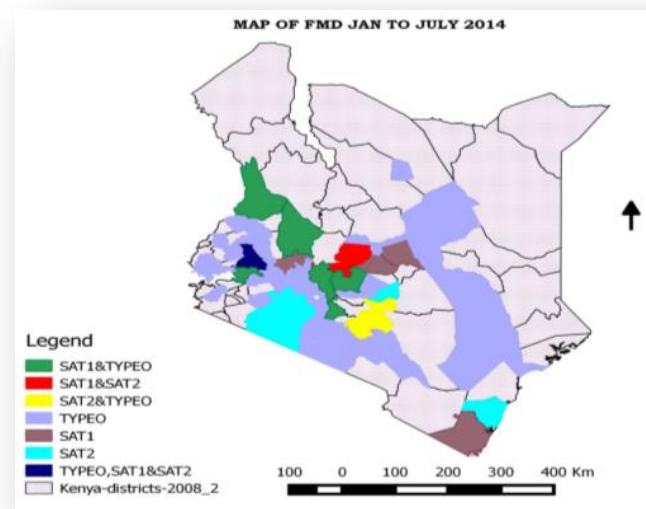
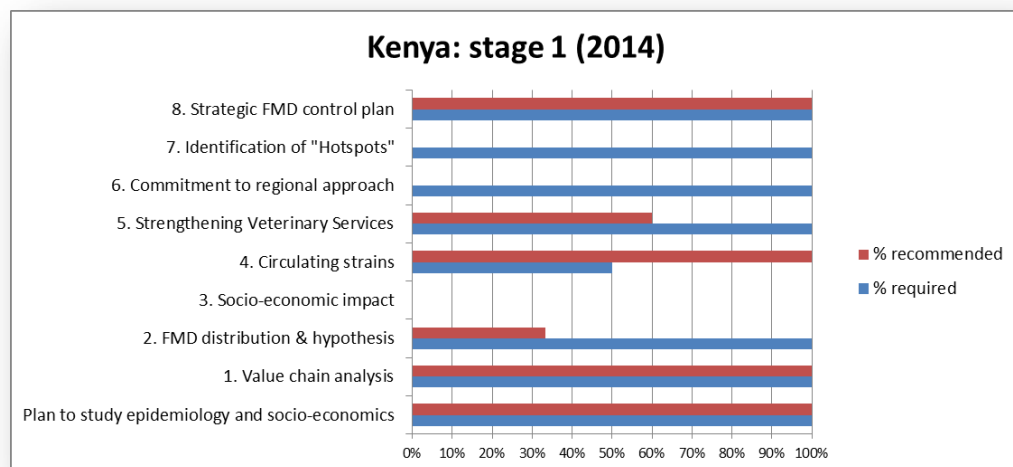
CVOs and FMD national specialists participate  
development partners invited

- ❑ Share information on FMD virus circulation and vaccine selection- country reports
- ❑ Review of national control plan
- ❑ PCP stage acceptance: questionnaire, interview and assessment by regional advisory group (RAG)



# Feedback to Country (example)

Country	Assessment 2012	Review (SAQ, Presentation, Interview)	RAG assessment 2014	Evolution since 2012	Actions for country <b>agreed by RAG</b>	Actions <b>expected from RAG</b>
Kenya	1	Well detailed RBSP Sero-surveys Econ impact studies	2	↗	PVS-PCP 7 critical competencies including small ruminants (Re-)analyse sero surveys for risk-factors Update value chain analysis and socio-economic studies Revise RBSP <ul style="list-style-type: none"> <li>- Risk hotspots – risk estimation</li> <li>- Coherence</li> </ul>	Follow-up on provisional Stage 2



# Countries and their PCP Stages

West Eurasia Roadmap (virus pool 3)

