

FAO and OIE Assistance to EuFMD in PILLARS II and III



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FAO FMD Pillars I and III



TCP	TCP/DRK/3405 (NTE: 2015-12-31) - Emergency assistance for responding to foot-and-mouth disease (FMD) outbreaks and strengthening control capacity – DPRK	\$ 435,000
	TCP/PAK/3503 (NTE: 2016-11-19) - Development of National Control Program for Foot and Mouth Disease in Pakistan	\$ 448,000
	TCP/SRI/3503 BABY01 (NTE: 2016-03-31) - Technical Assistance to improve Foot and Mouth Disease (FMD) vaccine production in Sri Lanka	\$ 31,753
	TCP/UGA/3503 (NTE: 2015-12-31) - Uganda - Emergency measures for outbreak containment and risk-based strategic control of foot-and-mouth disease	\$ 500,000
	TCP/ZIM/3503 (NTE: 2016-03-31) - Zimbabwe - Emergency support for the control of foot-and-mouth disease (FMD)	\$ 500,000
TF	MTF/INT/003/EEC (NTE: 2013-09-30) - EC Funded Activities (2009-2013) carried out by the FAO European Commission for the Control of Foot-and-Mouth Disease (EUFMD) - (Follow up Phase MTF/INT/003/EEC)	\$ 9,425,861
	MTF/INT/011/MUL (NTE: 2017-12-31) - European Commission for Control of Foot-And-Mouth Disease	\$ 11,436,762
	OSRO/AFG/402/JPN (NTE: 2017-11-18) - Building resilience and self-reliance of livestock keepers by improving control of Foot-and-Mouth Disease (FMD) and other Transboundary Animal Diseases (TADs) - Afghanistan	\$ 16,754,787
TF/GCP	GCP/RAS/283/ROK (NTE: 2015-11-30) - "Foot-and-Mouth Disease Control in Southeast Asia through Application of the Progressive Control Pathway", within the framework of "Improving National Preparedness for Transboundary Animal Infectious Disease in Developing Countries in Southeast Asia"	\$ 2,800,908
	MTF/INT/003/EEC (NTE: 2015-09-30) - EU Funded Activities (2013-2015) carried out by the FAO European Commission for the Control of Foot-and-Mouth Disease (EUFMD)	\$ 4,670,226
	MTF/INT/004/MUL (NTE: 2016-12-31) - Foot and Mouth Disease - Emergency Aid Programme	\$ 1,910,882
TF/UTF	UTF/IRA/063/IRA (NTE: 2015-12-31) - Purchase of gas tight doors for the Foot and Mouth Disease Surveillance Centre, Golmakan, Khorasan Razavi Province, Iran.	\$ 801,470

