



## Status of Animal Health in the SADC Region (April – June 2011)



**Background** – The SADC Livestock Information Management System (LIMS) facilitates the collection, collation, transfer, storage and analysis of livestock data and dissemination of information between the SADC Secretariat and Member States and other stakeholders in the livestock sector. It is based on a decentralised information management paradigm whereby databases are installed at different levels in Member States and at SADC Secretariat with automated electronic data transfer between the lower and immediate higher levels. Regular collection and analysis of data in the livestock sector is mandatory to monitor progress made towards achieving indicators set by the Regional Indicative Strategic Development Plan (RISDP) and the Dar es Salaam declaration on Agriculture and food security made by SADC Heads of State.

### Introduction

This bulletin is based on monthly disease occurrence reports from SADC Member States. It is the second bulletin for 2011 and provides brief details of the status of animal health in the second quarter of the year. Although the bulletin mainly considers trans-boundary animal diseases (TADs), emerging disease and other disease considered to be of economic importance are sometimes discussed. This quarter, a lot of attention will be on African horse sickness because it had the highest number of outbreaks in the quarter. PPR and FMD are also discussed in detail as important diseases in the region.

### Status of disease reporting

The quality of reports submitted and general reporting has greatly improved in the second quarter of 2011. This can be attributed to increase in number of countries using LIMS by two among other factors. Angola and Tanzania are the two new MS using LIMS for disease reporting. They join Botswana, Lesotho, Mozambique, Namibia and Swaziland.

Despite the progress, a few challenges are still apparent and a lot still has to be done to improve LIMS utilisation. The majority of monthly disease reports are received after submission deadline. Only 10 of 42 monthly disease reports were on time. This delays production of the quarterly bulletins. Details of the reporting Member States are given in table 1.

**Table 1: Status of disease reporting**

Country	Jan	Feb	Mar	Apr	May	Jun
Angola	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Botswana	Green	Green	Green	Green	Yellow	Yellow
DRC	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Lesotho	Yellow	Green	Green	Green	Green	Green
Malawi	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Mauritius	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Mozambique	Yellow	Yellow	Green	Red	Red	Red
Namibia	Green	Yellow	Yellow	Green	Green	Green
Seychelles	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
South Africa	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Swaziland	Green	Green	Green	Green	Green	Green
Tanzania	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Zambia	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Zimbabwe	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

*NB - The colour red represents reports not submitted, yellow reports submitted late while green is for reports submitted on time.*

All reports received in the quarter had coordinates in the correct decimal degree format. However, some reports had missing or wrong coordinates for outbreak foci. Many country reports have a few coordinates falling outside the reporting country's boundaries each month. This is more common for MS not using LIMS application as LIMS has a feature which tries to limit coordinates placed outside reporting country's borders. Mozambique is the only country with outstanding 2<sup>nd</sup> quarter reports. The island nations of Seychelles and Mauritius had no disease outbreaks reported in the quarter.

### Disease outbreaks

A total of 56 diseases were reported from countries which submitted reports. Table 2 gives the top 10 diseases reported in the quarter ranked by number of outbreaks. During the quarter, 2,679 outbreaks occurred. African horse sickness had the highest number of outbreaks. Lumpy skin disease, Rabies and Rift valley fever are the other TADs in the top 10 list.

**Table 2: Top 10 diseases in the region ranked by number of outbreaks in the 2nd quarter**

Rank	Disease	Outbreaks	Cases	Deaths
1.	African horse sickness	307	532	184
2.	Lumpy skin disease	255	3,449	170
3.	Heartwater	168	555	209
4.	Rabies	159	290	222
5.	Dermatophilosis	146	2,946	91
6.	Bovine anaplasmosis	132	1,073	207
7.	Bovine brucellosis	89	1,493	29
8.	Bovine cysticercosis	76	4,863	1
9.	Rift Valley fever	69	2,766	2,531
10.	Fowl pox	66	1,455	205