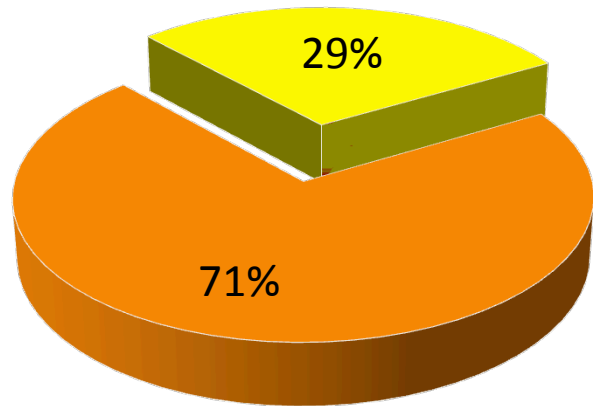
2012 to present

First roadmap in 2008  
14 countries

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Kazakhstan	1	1	1		1	1	2*											
Kyrgyzstan	1	0	0		1	1	2*	2*	2	2	3	3	4	4	4	4	4	4
Tajikistan	0	1	1		1	1	1	2	2	2	2	2	3	3	4	4	4	4
Turkmenistan	0	0	0		1	1	1	1										
Uzbekistan	0	1	1		1	1	1	2	2	3	3	4	4	4	4	4	4	4
Afghanistan	0	1	1		1	1	1	1	2	2	3	3	3	4	4	4	4	4
Iran	2	2	2		2	2	2	2	2	2	2	2	2	3	3	3	3	3
Pakistan	0	1	1		1	1	2*	2	2	2	3	3	3	3	3	4	4	4
Turkey Thrace							?											
Turkey Marmara-Aegean									2	2	2	3	3	3	3	4	4	4
Turkey Rest of Anatolia	1	2	2		2	2	2	2	2	2	2	2	2	3	3	4	4	4
Armenia	2	2	2		2	2	2*	2*	2	3	3	3	4	4	4	4	4	4
Azerbaijan	2	2	2		2	2	2*	2*	2	3	3	3	4	4	4	4	4	4
Georgia	2	1	1		1	1	2*	2	3	3	3	4	4	4	4	4	4	4
Syria	3	1	1		1	1	2*											
Iraq	1	1	1		1	1	2*											

