



SADC ANIMAL HEALTH YEARBOOK 2011





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A SADC Publication

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Compiled by SADC AIMS (LIMS) in Collaboration with the SADC TADs Project and the Epidemiology and Informatics subcommittee of the SADC Livestock Technical Committee (LTC)



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TABLE OF CONTENTS

TABLE OF CONTENTS	iv
LIST OF FIGURES	vi
LIST OF TABLES	viii
FOREWORD	xi
ABBREVIATIONS AND ACRONYMS	xii
1. INTRODUCTION	1
2. STATUS OF LIMS USE AND REPORTING	2
2.1 Status of LIMS reporting	2
2.2 LIMS Reporting Challenges	4
3. LIVESTOCK NUMBERS AND COMPOSITION	6
4. GENERAL ANIMAL DISEASE SITUATION IN THE SADC REGION	7
4.1 Diseases reported	7
4.2 Member States affected	8
4.3 Distribution of disease outbreaks, cases and deaths	8
4.4 Nature of Disease Diagnosis	9
4.5 Trans-boundary Animal Diseases	9
5. STATUS OF TRANS-BOUNDARY ANIMAL DISEASES IN THE SADC REGION	10
5.1 African Horse Sickness	11
5.2 African swine fever	13
5.3 Bluetongue	16
5.4 Contagious Bovine Pleuropneumonia	18
5.5 Foot and Mouth Disease	20
5.6 Highly Pathogenic Avian Influenza	22

5.7	Lumpy Skin Disease	23
5.8	Newcastle Disease	25
5.9	Pestes de Petits Ruminants	27
5.10	Rabies	29
5.11	Rift Valley Fever	31
6.	STATUS OF IMPORTANT ZONOTIC DISEASES IN THE SADC REGION	34
6.1	Important zoonotic diseases reported in the region	34
6.2	Anthrax	34
6.3	Bovine Brucellosis	36
6.4	Bovine Tuberculosis	38
7.	STATUS OF OTHER IMPORTANT DISEASES IN THE SADC REGION	41
7.1	Blackleg	41
7.2	Bovine Anaplasmosis	43
7.3	Bovine Babesiosis	45
7.4	Bovine Theileriosis	47
7.5	Canine Distemper	49
7.6	Goat Mange	51
7.7	Heartwater	53
7.8	Trypanosomosis	54
8.	MEAT INSPECTION	56
9.	VACCINATIONS	56
10.	CONCLUSION AND RECOMMENDATIONS	56
	Annexes	57

LIST OF FIGURES

Figure 4.1: Distribution of outbreaks by species in 2011	8
Figure 4.2: Distribution of deaths by species in 2011	8
Figure 4.3: Comparison of cases and deaths from 2007 to 2011	8
Figure 4.4: Nature of Outbreak diagnosis	9
Figure 4.5: Occurrence of TADs and number of Member States affected	9
Figure 5.1: Frequency distribution of TADs outbreaks in 2011	10
Figure 5.3: Spatial distribution of African horse sickness in 2011	13
Figure 5.4: Temporal distribution of African swine fever in 2011	15
Figure 5.5: Spatial distribution of African swine fever in 2011	15
Figure 5.6: Temporal distribution of Bluetongue cases in 2011	17
Figure 5.7: Spatial distribution of Bluetongue in 2011	17
Figure 5.8: Temporal distribution of CBPP in 2011	19
Figure 5.9: Spatial distribution of CBPP in 2011	19
Figure 5.10: FMD types reported in 2011	20
Figure 5.11: Temporal distribution of FMD outbreaks in 2011	21
Figure 5.12: Spatial distribution of FMD in 2011	22
Figure 5.13: Temporal distribution of HPAI in 2011	23
Figure 5.14: Temporal distribution of LSD outbreaks in 2011	24
Figure 5.15: Spatial distribution of LSD in 2011	25
Figure 5.16: Temporal distribution of Newcastle disease in 2011	26
Figure 5.17: Spatial distribution of ND in 2011	27
Figure 5.18: Spatial distribution of PPR in 2011	28
Figure 5.19: Distribution of Rabies outbreaks by Species affected in 2011	29

Figure 5.20: Spatial distribution of Rabies in 2011	31
Figure 5.21: Distribution of Rift valley fever mortalities in 2011	32
Figure 5.22: Temporal distribution of Rift valley fever outbreaks in 2011	33
Figure 6.23: Spatial distribution of Rift valley fever in 2011	33
Figure 6.1: Spatial distribution of Anthrax in 2011	35
Figure 6.2: Temporal distribution of Bovine brucellosis in 2011	37
Figure 6.3: Spatial distribution of Bovine brucellosis in 2011	38
Figure 6.4: Temporal distribution of Bovine tuberculosis	39
Figure 6.5: Spatial distribution of Bovine tuberculosis in 2011	40
Figure 7.1: Spatial distribution of Blackleg in 2011	42
Figure 7.2: Spatial distribution of Bovine anaplasmosis in 2011	44
Figure 7.3: Temporal distribution of BAna outbreaks in 2011	44
Figure 7.4: Spatial distribution of Bovine babesiosis in 2011	46
Figure 7.5: Temporal distribution of BBab in 2011	46
Figure 7.6: Temporal distribution of Theileriosis cases in 2011	48
Figure 7.7: Spatial distribution of Theileriosis in 2011	48
Figure 7.8: Temporal distribution of Canine Distemper in 2011	50
Figure 7.9: Spatial distribution of Canine distemper in 2011	50
Figure 7.10: Temporal distribution of Goat mange in 2011	52
Figure 7.11: Spatial distribution of Goat mange in 2011	52
Figure 7.12: Species affected by Heartwater outbreaks in 2011	53
Figure 7.13: Temporal distribution of Trypanosomosis in 2011	55
Figure 7.14: Spatial distribution of Trypanosomosis in 2011	55

LIST OF TABLES

Table 2.1: Status of LIMS reporting	3
Table 2.2: LIMS reporting parameters and frequencies	4
Table 2.3: Status of disease reporting in 2011	5
Table 4.1: Summary of the state of animal health from 2007 to 2011 in SADC	7
Table 4.2: Top 10 Diseases reported in 2011 ranked by number of outbreaks	7
Table 5.1: Occurrence of TADs in 2011	11
Table 5.2: Member States affected by AHS outbreaks in 2011	11
Table 5.3: Outbreaks of African horse sickness in the region from 2008 to 2011	12
Table 5.4: Member States affected by ASF outbreaks in 2011	14
Table 5.5: Outbreaks of African swine fever in the region from 2008 to 2011	14
Table 5.6: Member States affected by Bluetongue in 2011	16
Table 5.7: Outbreaks of Bluetongue in the region from 2008 to 2011	16
Table 5.8: Member States affected by CBPP in 2011	18
Table 5.9: Outbreaks of CBPP in the region from 2008 to 2011	18
Table 5.10: Member States affected by FMD in 2011	20
Table 5.11: Outbreaks of FMD in the region from 2008 to 2011	21
Table 5.12: Outbreaks of HPAI in the region from 2008 to 2011	22
Table 5.13: Member States affected by LSD in 2011	23
Table 5.14: Outbreaks of LSD in the region from 2008 to 2011	24
Table 5.15: Member States affected by Newcastle disease in 2011	25
Table 5.16: Outbreaks of Newcastle disease in the region from 2008 to 2011	26
Table 5.17: Member States affected by PPR in 2011	27
Table 5.18: Outbreaks of PPR in the region from 2008 to 2011	28

Table 5.19: Member States affected by Rabies in 2011	30
Table 5.20: Outbreaks of Rabies in the region from 2008 to 2011	30
Table 5.21: Member States affected by Rift valley fever in 2011	31
Table 5.22: Outbreaks of Rift valley fever from 2008 to 2011	32
Table 6.1: Zoonotic diseases reported in the region in 2011	34
Table 6.2: Member States affected by Anthrax in 2011	35
Table 6.3: Outbreaks of Anthrax in the region from 2008 to 2011	36
Table 6.4: Species affected by Anthrax in 2011	36
Table 6.5: Member States affected by Bovine brucellosis in 2011	36
Table 6.6: Outbreaks of Bovine brucellosis from 2008 to 2011	37
Table 6.7: Member States affected by Bovine tuberculosis in 2011	38
Table 6.8: Outbreaks of Bovine tuberculosis from 2008 to 2011	39
Table 7.1: Member States affected by Blackleg in 2011	41
Table 7.2: Outbreaks of Blackleg from 2008 to 2011	41
Table 7.3: Member States affected by Bovine anaplasmosis in 2011	43
Table 7.4: Outbreaks of Bovine anaplasmosis from 2008 to 2011	43
Table 7.5: Member States affected by Bovine babesiosis in 2011	45
Table 7.6: Outbreaks of Bovine babesiosis from 2008 to 2011	45
Table 7.7: Member States affected by Bovine Theileriosis in 2011	47
Table 7.8: Outbreaks of Bovine Theileriosis from 2008 to 2011	47
Table 7.9: Member States affected by Canine Distemper in 2011	49
Table 7.10: Outbreaks of Canine Distemper from 2008 to 2011	49
Table 7.11: Member States affected by Goat Mange in 2011	51

Table 7.12: Outbreaks of Goat Mange from 2008 to 2011	51
Table 7.13: Outbreaks of Heartwater from 2008 to 2011	53
Table 7.14: Member States affected by Trypanosomosis in 2011	54
Table 7.15: Outbreaks of Trypanosomosis from 2008 to 2011	54

FOREWORD

Regular collection and analysis of data in the livestock sector is mandatory to monitor progress made towards achieving targets set by the Regional Indicative Strategic Development Plan (RISDP) and the Dar es Salaam declaration on Agriculture and food security. In addition reliable regional information in the sector is a prerequisite for informed policy and planning decisions, to enable formulation of sound strategies and to design projects and programmes to ensure regional intergration and poverty eradication.

The Livestock Information Management System (LIMS), established in 2008, is an integral component of the Agricultural Information Management System (AIMS). The SADC 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 philosophy whereby databases are installed at different levels in Member States and at SADC Secretariat with data transfer between the lower and immediate higher levels. Currently, it contains four major components and 11 modules. The major components are the animal production, animal health, livestock marketing and trade and livestock development.

During the current year, the FANR Directorate commenced the upgrade and migration of LIMS application from MS Access to a more robust open source environment. Furthermore, development of LIMS web commenced and publication of Status of Animal Health bulletins continued to enhance sharing of upto date reliable regional livestock information. This is the fourth Animal Health Yearbook compiled by AIMS/LIMS. Plans are underway to expand the scope of future yearbooks to encoporate livestock production, livestock marketing and trade and livestock development

I take this opportunity to ecourage all Member States to make full use of LIMS by setting up LIMS units at national and sub-national level and continuously build the capacity to collect reliable up to date data. I thank all those involved at various levels of the LIMS system and commend them for their hardwork and commitment.

M. M. Nyirenda

Director

Directorate of Food, Agriculture and Natural Resources

SADC Secretariate

August, 2012

ABBREVIATIONS AND ACRONYMS

AHS	African Horse Sickness
AIMS	Agricultural Information Management System
ASF	African swine fever
BT	Bluetongue
CBPP	Contagious Bovine Pleuropneumonia
CCPP	Contagious Caprine Pleuropneumonia
EIS	Epidemiology and Informatics Sub-committee
FANR	Food, Agriculture and Natural Resources Directorate
FAO	Food and Agriculture Organisation
FMD	Foot and Mouth Disease
HPAI	Highly Pathogenic Avian Influenza
IBD	Infectious Bursal Disease
IBR/IPV	Infectious Bovine Rhinotracheitis/Infectious Pustular Vulvovaginitis
LIMS	Livestock Information Management System
LSD	Lumpy Skin Disease
LTC	Livestock Technical Committee
MDR	Monthly Disease Report
MS	Member States
ND	Newcastle Disease
RVF	Rift Valley Fever
SADC	Southern African Development Community
SAT	Southern African Territories
TADs	Trans-boundary Animal Diseases

I. INTRODUCTION

Reliable information in the livestock sector is a pre-requisite for informed policy and planning decisions. It facilitates formulation of sound policies and strategies and designing of programmes aimed at large scale interventions. The need for reliable livestock information is as critical as ever in the SADC region. The Directorate of Food Agriculture and Natural Resources is currently designing livestock programmes to improve livestock production for regional food security. In addition, the process of formulating the Regional Agricultural Policy (RAP) continues. The identification of livestock policy issues followed by implementation of strategies to increase regional livestock production will assist to increase the food security situation of the region. Availability of accurate livestock data on a regular basis allows for the evaluation of the status of the sector for developmental purposes. Without dependable, up to date and easily accessible livestock statistics, it is difficult, if not impossible, to identify and quantify the constraints and opportunities of the sector.

The Livestock Information Management System (LIMS) was established after the importance of regional reliable and up to date livestock data was realised. It facilitates the collection, collation, transfer, storage, analysis and dissemination of SADC livestock data. To improve information dissemination of livestock data in the region, a quarterly status of animal health bulletin was launched. In addition, the LIMS portal for online sharing of up to date information access to regional livestock information was developed as part of the Agricultural Information Management System (AIMS) and continues to improve. However, the value of livestock information that is shared is dependent on regular LIMS reporting by SADC Member States. Efforts by the Secretariat to improve data quality in the year included release of LIMS 2.0.6 and a refresher training for LIMS focal points.

This is the fourth year book compiled by the SADC LIMS, part of the SADC Agriculture Information Management System (AIMS). Although it mainly remains an analysis of disease outbreaks reported in the SADC region, a lot of work and effort has been put to expand the scope of the year book to include other LIMS modules such as the meat inspection, livestock numbers and composition as well as vaccination reports. It is envisaged that in future it will become a livestock year book covering all aspects or modules of the LIMS.

2. STATUS OF LIMS USE AND REPORTING

2.1 Status of LIMS reporting

All SADC Member States submitted disease occurrence reports for 2011 except Madagascar. A significant number of MS submitted monthly disease occurrence reports 2-3 months overdue making it impossible to use animal disease reports for emergency and early warning purposes. The reporting pattern delays compilation of quarterly bulletin and annual year books. Delays in reporting in the second half of the year resulted in the compilation of a 6 months status of animal health bulletin instead of the 3rd and 4th quarter bulletins. These delays could partly be attributed to release of LIMS 2.0.6 and LIMS refresher training in the second half of the year.

Although reporting on all LIMS modules has improved considerably in the past year, it generally remains erratic. Table 1.1 shows the countries reporting on select five modules widely used. The SADC Secretariat accepts reports in various formats although Member States are encouraged to use LIMS. The cells shaded green in the table indicate the reports that are in LIMS format, while ticks illustrate countries reporting on a particular module.

The modular approach has contributed to the gradual improvement in LIMS use. As can be seen in Table 2.1, the two modules most widely used are the Livestock Numbers and Composition (LN&C) and the Disease Outbreaks (DO). Member States are encouraged to report on modules they already have information on and to gradually build the capacity to collect and report on the other modules. LIMS use has significantly improved in the past 12 to 18 months although data use at regional level remains a challenge. There is a need for Member States to invest in national LIMS units and data collection for all the modules currently active.

Table 2.1 : Status of LIMS reporting

Country	Livestock Numbers & Composition	Livestock Production	Disease outbreaks	Vaccination	Meat inspection
Angola	✓		✓		
Botswana	✓	✓	✓		
DRC	✓		✓		
Lesotho	✓		✓	✓	✓
Malawi	✓		✓		
Mauritius	✓		✓		
Mozambique			✓		
Namibia	✓	✓	✓	✓	✓
Seychelles	✓	✓	✓		
South Africa			✓	✓	
Swaziland	✓		✓	✓	✓
Tanzania	✓		✓		
Zambia	✓		✓		
Zimbabwe	✓		✓	✓	

✓ Report Submitted

Report in LIMS format

2.2 LIMS Reporting Challenges

- Delay by Member States to set up LIMS units at sub national level tends to affect the quality and timeliness of reports. As LIMS is heavily dependent on structures at sub-national level and systematic data flow from field upwards.
- LIMS has not been used effectively, especially, in areas of early warning and emergency due to late submission of reports and erratic use of all the modules except disease occurrence and livestock numbers and composition.
- As a result of late submission of reports, it is difficult to produce the quarterly status of animal health newsletter on time. The purpose of this newsletter is to provide a quarterly summary of animal health status in the region.

Table 2.2: LIMS reporting parameters and frequencies

Manual	Module	Spatial Detail	Reporting frequency	Submission deadline	Comment
Animal Production	Livestock numbers	District ¹	Annually	End of February the following year	Livestock numbers and composition report is prepared and submitted to SADC Livestock Unit annually
	Livestock Products	District ¹	Monthly	Quarterly before the end of the following month.	Animal production data collected monthly by field officers. It is collated and submitted to SADC Livestock Unit quarterly.
Livestock Marketing & Trade	Livestock & livestock products prices	District ¹	Monthly	Quarterly before the end of the following month	Livestock and Livestock products prices are to be collected monthly at district level. 3 separate reports submitted to SADC Livestock Unit quarterly.
	Livestock Trade	National	Monthly		Livestock Trade data is to be collected monthly at national level. 3 separate reports submitted to SADC Livestock Unit quarterly
Livestock Development	Human population	District ¹	Annually	End of February the following year	Human population engaged in Livestock farming and Livestock infrastructure reported at district level annually.
	Livestock infrastructure	District ¹	Annually		
	Association livestock farmers	National	Annually		Livestock associations, Laws, regulations and Acts are reported at national level annually.
	Laws, regulation & acts governing livestock sector	National	Annually		
Animal Health	Disease occurrence	District ¹	Monthly	Quarterly before the end of the following month	All Animal Health modules are at district level. Disease occurrence, Vaccination and Meat Inspection reports are submitted to SADC monthly.
	Vaccination	District ¹	Monthly		
	Meat inspection	District ¹	Monthly		

¹ It is preferable to have spatial details at district (Admin Level 2).

Table 2.3: Status of disease reporting in 2011

Member State	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Angola	Yellow											
Botswana	Green	Green	Green	Green	Yellow	Yellow	Green	Yellow	Green	Yellow	Green	Green
DRC	Yellow	Green	Green	Green	Yellow							
Lesotho	Yellow	Green	Yellow	Yellow	Yellow	Yellow						
Madagascar	White											
Malawi	Yellow	Green	Yellow	Yellow	Yellow	Yellow						
Mauritius	Yellow											
Mozambique	Yellow	Yellow	Green	Yellow								
Namibia	Green	Yellow	Yellow	Green								
Seychelles	Yellow											
South Africa	Yellow											
Swaziland	Green											
Tanzania	Yellow											
Zambia	Yellow											
Zimbabwe	Yellow	Green										

Report Received	Green
Report Received Late	Yellow
Report Not received	Red

3. LIVESTOCK NUMBERS AND COMPOSITION

The livestock numbers and composition (LN&C) module of LIMS was developed to collect the number of livestock per species of animals at the lowest partition level in SADC member countries per year. As well as facilitating the capture of livestock numbers per species, the module has provisions for capturing livestock numbers by economic functions or use (e.g. beef, dairy, wool, draft power etc), breeds and herd structure (e.g. heifers, steers, weaners etc). Collection of such data allows a rich data analysis which not only gives current herd size but allows herd dynamic analysis as well as economic analysis. In addition, livestock numbers by breed give vital information on germplasm and status of local/indigenous animal genetic resources (AnGR) which massively contributes to the livelihoods of smallholder livestock keepers.

Reporting on livestock numbers and composition has generally improved in past one to two years. Twelve of 14 MS have submitted LN&C reports for either 2010, 2011 or both years. Only Mozambique and South Africa have not submitted reports in this period. Four MS have submitted livestock numbers and composition reports in the prescribed LIMS format with the remaining 8 using excel or forwarding their national reports. Consequently, analysis of livestock numbers data has been a challenge as information is not only in different formats but different categories are reported. For example it is a challenge consolidating reports if some MS submit livestock numbers by herd structure while some consider economic function or use.

