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

Food and Agriculture Organization of the United Nations

OIE
WORLD ORGANISATION FOR ANIMAL HEALTH

REPORT

Development of a Long Term Roadmap for the Progressive Control of FMD in Eastern Africa

2012-2022

Report of a Workshop held in
Nairobi, Kenya
March 5-6, 2012
Convened by FAO, OIE and AU-IBAR as a joint meeting and workshop

Vision for the Eastern Africa Roadmap for FMD control:

"An East African region in which FMD will be under control and approaching disease freedom (PCP-FMD Stage 3) in the majority of member states by 2020, with zonal or country freedom (PCP-FMD Stage 4) being reached in some parts of the sub region""

Abbreviations

AU-IBAR	**AFRICAN UNION – INTERAFRICAN BUREAU FOR ANIMAL RESOURCES**
CVO	**CHIEF VETERINARY OFFICER**
EC	**EUROPEAN COMMISSION**
EUFMD	**EUROPEAN COMMISSION FOR THE CONTROL OF FOOT-AND-MOUTH DISEASE (AN INTER-GOVERNMENTAL COMMISSION BASED IN THE FAO)**
FAO	**FOOD AND AGRICULTURE ORGANISATION OF THE UNITED NATIONS**
FMD	**FOOT-AND-MOUTH DISEASE**
OIE	**WORLD ORGANIZATION FOR ANIMAL HEALTH**
PCP	**PROGRESSIVE CONTROL PATHWAY**
PVS	**PERFORMANCE, VISION AND STRATEGY – OIE'S TOOL TO ASSESS THE FUNCTIONING OF VETERINARY SERVICES**
SAT2	**SOUTHERN AFRICAN TERRITORIES TYPE 2 STRAIN OF FMD**
VET-GOV	**REINFORCING VETERINARY GOVERNANCE IN AFRICA**
WRLFMD	**THE WORLD REFERENCE LABORATORY FOR FOOT AND MOUTH DISEASE**

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Summary

1. The meeting brought together, for the first time the Eastern African country's CVOs and national FMD laboratory experts from the region to share information, experiences, achievements, challenges and plans on the development of a Long Term Roadmap for Progressive FMD control.

2. The meeting is a follow-up to the FAO/OIE/AU-IBAR Meeting of regional FMD experts and institutions, held in January 2009, at which the vision of an "Eastern Africa region in which FMD is under control and approaching disease freedom in the majority of member states by 2020" was first developed; and provided an opportunity to review progress ahead of the Global Conference on FMD Control organised by FAO and OIE in June 2012.

3. The meeting was organised by FAO in consultation with OIE, and hosted by AU-IBAR, and supported by the FAO through the Netherlands Trust Fund. On behalf of FAO and OIE invitations were sent to the Chief Veterinary Officers (CVOs) and to the FAO national consultants on FMD from the 12 countries in Eastern Africa.

4. The objectives of this workshop were:
    a. To assess the current FMD control status of Eastern African countries
    b. To draft the strategy (Roadmap) for regional FMD control in Eastern Africa between 2012 and 2022, using the principles of the Progressive Control Pathway for FMD (PCP-FMD)
    c. To share information on FMD virus circulation within the Eastern African FMDV ecosystem to assist planning of preventive measures in the short-term

Considerations and recommendations of the Workshop for the development of a long term Roadmap for the Progressive Control of FMD in Eastern Africa

The 12 countries here represented, agree the following:

<u>Considering that:</u>

1. The importance of animal husbandry in the East African region, the high impact that Foot and Mouth disease (FMD) has on animal production through economic losses and trade disruption and the resulting negative impacts on the livelihoods of the animal owners and the economic development possibilities of the countries in the region;

2. The development of a global FMD control strategy by OIE and FAO in consultation with national, regional and international decision makers and official authorities, which will be presented at the second International Conference on Global FMD Control, Bangkok, Thailand June 2012, the need to highlight the importance of regional approaches to control FMD and the major tools of the Global FMD Control Strategy which are key for its implementation and monitoring, namely the PCP, the OIE Terrestrial Code relevant articles and the PVS pathway;|

3. The conclusions of the Nairobi FMD Progressive Control Pathway (PCP) Workshop on 5-6 March 2012 and the classification of all East African countries in one of the PCP stages resulting in an updated regional Roadmap for FMD control in East Africa until 2022;

4. The fact that better FMD control will go hand in hand with the further development of capable and effective veterinary services;

5. The need to support the countries in the region with technical expertise, experience and finance to achieve the ambitions formulated in the regional roadmap;

6. The need to convince decision makers and donors of the feasibility of the regional roadmap goals if pursued as an effort of individual countries, involving both the public and private sectors, with strong regional coordination and supported by the international community;

7. The success of regional efforts such as in East Africa also determines the feasibility of the Global FMD Control Strategy and the possibilities to roll out the Strategy, thereby improving the FMD situation in hitherto infected countries and regions and lowering the risks for FMD-free countries;

8. The need to work out tailor-made solutions in each region, sub-region or country with respect to combinations of disease control programs in order to obtain economy of scale and maximum efficiency;

9. The need for strong political support with strong regional coordination, harmonization of strategies and mutual support as the only way to obtain sustainable progress in FMD control and to avoid jeopardizing present and future achievements;

The meeting recommends that:

1. All participants in the meeting undertake to explain to politicians and decision makers at the national and regional levels, including the RECs and the private sector, the context of the Global FMD Control Strategy, its rationale and objectives and if appropriate its major tools PCP, the OIE PVS pathway and OIE Terrestrial Code relevant articles;

2. All participants in the meeting undertake to explain the principles and features of the PCP and the agreed FMD regional roadmap for East Africa to the relevant decision makers in animal disease control, the technical staff and the stakeholders in FMD control at national and regional level to raise awareness, understanding and support;

3. Advocacy to support the efforts to realize the regional roadmap for East Africa emphasizes not only the need to lower the socio-economic impact of FMD and the negative effects on development possibilities, but also the positive effects that will result from improved FMD control, such as strengthening the Veterinary Services and improved control of other regional priority animal diseases including transboundary ones;

4. FAO, OIE, AU-IBAR and EuFMD intensify their support to the countries in the region in order to realize the ambitions laid down in the regional roadmap for East Africa, using existing and new mechanisms such as the Global Framework for the Control of Transboundary Animal Diseases (GF-TADs) and its Steering Committee for Africa, the Regional Animal Health Centers (RAHCs), IRCM, the new Veterinary Governance project, the laboratory and epidemiology networks and specific technical projects at country and regional level;

5. AU-IBAR, the regional African Economic Communities IGAD and EAC and individual countries, consider establishing a (sub)regional group of CVOs at REC level to oversee and coordinate the activities in the field of Transboundary Animal Diseases, in particular FMD;

6. The international organisations FAO and OIE and AU-IBAR, under the umbrella of Alive and the regional GF-TADs Steering Committee for Africa, take the lead in assisting countries and regions to explore ways and means to develop tailor-made solutions to optimize the FMD control activities, for instance by combining activities (such as field and laboratory

investigations and vaccination) with activities in support of other animal disease control programmes.

7. The regional GF-TADs Steering Committee for Africa, with the support of AU-IBAR and the international organisations FAO and OIE, take the lead in organizing regular (yearly) meetings to evaluate the country statuses *vis-a-vis* the regional roadmap, exchange information, share experiences and address constraints, including funding.

8. AU-IBAR, the regional African Economic Communities IGAD, EAC, SADC and individual countries, attend at high technical and political levels the joint FAO/OIE Global Conference on FMD control in Bangkok on 27-29 June 2012 to support the global FMD Control Strategy and to voice the East African determination to progress with FMD control - as laid down in the regional roadmap – and to underline that FMD control in the world is inter-linked and should be seen as a global Public Good requiring international cooperation and support.

And reiterates the recommendations referring to East Africa made during the Workshop on the development of a FMD roadmap in Nairobi in 2009, in particular:

- REC nb 1 – regarding the need to collect and validate data on the socio-economic impact of FMD;
- REC nb 6 – regarding the need to improve FMD vaccine production, availability and quality assurance;
- REC nb 7 – regarding the need to further elucidate the role of wildlife in FMD epidemiology;
- and confirms the vision laid down for East Africa in the 2009 Nairobi meeting.

Outcome and outlook

1. The stage of national FMD control was assessed using the PCP self-assessment tool and a Provisional Roadmap for PCP-FMD progress to 2022 developed, for the 12 countries currently participating in the Eastern Africa FMD Roadmap.