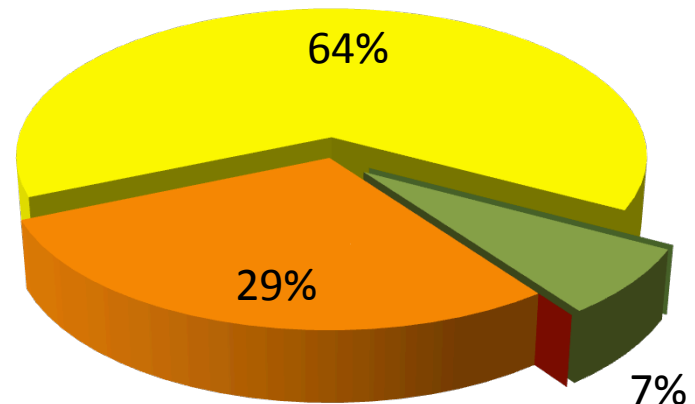


2012



■ stage 0 ■ Stage1 ■ Stage 2 ■ Stage 3

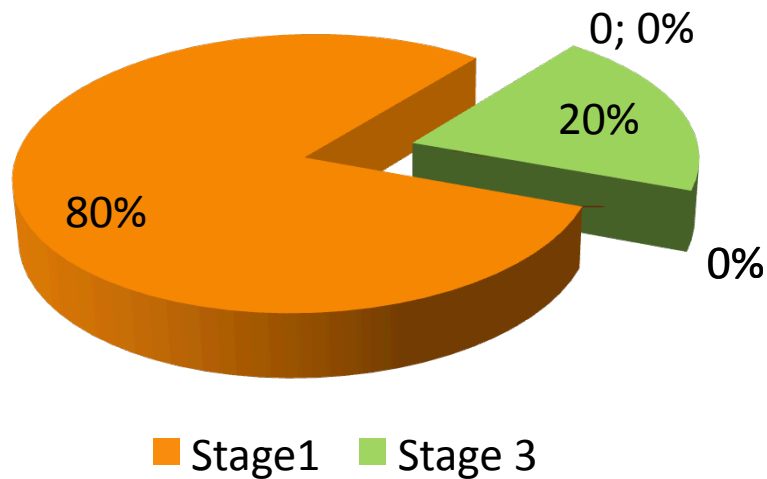
Present



# Countries and their PCP Stages SAARC Roadmaps (Virus pool 2) 2012 to Present

country	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bangladesh	1	1	1	2	2	2	3	3	3	4
Bhutan	1	1	1	1	1	2	2	3	3	3
India	3	3	3	3	4	4	4	4	4	4
Nepal	1	1	1	1	1	2	2	2	2	3
Sri Lanka	1	1	1	2	2	2	3	3	4	4

First roadmap in 2011  
5-7 countries



# Countries and Their PCP Stages

## Middle East

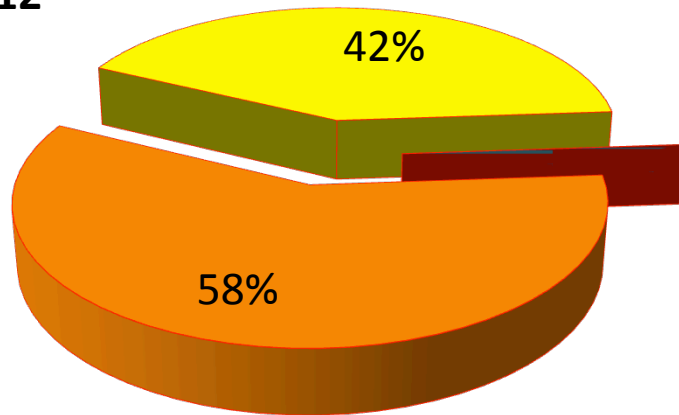
### 2012- present

First roadmap in 2012  
12-14 countries

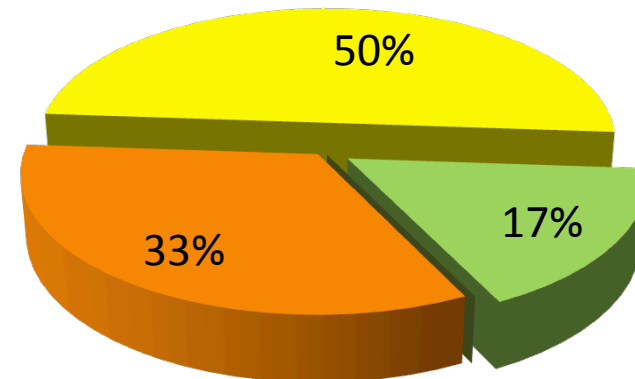
Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Bahrain	1	2*	2	3	3	3	4	4	4	4
Egypt	1	1	1	1	2	2	2	2	3	3
Iraq	2	2	2*	2	2	2	2	3	3	3
Jordan	1	1	2*	2	3	3	4	4	4	4
Palestine			1							
Kuwait	2	2*	3	3	3	4	4	4	4	4
Lebanon	1	1	2*	2	3	3	3	4	4	4
Oman	2	2	2*	3	3	4	4	4	4	4
Qatar	2	2*	3	3	3	4	4	4	4	4
Saudi Arabia	1	1*	1	1	2	2	3	3	3	4
Syria	2	2	2*	3	4	4	4	4	5	5
UAE	1	1	2	3	3	3	4	4	4	4
Yemen	1	1	1*	1	2	2	2	2	3	3