FAO FMD Pillars III – GS 3



	TCP/GHA/3401 (NTE: 2014-09-30) - Support in reviewing animal health and production Legislation in Ghana	\$ 62,156
	TCP/INS/3402 (NTE: 2015-12-31) - Development of preventive aquatic animal health protection plan and enhancing emergency response capacities to shrimp disease outbreaks in Indonesia	\$ 422,000
	TCP/REK/3402 (NTE: 2015-12-31) - Assistance to Western Balkan Countries for Improving Compliance with International Standards for Aquatic Animal Health	\$ 377,000
	TCP/SUR/3401 (NTE: 2015-06-30) - Strengthening Aquatic Animal Health Protection Systems in Suriname	\$ 400,000
	TCP/SLA/3301 (NTE: 2013-03-31) - Development and operation of an enhanced livestock identification and traceability scheme integrated within an animal health information system	\$ 331,000
	TCP/TAJ/3501 (NTE: 2015-12-31) - Formulation of a project for Strengthening Capacity of MoA in Policy Formulation and Animal Health Services	\$ 67,500
TF	OSRO/GLO/102/AUL (NTE: 2016-06-30) - Partnership on global animal health and biosecurity initiatives	\$ 2,054,207
	OSRO/GLO/102/AUL (NTE: 2016-06-30) - Crisis Management Centre-Animal Health (CMC-AH)	\$ 528,459
	OSRO/GLO/102/AUL (NTE: 2016-06-30) - Partnership on global animal health	\$ 167,014
	OSRO/INT/901/NET (NTE: 2016-10-31) - Support to the FAO Animal Health Service in infectious and vector borne disease control and to FAO Indonesia in the prevention and control of HPAI	\$ 1,215,002
	OSRO/INT/902/USA (NTE: 2015-12-31) - Support for Strengthening Animal Health Laboratory Capacities in Hot Spot Regions to Combat Zoonotic Diseases that Pose a Significant Public Health Threat -	\$ 21,794,371
	OSRO/SRB/404/BEL (NTE: 2015-05-31) - Emergency animal health support for small scale livestock holders affected by the floods in Serbia	\$ 100,000
	OSRO/SVR/309/USA (NTE: 2015-04-30) - Emergency Assistance to Strengthen Veterinary Services and Mitigate the Deterioration of the Animal Health Situation in Syria.	\$ 500,000
	TF/GCP	
	GCP/ETH/083/EC (NTE: 2017-11-25) - Pursuing Pastoral Resilience (PPR) through improved animal health service delivery in pastoral areas of Ethiopia	\$ 11,787,729

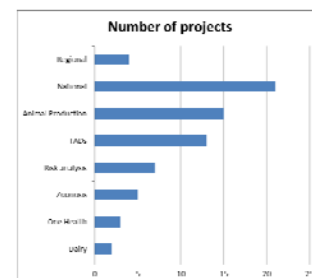
FAO FMD GS - Component 2 and 3

	OSRO/BDG/303/USA (NTE: 2014-12-31) - Strengthening National Capacity to Respond to Emerging and Re-Emerging Pandemic Threats Including Highly Pathogenic Avian Influenza (HPAI) in Bangladesh	\$ 1,750,000
	OSRO/BDG/403/USA (NTE: 2016-03-31) - Strengthening National Capacity to Prevent and Control Emerging and Re-Emerging Pandemic Threats Including Influenza A in Bangladesh	\$ 1,500,000
	OSRO/EGY/501/USA (NTE: 2016-09-30) - Strengthening national capacity for preparedness early detection and response to emerging pandemic threats (EPT-2)	\$ 2,900,000
	OSRO/INS/501/USA (NTE: 2019-04-30) - Strengthening National Capacity to Prevent and Control Emerging and Re-Emerging Pandemic Threats Including Influenza A in Indonesia (EPT-2)	\$ 4,000,000
	OSRO/INT/001/USA (NTE: 2015-12-31) - FAO EPT+ Proposal: Characterizing Influenza Viruses Posing Risks as the Next Global Pandemic	\$ 4,550,000
	TCIP/JOR/3502 (NTE: 2016-12-20) - Enhanced Surveillance of Transboundary Animal Diseases in rural areas of Jordan affected by the crises in Syria	\$ 450,000
TF	OSRO/AFG/402/JPN (NTE: 2017-11-18) - Building resilience and self-reliance of livestock keepers by improving control of Foot-and-Mouth Disease (FMD) and other Transboundary Animal Diseases (TADs)	\$ 16,754,787
	OSRO/GLO/502/JPN (NTE: 2020-11-30) - Strengthening International Responses to Transboundary Animal Diseases	\$ 2,491,960
TADs	GCP/GLO/340/ITA (NTE: 2017-05-31) - Global Framework for the Progressive Control of Transboundary Animal Diseases	\$ 887,519
	GCP/GLO/340/ITA/BABY01 (NTE: 2015-05-30) - Support to Global Framework for Progressive Control of Transboundary Animal Diseases - Baby 1	\$ 13,625
	GCP/GLO/442/USA (NTE: 2016-09-30) - Animal-Human Interface Liaison Establishment of ongoing collaboration between US CDC and FAO for surveillance, prevention and control of major transboundary animal diseases including key zoonoses	\$ 325,000
	GCP/GLO/487/EC (NTE: 2016-10-31) - Linking Epidemiology and Laboratory Research on Transboundary Animal Diseases and zoonoses in China and EU - LinkTADs	\$ 247,405
	GCP/RAS/279/JPN (NTE: 2015-12-07) - Information Sharing for Transboundary Animal Diseases (TADs) in Asia	\$ 228,199