4. GENERAL ANIMAL DISEASE SITUATION IN THE SADC REGION

4.1 Diseases reported

Number of diseases reported in the region increased from 72 in 2010 to 78 in 2011. The diseases ranged from major Trans-boundary Animal Diseases (TADs) and zoonosis to infections and those caused by parasites. The number of TADs reported in the year was 11, up from 10 in 2010. The complete listing of these diseases, with some quantitative data, is presented in annex 10.1. A total of 8,110 disease outbreaks were reported in the year

Table 4.1: Summary of the state of animal health from 2007 to 2011 in SADC

Parameter	2007	2008	2009	2010	2011
Diseases	76	69	63	72	78
Outbreaks	9,018	7,499	5,454	9,317	8,105
Cases	550,759	673,354	100,538	205,813	794,773
Deaths	374,071	210,513	43,984	89,578	477,335
Destroyed	8,841	5,937	1,803	6,938	96,954
Slaughtered	9,300	1,316,721	194	829	75,693

Table 4.2: Top 10 Diseases reported in 2011 ranked by number of outbreaks

Rank	Disease	Outbreaks	Cases	Deaths	Slaughtered	Destroyed	Countries
1.	LSD	795	15,717	376	1	67	11
2.	Rabies	740	1,221	800	194	11	12
3.	AHS	719	1,302	525	2	-	3
4.	B. anaplasmosis	665	4,348	840	-	1	11
5.	Heartwater	659	2,586	923	1	-	8
6.	Dermatophilosis	390	4,623	233	15	1,198	5
7.	Blackleg	389	3,908	968	4	6	11
8.	B. brucellosis	379	6,392	89	1,059	301	8
9.	B. babesiosis	330	1,136	216	1	-	10
10.	Fowl pox	199	5,341	2,045	2	2	9

4.2 Member States affected

During the year, 78 livestock diseases were reported in the region. Rabies affected the largest number of Member States with outbreaks being reported in all 12 continental Member States namely Angola, Botswana, D. R. Congo, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe. The island nations of Mauritius and Seychelles have continued to record no occurrence of TADs.

4.3 Distribution of disease outbreaks, cases and deaths

Bovine species were affected the most with 63% of the 8,110 outbreaks reported in the year being reported in cattle (fig 4.1). However, avium species, comprising mainly of chickens, had the highest number of deaths. A total of 263,541 birds (avium species), 119,326 pigs, mainly due to ASF, and 71,055 goats, mainly due to PPR, were reported to have died due to disease in the year (fig 4.2). The total number of cases and deaths reported in 2011, 794,773 and 477,276 respectively is the highest reported in a year since LIMS was established in 2008. A breakdown detailing deaths of different species due to different diseases for the same period is shown in figure 4.2. Figure 4.3 shows the number of cases and deaths for all diseases and species for the period from 2007 to 2011.

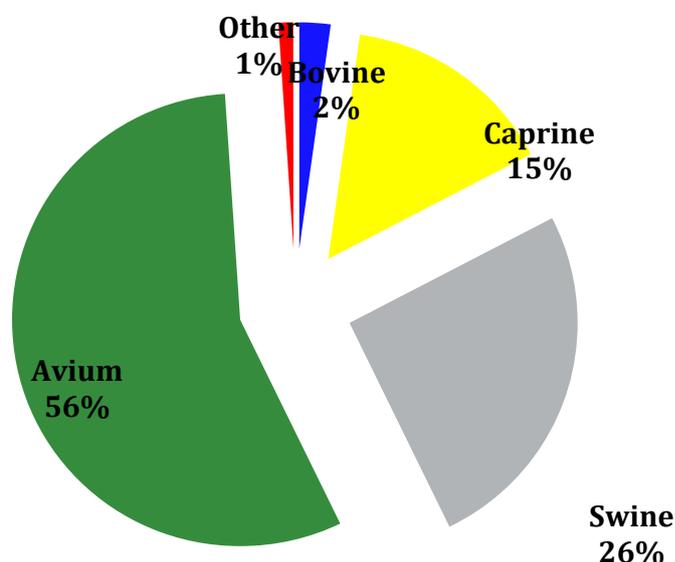
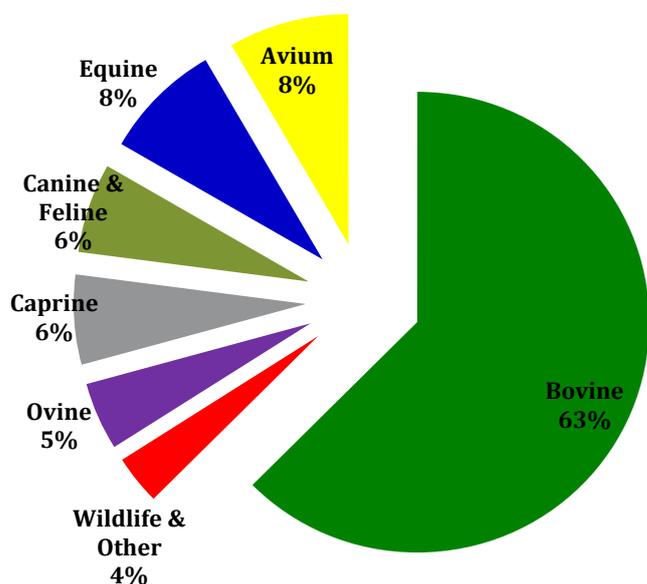


Figure 4.1: Distribution of outbreaks by species in 2011

Figure 4.2: Distribution of deaths by species in 2011

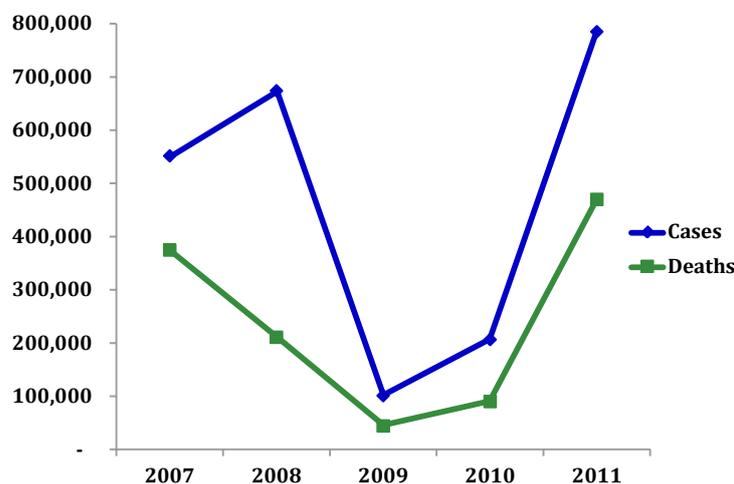


Figure 4.3: Comparison of cases and deaths from 2007 to 2011

4.4 Nature of Disease Diagnosis

Clinical signs have remained the most widely used method of disease outbreak diagnosis in the region. In 2011, 80% diseases reports received from SADC Members states were based on clinical diagnosis. This can be as high as 84% if owners' claims are considered a clinical diagnosis method. Veterinary departments in member states need to improve by building capacity in sample, specimen collection and submission to the laboratory. The Pie chart below (fig 4.4) shows the percentages for each method used to confirm disease outbreaks in 2011.

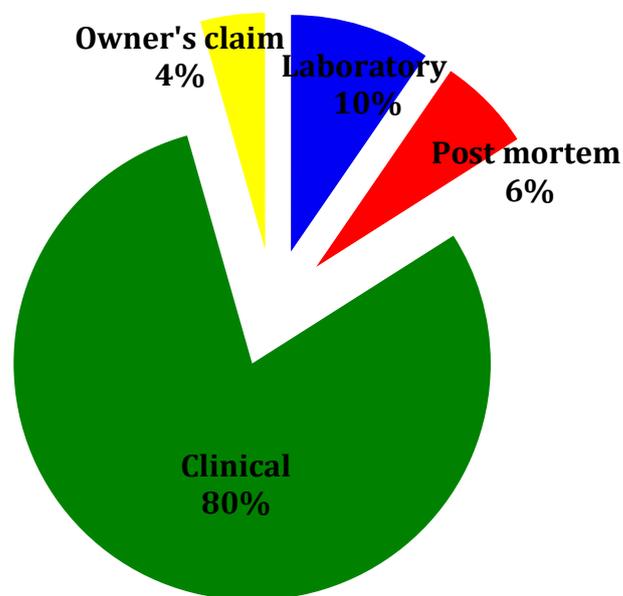


Figure 4.4: Nature of Outbreak diagnosis

4.5 Trans-boundary Animal Diseases

The SADC region reported eleven (11) TADs in 2011. This is an increase from 10 in 2010. Highly pathogenic avian influenza is the additional TAD reported in 2011. The trend observed in previous years continued in 2011 with Rabies (RBS), Lumpy skin disease (LSD) and Newcastle disease (ND) occurring in at least 10 SADC MS. Mauritius and Seychelles were the only countries of the 14 SADC Member States considered by this report that did not report any incidence of TADs.

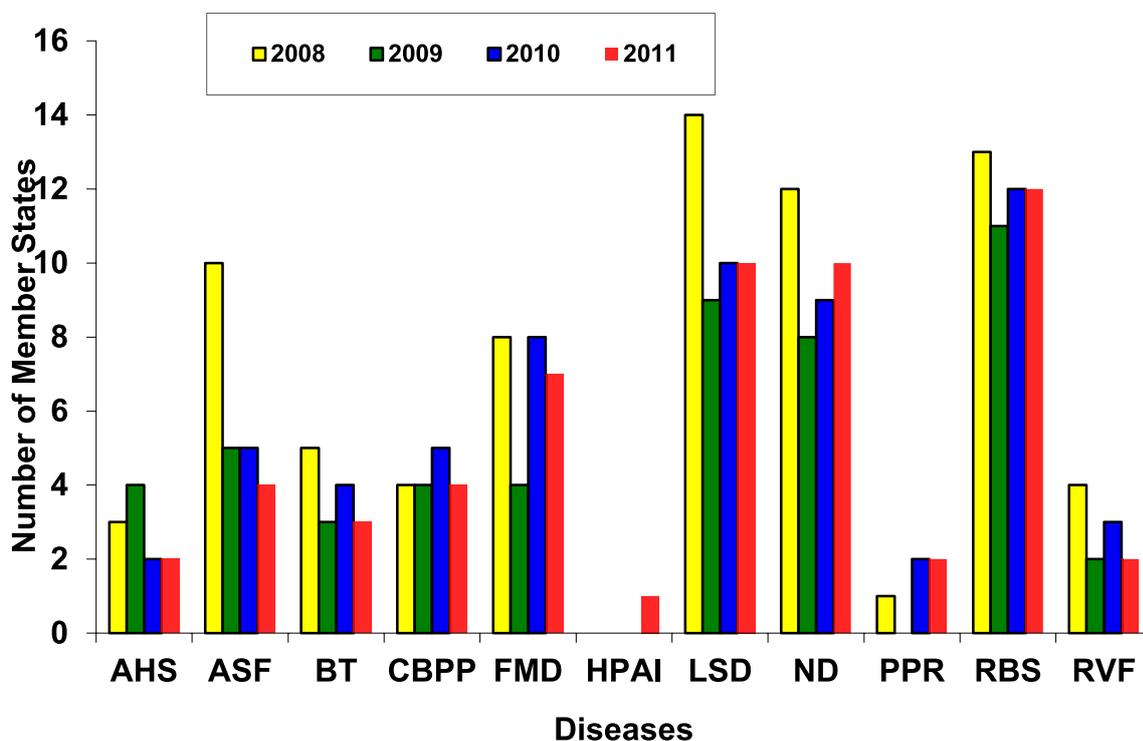


Figure 4.5: Occurrence of TADs and number of Member States affected

5. STATUS OF TRANS-BOUNDARY ANIMAL DISEASES IN THE SADC REGION

The Island nations SADC region remain free of TADs. Eleven TADs were reported in the year, an increase from the ten that were reported in 2010. This is a result of the re-emergence of Highly Pathogenic Avian Influenza (HPAI) and continued presence of the other 10 TADs reported in 2010. PPR also remains a major regional challenge. Although the disease hasn't spread southwards from DRC and Tanzania, the region is still facing a very serious risk as the disease has resulted in death of 49,838 sheep and goats in 2011 with a further 17,636 being slaughtered. Foot and mouth disease, the other TAD being monitored regionally, was reported in 8 MS. It continues to be a regional challenge with 8,447 cases reported in the year. Another TAD that caused huge losses to regional livestock keepers is African swine fever. The disease had 152,503 cases resulting in 139,820 deaths, 987 pigs being destroyed and 9,710 pigs slaughtered. Rabies was the only TAD reported in all 12 continental MS of SADC.

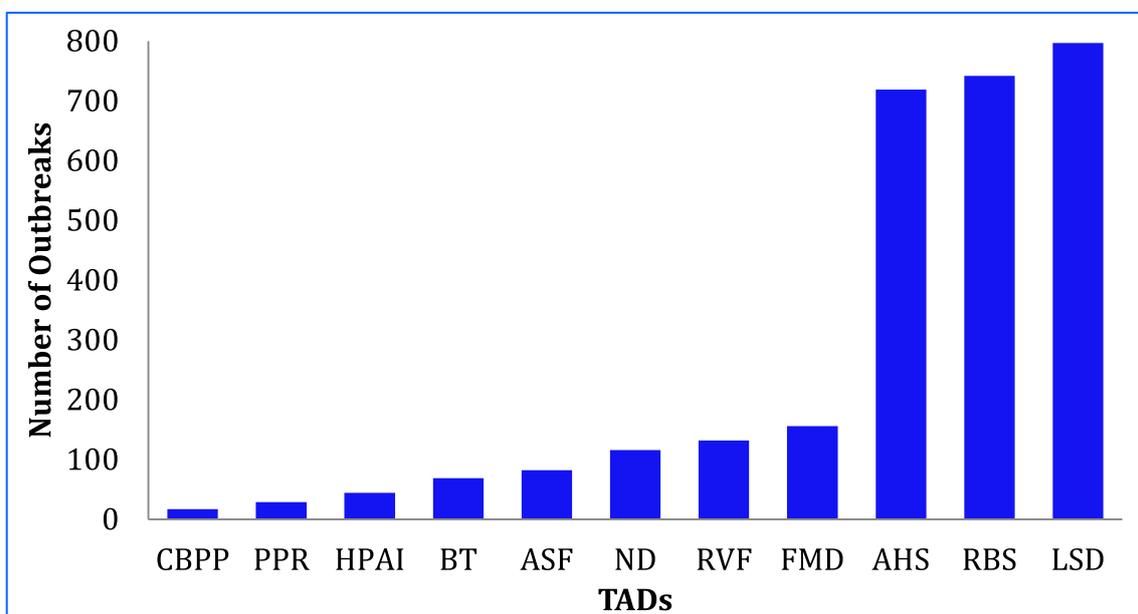


Figure 5.1: Frequency distribution of TADs outbreaks in 2011

Table 5.1: Occurrence of TADs in 2011

Country	AHS	ASF	BTN	CBPP	FMD	HPAI	LSD	ND	PPR	RBS	RVF	TADs
Angola		■		■			■	■		■		5
Botswana					■		■	■		■		4
D.R. Congo		■		■	■		■	■	■	■		7
Lesotho			■				■	■		■		4
Malawi		■			■			■		■		4
Mauritius												0
Mozambique										■		1
Namibia	■		■		■		■				■	6
Tanzania		■		■	■		■	■	■	■		7
Seychelles												0
South Africa	■		■		■	■	■	■		■	■	8
Swaziland	■						■	■		■		4
Zambia		■		■			■	■		■		5
Zimbabwe					■		■	■		■		4

Key

Occurrence of TAD



5.1 African Horse Sickness

Three Member States (Namibia, Swaziland and South Africa) reported a total of 720 outbreaks of African horse sickness (AHS) in their territories in 2011. Most of the AHS outbreaks in 2011 occurred in South Africa. The total number of outbreaks, cases and deaths due to AHS are shown in tables 5.2 and 5.3.

Table 5.2: Member States affected by AHS outbreaks in 2011

MS	Outbreaks	Cases	Deaths	Destroyed
Namibia	44	112	45	-
South Africa	675	1,183	477	2
Swaziland	1	7	3	-
Total	720	1,302	525	2

The number of AHS outbreaks and cases occurring in 2011 is the highest reported in a year since LIMS was established in 2008. However, deaths in 2011 (525) are still lower than the 622 reported in 2008. The deaths to cases ratio for AHS were 40.3% for the year.

Table 5.3: Outbreaks of African horse sickness in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Number of Countries affected	3	4	2	3
Number of Outbreaks	507	279	142	720
Number of Cases	1,195	857	211	1,302
Number of Deaths	622	283	45	525
Deaths/ Cases (%)	52.1%	33.0%	21.3%	40.3%

Majority of outbreaks (98%) were in the first five months of 2011. This trend is similar to what has been observed in previous years with AHS outbreaks predominantly occurring in the period January to June and peaking in the months of March and April. No outbreaks were reported in November and December.