2. Of the 12 countries participating in the Roadmap:
    a. All countries except South Sudan are considered to be in PCP-FMD Stage 1 in 2012. South Sudan is considered in Stage 0 as work on FMD control has only recently started.
    b. No information on FMDV virus strains in recent circulation was available for Djibouti, Eritrea, Rwanda, Sudan and South Sudan
    c. No country report was presented by Eritrea, and a PCP progress checklist (– self assessment) – was provided by Burundi and Djibouti

3. Through the question “Who are your neighbours?”, it was realised that extensive animal movements patterns (trade as well as pastoralism) across the region have the result that even if countries do not border one another, they are at risk from epidemics from distant parts of the virus pool. This supports the regional approach to FMD control.

4. Regional collaboration has to be in balance with country’s own responsibility. In general, the need for regional collaboration is relevant at all stages since information sharing informs vaccine selection in all stages, and measures to reduce the risk to zones where higher PCP Stage has been attained.

5. It was reiterated for CVO's to be humble in their ambitions for progress in the pathway, both short and long term, as the complexities of FMD control are large. Not only technical issues need to be solved, but also the political ones (of getting FMD control on the agenda of the government) and social ones (of the responsibilities of livestock keepers , and role of local service providers including veterinarians).

6. FMD control is not on the national animal health agenda by default. The PCP approach may assist to identify the issues for policy makers, including the impact of FMD in social, economic and political terms, and responsibilities of public and private stakeholders. The PCP and PVS processes should be mutually re-enforcing since strengthened veterinary services are more likely to be able to make strategic decisions on priorities and allocate resources and responsibilities, and the PCP process can assist policy and strategy development.

7. To work on sensitizing policy makers, their issues must be identified and addressed, and this work is an important gap across the region, and support may be needed to achieve the socio-economic impact assessment of FMD and the benefits of different control options. In a number of countries such as Uganda, work has been done or is in progress.

8. There are few major internationally-funded regional projects on animal health operational in Africa, but include The VETGOV programme on veterinary service governance (AU-IBAR, with OIE and FAO, and EC funding).

9. For FMD in particular, involvement of private stakeholders is crucial. As FMD is not a zoonotic disease, the private sector could be expected to contribute towards FMD control. The approach to take will be different from country to country but does require active participation of private stakeholders in development of national policy.

10. Related to this is the availability of vaccines through the private sector. In all countries but South Sudan and Eritrea, FMD vaccines can be bought through the private sector for owners that want to achieve a high level of immunity in their livestock, but may not be readily available for various reasons. For most countries, commercially-available vaccines require governmental certification. This is an example of a Public-Private-Partnership where the private sector has a major potential role in delivery.

11. In Stage 2 and higher stages, monitoring of vaccine effectiveness is important. It was discussed that such auditing was best performed by an independent body (free from the influence of the FMD vaccine producer or service supplier).

Eastern Africa FMD control Roadmap to 2022 - provisional

This table indicates the provisional assessment of the country stages for 2012, together with the expected progression to 2022. It is based on self-assessment completed during the Nairobi meeting.

Provisional assessment of country Stage position for 2012, together with expected progression to 2022.

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Burundi	1	1	1	1	2	2	2	2	3	3	3
DR Congo eastern zone	1	1	2	2	2	2	2	3	3	3	3
Rwanda	1	2	2	2	3	3	3	4	4	4	5
Uganda	1	1	2	2	2	2	2	3	3	4	4
Tanzania (zone)	1	2	2	2	3	3	4	4	4	4	4
Kenya (zone)	1	1	1	2	2	2	2	2	3	3	3
South Sudan zone A	0	1	1	1	1	1	2	2	2	2	2
South Sudan zone B	0	1	1	1	1	1	1	1	1	1	1
Sudan South zone C	0	1	1	1	1	1	1	1	1	1	1
Eritrea central	1	1	2	2	2	2	2	3	3	4	4
Eritrea western	1	1	1	2	2	2	2	3	3	3	3
Eritrea eastern	1	1	1	2	2	2	2	3	3	3	3
Djibouti	1										
Somalia	1	1	1	2	2	2	2	3	3	3	3
Ethiopia	1	1	1	2	2	2	2	3	3	3	4
Sudan zone A	1	2	2	2	2	2	2	3	3	3	3
Sudan zone B	1	2	2	2	2	2	2	2	2	2	2
Sudan zone C	1	2	2	2	2	2	2	2	2	2	2

Overview of support requested by countries to complete PCP-FMD Stage 1

Since all the participating countries recognised themselves to be in Stage 1, the CVO's were asked during the workshop to list the areas where external support is required to complete Stage 1. In addition, they were asked what sort of support was needed.

The results of the checklist (self-assessment) are presented in Annex 2.

Besides the need for financial support in general, the majority of input required related to training (on studying the socio-economic impact of FMD, to conduct value chain analysis, on risk analysis of FMD, on training of veterinarians on implementation of FMD control in the field) and to support of regional collaboration in the fields of epidemiology, law enforcement for FMD control and FMD control strategy development. As there considerable overlap of what individual countries requested, the following tables summarizes these needs for the Eastern Africa region.

Overview of support required/requested by countries to complete PCP-FMD Stage 1, listed by the expected outcomes of Stage 1

Outcome related to Stage 1	Support requested
Plan to study	•Training on design of socio-econ.studies •Consultancy (in progress)
1. Value chain analysis	• External input – consultancy • Workshop on how to do?
2. FMD hypothesis	•Training on risk mapping • Workshop on how to do? Investment on provision of water pasture • Enforcement of regulations
3. Socio-economic impact	•Training – design, data collection – analysis
4. Circulating strains	•Training and equipment (kits) •Sensitization / meetings
5. Strengthening VS	• Review of vet.legislation, strengthening border posts, cold-chain logistics, training of vets • Access to learning and research Centre •Training on PVS and PCP by OIE
6. Regional approach	• Regional epidemiology center • Regional collaboration and coordination • CVO workshop on harmonizing regulations
7. Id of FMD hotspots	•Training on risk assessment •(in-country, abroad)
8. FMD control strategy	•Training on risk analysis Regional effort needed • Defined tools of monitoring and evaluation

Day by day report of the PCP-FMD Workshop

for the development of a long term Roadmap for the Progressive Control of FMD in Eastern Africa

Organization of the Workshop

The meeting consisted of one and a half days of presentations and discussions on laboratory issues and milestones along the PCP with the CVOs and half a day meeting separately for CVOs and laboratory experts alone to discuss country policies and laboratory issues respectively.

The meeting was held with participants from 11 Eastern African countries: Kenya, Uganda, Tanzania, Burundi, Ethiopia, Somalia, North Sudan and for the first time Democratic Republic of Congo (DRC), Djibouti, Rwanda and Southern Sudan. Also in attendance were representatives from FAO/ECTAD Kenya, and on behalf of EUFMD (annex 1).

Opening

The meeting was opened by **Prof. Ahmed Elsawalhy,** head of AU-IBR and **Dr Peter Maina Ithondeka**, CVO of Kenya. He warmly welcomed all participants to the meeting. **Dr de Leeuw** (Representing the CVO-FAO, Dr Lubroth) welcomed participants and indicated the Workshop was one in a series of SubRegional Workshops and followed the one held for Southern African countries in Gaborone in 2011, and should be followed by a Workshop for West/Central African countries later in 2012.. **Dr Keith Sumption** (EuFMD) and **Dr Sabenzia Wekesa** (EARLN-FMD lab network animoator, national FMD Reference Laboratory, Kenya) outlined the objectives for the PCP meeting and the Laboratory Group meeting.

The meeting set out with a number of presentations to elaborate on the principles and context of FMD control along the PCP.

Dr Keith Sumption discussed the rationale, the application with its stage definitions and the assessment procedure for the Progressive Control Pathway for FMD. The PCP is a tool to assist strategy development of FMD control, it is meant to identify constraints for further FMD control and to support a step by step approach from an endemic FMD situation to a situation where FMD is eradicated. Reference was made to the Southern Africa Regional Roadmap on FMD (FAO-OIE-SADC meeting, Gabarone meeting, March 2011) and the Workshop on the development of a FMD roadmap in Africa (Nairobi, 2009). **Dr. Peter de Leeuw** (FAO/OIE FMD Working Group) outlined the FAO/OIE initiative for the Global FMD Control Strategy to be presented at the Global Conference on the Control of FMD (Bangkok, 27-29 June 2012). He emphasized that the FMD Working Group builds on regional FMD initiatives and experiences. A Regional Roadmap meeting like this one is pivotal as it underlines the need for regional cooperation. **Dr Fredrick Kivaria** (national epidemiologist, Tanzania) discussed the process and outcome of the Southern African Roadmap meeting (Gabarone, March 2011). Its objective was achieved through practical working groups with exchange between countries and technical experts from FAO and OIE to identify specific needs of individual countries.

Country reports

Each of the countries presented its activities on FMD control, knowledge about prevailing FMD serotypes and strains, and vaccine use. Summary of this information is given in Annex 3.