FAO Projects on TADs and Other Livestock Emergencies in RNE

- FAO implemented projects in 15 countries (US\$ 50 million; mostly donor-funded projects)

- ✓ Productivity improvement
- ✓ TADs and risk analysis
- ✓ Zoonosis
- ✓ Dairy and poultry
- ✓ Sheep and goats



Also ... FAO support provided: 2015-present

- Angola: FAO/OIE Crisis Management Centre – Animal Health Nov-Dec 2015
 - Assessment of FMD outbreaks and factors contributing to its spread
 - Underlying constraints for the implementation of surveillance and related mitigations
 - Vaccination strategy and laboratory capacity
- Technology transfer: ~24 countries
 - Molecular technologies and equipment (FAO and FAO/IAEA)
- Lab and Epidemiology Networks
 - RESEPI, RESOLAB, EARLN, ASEAN ...
 - Field Epidemiology Training for Veterinarians
- Good Emergency Management Practices (East Europe, CIS)

FMD Global Strategy Global, National and Regional Approach

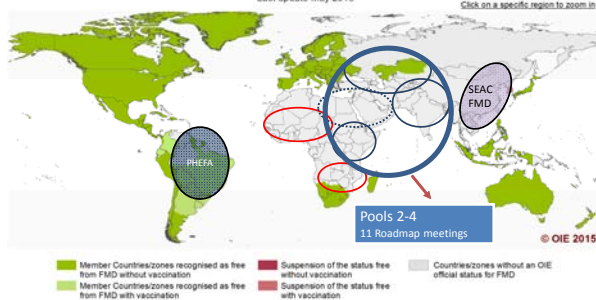
Global	National	Regional
FAO-OIE FMD WG Developed the GS and coordinate its implementation	Use of PCP-FMD guidelines as tool for implementation	Regional control strategy
Global Network: • OIE/FAO FMD Reference Lab Network • Epidemiology network	Countries' investment and control plans (FAO, OIE and donor support)	Regional roadmap meetings for country assessment
	Performance of veterinary services (PVS)	Regional laboratory and epidemiology networks
	Training and Seminars	

Regional Roadmap Meetings Convened Since 2012

OIE Member Countries' official FMD status map

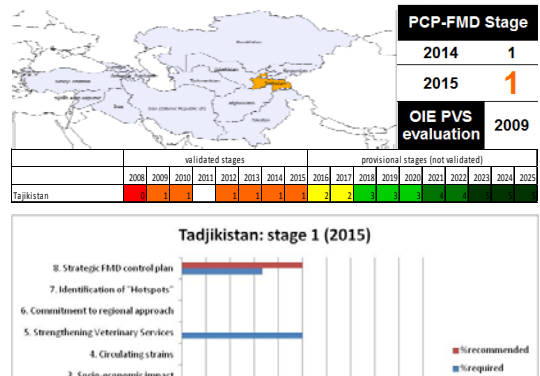
Last update May 2015

Click on a specific region to zoom in



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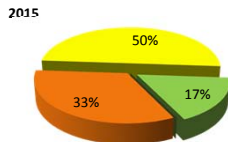
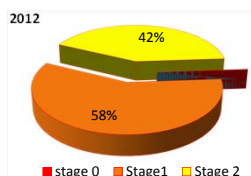
Feedback to Country (example)



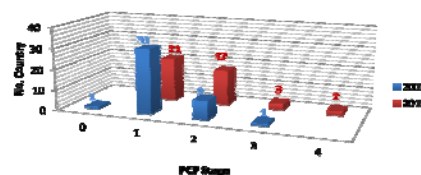
3rd FMD Roadmap for the Middle East December 2015