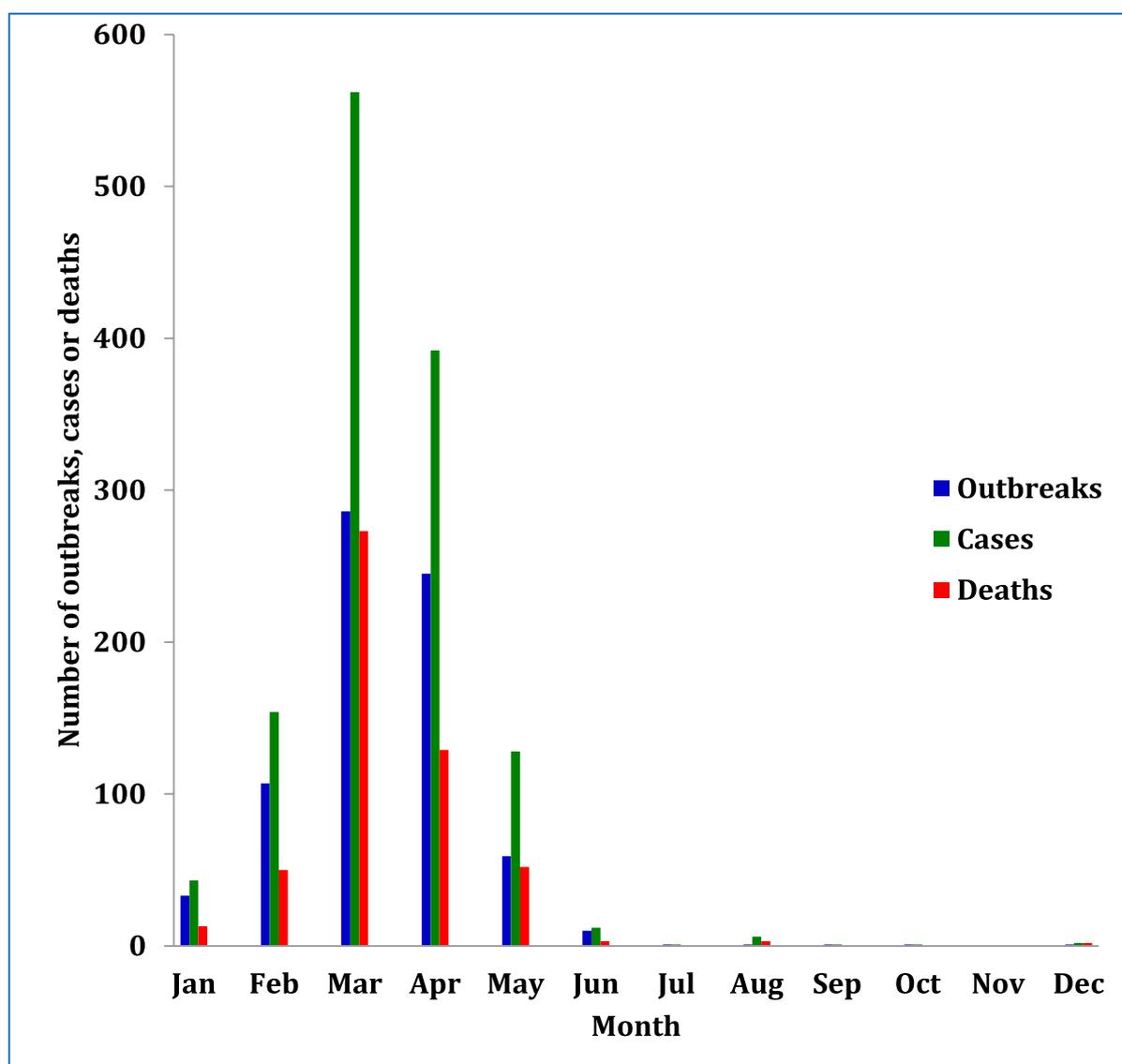


Figure 5.4: Temporal distribution of African horse sickness in 2011

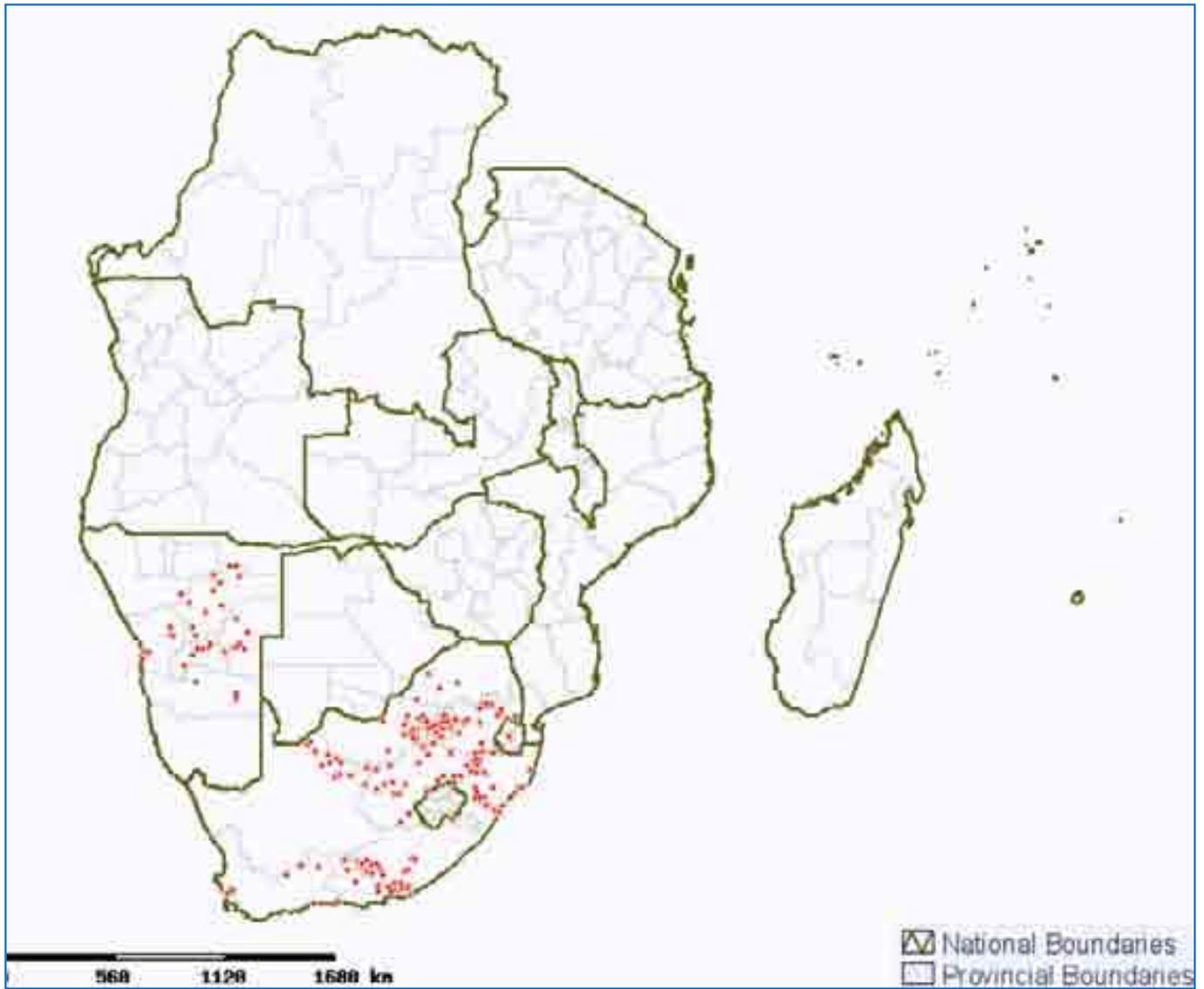


Figure 5.3: Spatial distribution of African horse sickness in 2011

5.2 African swine fever

African swine fever was reported by eight (8) MS in 2011, three more MS than those that reported occurrence in 2010. A total of 152,503 cases were reported in the year up from 28,365 in 2010. A total of 150 517 pigs died due to the disease. 139,820 died of the disease and the remainder were destroyed.

Table 5.4: Member States affected by ASF outbreaks in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	3	75	75	30	87
D.R. Congo	24	130,199	118,441	474	9,623
Malawi	26	18,834	18,517	27	-
Mozambique	23	853	554	453	-
Namibia	1	4	4	-	-
Tanzania	1	2,102	2,007	-	-
South Africa	1	14	10	3	-
Zambia	5	422	212	-	-
Total	84	152,503	139,820	987	9,710

Table 5.5: Outbreaks of African swine fever in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	10	5	6	8
Outbreaks	110	44	35	84
Cases	15,465	1,086	28,365	152,503
Deaths	10,603	824	27,798	139,820
Deaths/Cases (%)	68.6%	75.9%	98.0%	91.7%

The total number of ASF outbreaks, cases and deaths recorded in 2011 was the highest since 2008. The number of deaths per number of cases was 91.7%. The temporal pattern of ASF shows that the disease was reported throughout the year.

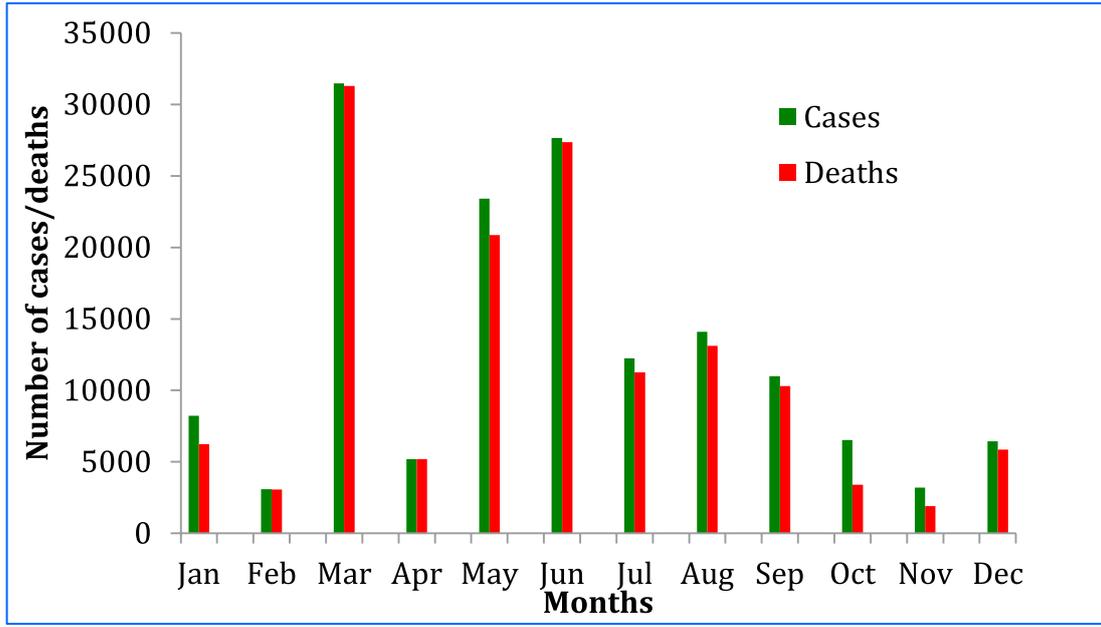


Figure 5.4: Temporal distribution of African swine fever in 2011



Figure 5.5: Spatial distribution of African swine fever in 2011

5.3 Bluetongue

Bluetongue was reported in three species, cattle, goats and sheep, as well as in three countries, Lesotho, Namibia and South Africa, in the region in 2011. Most of the outbreaks were reported in sheep (68) with cattle and goats affected by a single outbreak each. South Africa accounted for 55 of 70 Bluetongue outbreaks.

Table 5.6: Member States affected by Bluetongue in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Lesotho	9	832	226	-	-
Namibia	6	33	23	-	-
South Africa	55	540	229	21	-
Total	70	1,405	478	21	-

Despite the decrease in number of countries reporting outbreaks of Bluetongue from four to three, the number of cases and deaths reporting in 2011 was highest since 2008.

Table 5.7: Outbreaks of Bluetongue in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	5	3	4	3
Outbreaks	78	106	26	70
Cases	568	1,375	171	1,405
Deaths	229	248	37	477
Deaths/Cases (%)	40.3%	18.0%	21.6%	34.0%

As can be seen from fig 4.6 below, majority of Bluetongue outbreaks were in the first half of the year. This mirrors the temporal distribution of Bluetongue disease in previous years.

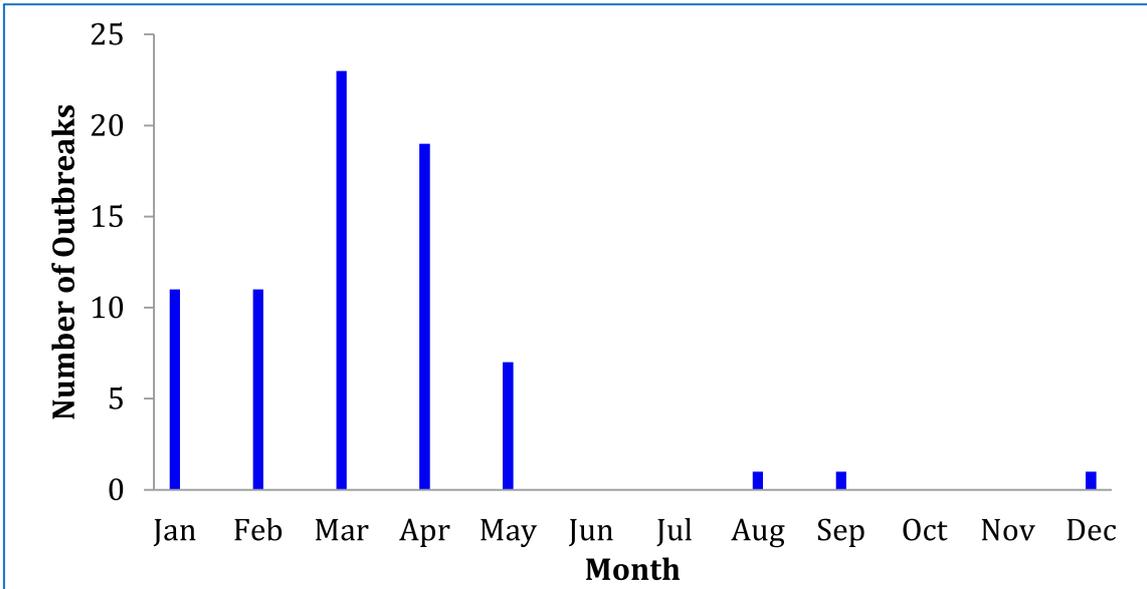


Figure 5.6: Temporal distribution of Bluetongue cases in 2011

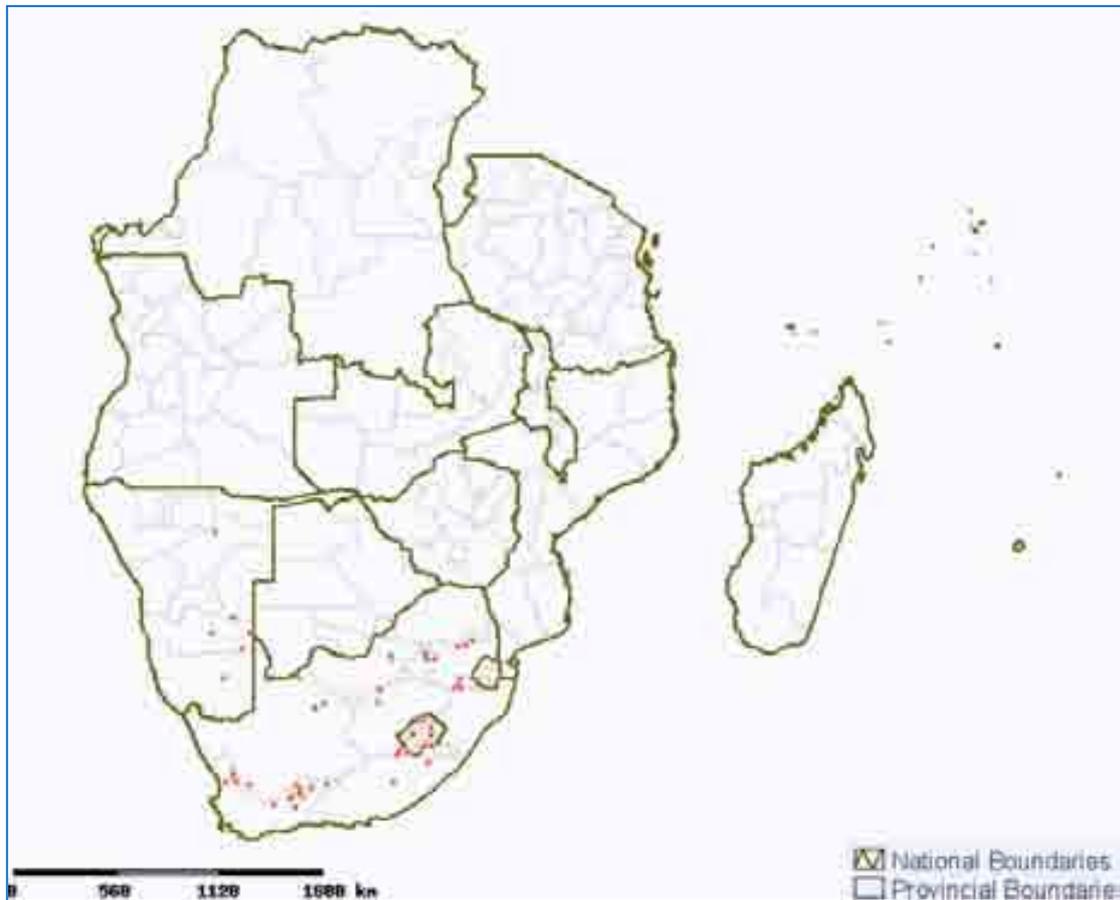


Figure 5.7: Spatial distribution of Bluetongue in 2011

5.4 Contagious Bovine Pleuropneumonia

Contagious bovine Pleuropneumonia was the least reported TAD in terms of outbreaks in 2011. The same 5 MS that reported CBPP in 2010 were affected again in 2011. Angola accounted for 11 of the 20 outbreaks reported with DRC reporting 81.1% of the 10,227 cases reported in the year.

Table 5.8: Member States affected by CBPP in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	11	1,809	535	22	142
D.R. Congo	4	8,293	462	-	1,361
Namibia	1	9	1	-	-
Tanzania	-	79	53	-	-
Zambia	4	37	25	-	-
Total	20	10,227	1,076	22	1,503

The number of CBPP outbreaks has progressively decreased from 94 in 2008, to 64 in 2009, to 41 in 2010 and to 20 in 2011. Despite this downward trend in outbreaks, CBPP cases in 2011 are highest since 2008. Mortalities relative to number of CBPP cases have continuously decreased since 2008 as can be seen in Table 4.9.

Table 5.9: Outbreaks of CBPP in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	4	4	5	5
Outbreaks	94	64	41	17
Cases	1,909	604	1,078	10,227
Deaths	738	112	108	1,076
Deaths/ Cases (%)	38.7%	18.5%	10.0%	10.52%

As observed in previous years, more CBPP outbreaks were reported in the first half of 2011. A clear difference is clear between the periods January to June and July to December

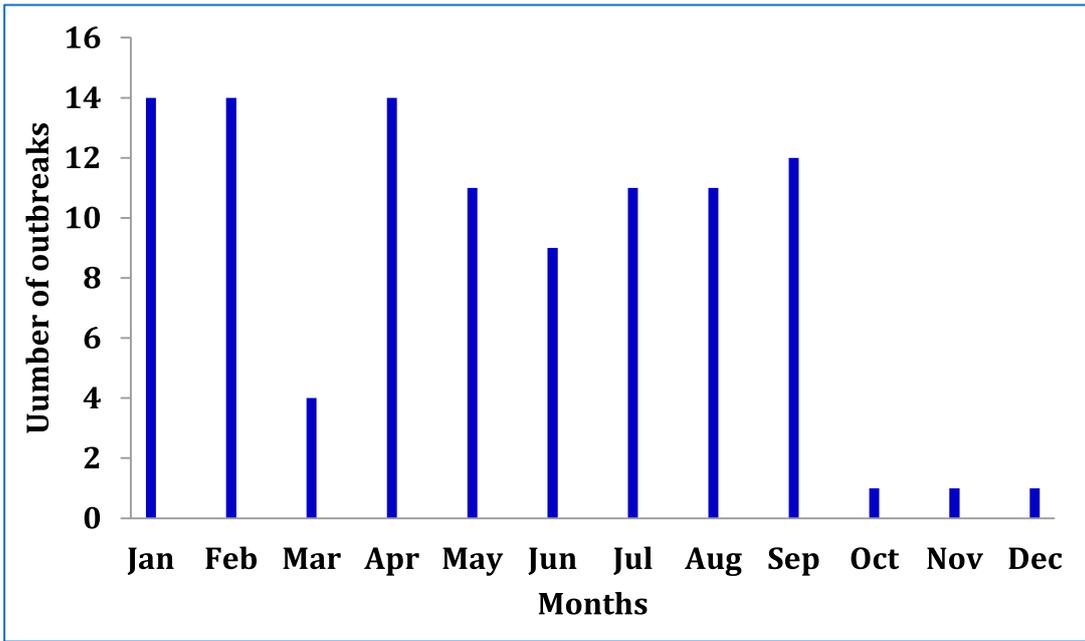


Figure 5.8: Temporal distribution of CBPP in 2011

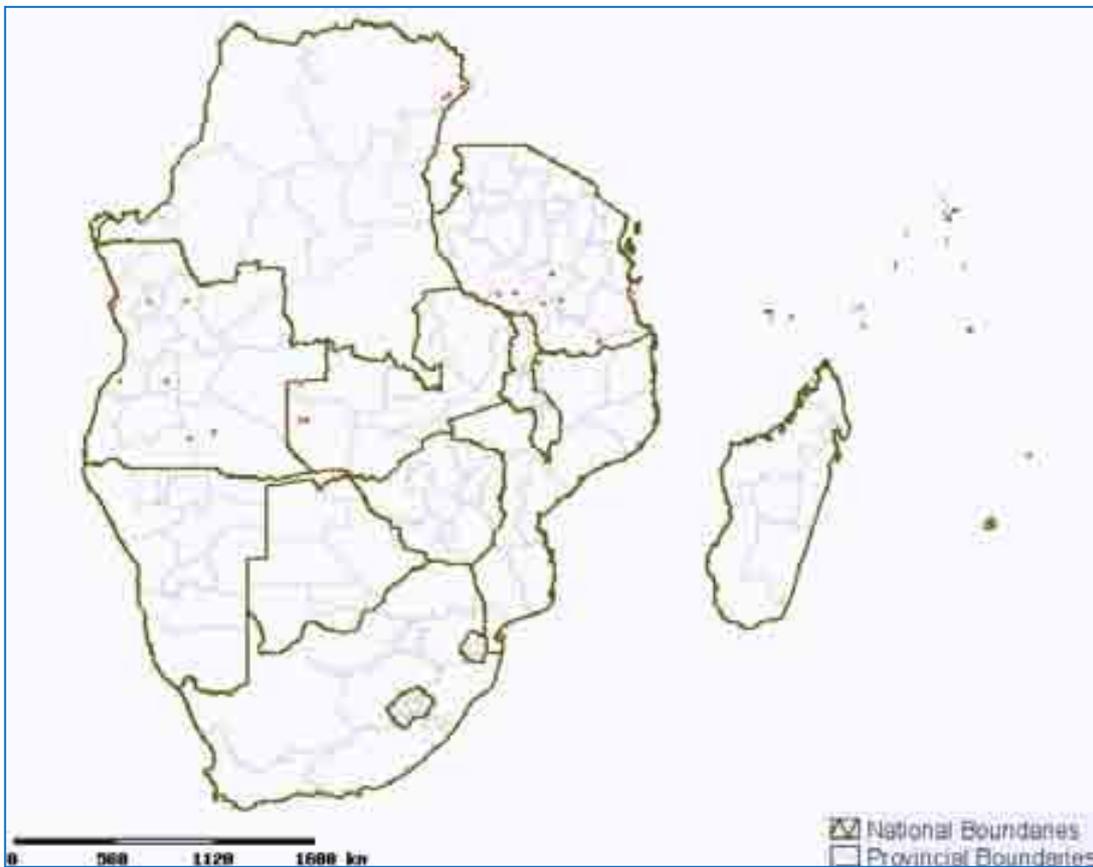


Figure 5.9: Spatial distribution of CBPP in 2011

5.5 Foot and Mouth Disease

A total of 159 FMD outbreaks were reported in nine (9) SADC Member States in 2011. The number of MS reporting FMD in 2011 increased from eight (8) in 2010. Malawi joined the 8 MS that had reported occurrence in 2010. All the Member States reported less than 5 FMD outbreaks in the year except for South Africa (76) and Zimbabwe (45). Twenty-four of the 76 outbreaks reported by South Africa occurred in wildlife. South Africa is the only country that reported FMD in wildlife.