2012



Present



■ stage 0 ■ Stage1 ■ Stage 2 ■ Stage 3





# Countries and their PCP stages

## East Africa 2012 to present

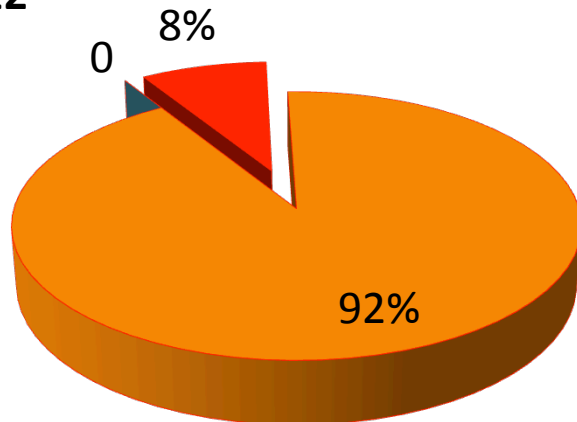
First roadmap in 2012  
12 countries

Country	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Burundi	1	1	1	2	2	2	3	3	3	4	4
Djibouti	1	1	1	2	2	2	3	3	3	4	4
DRC	1	1	1	1	2	2	2	3	3	4	4
Eritrea	1	1	1	1	2	2	3	3	3	4	4
Ethiopia											
Kenya	1	2	2	2	2	2	3	3	3	4	4
Rwanda	2	2	3	3	3	4	4	4	4	4	4
Somalia	1	1	1	1	2	2	2	2	2	2	2
South Sudan	1*	1	1	1	1	1	1	1	1	2	2
Sudan	2*	2	2	2	3	3	3	3	3	4	4
Tanzania	1	1	2	2	2	2	3	3	3	4	4
Uganda	1	1	2	2	2	3	3	3	3	4	4