PCP meeting – 5 March 2012

In the afternoon, **Dr Chris Bartels** (EuFMD) gave an overview of the requirements for achieving Stage 1 of PCP-FMD in detail. In addition, he discussed the assessment tools (Self-Assessment or Checklist and External Assessment) by which a country can indicate its level of achievement within a PCP-Stage and the requirements before it can move up one PCP-Stage. For the CVO's to understand what is

required within PCP-Stage 1 and to identify areas of strengths and weaknesses, the Checklist for PCP-Stage 1 was asked to be filled out. During this exercise a number of topics were discussed related to

- FMD control requires balancing of national responsibilities with commitment to a regional approach. This becomes more relevant when countries are moving up in FMD control
- The need for advocacy (with the policy makers) and awareness (with the farmer community) is as important (if not more) as strict veterinary-technical issues
- FMD control requires involvement of private stakeholders at the early stages. This may apply to different production systems differently. For example, large dairy farms or intensive beef-fattening farms, have a greater stake in prevention of FMD than small-holding systems.

The results of the country Checklist answers were compiled into graph bars and discussed in the morning of the second day.

PCP meeting – 6 March 2012

This meeting was with both the CVO and the laboratory group. It started out with **Dr Joseph Domenech** (OIE) explaining the OIE procedures for official disease status recognition. FMD-free status is based on science-based provisions, transparent procedures and member endorsement. Additionally, the linkage between PVS (OIE's tool for assessing the functioning of veterinary services in a country) and PCP was illustrated. Next, **Dr Fredrick Kivaria** presented the experiences of Tanzania in FMD control in PCP-Stage 1, emphasizing countries to be humble in predicting progress of FMD control as it involves more than just veterinary technical issues. **Dr Chris Bartels** and **Dr Keith Sumption** then presented the results of each country's Self-assessment (see graph bars in Annex 3) during which each CVO was asked to estimate the number of years it would need to finish PCP-FMD Stage 1 and what activities were planned to achieve this. Key issues raised was the need for value chain analysis (expected outcome 1), socio-economic studies (expected outcome 3, particularly valuable for advocacy purposes) and development of an integrated FMD control strategy (expected outcome 8). Additional issues raised during this session were:

- To consider regional approach of FMD control based on eco-systems in addition to production systems
- Regional approach can be supported/facilitated through AU-IBAR and ECTAD-FAO
- The need to have studies/publications shared through an existing infrastructure such as AU-IBAR and the Laboratory network group.

After the break, **Dr Kees van Maanen** (EuFMD Consultant supporting the EARLN-FMD network) reported back the conclusions and recommendations from the laboratory group meeting on 5 March, see next chapter. **Dr Chris Bartels** followed with an overview of the requirements for fulfilling PCP-FMD Stage 2 and 3. This was to inform delegates about what follows after achieving PCP-FMD Stage 1.

In the afternoon **Dr Chris Bartels** and **Dr Keith Sumption** facilitated the discussion on what external support countries required, in relation to each of the 8 expected outcomes of PCP-FMD Stage 1 (see Table on 8). Besides the need for financial support in general, the emphasis was on training on most of the 8 areas. This was followed by compilation of the first PCP-FMD Roadmap 2012-2022.

- Rwanda considers it possible to reach FMD freedom without vaccination by 2022 as it has not encountered clinical FMD since 2005. It realizes the need for an eco-system approach and focuses its activities on surveillance with its neighbors
- Eritrea, Ethiopia and Tanzania (zonal) consider it feasible to achieve FMD freedom with vaccination by 2022. Moving up to Stage 5 (FMD freedom without vaccination) is not considered because of wildlife carrying FMD virus.

- All other countries except for South Sudan and Sudan (zone B and C), aim to move up to PCP-FMD Stage 3 by 2022. Zone A in Sudan (South-western) is currently the zone most under threat from other countries and considered infected.

The workshop was finalized with the presentation of the recommendations by **Dr Peter de Leeuw** and **Joseph Domenech**, see pages 9 and 10.

In the closing speech, Dr Baba Soumare (AU-IBAR) thanked participants for their active role in discussing FMD control across borders and expressed the wish of AU-IBAR that this be continued in future Roadmap meetings.

3rd Eastern African Laboratory Meeting

Summary report of 2011 network activities, programs and challenges from participants' presentations

Past activities within the network towards PCP

Trainings in;

- PCR in Tanzania to representatives of network member countries
- Sampling techniques to Vets and Technicians in Burundi
- Vaccine matching to Kenya (2 Vets trained in Nov.2011 at Pirbright)
- Series of Nakuru Training Courses (NTC) to Kenya and other FMD free countries – 7 within 2 years

Regional activities;

- Participated in regional meetings on PCP- Botswana March 2011
- Laboratory network activities; meetings and information sharing
- Meetings with the EA Epidemiology network
- Collaborative projects and partnerships with; EUFMD, FAO, WRL-Pirbright
- Initiation of laboratory twinning processes

On-going activities within the network

- Network laboratories are involved in FMD control programmes in the region including surveillance, diagnostics, vaccine matching, vaccine quality assurance, risk assessment
- Annual network meetings
- ISO 17025 and 9001 activities in selected laboratories
- Laboratory trainings
- Development of a model field and laboratory manual for FMD sampling, surveillance, and diagnosis
- Study on assessment of laboratory capacities in the region
- Production of a network bulletin
- Information sharing through established wiki space, network bulletin, e-mail communications, 6-monthly and annual network reports.

Suggestions for future activities and desired support

- Continued support by partners for network activities and meetings
- Most laboratories desire more support in laboratory training, sample collection, typing and genotyping, vaccine matching, equipment, reagents/kits, twinning, data and biosafety management.
- Formation of research sub-groups within the network
- Sharing of information across networks in the region and beyond
- Support for upgrading of laboratories in the region and accreditation of a reference laboratory in Eastern Africa
- Wider participation in PTs including local regional PT schemes
- Support in acquisition of laboratory equipment and reagents including production of own local reagents

Recommended actions for 2012

It was agreed that further support from FAO, EuFMD, OIE, AU-IBAR, APHIS/USAID, RECs and national governments is needed to continue with network activities as listed below;

1. A second regional PCR training course, preferably in CVL Tanzania to utilise the reagents left from the previous training. At least two participants per country should be trained.
2. Vaccine matching training for each laboratory to take place in Uganda
3. Training on basic sample collection and serology required for Rwanda
4. Real-time training courses and hands-on laboratory training is needed for Rwanda, Burundi and Southern Sudan (could participate as trainees in NTCs)
5. Purchase of key reagents, equipment and consumables by the laboratories
6. Information and expertise sharing through exchange visits, bulletins, wiki space and related websites
7. Six monthly newsletter/bulletin production
8. Participation in proficiency tests
9. Joint epi-lab network meetings
10. Regional risk analysis and Serotype mapping
11. One laboratory (E.g. Embakasi) to be supported for production of FMDV reagents
12. Have regional and coordinated research on FMDV, each country should submit an inventory of on-going researches
13. FMD training manual to be completed by June 1st 2012 and in addition have a quick guide for field use

Acknowledgements

The assistance of FAO-Kenya, AU-IBAR, OIE and EuFMD secretariat staff in Rome for efficient organisation and logistics. The participants also acknowledged their governments/administrative organisations, FAO and EuFMD for their support to attend the meeting.

Annex 1a. List of participants for the Roadmap Workshop

Name	Country	Title
ADGEH, BEWKET SIRAW	Ethiopia	CVO
MESGHUN, UQBAZGHI KEFLE	Eritrea	Director/Ministry of Agriculture
DR PETER MAINA ITHONDEKA	Kenya	Director of Veterinary Services Ministry of Livestock Development
HAMUD, HABIBASHEIKH HASSAN	Kenya	Director of Veterinary Services Ministry of Livestock,Forestry and Range
KWAI, AGOL MALAK	South Sudan	CVO
MUKHTAR, AWADEL KARIM ABDALLA MOHAMED	Sudan	CVO
MUHINDA, OTTO VIANNEY	Rwanda	CVO
MLECHE, WIN CUTHBERT	Tanzania	Director of Veterinary Services Ministry of Livestock Development and Fisheries
KAUTA, NICHOLAS	Uganda	Commisisoner and CVO, Min Ag, Animal Industry and Fisheries
FREDRICK KIVARIA	Tanzania	National Epidemiologist
DICKENS CHIBEU		Former employee in AU-IBAR
PETER DELEEUW	Italy	FAO HQ
JOSEPH DOMENECH	France	OIE
Keith Sumption	Italy	EUFMD
Chris Bartels	Netherlands	EUFMD