Table 5.10: Member States affected by FMD in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Botswana	3	2,313	-	-	-
D.R. Congo	1	325	-	-	25
Malawi	2	36	-	-	-
Mozambique	4	638	-	-	-
Namibia	4	245	-	-	-
Tanzania	3	2,431	238	-	-
South Africa	77	1,277	-	40	-
Zambia	-	2,242	4	-	-
Zimbabwe	65	1,249	1	-	-
Total	159	10,756	243	40	25

The viruses responsible for the majority of these outbreaks were not typed, with 17% of the outbreaks having known serotypes (SAT1 & SAT2). This is a notable improvement from 4% in 2010. Botswana, Malawi and South Africa are the only 3 countries, of the 9, that investigated for types of the FMD viruses causing the outbreaks.

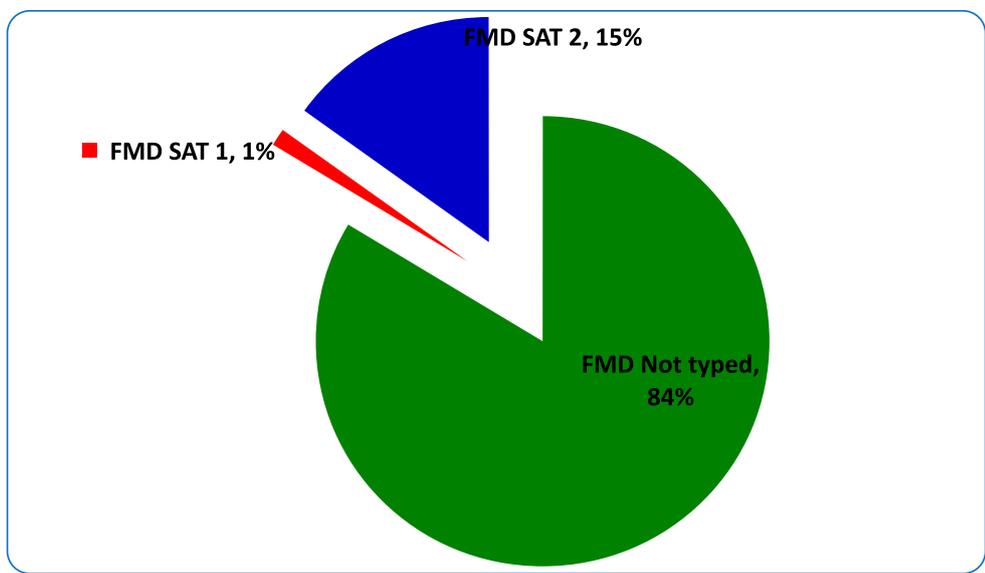


Figure 5.10: FMD types reported in 2011

Number of FMD cases increased from 10,160 to 10,756. The number of cattle destroyed or slaughtered increased from nine (9) in 2010 to 65 in 2011. The 243 deaths reported in 2011 were the highest in a year since 2008. FMD outbreaks were reported throughout the year.

Table 5.11: Outbreaks of FMD in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	8	4	8	9
Outbreaks	126	37	90	159
Cases	10,160	4,717	18,386	10,756
Deaths	76	23	218	243
Deaths/Cases (%)	0.7%	0.5%	1.2%	2.3%

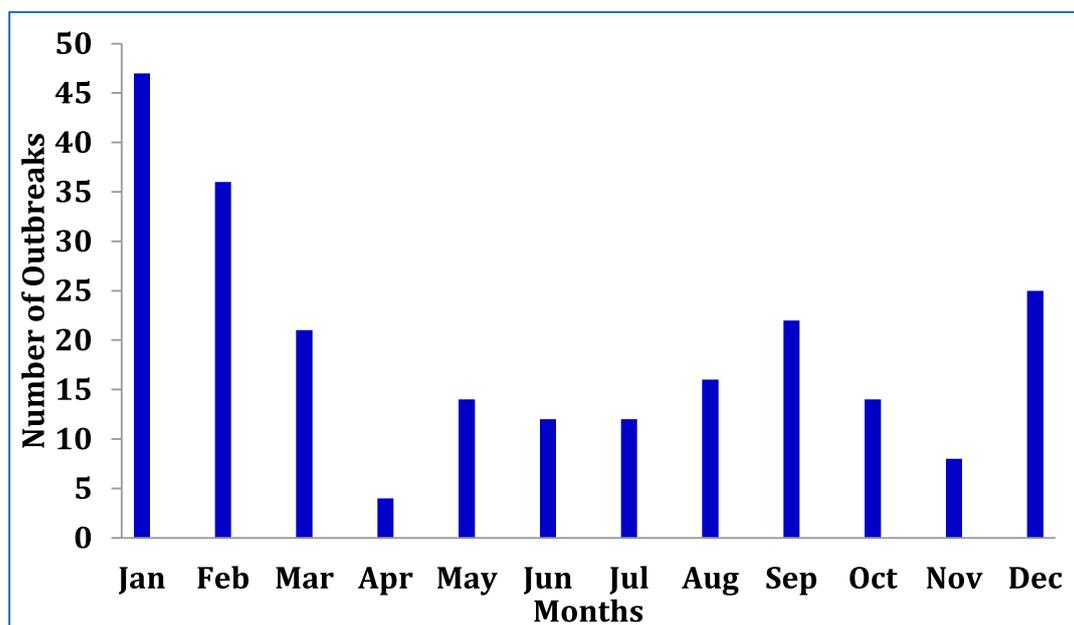


Figure 5.11: Temporal distribution of FMD outbreaks in 2011

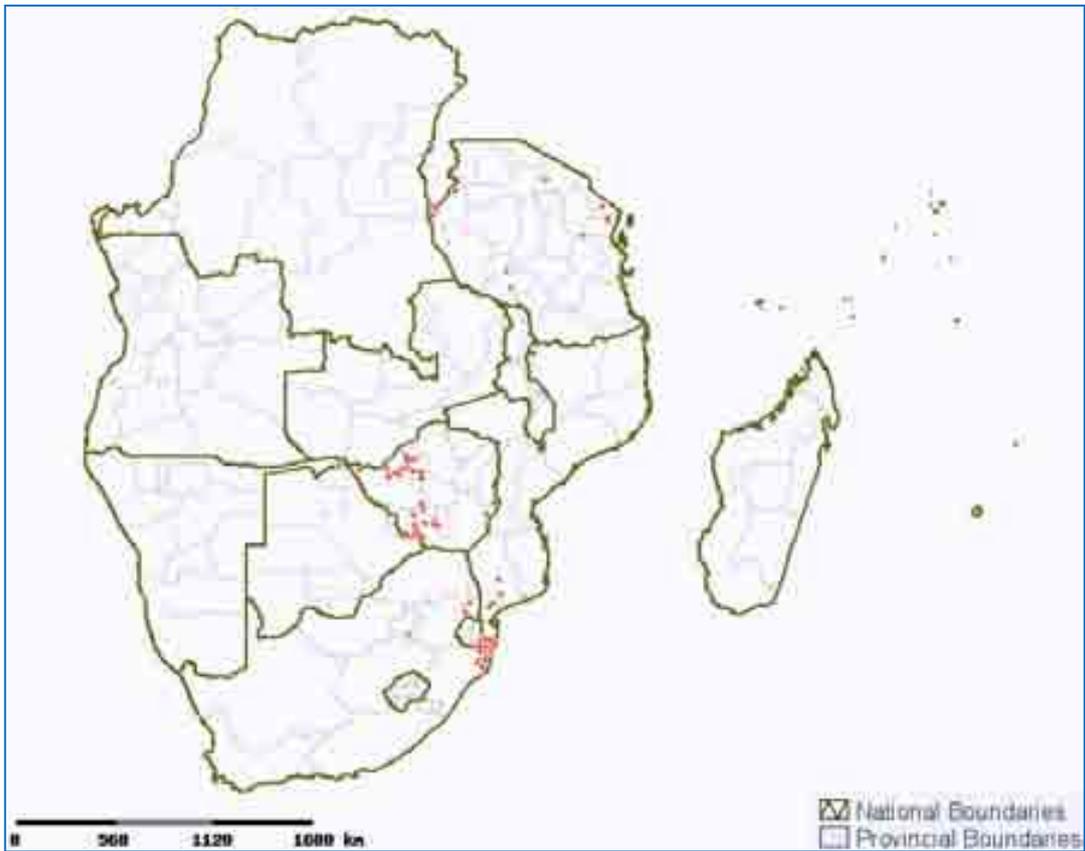


Figure 5.12: Spatial distribution of FMD in 2011

5.6 Highly Pathogenic Avian Influenza

Only one MS, South Africa, reported occurrence of Highly pathogenic avian influenza (HPAI) in 2011. Outbreaks of Highly pathogenic avian influenza were reported in two provinces of Eastern Cape and Western Cape. A total of 44 outbreaks and 20,218 cases were reported in chickens. In efforts to contain the disease 18,385 chickens were destroyed. The rest of the SADC region has remained free of HPAI with neither suspected nor confirmed outbreak of the disease in any other Member State.

Table 5.12: Outbreaks of HPAI in the region from 2008 to 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
South Africa	44	20,218	208	18,385	-
Total	44	20,218	208	18,385	-

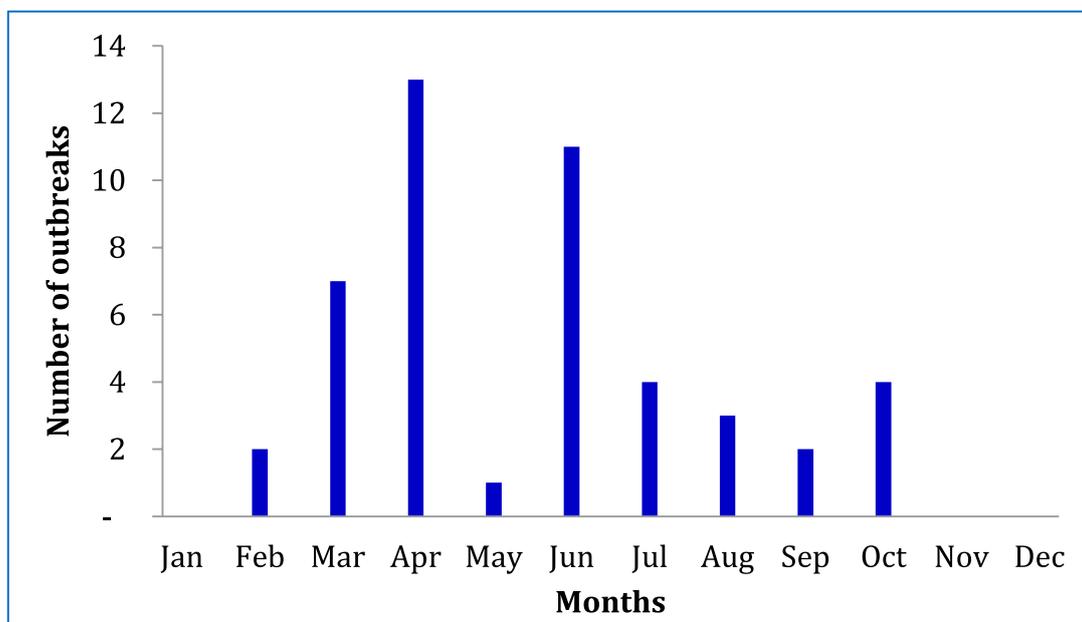


Figure 5.13: Temporal distribution of HPAI in 2011

5.7 Lumpy Skin Disease

A total of 798 outbreaks of Lumpy Skin Disease (LSD) were reported in 11 SADC Member States. It was the most frequently reported TADs in terms of foci of outbreaks. The majority of LSD outbreaks and cases were reported in South Africa (168) and Zimbabwe (447).

Table 5.13: Member States affected by LSD in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	177	27	-	-
Botswana	18	105	19	-	-
D.R. Congo	1	7,555	-	-	67
Lesotho	5	112	7	-	-
Mozambique	2	12	-	-	-
Namibia	64	330	16	-	-
Swaziland	61	473	21	-	-
Tanzania	-	641	85	-	-
South Africa	168	1,728	93	1	-
Zambia	31	2,610	55	-	-
Zimbabwe	447	1,974	53	-	-
Total	798	15,717	376	1	67

Table 5.14: Outbreaks of LSD in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	14	10	11	11
Outbreaks	808	510	618	798
Cases	12,611	4,531	5,645	15,717
Deaths	730	341	1,595	376
Deaths/Cases (%)	5.8%	7.5%	28.3%	2.4%

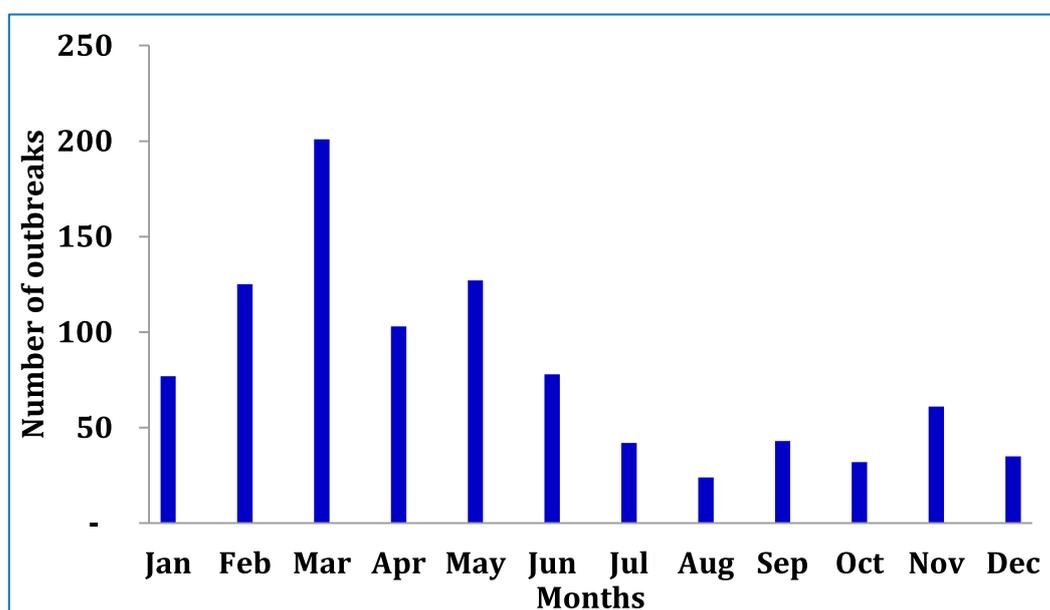


Figure 5.14: Temporal distribution of LSD outbreaks in 2011

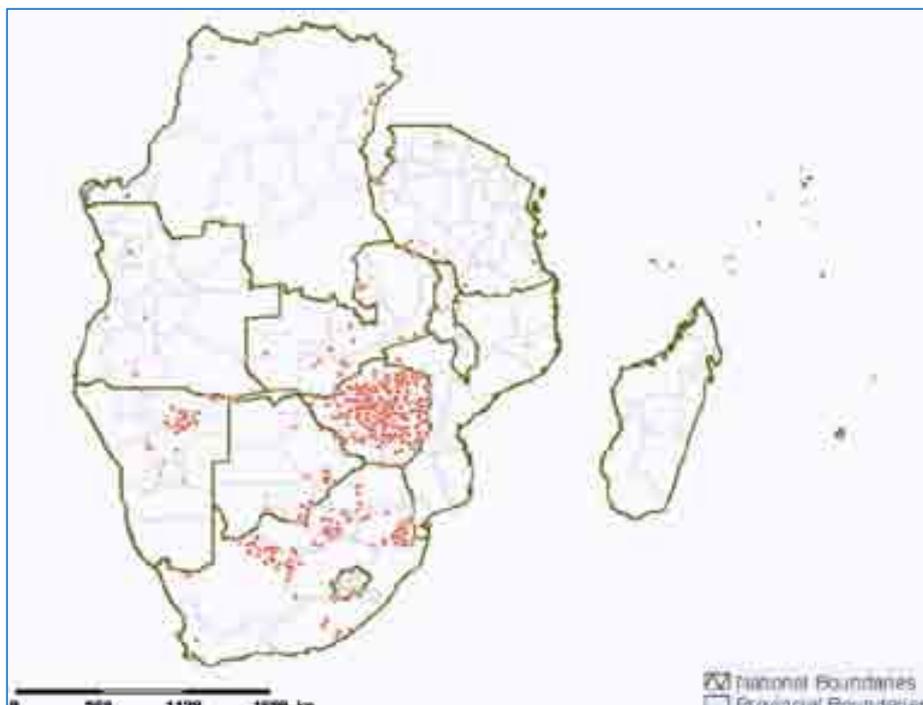


Figure 5.15: Spatial distribution of LSD in 2011

5.8 Newcastle Disease

A total of 116 outbreaks of Newcastle Disease (ND) were reported in eleven (11) Member States in 2011. It was again the disease with the most cases and deaths in 2011, just like in previous years. Namibia is the only continental SADC MS that did not report Newcastle disease in 2011.