\*Provisionally accepted

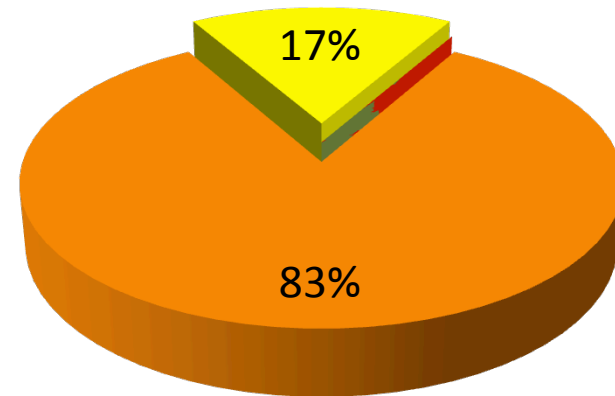


2012



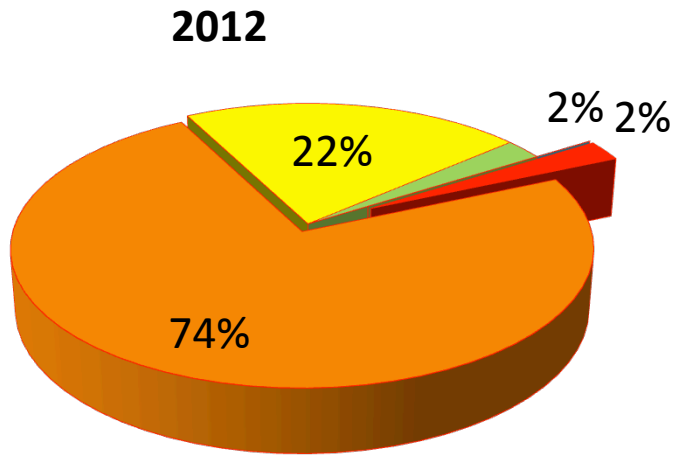
- stage 0
- Stage 1
- Stage 2
- Stage 3

Present

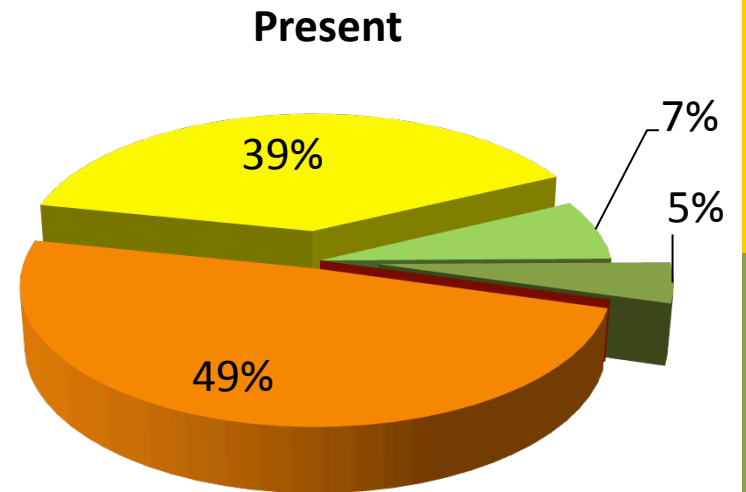