First roadmap in 2012
12-14 countries

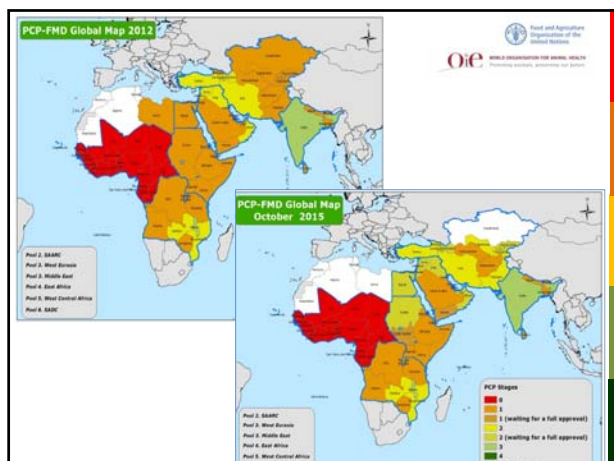
Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Saudi Arabia	1	2	3	4	5	6	7	8	9	10
UAE	1	2	3	4	5	6	7	8	9	10
Qatar	1	2	3	4	5	6	7	8	9	10
Yemen	1	2	3	4	5	6	7	8	9	10
Lebanon	1	2	3	4	5	6	7	8	9	10
Israel	1	2	3	4	5	6	7	8	9	10
Jordan	1	2	3	4	5	6	7	8	9	10
Palestine	1	2	3	4	5	6	7	8	9	10
Syria	1	2	3	4	5	6	7	8	9	10
Libya	1	2	3	4	5	6	7	8	9	10
Yemen	1	2	3	4	5	6	7	8	9	10



Number of Countries per PCP stage Virus Pools 2-4



Between 2012 and 2015, countries advanced in PCP stages with clear shift to have more countries in PCP stages 1 and 2 in 2015 compared to 2012. A few countries progressively advanced to stages 3 and 4.



FMD GLOBAL STRATEGY Progress

- Global FMD control is **feasible** and can be a driver to improve animal health systems, trade, nutrition and economic growth
- PCP-FMD** approach and reinforcement of veterinary systems are gradually **gaining acceptance**. Sixty countries are engaged and 42 countries are closely monitored with notable 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
- 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
- Roadmap** meetings are being attended by third parties (... potential investors?), especially in West Eurasia and East Africa.

Some (Major) Challenges Areas

- Diagnostics:**
 - capabilities to carry out sustainable surveillance
 - Field investigations and collection and shipping of samples
 - Lab biosafety and biosecurity
 - Equipment and reliable flow of diagnostic supplies
- Vaccine:**
 - Low vaccine coverage and resources to buy vaccine
 - Vaccination regimens for small ruminants
 - Effective vaccination programs – *risk based*
 - Good quality vaccine; appropriate payload
- Reporting and early warning:**
 - Lack of early warning system and real-time disease reporting
 - Poor capture and reporting at village level
- Regional action plans:**
 - FMD control for hot-spots (*ecosystems for virus emergence; re-emergence*)
 - Concerted regional control plan (*i.e., PHEFA, SEACFMD; political will*)
 - Animal movement management / understanding value chains
- Endorsement of public-private partnership
- Routine surveillance and sero-monitoring
- Competing priorities

2016 Priorities GF-TADs FMD Working Group with EuFMD

- 2016-2017
- Train OIE and FAO field staff, RAG & global expert group on PCP
 - Identify training needs and conduct roadmap meetings
 - Prepare 5-year plan for the implementation of the global strategy (WG only)
 - Publish PVM and finalize the socioeconomic guidelines
 - Produce 2nd edition the PCP-FMD guidelines and its questionnaires
 - Develop guiding material for FMD control plans

PCP Training for FAO and OIE staff

- To improve the awareness, and increase the appropriate application of the PCP-FMD tool;
- To clarify the link between the PCP-FMD and PVS tools under the component 2 of the Global Strategy;
- To clarify the relation between the PCP-FMD tool and the OIE procedure for endorsement of official control programme for FMD and for recognition of FMD free status.
- Ultimate goal:
All regional / sub-regional officers should be able to provide guidance to countries and to better follow-up their respective regional roadmap (...and apply such risk management approaches to other threats of animal origin).