Table 5.15: Member States affected by Newcastle disease in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	5,910	5,910	-	1,350
Botswana	1	10	4	-	-
D.R. Congo	10	273,981	226,563	2,645	36,725
Lesotho	2	55	55	-	285
Malawi	2	18	8	-	-
Mozambique	2	12,472	12,472	7,600	-
Swaziland	4	59	10	-	-
Tanzania	-	2,360	1,349	-	-
South Africa	22	62,492	3,406	59,060	-
Zambia	54	14,674	11,598	-	-
Zimbabwe	18	2,152	1,546	-	-
Total	116	374,183	262,921	69,305	38,360

Table 5.16: Outbreaks of Newcastle disease in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	12	8	10	11
Outbreaks	242	150	153	116
Cases	211,885	35,852	42,271	374,183
Deaths	154,968	30,476	34,434	262,921
Deaths/ Cases (%)	73.1%	85.0%	81.5%	70.3%

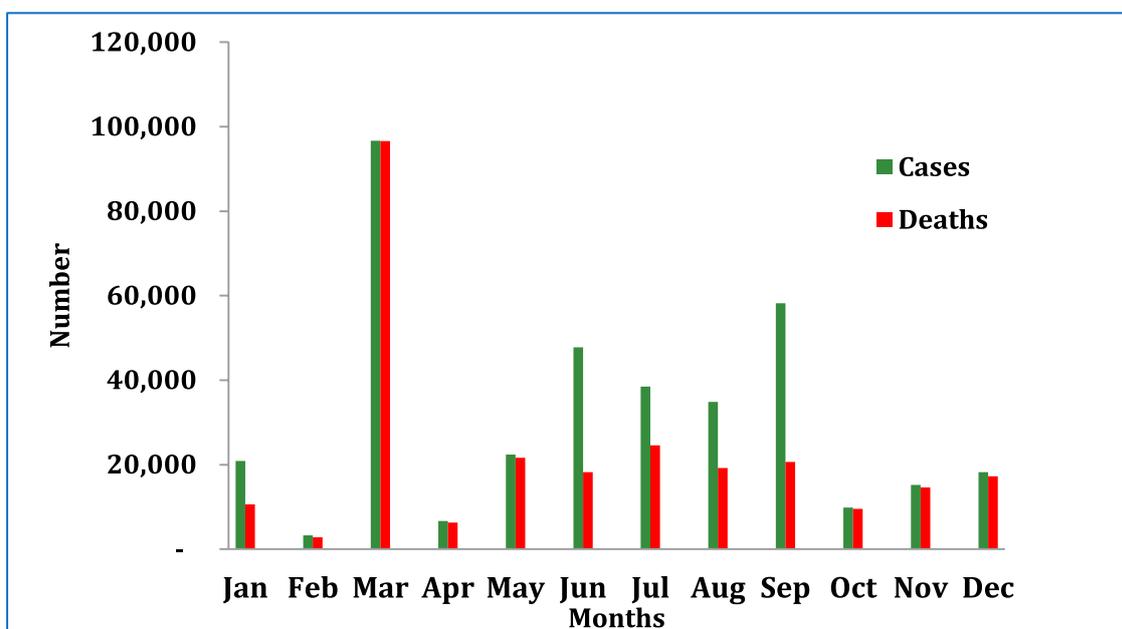


Figure 5.16: Temporal distribution of Newcastle disease in 2011

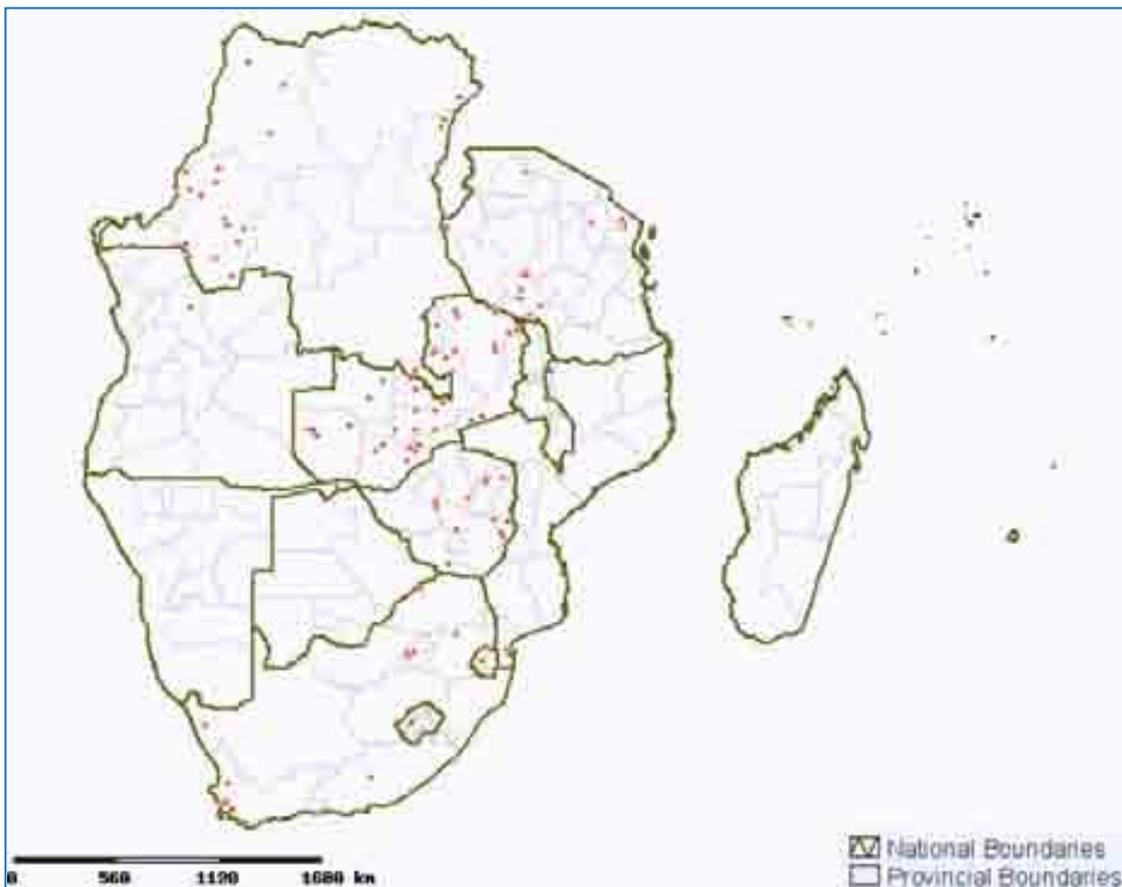


Figure 5.17: Spatial distribution of ND in 2011

5.9 Pestes de Petits Ruminants

Only DRC and Tanzania have reported PPR since its emergence in the region in 2008. A total of 30 outbreaks, 75,053 cases and 49,838 deaths were reported in the year. Mortality was 66.4% of cases reported. Majority of PPR outbreaks in the year were reported in goats. Only 1 outbreak, 16 cases and 4 deaths were reported in sheep. A total of 17,636 small ruminants were slaughtered as a result of PPR and an additional 873 were destroyed.

Table 5.17: Member States affected by PPR in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
D.R. Congo	29	75,025	49,815	873	17,636
Tanzania	1	28	23	-	-
Total	30	75,053	49,838	873	17,636

The huge increase of cases and deaths in 2011 could be because of increased surveillance and/or increased spread of PPR in the two affected countries. In 2010, D. R. Congo and Tanzania reported 10 and 1 outbreaks respectively. In 2008, only D.R. Congo reported a single outbreak affecting 89 sheep and goats in the south western part of the country. In 2009, Tanzania was the only country which reported one outbreak of PPR in northern part of the country along the border with Kenya.

Table 5.18: Outbreaks of PPR in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	1	-	2	2
Outbreaks	1	-	11	30
Cases	89	-	650	75,053
Deaths	79	-	620	49,838
Death/Cases (%)	88.8%	N/A	98.4%	66.4%

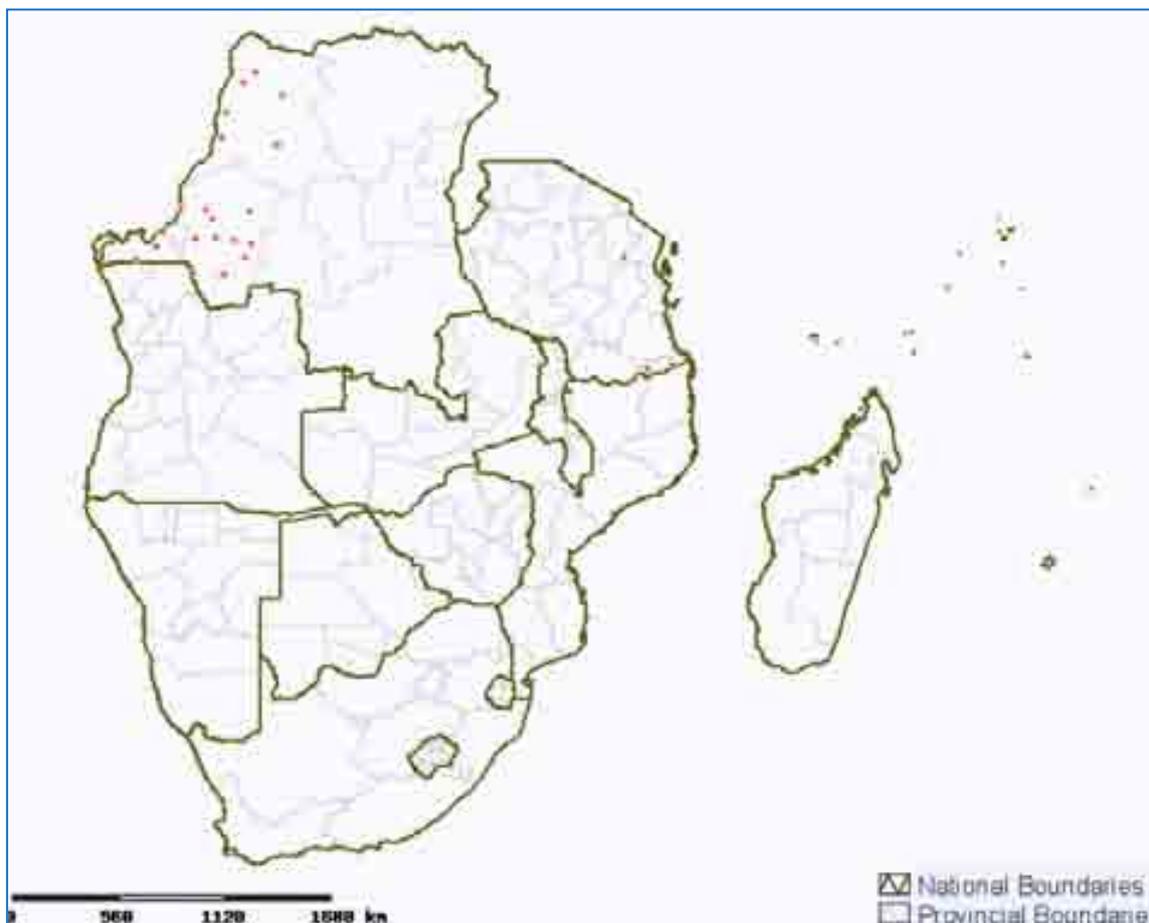


Figure 5.18: Spatial distribution of PPR in 2011

The SADC TADs Project which is funded by African Development Bank (AfDB), through two Sub-Committees of the SADC Livestock Technical Committee (LTC), namely the Epidemiology and Informatics and Laboratory and Diagnostic Sub-Committees, is facilitating a PPR working group to develop a regional PPR control and eradication strategy which is expected to be ready and operational early 2012. This plan will elaborate how SADC Member States will control and eradicate PPR.

5.10 Rabies

Rabies continued to be the disease with the widest territorial distribution in the SADC region in 2011. The disease was reported in all 12 continental Member States of SADC. It contributed 25.5% of the total number of TADs outbreaks reported in the year. The outbreaks mainly affected cats and dogs (64%), Cattle (18%) and wildlife (11%).

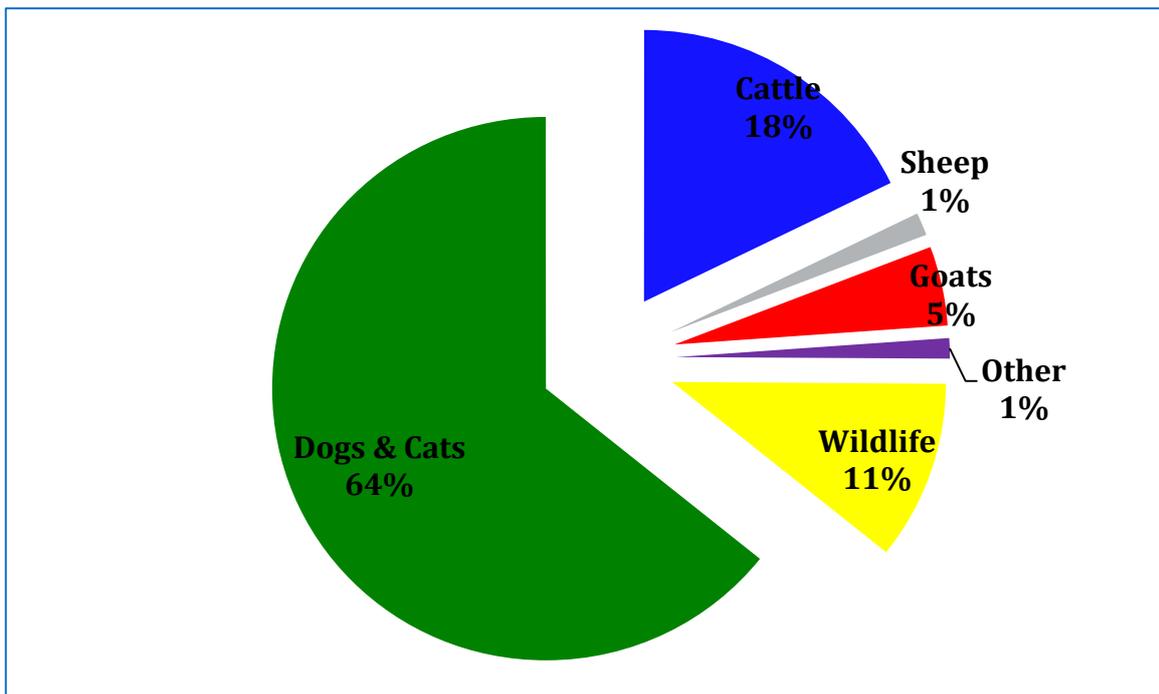


Figure 5.19: Distribution of Rabies outbreaks by species affected in 2011

Table 5.19: Member States affected by Rabies in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	5	23	23	-	-
Botswana	41	48	44	-	-
D.R. Congo	4	81	74	7	-
Lesotho	5	13	13	-	-
Malawi	12	13	13	-	8
Mozambique	2	3	1	3	-
Namibia	235	303	257	2	-
Swaziland	33	41	36	2	3
Tanzania	2	6	6	-	-
South Africa	287	325	145	178	-
Zambia	37	209	69	-	-
Zimbabwe	79	149	113	2	-
Total	742	1,214	794	194	11

Table 5.20: Outbreaks of Rabies in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	13	11	12	12
Outbreaks	959	616	1,118	741
Cases	1,769	1,641	3,251	1,212
Deaths	1,103	909	1,444	792
Deaths/ Cases (%)	62.4%	55.4%	44.4%	65.3%

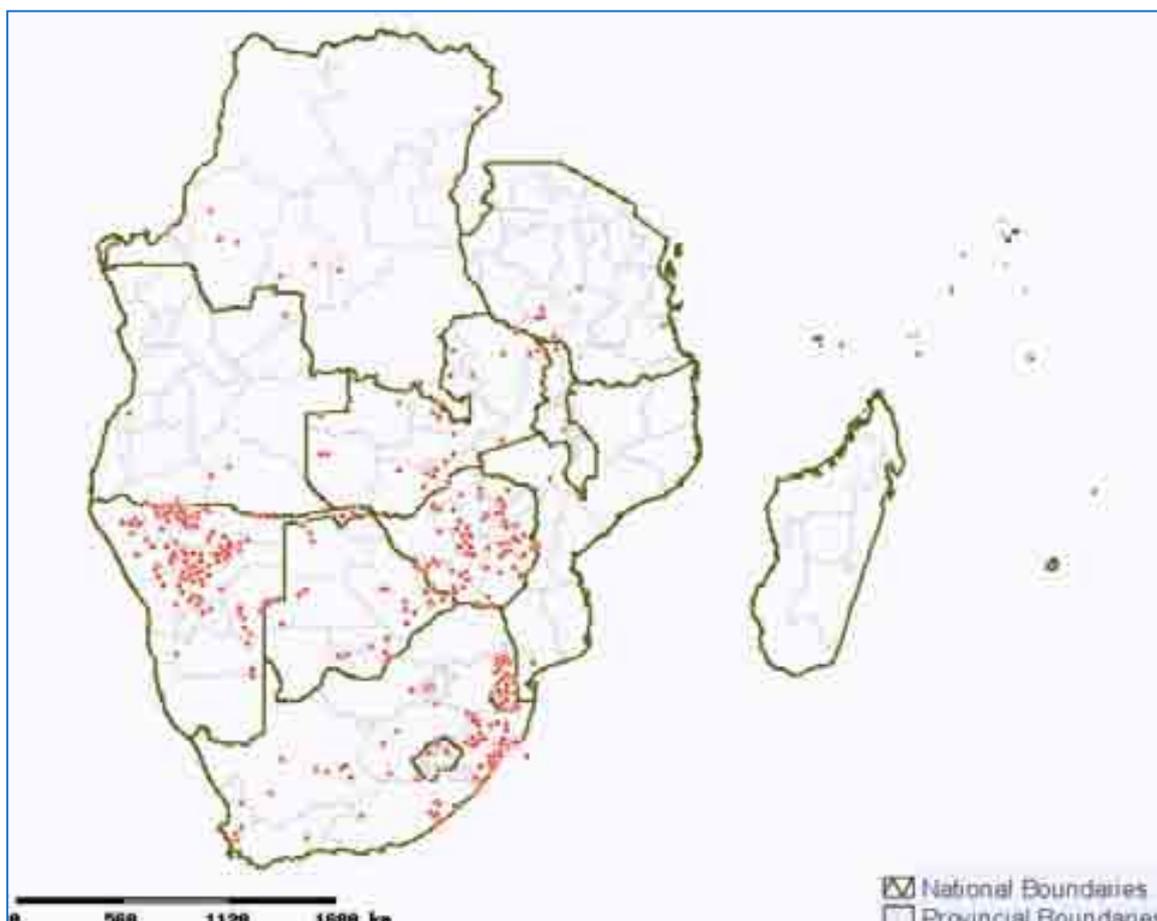


Figure 5.20: Spatial distribution of Rabies in 2011

5.11 Rift Valley Fever

Two countries, Namibia and South Africa, reported the disease in the year 2011. South Africa had the bulk of the RVF outbreaks (123 of 132), cases (3,640 of 3,810) and deaths (3,307 of 3,390) in the year.

Table 5.21: Member States affected by Rift valley fever in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Namibia	9	170	83	-	-
South Africa	123	3,640	3,307	-	-
Total	132	3,810	3,390	-	-

Botswana, Swaziland and Zimbabwe the only other countries to report RVF since it re-emerged in the SADC region, did not report occurrence of the disease in 2011. The number of deaths relative to cases was highest in 2011 since LIMS was established with 89% of cases resulting in death. Like in 2010, the majority of outbreaks affected sheep (67% of total outbreaks). Cattle were affected by 18% of the outbreaks while goats were affected by 13%.