# Percentage of Countries per PCP stage Virus Pools 2-4

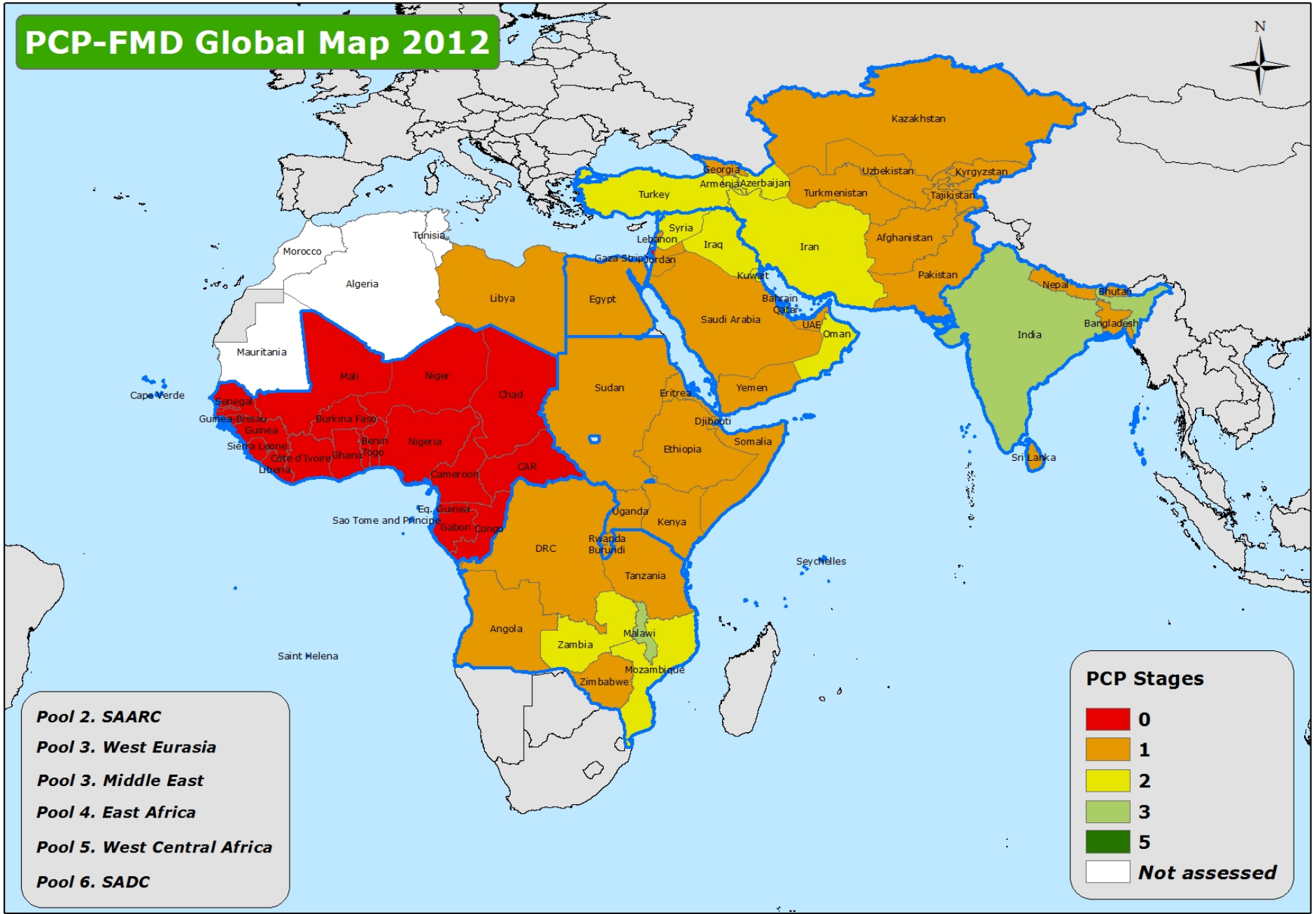
Total n. of countries = 42



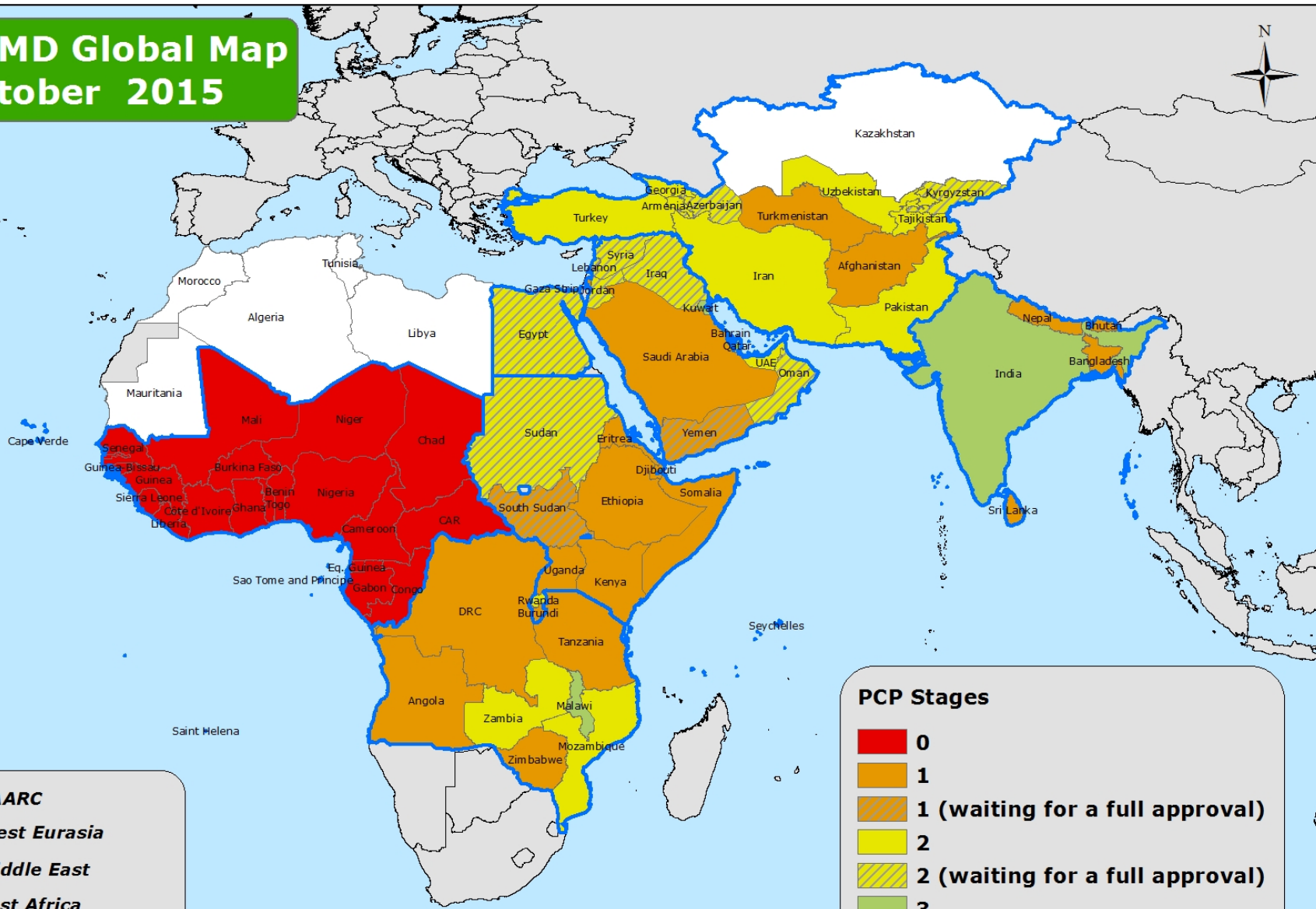
- stage 0
- Stage 1
- Stage 2
- Stage 3
- Stage 4