PCP-FMD guidelines - 2nd Edition & associated questionnaires

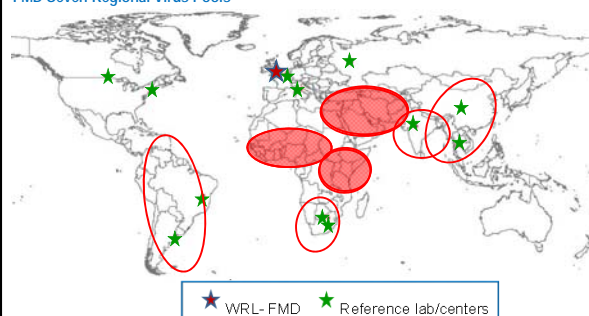
- To build on the experiences gained when implementing the PCP-FMD
- To include Component 2 of the FMD Global Strategy
 - Strengthening Veterinary Services
 - TBC (GF-TADs Management Committee)

Guiding material for FMD Control Plans required

- Template for control plans - to support countries willing to progress to PCP Stages 1, 2 and 3 and to advance in their PCP stage.
- **Post-vaccination monitoring (PVM) guidelines to be published**
- Socio-economic guidelines, to guide countries to:
 - Estimate the impact of FMD;
 - Determine the cost-benefit for country and donor investments;
 - Obtain economic data to design better FMD control policies.
- Technical document to be included in the guidelines toolkit of the FAO/OIE FMD Global Strategy

Regional Leading Laboratories - Need OIE-FAO FMD Reference Laboratory Network

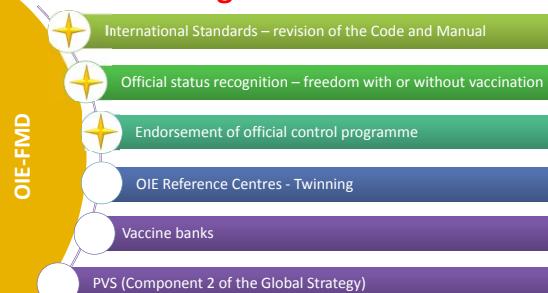
FMD Seven Regional Virus Pools



Regional Leading Laboratory (RLL)

- Recognised and nominated by the region
- Support of the Working Group to the process
 - Draft of the criteria
 - Development of the evaluation/nomination process
- Benefit for the region
 - Access to training
 - Access to diagnostic reagent, proficiency testing ...
- Benefit for the RLL
 - Financial support from donors
 - Technical support, possible candidate for twinning project, potential Reference Laboratory / Centre

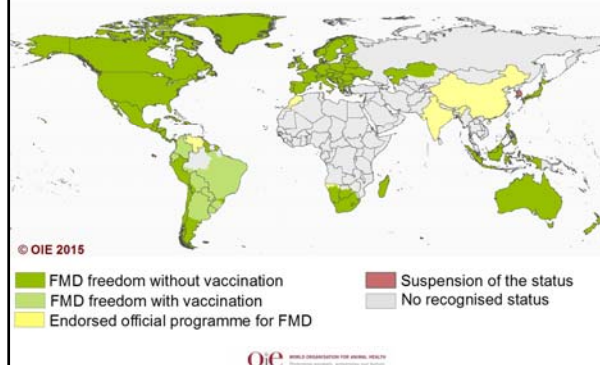
OIE activities relevant to FMD at the global level



International Standards



Endorsement of official control programme and recognition of FMD free status March 2016