Table 5.22: Outbreaks of Rift valley fever from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	4	2	3	2
Outbreaks	33 2	7	552	132
Cases	1,147	348	14,624	3,810
Deaths	691	107	8,798	3,390
Deaths/ Cases (%)	60.2%	30.7%	60.1%	89%

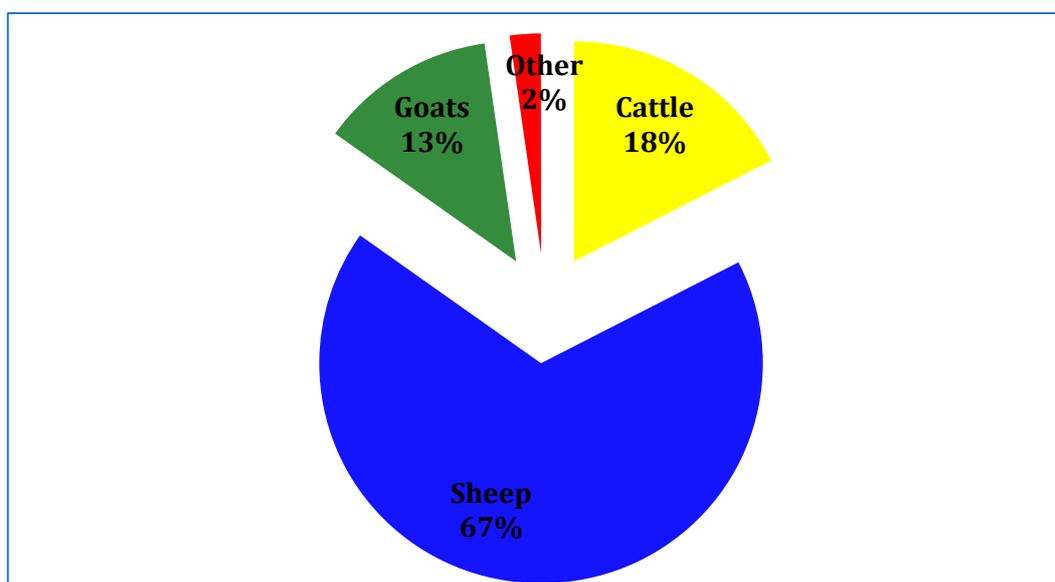


Figure 5.21: Distribution of Rift valley fever mortalities in 2011

Most of the outbreaks and cases were reported in the first half of 2011. March and April 2011 had the highest number of outbreaks in the year while period August to December had no outbreaks.

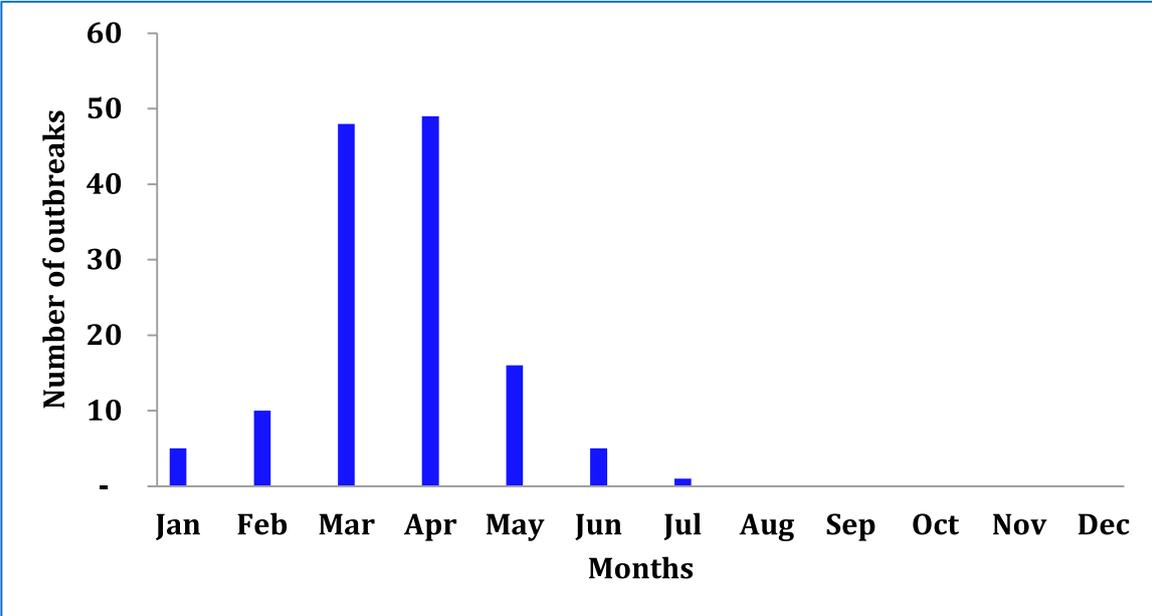


Figure 5.22: Temporal distribution of Rift valley fever outbreaks in 2011

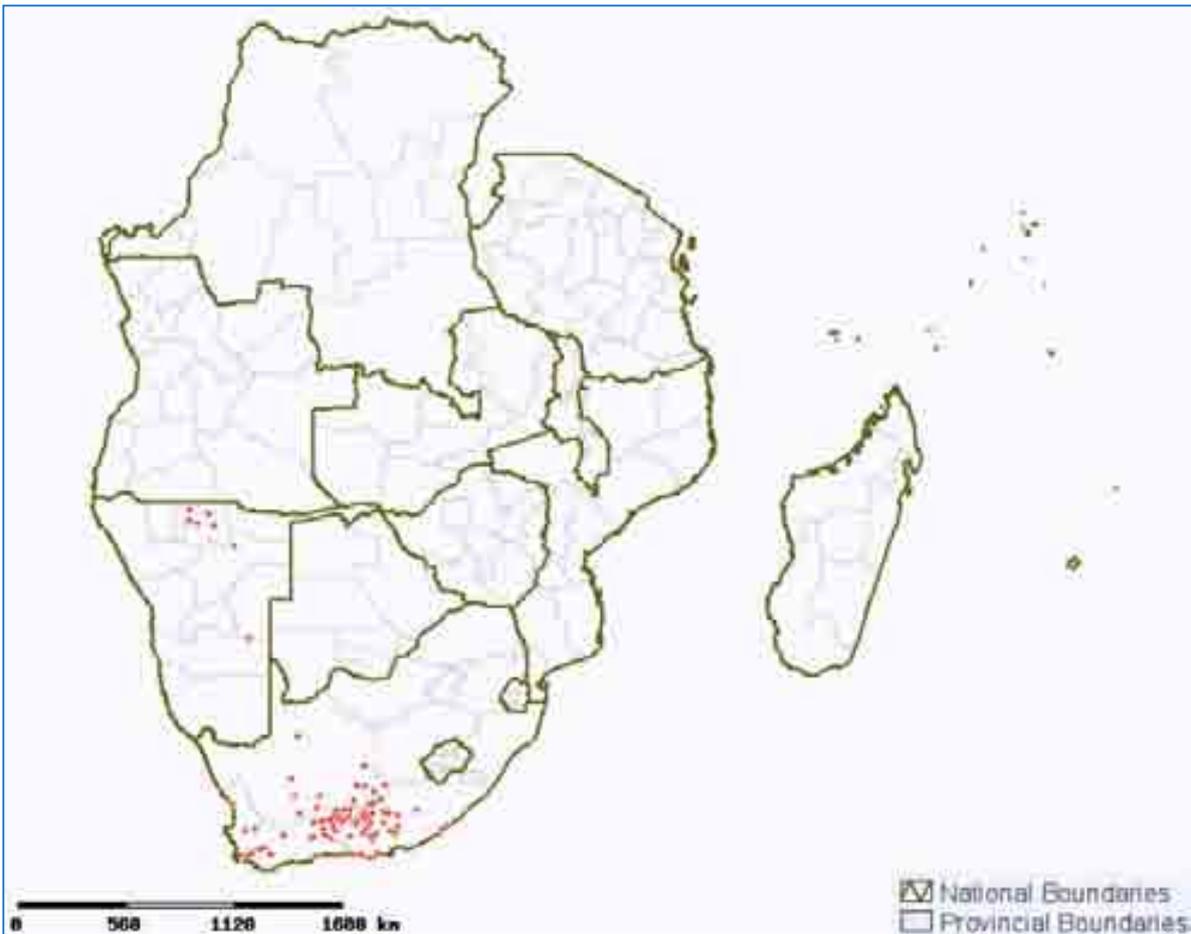


Figure 6.23: Spatial distribution of Rift valley fever in 2011

6. STATUS OF IMPORTANT ZOO NOTIC DISEASES IN THE SADC REGION

6.1 Important zoonotic diseases reported in the region

Five diseases, Anthrax, Bovine brucellosis, Bovine tuberculosis, Rabies and Rift valley fever, are considered under this section on zoonotic diseases. The section will look closely at Anthrax as the other two diseases have already been extensively discussed under TADs section of this Year Book.

Table 6.1: Zoonotic diseases reported in the region in 2011

Disease	Deaths	Cases	Deaths	Destroyed	Slaughtered
Anthrax	54	550	567	-	-
Bovine Brucellosis	380	6,405	89	1,063	301
Bovine Tuberculosis	107	4,089	39	81	1,224
Rabies	741	1,212	792	194	11
Rift Valley fever	132	3,810	3,390	-	-
Total	1,414	16,066	4,877	1,338	1,536

Rabies had the highest number of outbreaks followed by B. brucellosis with about half the number of outbreaks. However, B. brucellosis had the highest number of cases and RVF had the most deaths. None of the affected countries submitted reports of human cases.

6.2 Anthrax

Anthrax outbreaks were reported in four (4) SADC Member States in 2011. A total of 54 outbreaks and 550 cases occurred during the year. South Africa had the highest number of Anthrax outbreaks (27) while Zimbabwe (17) followed. Mortality due to Anthrax was 81.7%. Angola recorded 63.1% of total deaths in the region while Zimbabwe had 24.2%.

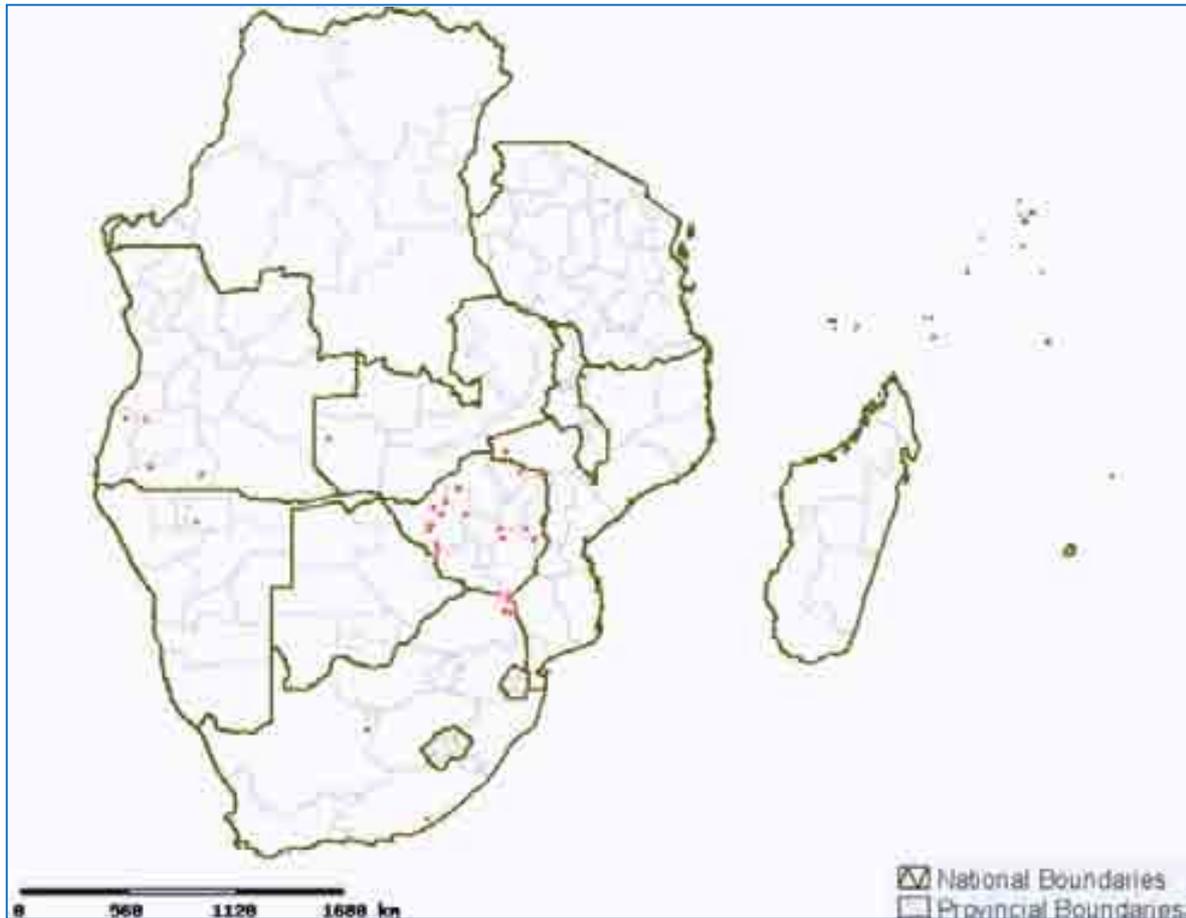


Figure 6.1: Spatial distribution of Anthrax in 2011

Table 6.2: Member States affected by Anthrax in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	7	358	358	-	-
Namibia	1	23	42	-	-
South Africa	27	29	29	-	-
Zambia	2	2	1	-	-
Zimbabwe	17	138	137	-	-
Total	54	550	567	-	-

The number of Anthrax cases in 2010 and 2009 are significantly lower than in 2008. Various livestock and wildlife species were affected by Anthrax. Cattle were the most affected species.

Table 6.3: Outbreaks of Anthrax in the region from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	9	7	8	4
Outbreaks	129	29	245	54
Cases	2,157	207	563	550
Deaths	810	155	460	550
Deaths/ Cases (%)	37.6%	74.9%	81.7%	100%

Table 6.4: Species affected by Anthrax in 2011

Species	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Cattle	25	489	487	-	-
Goats	1	10	10	-	-
Wild [†]	28	51	70	-	-
Total	54	550	567	-	-

[†]Eland, Buffalo and other Game

6.3 Bovine Brucellosis

A total of 380 bovine brucellosis outbreaks were reported in eight (8) SADC Member States in 2011. South Africa accounted for 78.4%, 84.6%, 64.0% and 100.0% of total outbreaks, cases, deaths and livestock destructions respectively. The disease caused the death of 89 and destruction of 1,063 cattle. The number of livestock destroyed shows an increase in cattle losses due to the disease.

Table 6.5: Member states affected by Bovine Brucellosis

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
D.R. Congo	3	377	28	0	173
Mozambique	21	271	3	0	128
Namibia	1	3	0	0	-
Swaziland	40	268	0	0	-
Tanzania	0	2	0	0	-
South Africa	298	5418	57	1063	-
Zambia	4	25	0	0	-
Zimbabwe	13	41	1	0	-
Total	380	6,405	89	1,063	301

Table 6.6: Outbreaks of Bovine brucellosis from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	7	7	9	8
Outbreaks	597	590	658	380
Cases	4,488	4,262	6,228	6,405
Deaths	1,529	375	59	89
Destroyed	No data	No data	821	1,364
Death+Destroyed/Cases			14.1% 2	2.7%