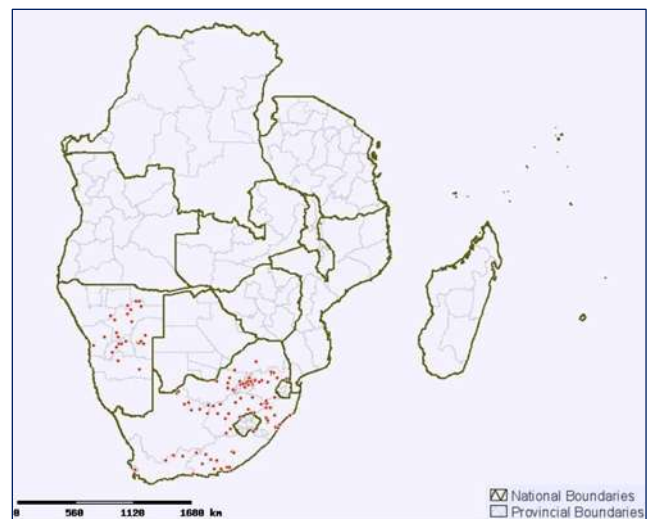
As can be seen in table 2, four of the top 10 disease according to outbreak were TADs. The top 2 diseases in terms of number of outbreaks reported in the quarter are TADs. AHS was top of the list with LSD second. Rabies and RVF are the other TADs in the top 10. Table 3 below shows the ten TADs reported in the quarter ranked according to number of outbreaks. The high number of cases and mortalities for African swine fever and PPR is a cause for concern. In the quarter, ASF caused the death of 53,368 pigs in DRC, Malawi and Tanzania while PPR was responsible for 14288 deaths in the DRC.

**Table 3: Top 10 TADs in the region ranked by number of outbreaks in the 2nd quarter**

Rank	Disease	Outbreaks	Cases	Deaths
1.	African horse sickness	307	532	184
2.	Lumpy skin disease	256	3,449	170
3.	Rabies	160	290	222
4.	Rift Valley fever	69	2,766	2,531
5.	Bluetongue	26	770	224
6.	Newcastle disease	25	76,801	46,100
7.	FMD	21	4,796	238
8.	CBPP	8	506	83
9.	African swine fever	5	56,185	53,368
10.	PPR	5	18,573	14,288

### African horse sickness

A total of 314 outbreaks, 532 cases and 184 deaths of African horse sickness (AHS) were reported in 2 countries in the SADC region. The affected countries were South Africa and Namibia. So far this year (January to June 2011), a total of 715 outbreaks, 1,291 cases and 520 deaths were recorded for AHS. This is already more than the 142 outbreaks, 211 cases and 45 deaths reported the whole of 2010. However, if the temporal trends observed for AHS outbreaks in 2010 and 2009 are followed, the number of outbreaks in the second half of the year will decrease significantly. Majority of AHS outbreaks in the second quarter (245 of the 314) were reported in the month of April. Only 7% of the 314 outbreaks in the quarter were confirmed by laboratory diagnosis. Spatial distribution of AHS in the period April to June 2011 is given in fig 1.



**Figure 1: Spatial distribution of 2<sup>nd</sup> quarter African horse sickness outbreaks in the region**

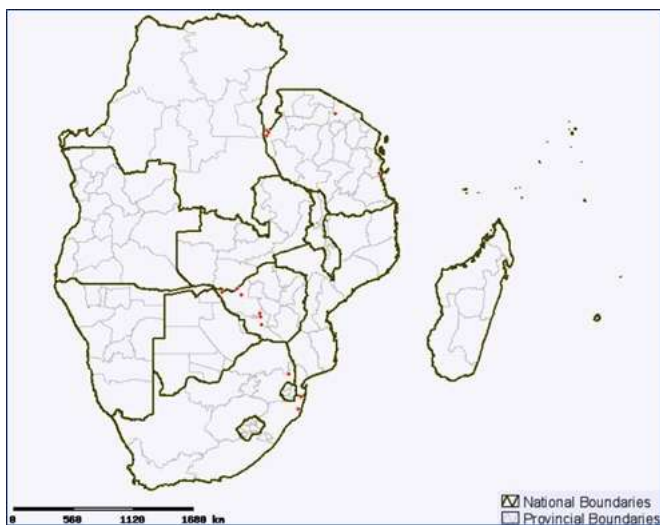
### Foot and mouth disease

Foot and mouth disease FMD was reported in six SADC Member States in the second quarter of 2011. A total of 21 outbreaks and 4,796 cases were reported in the quarter by Botswana, D. R. Congo, Malawi, Tanzania, South Africa and Zimbabwe. FMD confirmation is largely through clinical diagnoses with only 7% confirmed by lab diagnoses. The viruses responsible for the majority of these outbreaks were not typed, with only 3 of the 21 outbreaks having known serotypes.

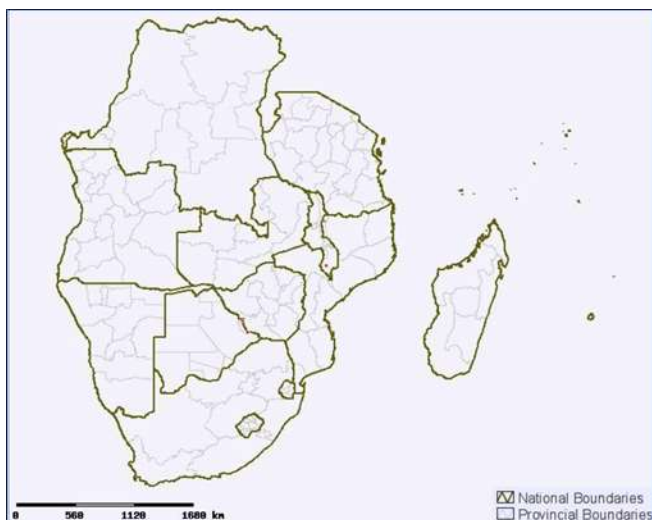
**Table 4: Types of FMD viruses reported in the 2nd quarter**