Annex 1b. List of participants for the 3rd Laboratory Meeting

Name of participant	Country	Designation/Lab. Station
Dr. Sabenzia Nabalayo Wekesa	Kenya	Vet. FMDL, Kenya/Coordinator
Dr. Chanasa Ngeleja Mpelumbe	Tanzania	Vet.CVL/Asst coordinator
Dr. Abraham K. Sangula	Kenya	FMD Lab.Embakasi Kenya
Dr. Chrisostom Ayebazibwe	Uganda	Vet/NADDEC/Lab
Dr. Gelagay Ayelet	Ethiopia	Vet/NVI/NAHDIC
Dr Mesfin Sahle	Ethiopia	Vet/NVI/NAHDIC
Dr. Lazarus Butunungu	Burundi	Vet/Lab
Dr. Mohammed Habiela	Sudan	Vets/CVRLab
Dr. Jacob Korok	South Sudan	Vet/admin- Director National diagnostic labs
Dr. David Kiiza	Rwanda	Vet/Lab
Dr. Mohamoud Jabra	Somalia	Vet Epidem/SAHSP
Mr. Said Waiss Miguil	Djibouti	Tech/NLDAD
Dr Bushu Mulinda	DR Congo	Vet/Lab
Dr. Sam Okuthe	Kenya	ECTAC-FAO
Dr Kees van Maanen	Netherlands	EUFMD
Dr. Nick Lyons	United Kingdom	EUFMD

Annex 2. Programme for Workshop

Held together with the 3rd Annual Network Planning Meeting of the FMD group of the Eastern Africa Regional Laboratory Network (EARLN) FMD network

In light green = joint sessions – of CVOs (Progressive Control pathway -PCP) and lab experts (EARLN-FMD lab networks). Agenda of the EARLN-FMD given separately below .

	1st day – What is current FMD situation and PCP Stage of each country ?	**Groups**	**Chair/Facilitators**
0800-0830	**Registration**	**PCP and EARLN**	
0830-0845	Opening/Welcoming Remarks - AU-IBAR - FAO - OIE - Chief Vet/DVS Kenya	**Together**	
0845-0900	Objectives and Agenda –PCP Meeting	**Together**	Keith Sumption
	Objectives and Agenda –Lab Meeting	**Together**	Sabenzia Wekesa
0900-0920	Review of FMD situation in the Region in 2011, and Network activities, achievements and challenges	**Together**	Sabenzia
	PCP and Lab Groups the separate to Break		
0925-1015	**PCP Meeting:**		Chair: Peter de Leeuw (FAO)
	• FMD-PCP principles and assessment procedures (Keith Sumption) • Official recognition of country FMD control programmes and status (OIE, Joseph Domenech) and the PCP - • Roadmap for Southern Africa (Gaborone process - for information) (Fredrick Kivaria, Tanzania)	**Together**	
1015-1030	Break		
1030-1245	**Plenary**: • PCP in practise – Stage 1 and epidemiological assessments –example of Tanzania (F Kivaria)(15 mins) • Country reports(1) - 10 minutes / country (120 minutes total)	Together	Chair: OIE Co-Chair: J Litamoi
Lunch			
1345 -	**Plenary**: Overview of country PCP checklist results, the tasks required to complete the current Stage and need for support to do so *(assuming that all countries have filled out checklists and results have been forwarded prior to workshop)*	Separate	Lead Facilitator: Chris Bartels
Break			
2nd half of afternoon	**Country work:** Current Stage of each country Estimate of time required to complete Stage Identification of actions needing regional support	Country work	Lead Facilitator: Chris Bartels
Finish –Day 1	**Plenary** **By assessors (EUFMD/FAO/OIE)** (2) **:** Assessment of current FMD-PCP stage for each country		Lead Facilitator: Chris Bartels

	based on evidence provided		
	2nd day – The way ahead – the subregional vision for 2020 - national and regional issues	**Together**	
1st half of morning	**Plenary**: • Agenda and objectives of the day • Feedback on each country's assessed FMD-PCP stage • Feedback from the EARLN-FMD lab Meeting • Country Work: PCP progress to 2020 (or later)	**Together –then country work groups**	**Chair: AU-IBAR** **Facilitators: Chris, Kees**
Break			
2nd half of morning	**Country work –continued** **Group discussion** based on results from first day's afternoon on defined regional questions/issues. Participants are divided by expertise (diagnostics, surveillance, decision-making) to answer how best to address regional issues.	**See above** **Thematic Groups decided in Plenary**	**Facilitators: Chris, Kees , Fredrick**
Lunch			
1st half of afternoon	**Plenary**: Explanation on how to plan and prioritize FMD control for short and mid-term using FMD-PCP format **By country**: Completion of national Roadmaps to 2020 Preparation of planning and prioritization of FMD control plan (short and mid-term) -2020)	**Plenary then groups**	**Facilitators: Fredrick, Chris**
Break			
2nd half of afternoon	**Plenary**: Country presentation of planning and prioritization Assembly of the Eastern Africa 2020 Roadmap **Plenary**: Wrap up, recommendations and follow-up actions	**Plenary – all together**	**Chair: FAO (Peter)** **Co-Chairs: OIE and AU-IBAR** **Roadmap Facilitator: Chris** **FAO/OIE/AU-IBAR**

EAST AFRICAN-FMD LABORATORY 3rd ANNUAL NETWORK MEETING

5th March 2012 Nairobi (Kenya)

DAY 1		
5th March 2012	**PART 1 - REVIEW OF 2010 LAB and Network ACTIVITIES (Session Chair- Abraham Sangula)**	**Facilitator**
08.00 - 08.30	Registration	Kenya (Abraham/Sabenzia)
08.30 - 08.45	Opening/Welcoming Remark - AU-IBAR - FAO - OIE - Chief Vet/DVS Kenya	
08.45 - 09.00	Objectives and Agenda –PCP Meeting	Keith
	Presentation of the objectives and agenda of the day – EARLN-FMD	Sabenzia
09.00 - 09.20	Review of 2011 FMD situation, Network activities, achievements and challenges	Sabenzia
	Groups break	
09.25 - 09.45	Update on EA regional network activities	Joseph Litamoi
09.45 - 10.15	Discussions	Kees
Coffee break (1/4 hour) 10.15 -10.30		
PART 2 – COUNTRY PRESENTATIONS (Session Chair- Joseph Litamoi)		
10.30 – 12.45	• PCP in practise – Stage 1 and epidemiological assessments – example of Tanzania (F Kivaria)(15 mins) • Presentations on FMD Occurrence, laboratory and diagnostic activities in relation to the network and PCP from experts covering each country (***10 min each***)	Kenya, Uganda, Tanzania, Ethiopia, Sudan, Southern Sudan, Rwanda, Burundi, Somalia,Djibouti,Eritea DRC.
12.45 – 13.30	Discussions	AGAH
Lunch (1/2hour) 13.30 – 14.00		
PART 3 - WORKING GROUP SESSION – NETWORK ACTIVITIES (Session Chair - Sabenzia)		
14.00-14.30	**Group 1:** Work-plan, priorities and budget 2012	
	Group 2: Network manual review, how far, which way forward	
	Group 3: 1. Next round of FMD training courses, which, when, where. 2. Requirements to improve FMD lab capacity and information sharing base to guide animal health managers to achieve objectives of PCP	
	Group 4: 1. Network Bulletin/Newsletter – Appoint a committee, Key issues to be included and actions. 2. Monthly reports and communication within network – Way forward	
14.30 – 16.00	Working groups reporting, feed-back, review and Discussions	AGAH
Coffee break (1/2 hour) 16.00 – 16.30		
16.30 -17.00	Wrap up and Conclusions of Day 1 Venue and date for next meeting	Kees
18.00 -19.00	**DINNER???**	AGAH/Participants
DAY 2		
6th March 2012	PART 4 -All Participants attend Eastern Africa FMD-PCP Roadmap Workshop	**EUFMD/FAO**