# PCP-FMD Global Map 2012



# PCP-FMD Global Map October 2015



**PCP Stages**

- 0
- 1
- 1 (waiting for a full approval)
- 2
- 2 (waiting for a full approval)
- 3
- 5
- Not assessed

- Pool 2. SAARC*
- Pool 3. West Eurasia*
- Pool 3. Middle East*
- Pool 4. East Africa*
- Pool 5. West Central Africa*
- Pool 6. SADC*

# FAO on Ground

- FAO has 130 representations and regional/subregional
- Country support to reduce the burden of FMD in several countries including but not limited to:
  - Tunisia- vaccination and surveillance
  - Egypt- surveillance and diagnostic
  - Sudan- Diagnostic and surveillance
  - Afghanistan- PCP activities to move to stage 2
  - Loa- value chain and social network analyses
  - Cambodia- value chain and social network analyses
  - Vietnam- value chain and social network analyses
  - Uganda- CMC mission
  - India- FMD economic impact
  - Bangladesh- FMD economic impact
  - Bhutan- FMD economic impact



# Some Area of Challenges

- **Diagnostics:**
  - capabilities to carry out sustainable surveillance
  - Field investigations and collection and shipping of samples
- **Vaccine:**
  - Low vaccine coverage and resources to buy vaccine
  - Vaccination regimens for small ruminants
  - Effective vaccination programs
- **Reporting and early warning:**
  - Lack of early warning system and realtime disease information system in regions
  - Poor reporting at village level
- **Regional action plans:**
  - FMD control for hot spots
  - Regional control plan
  - Animal movement/value chain
- **Endorsement of public private partnership**
- **Surveillance and seromonitoring**



# Summary

- Global FMD control is feasible and can be a driver to improve the animal health system
- The mechanism for PCP-FMD stage acceptance is developed
- The uptake of FMD control is different; west Eurasian countries are more advanced than other regions
- PCP-FMD approach and reinforcement of vet services are gradually gaining acceptance. Sixty countries are engaged and 42 countries are closely monitored with evidence of advancement.
- Political will and engagement of international and regional organizations and development partners are crucial to the startup and sustainability of FMD control
- PCP principles could be adopted and used for control of other TADs as an optional possibility and after regional and national discussions
- Funding is needed to support the global strategy, particularly those countries at lower PCP stages
- Vaccination issues need to be addressed by the government authority and research community

# Research Essentials for the Success of Global Control Strategy

- Vaccine issues: duration of immunity, cost, availability and quality
- FMD vaccination regimens for small ruminants
- Component 3: how to combine FMD control program with other TADs (i.e. CBPP, Brucellosis, LSD, PPR, HS)
  - Surveillance
  - Vaccination
  - Value chain and socioeconomic analyses
  - Disease awareness
- Review and refine virus topotypes and country composition of virus pools 3 and 5 considering the recent changes in virus movement
- Linking research projects in countries to PCP-FMD data for advancing countries and sharing information at the regional level in timely manner





# Acknowledgments

- FAO Decentralized offices and ECTAD teams
  - OIE HQs and regional and sub regional offices
    - EuFMD secretariat
  - Continental-Regional organizations: AU-IBAR, IGAD, EU
  - Italian government for funding the FMD global secretariat, 2013-2015
- Former Members of the FMD WG: Jemi Domenech and Peter Deleeuw



Thank you for your attention