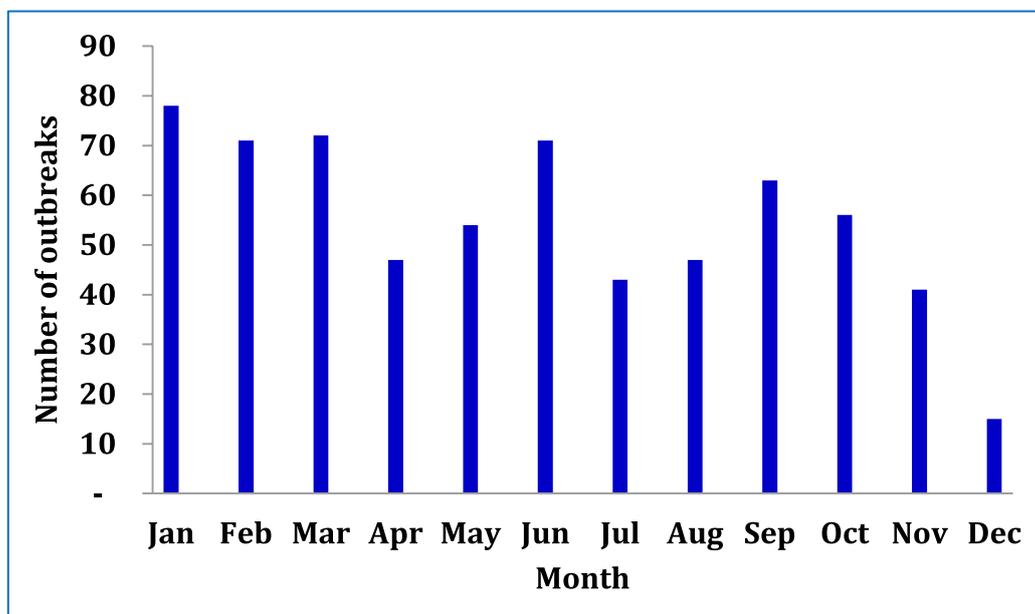


Figure 6.2: Temporal distribution of Bovine brucellosis in 2011

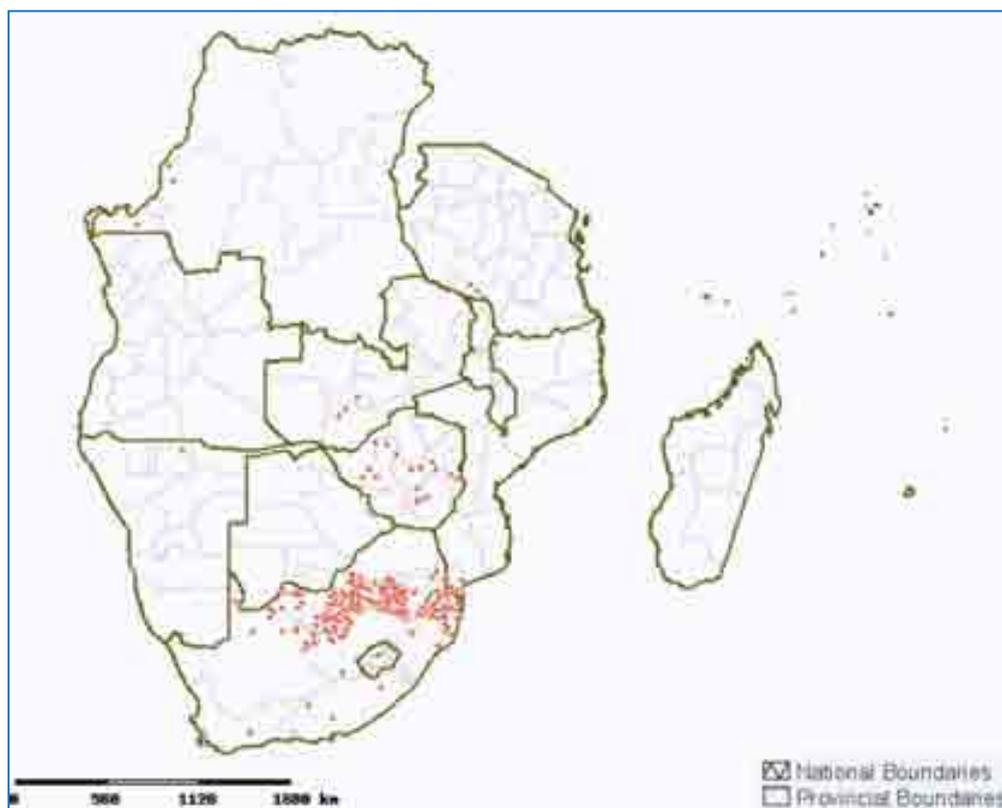


Figure 6.3: Spatial distribution of Bovine brucellosis in 2011

6.4 Bovine Tuberculosis

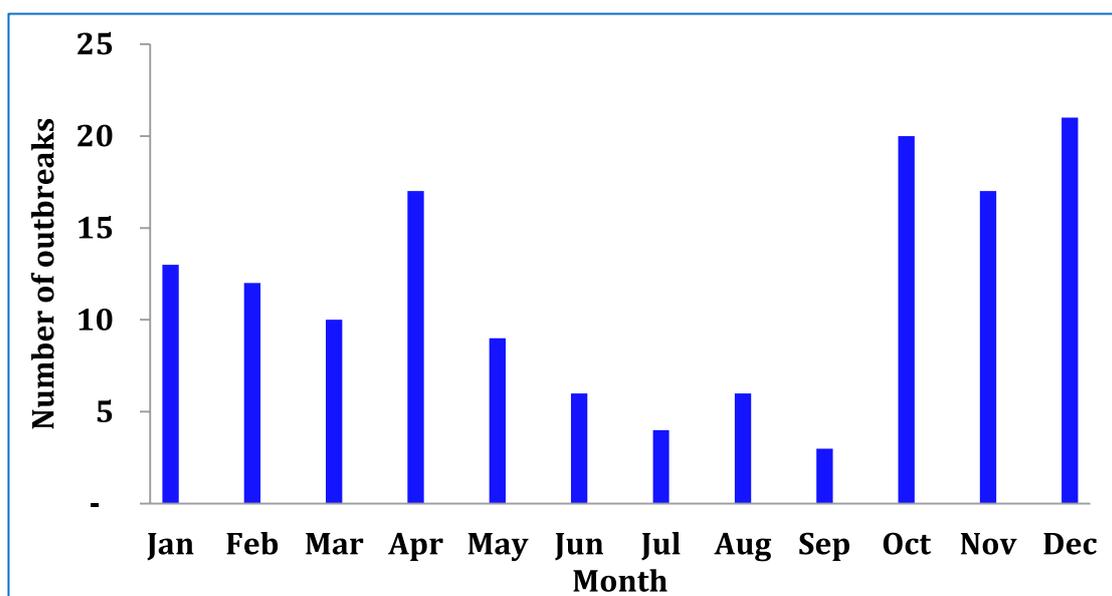
Reported in 6 SADC Member States in the year, Bovine tuberculosis was responsible for a total of 107 outbreaks, 4,089 cases and 39 deaths. Malawi accounted for 1,781 of 4,089 cases. Mozambique had the highest livestock loss due to Bovine tuberculosis with 52 deaths. The Democratic Republic of Congo slaughtered 1,219 of 2,163 cases of Bovine tuberculosis that were reported in the country. Majority of reported outbreaks occurred in cattle with a few in sheep and wildlife.

Table 6.7: Member States affected by Bovine tuberculosis in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	21	-	-	-
D.R. Congo	3	2,163	23	10	1,219
Malawi	56	1,781	-	-	-
Mozambique	7	20	9	12	5
South Africa	38	100	3	59	-
Zambia	2	4	4	-	-
Total	107	4,089	39	81	1,224

Table 6.8: Outbreaks of Bovine tuberculosis from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	Data not available	5	6	6
Outbreaks	31	29	78	107
Cases	354	164	1,201	4,089
Deaths	78	20	82	39
Destroyed			31	1,317
Deaths+Destroyed/ Cases			11.4%	32.8%

**Figure 6.4: Temporal distribution of Bovine tuberculosis**

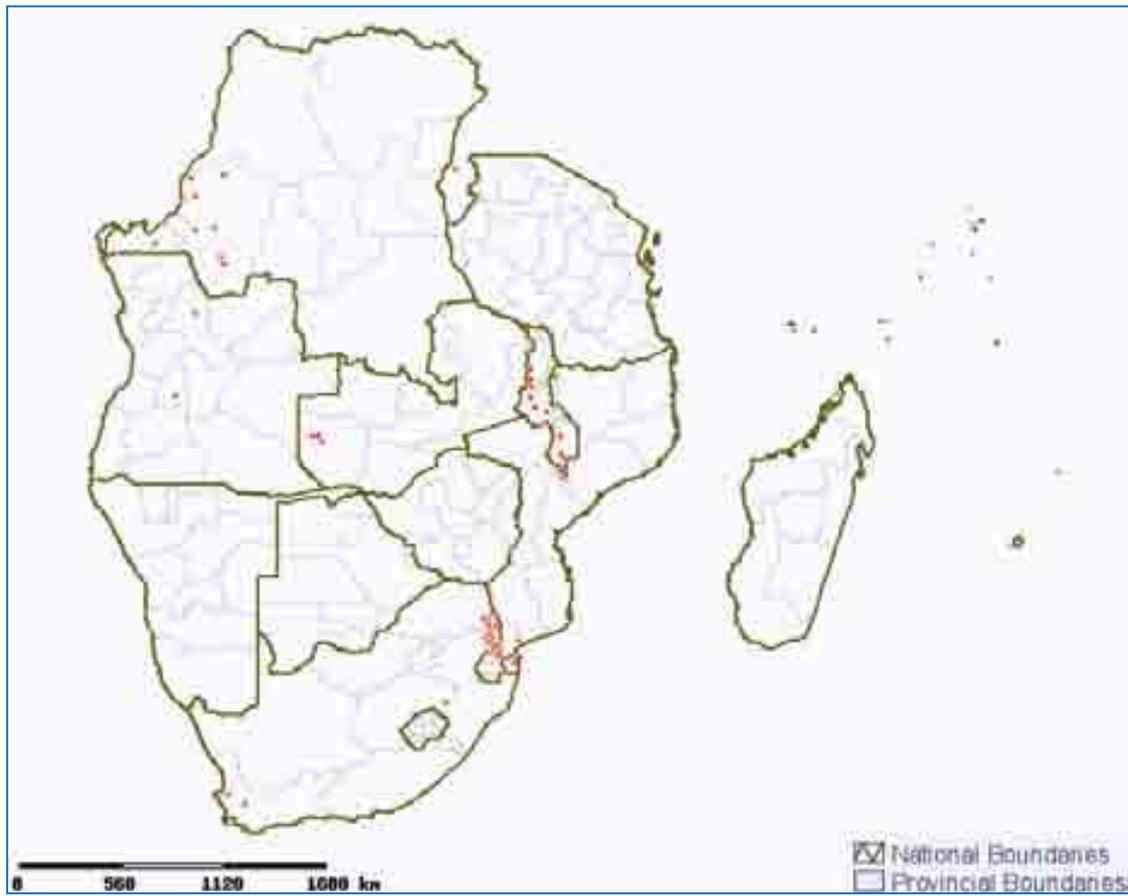


Figure 6.5: Spatial distribution of Bovine tuberculosis in 2011

7. STATUS OF OTHER IMPORTANT DISEASES IN THE SADC REGION

7.1 Blackleg

A total of 392 Blackleg outbreaks were reported in 11 SADC Member States in the year 2011. Zimbabwe reported 281 of the 392 outbreaks. Outbreaks were spread throughout the year. Lesotho had the highest number of cases with 1,963 reported cases in the year.

Table 7.1: Member States affected by Blackleg in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	-	8	5	4	-
Botswana	3	19	17	-	-
D.R. Congo	2	72	63	-	6
Lesotho	5	1,963	9	-	-
Malawi	4	219	72	-	-
Namibia	1	3	37	-	-
Swaziland	54	210	49	-	-
Tanzania	1	32	5	-	-
South Africa	13	48	37	-	-
Zambia	28	365	145	-	-
Zimbabwe	281	969	529	-	-
Total	392	3,908	968	4	6

Table 7.2: Outbreaks of Blackleg from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	Data not available	10	10	11
Outbreaks	270	221	524	392
Cases	6,231	1,062	4,026	3,908
Deaths	2,153	416	1,282	968
Deaths/ Cases (%)	34.6%	39.2%	31.8%	24.8%

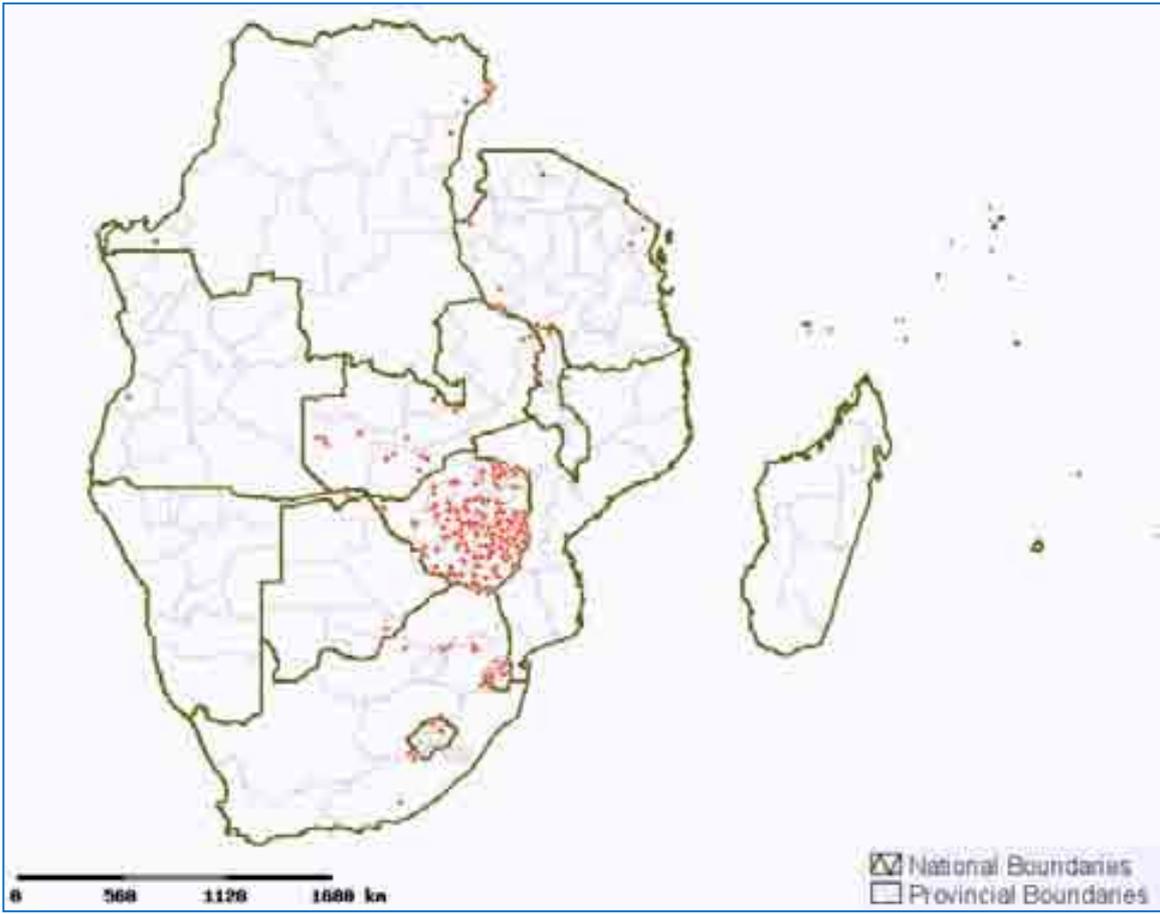


Figure 7.1: Spatial distribution of Blackleg in 2011

7.2 Bovine Anaplasmosis

Eleven Member States of the SADC region reported Bovine anaplasmosis in the year. The bulk of the 811 outbreaks were reported in Zimbabwe (540).

Table 7.3: Member States affected by Bovine anaplasmosis in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Botswana	6	68	59	-	-
D.R. Congo	1	12	-	-	-
Lesotho	10	275	9	-	-
Malawi	4	11	2	-	-
Mozambique	7	45	6	-	-
Namibia	6	14	9	-	-
Swaziland	15	20	11	-	1
Tanzania	9	911	56	-	-
South Africa	59	123	17	-	-
Zambia	13	1,782	410	-	-
Zimbabwe	540	1,087	261	-	-
Total	670	4,348	840	-	1

Table 7.4: Outbreaks of Bovine anaplasmosis from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	12 9	1	0	11
Outbreaks	366	480	811	670
Cases	7,730	2,741	4,698	4,348
Deaths	3,005	676	1,240	840
Deaths/ Cases (%)	38.9%	24.7%	26.4%	19.3%

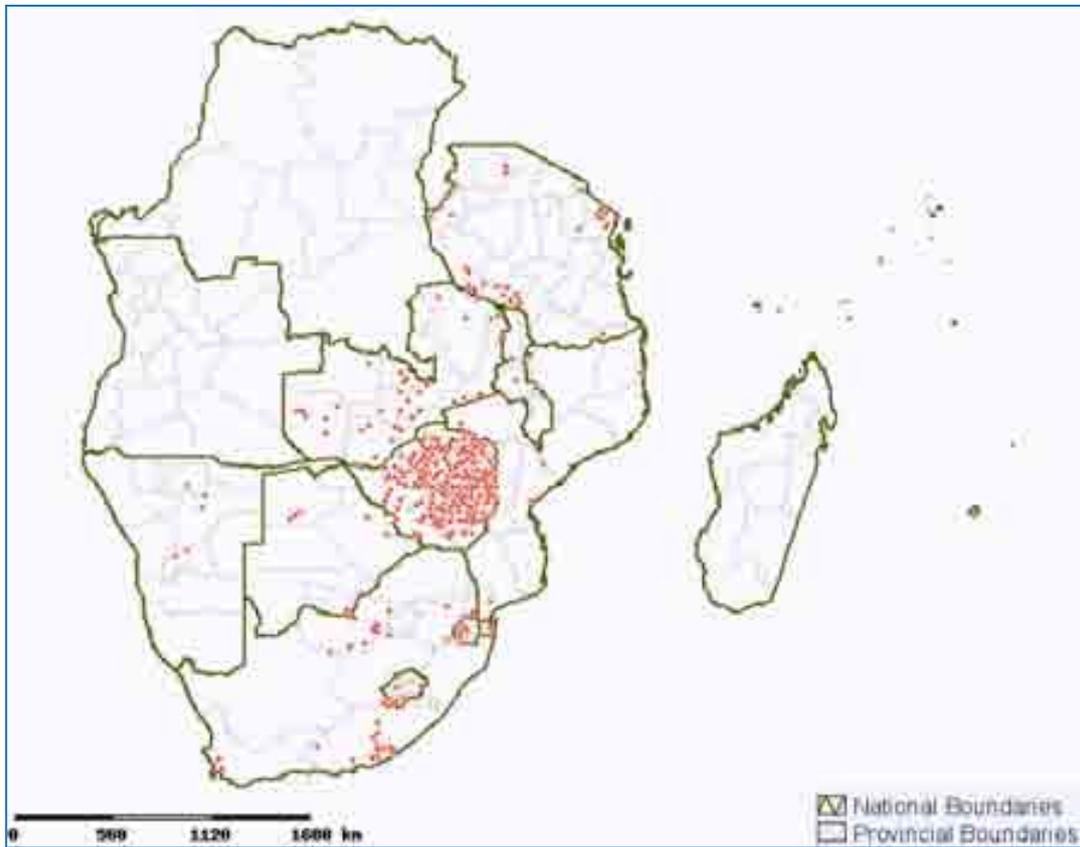


Figure 7.2: Spatial distribution of Bovine anaplasmosis in 2011

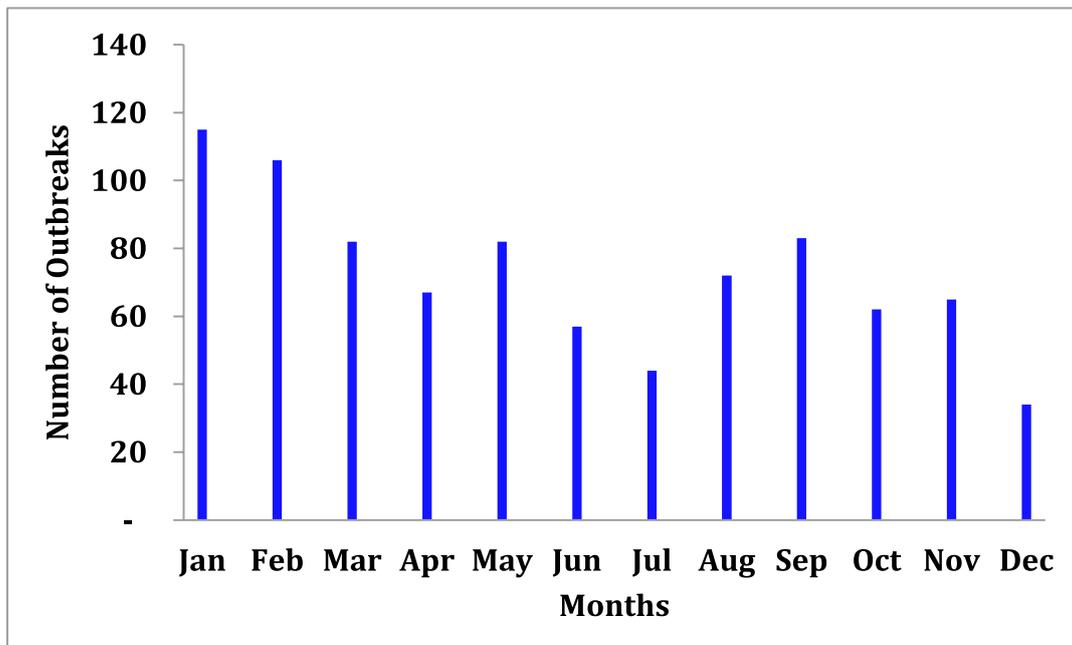


Figure 7.3: Temporal distribution of BA outbreaks in 2011

7.3 Bovine Babesiosis

A total of 330 Bovine babesiosis outbreaks were reported in 10 SADC Member States in 2011. Zimbabwe reported the majority of the outbreaks, cases and deaths. Majority of Bovine babesiosis cases occurred in the first half of the year. The period January to March had 51.2% of total cases.