Annex 3. FMD laboratory and control activities plus Checklist – results

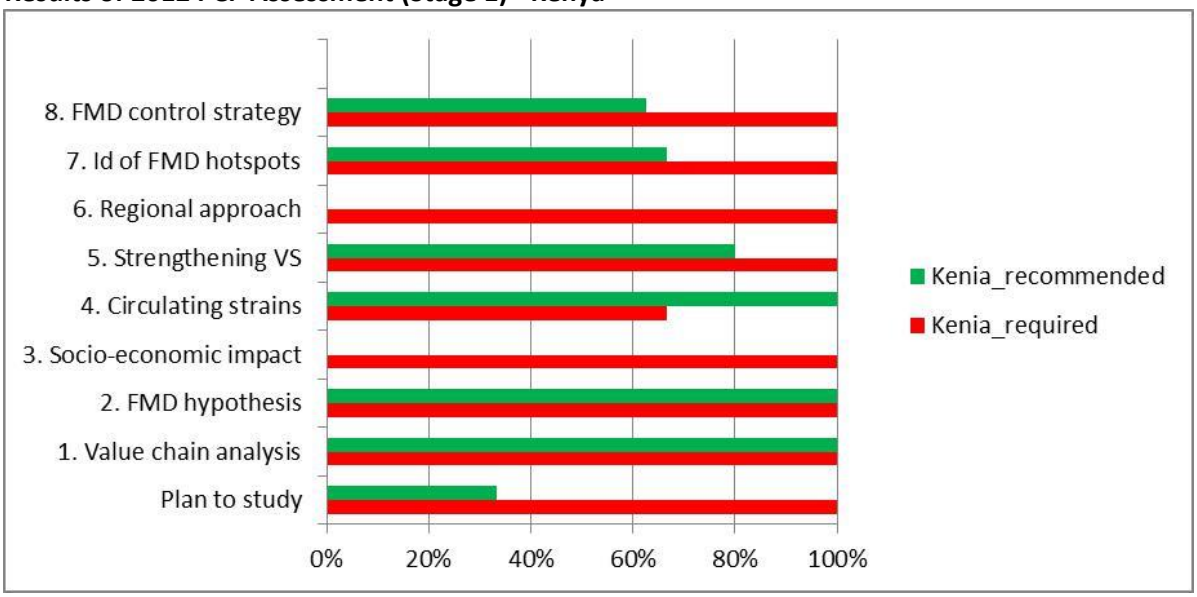
Kenya

Number of outbreaks reported / confirmed	249 in 2010, 128 in 2011						
Laboratory activities	Embakasi	BSL3, Virus Isolation, Ag ELISA,VNT NSP & SP ELISA, Conventional PCR					
	WRL	Ag ELISA, PCR, genotying (2010 only)					
FMD serotypes isolated (WRL results)		A	O	Asia1	SAT1	SAT2	SAT3
	In 2010+2011	x	(44) EA1+EA-2+EA-4		(110) NWZ	(2) IV	
	In 2012		(42)		(6)	(28)	
Current risk	SAT2 and O Wildlife						
Control measures	Ring vaccination and quarantine						
Vaccine use	KEVEVAPI	See table below Routinely used for prevention (dairy farms) and occasionally for emergency vaccination					

Vaccine use in Kenya

FMDV SEROTYPE	STRAIN DESIGNATION	ORIGIN	PRODUCER	Doses Used (2010)
A	AK 5/80	Kajiado	KEVEVAPI	303,000 (Bi/Tri/Quadri – A/O/S1/S2)
O	OK77/78	Arusha	KEVEVAPI	918,000 (Bi/Tri/Quadri – O/A/S1/S2)
SAT1	SAT1 T155/71	Arusha/Tanzania	KEVEVAPI	755,000 (Mono/Tri/Quadri – S1/O/A/S2)
SAT2	SAT2 K52/84	Nakuru	KEVEVAPI	841,000 (Tri/Quadri – O/A/S1/S2)

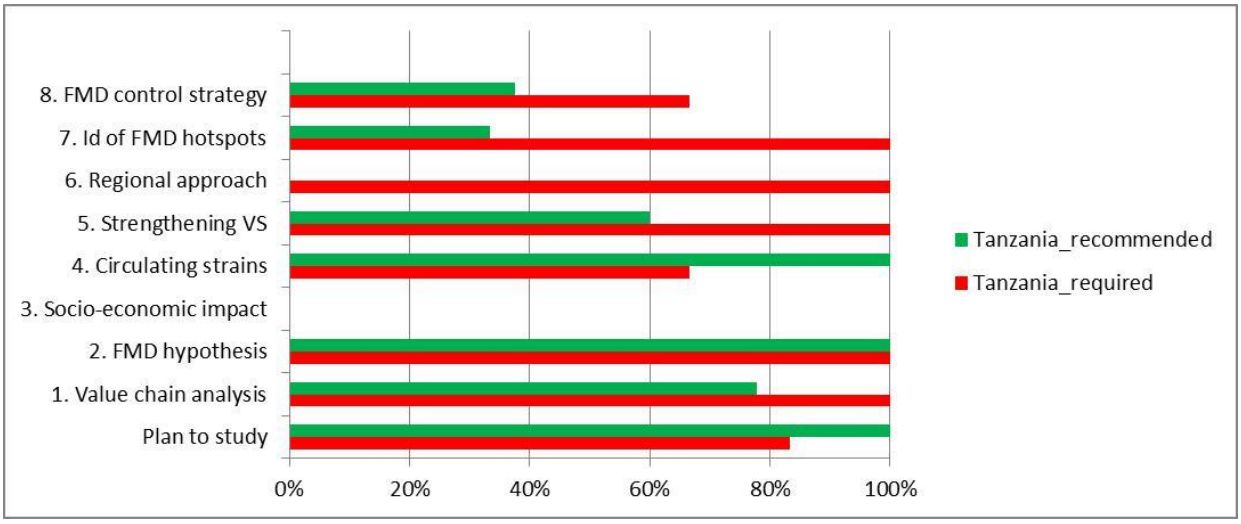
Results of 2012 PCP Assessment (Stage 1) - Kenya



Tanzania

Number of outbreaks reported / confirmed								
Laboratory activities	CVL	BSL3 Ag ELISA NSP & SP ELISA Conventional and RT PCR, Sequencing						
	WRL samples from projects were genotyped							
FMD serotypes isolated		A	O	C	Asia1	SAT1	SAT2	SAT3
	2010 - serology	x	x			X (buff)	X (cattle)	x
	2011						IV	
Current risk	Border outbreaks and SAT2(IV)							
Control measures								
Vaccine use	No information							

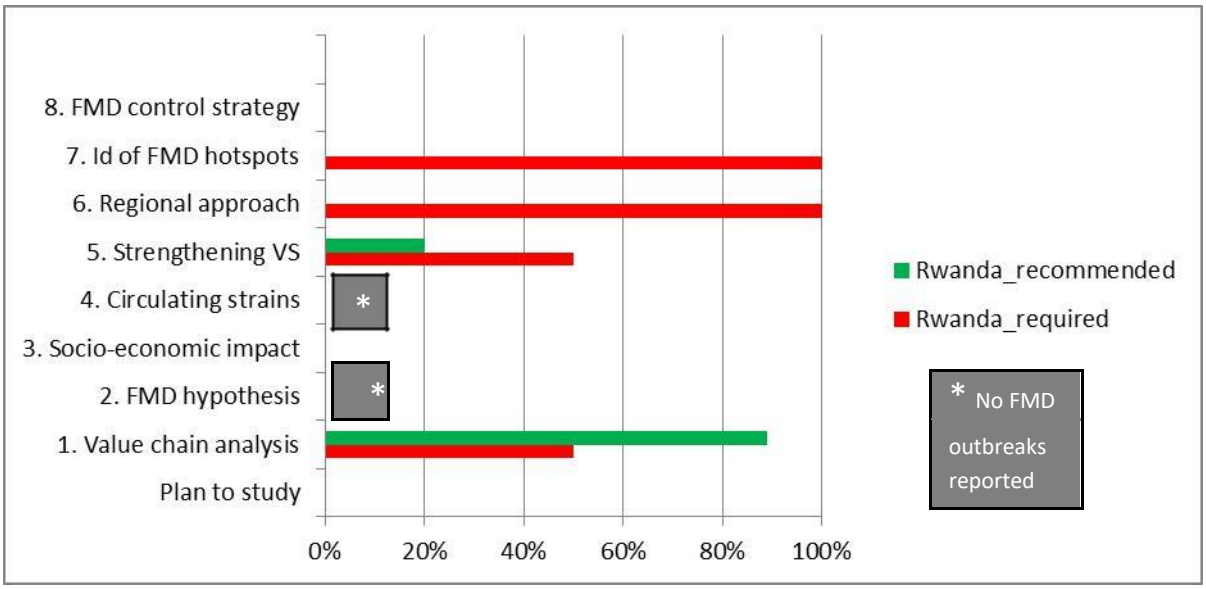
Results of 2012 PCP Assessment (Stage 1) - Tanzania