FMD activities in North Africa

OIE Sub Regional Representation for North Africa
Tunis, Tunisia

FMD in North Africa in 2014/2015

- ❑ The strain (O/ME-SA/Ind-2001 - serotype O) circulated in 2014 in Tunisia and Algeria was introduced into Libya in 2013 – *new serotype in the Maghreb Region coming from Middle East*
- ❑ This FMD strain was detected in Morocco in October 2015.
- ❑ The sequencing of this new strain showed that it is distant in the phylogenetic tree from the strain (also serotype O) circulated in Libya in the recent past (2010 - 2012)
- ❑ SAT 2 was notified by Mauritania in 2015. The last notification of FMD in Mauritania was in 2006

FMD in North Africa in 2014/2015



Potential pathway of the introduction of FMD strain O/ME-SA/Ind-2001 in Libya in 2013 from the Indian Continent based on the epidemiological investigation carried out by the Libyan Veterinary Authority and subsequent spreading to Tunisia, Algeria and Morocco

Lesson learnt from the 2014/2015 FMD epidemic

- ❑ Difficulties were encountered in controlling animal movements between the countries and within the countries;
- ❑ No financial compensation mechanisms available in Tunisia to implement the stamping-out;
- ❑ Difficulties were faced when dealing with animal traders;
- ❑ Difficulties in having immediate availability of appropriate vaccine for some countries that were ready to pay for it (e.g. Algeria and Morocco);
- ❑ Difficulties in implementing regular active surveillance in the affected countries;
- ❑ Challenges related to the political instability in some countries in the region such as Libya

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JPC REMESA (ALGERIA)



"The 11th meeting of the Joint Permanent Committee (JPC) of the Mediterranean Animal Health Network (REMESA)"
Algiers, Algeria
November 24 - 25, 2015

Reiterated the importance of establishing a regional vaccine bank for FMD in the REMESA region but, in parallel:

- ❑ Vaccine bank would be beneficial only if there is a harmonized vaccination strategy among the countries;
- ❑ Crucial to have an effective livestock animal identification (traceability of the animal movements)

OIE SSR Tunis – working plan for 2016

In 2016 the OIE Office in Tunis is planning to organise at least:

- ❑ 1 Workshop dedicated to elaborate an harmonised vaccination strategy in the North African Region
- ❑ 1 Workshop dedicated to discuss livestock identification system including small ruminants

Workshop dedicated to elaborate an harmonised vaccination

Workshop dedicated to elaborate an harmonised vaccination strategy in the North African Region

The invited experts from FMD Reference Laboratory:

- ❑ Pirbright (UK) - 1 expert
- ❑ Brescia (Italy) - 1 expert
- ❑ ANSES (France) - 1 expert

With the support of 1 expert from EuFMD

Workshop dedicated to elaborate an harmonised vaccination

The final goal of the workshop is to elaborate and to be agreed on a harmonised and feasible vaccination strategy for FMD to be presented at the next REMESA meeting

The major elements to be discussed and agreed during the workshop are as follows:

- Which species need to be vaccinated and at what ages;
- Which serotypes need to be used;
- Timing of vaccination programme;
- Agreement on the availability of having the sufficient logistic elements to carry out the vaccination campaign (e.g. adequate "cold chains", accessibility of target livestock populations to vaccination, well-trained vaccination teams);
- Possibility of taking advantage of the vaccination campaigns to identify the animals;
- Which key elements of the surveillance systems to monitor effectiveness of vaccination should be available and used in the countries;
- Which type of surveillance systems is needed to monitor the prevalence of the disease in both bovine and small ruminants; *risk based—active and passive surveillance*;
- Economic impact of the vaccination campaigns (human resources, budget, cost/benefits issues, stamping out....)

Thank you for your attention



Food and Agriculture
Organization of the
United Nations



GFTADs
GLOBAL FOOD TRADE AND
ANIMAL DISEASES



WORLD ORGANISATION FOR ANIMAL HEALTH
Protecting animals, promoting our future