Disease	Outbreaks	Cases
FMD (not typed)	18	2,495
FMD (SAT 2)	3	2,301
Total	21	4,796

Half way through 2011, the number of outbreaks (118) reported is already higher than the 90 outbreaks in 2010. The number of cases (9,529) so far this year are however still lower than 18,386 reported the whole year in 2010. The spatial distribution of FMD outbreaks is given in fig 2 below.



**Figure 2: Spatial distribution of 2nd quarter FMD (Not Typed) outbreaks in the region**



**Figure 3: Spatial distribution of 2nd quarter FMD SAT 2 outbreaks in the region**

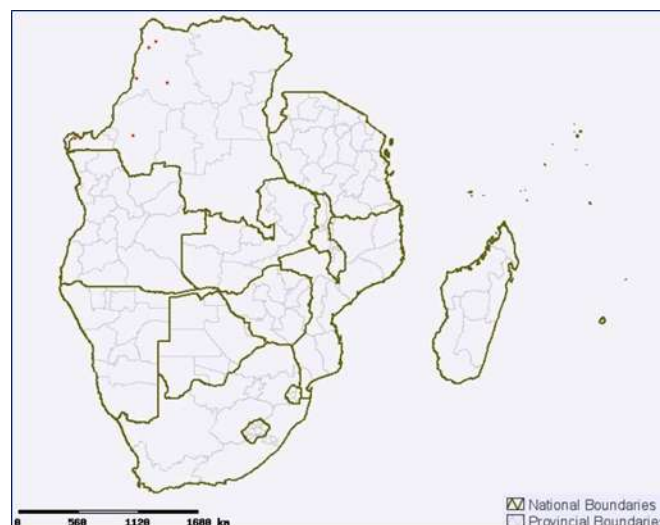
### Pestes de Petits Ruminants

The disease has been reported in two countries since its emergence in the region. In 2010, D. R. Congo (10) and Tanzania (1) reported 11 outbreaks. The picture of Peste des Petit Ruminants (PPR), as an emerging disease in the region, is not very clear and requires surveillance and urgent interventions to prevent it from spreading further south.

**Table 5: PPR outbreaks, cases and deaths in the first and second quarter**

Period	Outbreaks	Cases	Deaths
Jan to March 2011	6	22,827	17,438
April to June 2011	5	18,573	14,288
Total	11	41,400	31,726

This quarter, 5 outbreaks, 18,573 cases and 14,288 deaths of PPR were reported. Mortality was high with 77% of cases resulting in death. Table 5 shows the marginal decrease in PPR cases and deaths in the second quarter of the year. In 2010, a total of 650 cases and 620 deaths of PPR were reported. The huge increase of cases and deaths this year could be because of increased surveillance and/or increased spread of PPR in the two affected countries. The spatial distribution of PPR outbreaks is given in fig 2 below.



**Figure 4: Spatial distribution of 2nd quarter PPR outbreaks in the region**

### Occurrence of TADS in the 2<sup>nd</sup> quarter

Details of MS reporting occurrence of TADS in the 2<sup>nd</sup> quarter of 2011 are given in table 6 below.

**Table 6: Occurrence of TADs in 2nd quarter of 2011**

Country	AHS	ASF	BTN	CBPP	FMD	LSD	ND	PPR	RBS	RVF	TADs
Angola											4
Botswana											3
D.R. Congo											6
Lesotho											4
Malawi											3
Mauritius											0
Mozambique*											DNR
Namibia											5
Tanzania											6
Seychelles											0
South Africa											7
Swaziland											3
Zambia											5
Zimbabwe											3

\*Mozambique did not submit monthly disease reports in the 2<sup>nd</sup> quarter of 2011.

Ten TADs were reported in the quarter. Mauritius and Seychelles did not report occurrence of any trans-boundary animal disease. The number of TADs reported in each country ranged from 3 – 7.

### **Conclusion**

There has been a remarkable improvement in submission of monthly disease reports by Member States to SADC in the second quarter of 2011. However, there is still room for improvement on the timeliness of submissions and quality of the data. This bulletin, status of animal health in the region, is expected to include detailed analyses from meat inspection and vaccination reports in the near future. Reporting on these two modules has been erratic and their use will give a much better picture of the status of animal health in the region.