Rwanda

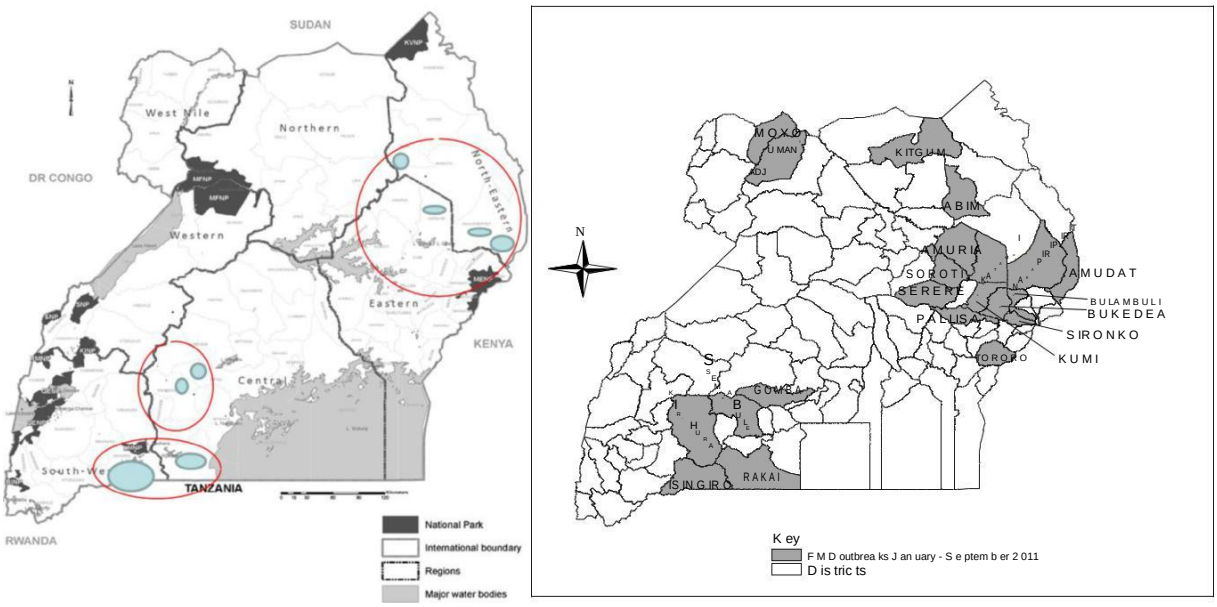
Number of outbreaks reported / confirmed	No FMD outbreaks reported since 2005	
Laboratory activities	FMD lab	Ag ELISA, NSP & SP ELISA, Conventional and RT-PCR
	WRL	No sample submission
FMD serotypes		A O C Asia1 SAT1 SAT2 SAT3
Current risk	Neighbouring countries with outbreaks	
Control measures	Surveillance at borders with Tanzania, Burundi, Rwanda and Dem. Rep of Congo Need for surveillance in wildlife (Akagera ecosystem)	
Vaccine use	KEVEVAPI	SAT1, SAT2 and O

Results of 2012 PCP Assessment (Stage 1) - Rwanda



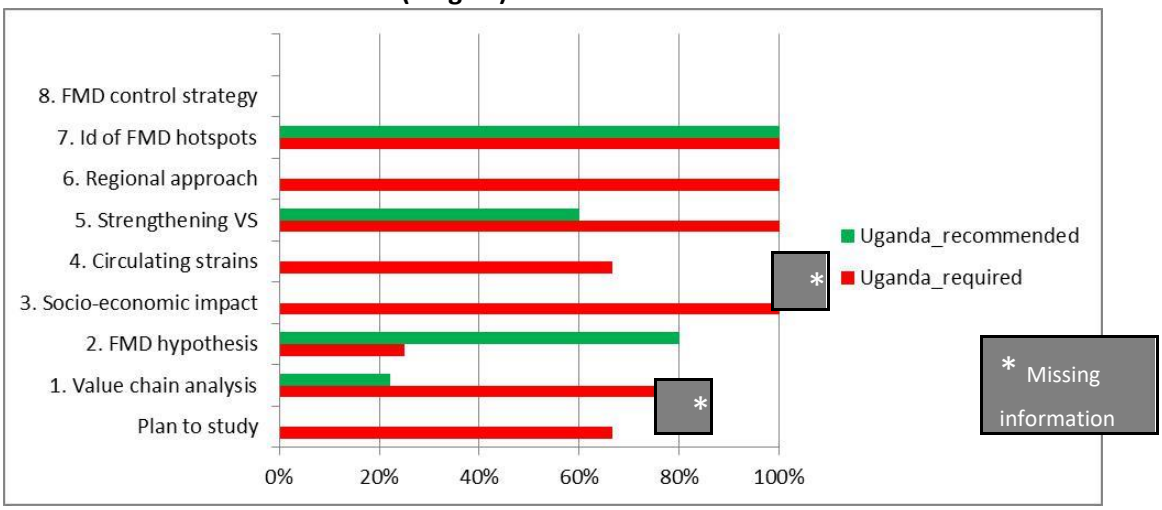
Uganda

Number of outbreaks reported / confirmed	22 outbreaks in 22 districts (out of 110), 1500 samples collected							
Laboratory activities	National	NSP & SP ELISA, Conventional and RT PCR, LAMP Serotyping and molecular typing – PCR positive results in apparently healthy cattle and African buffalos						
	WRL	No submissions						
FMD serotypes		A	O	Asia 1	C	SAT1	SAT2	SAT3
	2010		genotyping ongoing					
	2011 - serology	X	X			X	X	X
Control measures	?							
Current risk	Border outbreaks near Kenya							
Vaccine use	KEVEVAPI	Trivalent Vaccine: O, SAT 1, SAT 2, used as emergency vaccines to curb spread during outbreaks						



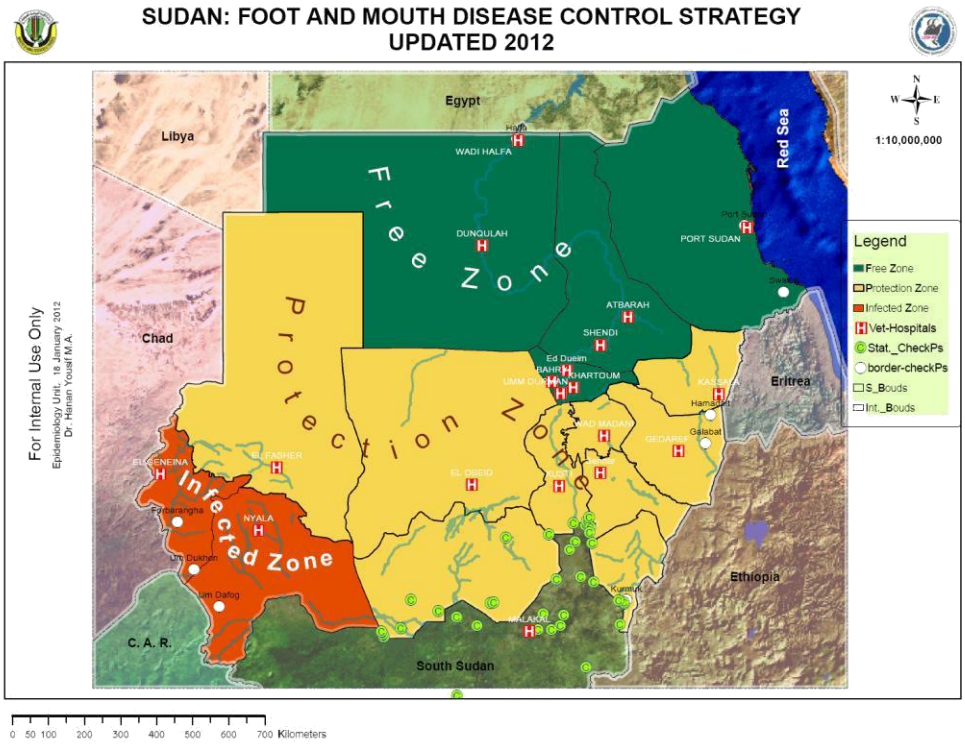
Relative distribution of FMD outbreaks in Uganda, February (left) and September (right), 2011

Results of 2012 PCP Assessment (Stage 1) - Rwanda

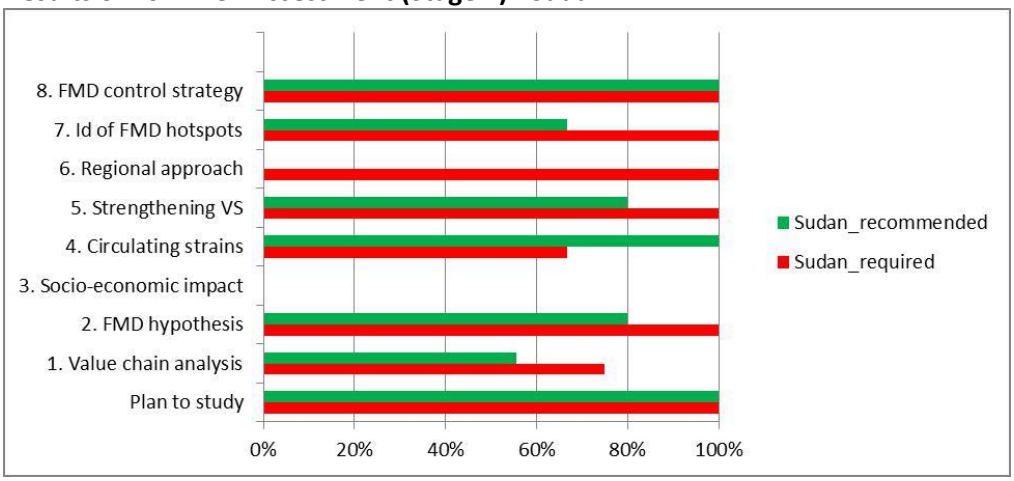


Sudan

Number of outbreaks reported / confirmed	In 2010, 9 outbreaks reported to OIE, in 2011, 9 outbreaks reported to OIE							
Laboratory activities	CVRL	Ag ELISA,VNT NSP & SP ELISA, Conventional and RT-PCR						
	WRL	No sample submission						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
	In 2008-2011	X (serology)	X			X (serology)	X	
Control measures	Seroprevalence estimation, disease outbreak investigation. Establishing of 3 zones: Free zone in the North, Protective zone in centre and Infected zone in South-West.							
Current risk	O,SAT2 in circulation, transhumance							
Vaccine use	KEVEVAPI vaccine, Kenya) Quadri-valent Vaccine							



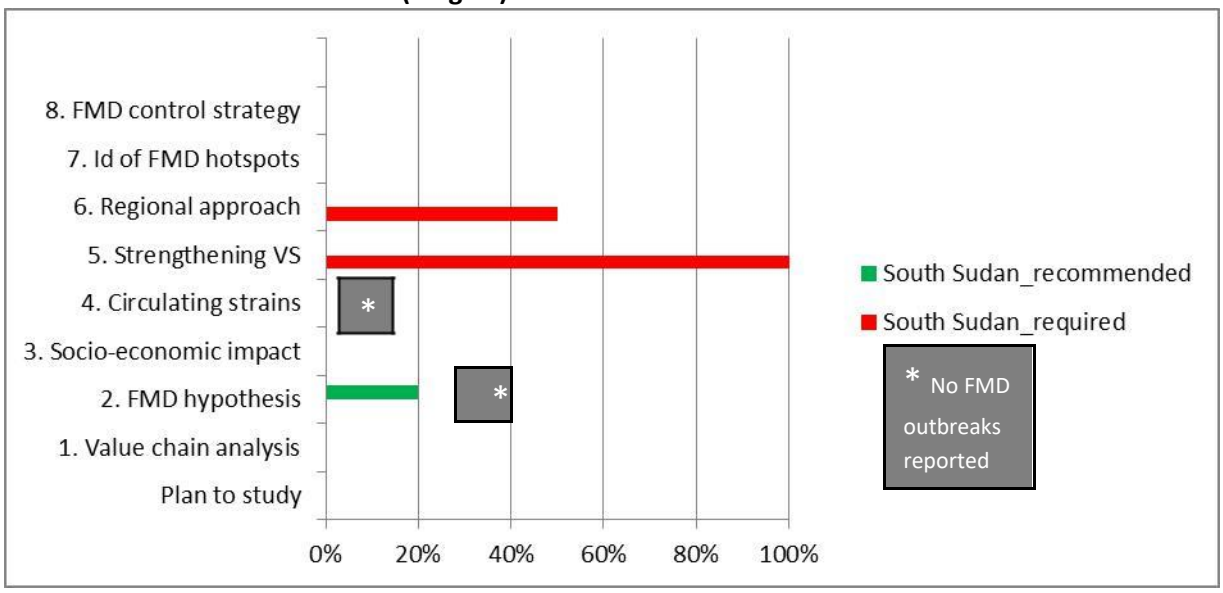
Results of 2012 PCP Assessment (Stage 1) - Sudan



South Sudan

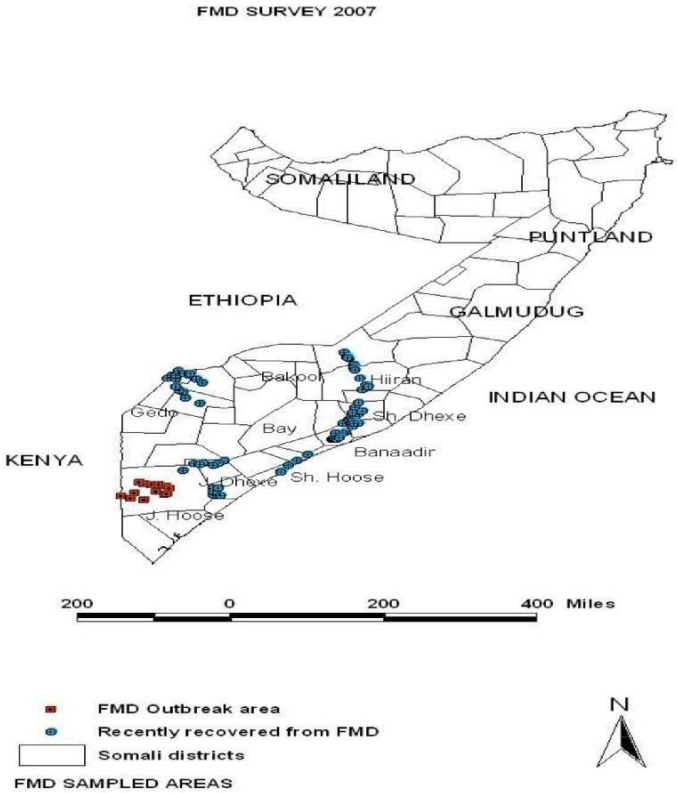
Number of outbreaks reported / confirmed	No FMD outbreaks reported							
Laboratory activities	MARF	Relies on Embakasi Kenya 3228 sera collected with 1183 testing positive to NSP ELISA						
	WRL	No samples submitted						
FMD serotypes	No information	A	O	C	Asia1	SAT1	SAT2	SAT3
Control measures								
Current risk	Un-diagnosed outbreaks							
Vaccine use	No information							

Results of 2012 PCP Assessment (Stage 1) – South Sudan

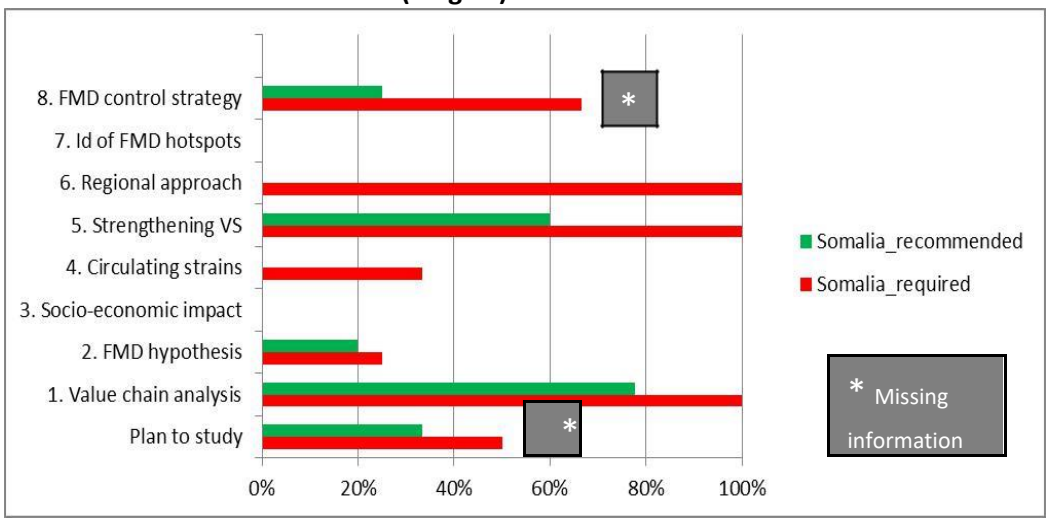


Somalia

Number of outbreaks reported / confirmed	3 outbreaks confirmed							
Laboratory activities	National	Sample storage, NSP ELISA, Relies on Kenya and Pirbright						
	WRL	No samples submitted						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
	In 2006	X	X			X	X	
Control measures in case of outbreak	Awareness raising and treatment against secondary infections Risk assessment survey							
Current risk	Yearly outbreaks							
Vaccine use	KEVEVAPI	vaccinated pre-export at Berbera and Bossaso ports, Quadrivalent O,A,SAT1 , SAT2						



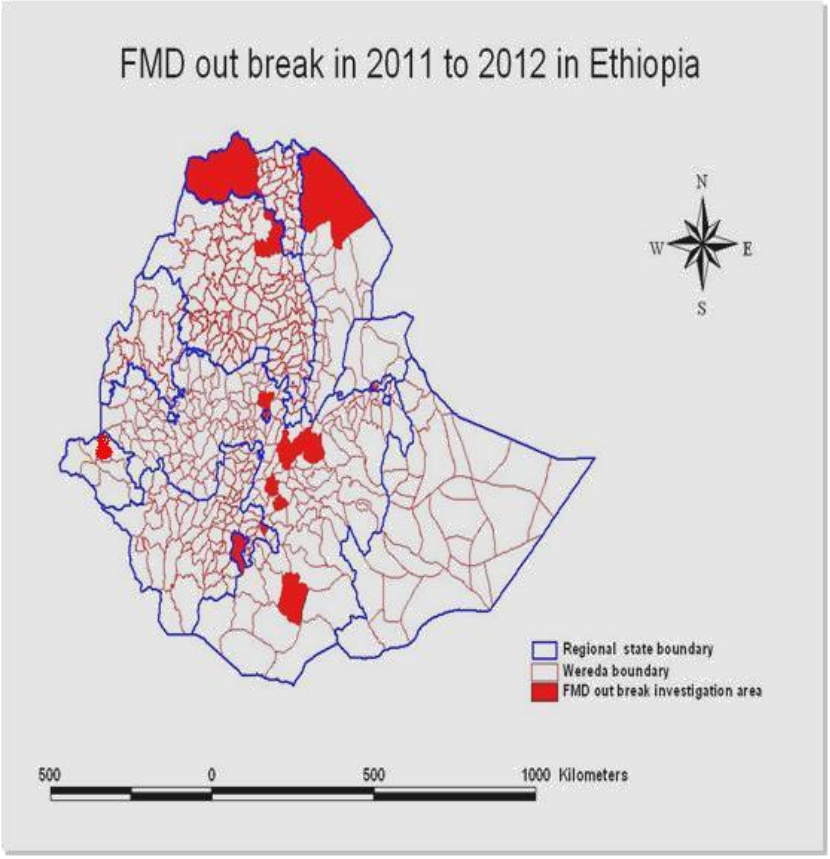
Results of 2012 PCP Assessment (Stage 1) - Somalia



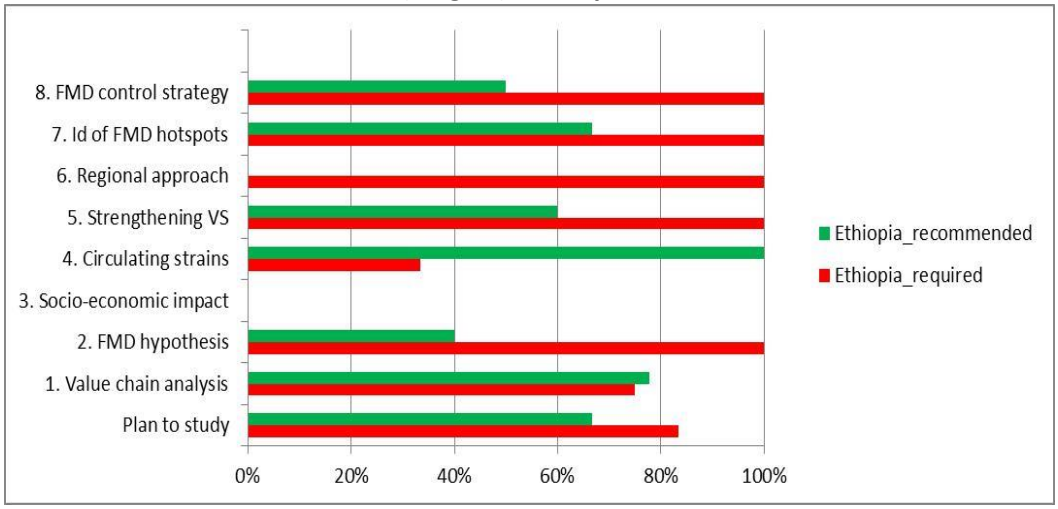
Ethiopia

Number of outbreaks reported / confirmed	58 outbreaks in 6 regions							
Laboratory activities	National	BSL3, Virus Isolation,, Ag ELISA,, NSP & SP ELISA, RT-PCR						
	WRL	Samples submitted						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
	2010		EA-3				XIII	
	2011		EA-3			NWZ		
Control measures								
Current risk	Type O in Tigray							
Vaccine use	KEVEVAPI	A, O and SAT2						
	NVI	A, O and SAT2						
	Indian Immunologicals	A and O						

The outbreak of FMD was started in the southern part of the country in Borena and Guji zones and spreads to central part of the country. Tissue samples sent to the reference laboratory from southern and central part of the country indicated that, outbreak was O serotype of FMD virus which is pylogenically similar with those isolated before in Ethiopia, while out break at end of the 2011 in Tigray and spread to adjacent zones of Afar and Amhara which still continuing. This outbreak is still from O serotype of FMD virus but different from those previously isolated in Ethiopia it is more related to those O type isolated in Sudan



Results of 2012 PCP Assessment (Stage 1) - Ethiopia

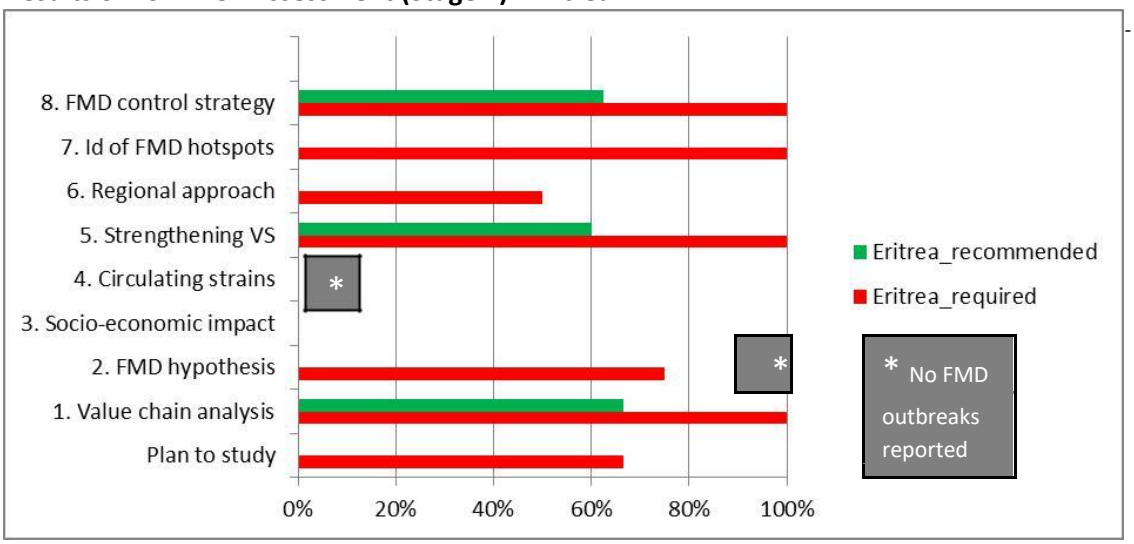


Eritrea

Number of outbreaks reported / confirmed	**Many un-reported outbreaks**							
Laboratory activities	National	BSL2 Conventional and RT-PCR,ELISA						
	WRL	Samples submissed after 2009						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
Control measures								

Current risk	Un-reported yearly outbreaks	
Vaccine use	BVI Botswana	mainly for vaccination of exotic breeds

Results of 2012 PCP Assessment (Stage 1) - Eritrea



Djibouti

Number of outbreaks reported / confirmed	No FMD outbreaks							
Laboratory activities	National	ELISA, conventional and RT-PCR however not operational						
	WRL	No sample submission						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
Control measures	No measures in place							
Current risk	Fear of border incursions							
Vaccine use	No vaccines used							

No checklist – self assessment – filled out

Burundi

Number of outbreaks reported / confirmed	5 outbreaks in 2010, 1 in 2011 (Makamba)							
Laboratory activities	National	No activities						
	WRL	No samples submitted						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
	2010		X					
	2011					X		
Control measures	Animal movement restriction and emergency vaccination							
Current risk	Un-diagnosed viruses							
Vaccine use	KEVEVAPI	Quadrivalent, used by private stakeholders, in 2012 vaccine purchase by Burundi government						

No checklist – self assessment – filled out

DRC

Number of outbreaks reported / confirmed	Outbreaks in East and North territories							
Laboratory activities	National	No capacity but relies on WRL						
	WRL	Samples submitted						
FMD serotypes		A	O	C	Asia1	SAT1	SAT2	SAT3
	2010	Africa-G1	EA2					
Control measures								
Current risk	Border incursions							
Vaccine use								

No checklist – self assessment – filled out