Table 7.5: Member States affected by Bovine babesiosis in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	403	90	-	-
D.R. Congo	2	416	-	-	-
Malawi	3	33	3	-	-
Mozambique	10	66	32	-	-
Tanzania	-	152	17	-	-
Zambia	13	5,572	1,479	-	-
Zimbabwe	27	52	14	-	-
Total	56	6,694	1,635	-	-

Table 7.6: Outbreaks of Bovine babesiosis from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	11	8	11	10
Outbreaks	215	325	423	331
Cases	5,824	1,306	2,171	1,136
Deaths	1,040	245	489	216
Deaths/ Cases (%)	17.9%	18.8%	22.5%	19.0%

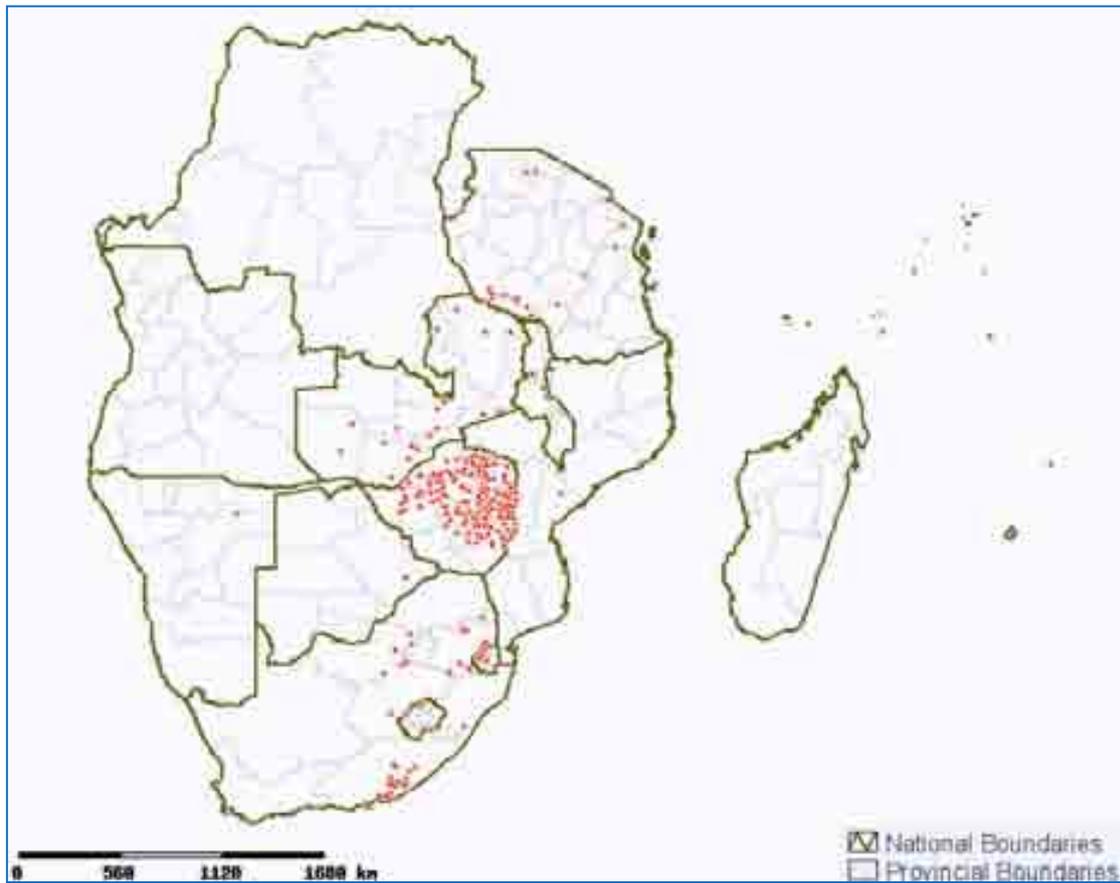


Figure 7.4: Spatial distribution of Bovine babesiosis in 2011

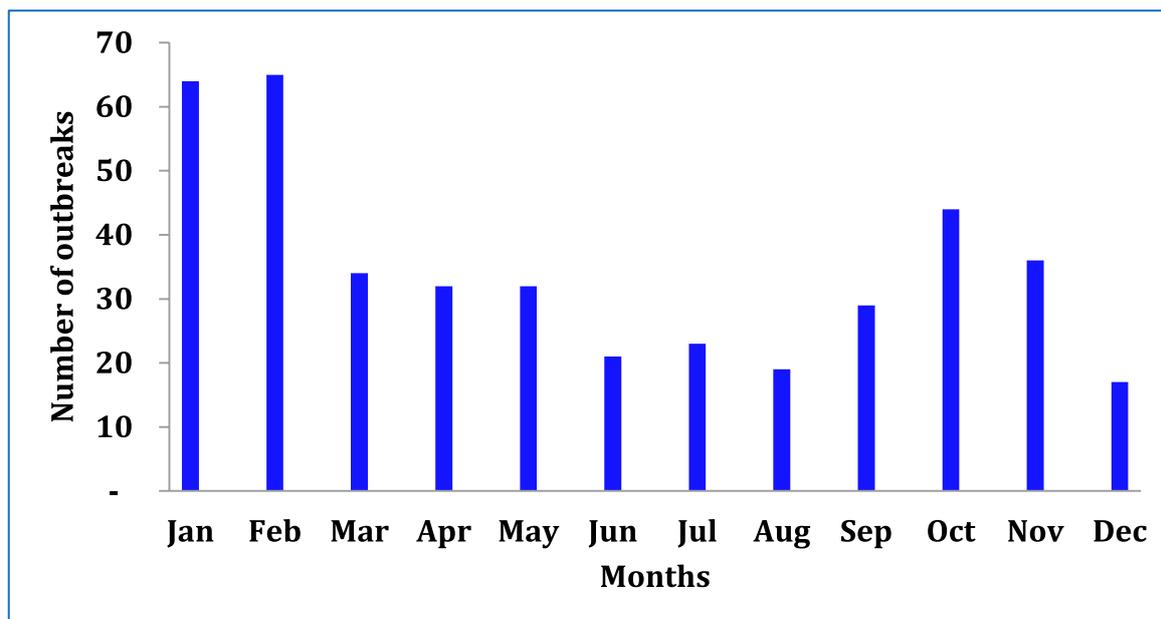


Figure 7.5: Temporal distribution of BBab in 2011

7.4 Bovine Theileriosis

Bovine Theileriosis was reported in seven (7) SADC Member States in 2011. This is one more country than in 2010 with the addition of Angola to the countries reporting Bovine theileriosis in 2011. Zimbabwe reported the highest number of outbreaks with 27 of the 56. However, Zambia had 83.2% and 90.5% of cases and deaths respectively.

Table 7.7: Member States affected by Bovine theileriosis in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	403	90	-	-
D.R. Congo	2	416	-	-	-
Malawi	3	33	3	-	-
Mozambique	10	66	32	-	-
Tanzania	-	152	17	-	-
Zambia	13	5,572	1,479	-	-
Zimbabwe	27	52	14	-	-
Total	56	6,694	1,635	-	-

Table 7.8: Outbreaks of Bovine theileriosis from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	5	6	6	7
Outbreaks	181	172	231	56
Cases	17,157	12,218	12,717	6,694
Deaths	3,908	1,690	3,011	1,635
Deaths/ Cases (%)	22.8%	13.8%	23.7%	24.4%

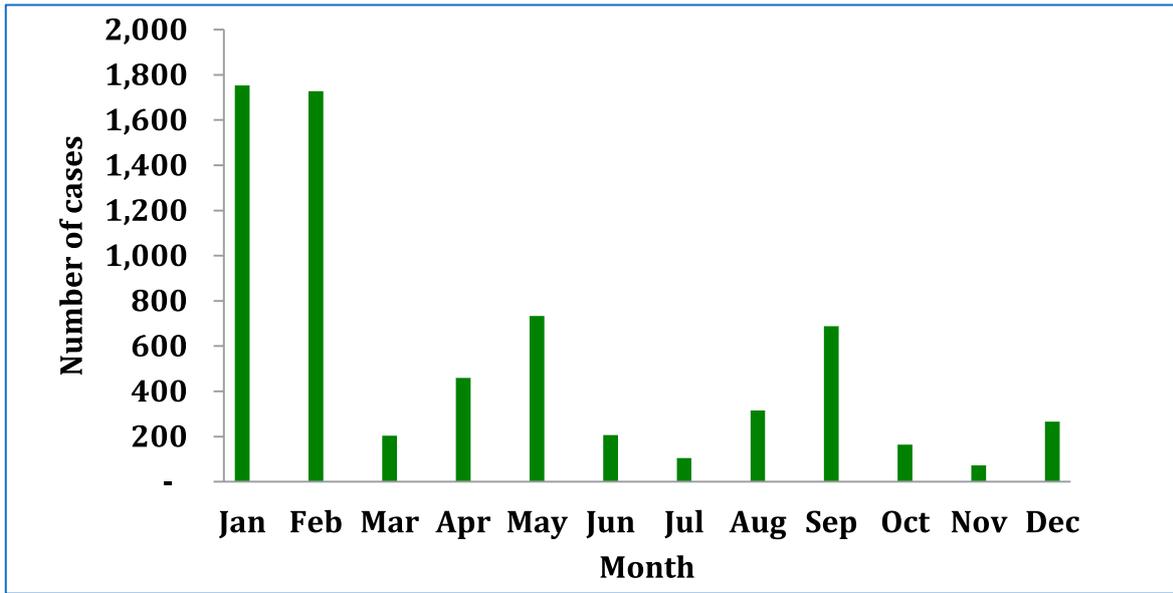


Figure 7.6: Temporal distribution of Theileriosis cases in 2011

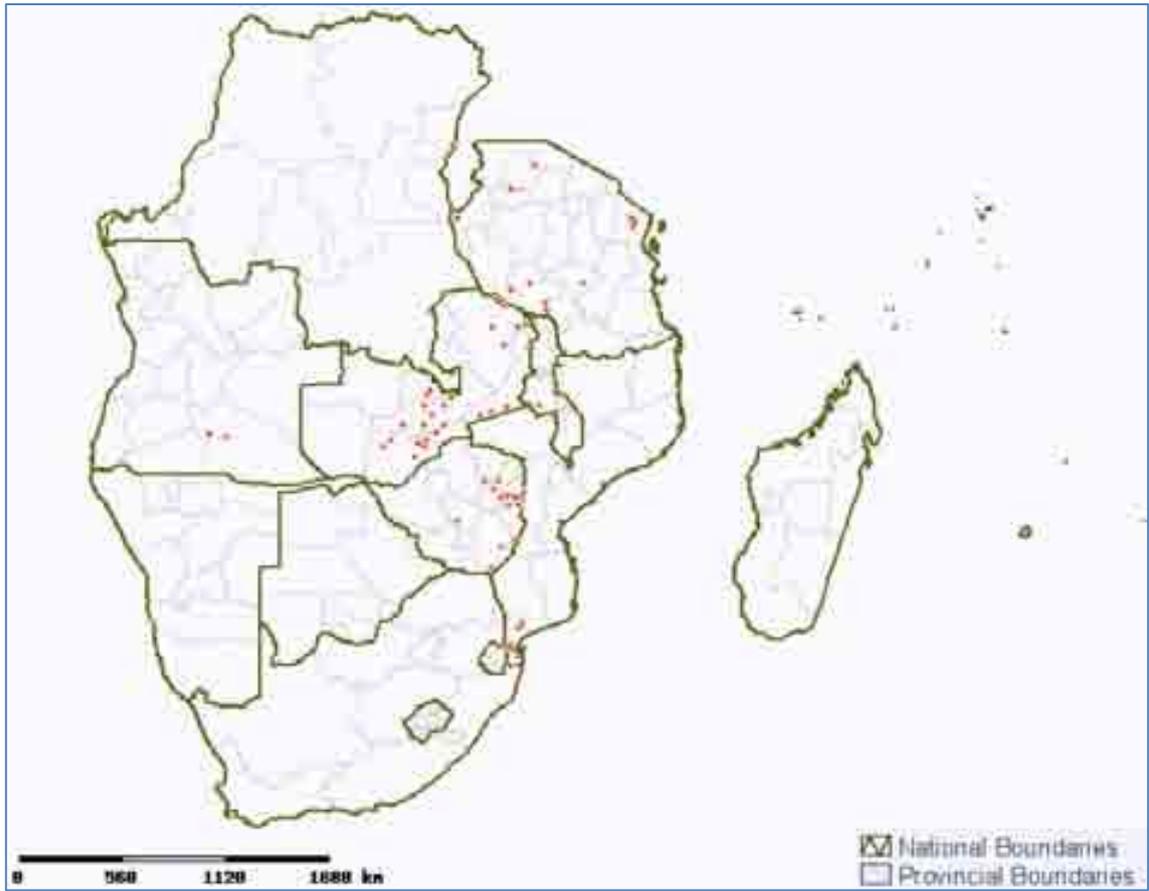


Figure 7.7: Spatial distribution of Theileriosis in 2011

7.5 Canine Distemper

Canine distemper (CD) occurred in five SADC Member States in 2011. This is a marginal reduction from the 7 MS that reported occurrence of the disease in 2010. A total of 96 outbreaks, 470 cases and 91 deaths were reported in dogs and cats. South Africa, Zambia and Zimbabwe reported 91 of 96 outbreaks. Zambia had 53 of 91 total deaths due to canine distemper. The number of Canine distemper outbreaks decreased from 115 in 2010 to 96 in 2011. Similarly, cases decreased from 958 to 406. Majority of outbreaks and cases occurred in the first quarter of 2011 with 155 of the 406 cases reported in March.

Table 7.9: Member States affected by Canine distemper in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Lesotho	3	3	0	0	0
Namibia	2	2	2	0	0
South Africa	54	155	1	0	0
Zambia	17	246	53	0	0
Zimbabwe	20	64	35	0	0
Total	96	470	91	0	0

Table 7.10: Outbreaks of Canine distemper from 2008 to 2011

Parameters	2008	2009	2010	2011
Countries affected	Data not available	5	7	4
Outbreaks	26	18	115	96
Cases	200	81	958	470
Deaths	109	29	144	91
Deaths/ Cases (%)	54.5%	35.8%	15.0%	19.4%

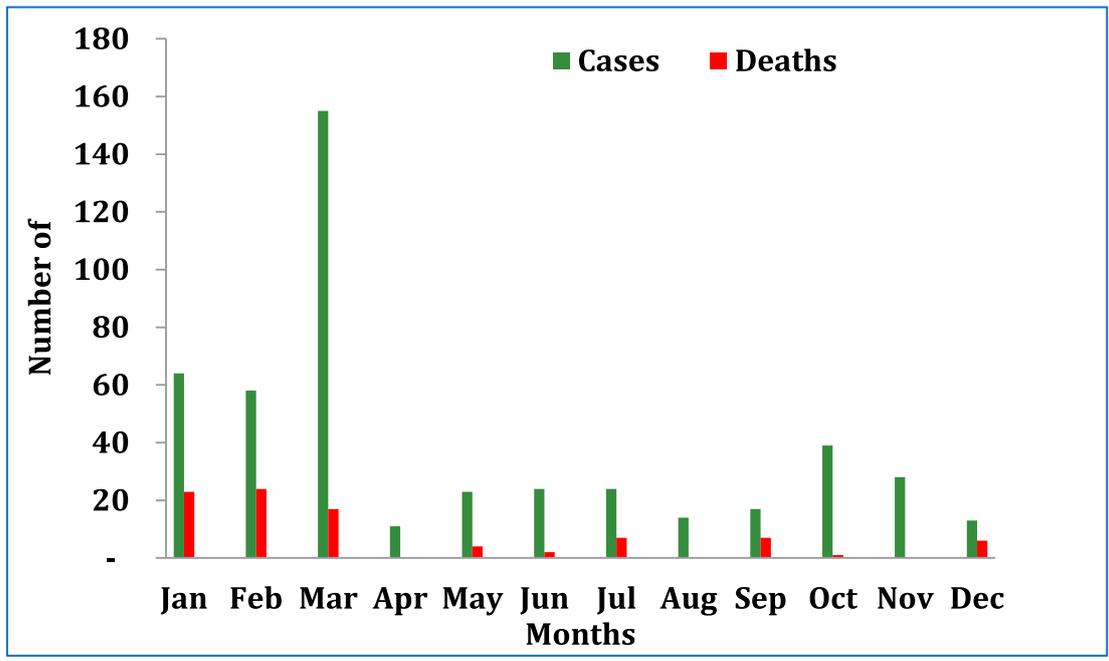


Figure 7.8: Temporal distribution of Canine Distemper in 2011

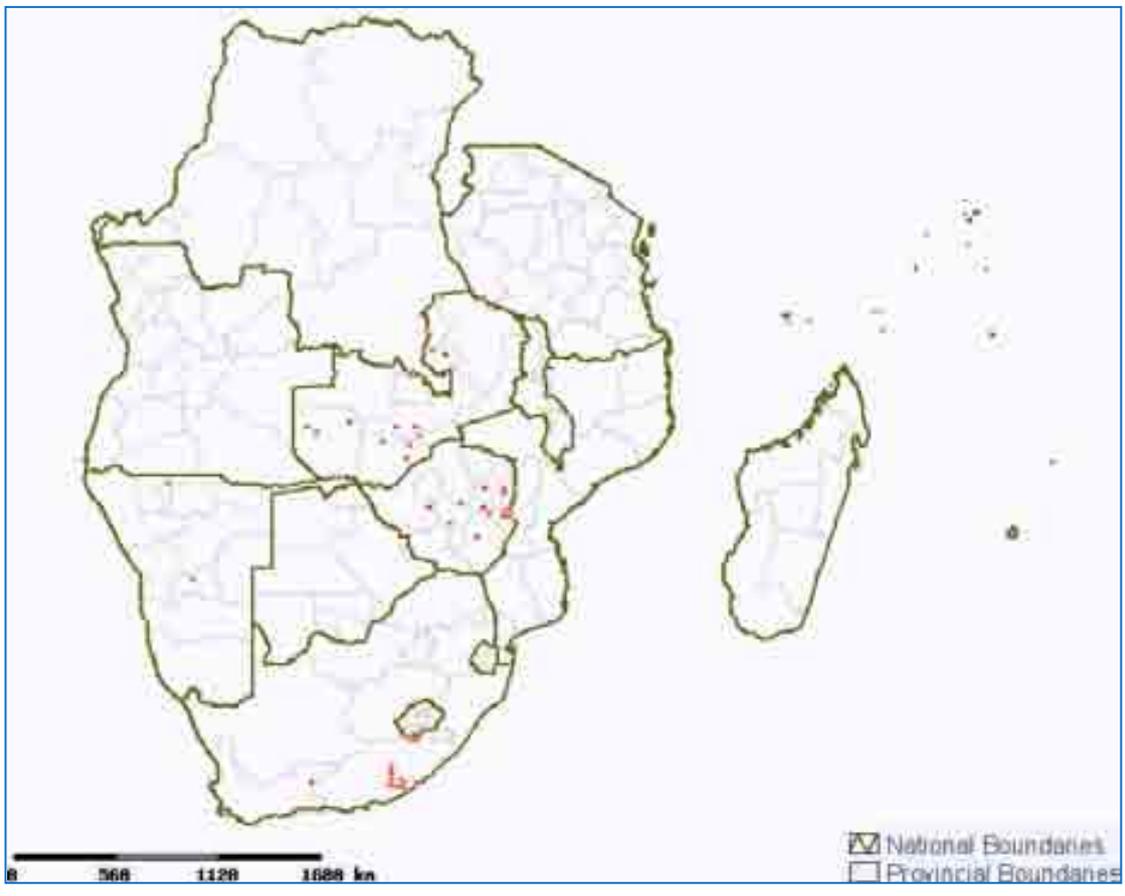


Figure 7.9: Spatial distribution of Canine distemper in 2011

7.6 Goat Mange

Goat mange occurred in seven countries of the region. The same Member States that were affected in 2010 were affected in 2011. The Democratic Republic of Congo had the highest number of cases (19,923) and deaths (601) followed by Zimbabwe with 525 cases and 57 deaths. Number of goat mange cases reported increased remarkably from 4,067 in 2010 to 20,786 in 2011.

Table 7.11: Member States affected by Goat mange in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	375	24	5	-
Botswana	4	21	3	-	-
D.R. Congo	2	19,923	601	-	104
Namibia	13	174	2	-	-
Swaziland	4	27	-	-	-
South Africa	12	111	-	-	-
Zimbabwe	49	525	57	-	-
Total	85	21,156	687	5	104

Table 7.12: Outbreaks of Goat mange from 2008 to 2011

Parameters	2009	2010	2011
Countries affected	6	7	7
Outbreaks	48	105	85
Cases	1,658	4,067	21,156
Deaths	118	259	687
Deaths/ Cases (%)	7.1%	6.4%	3.2%

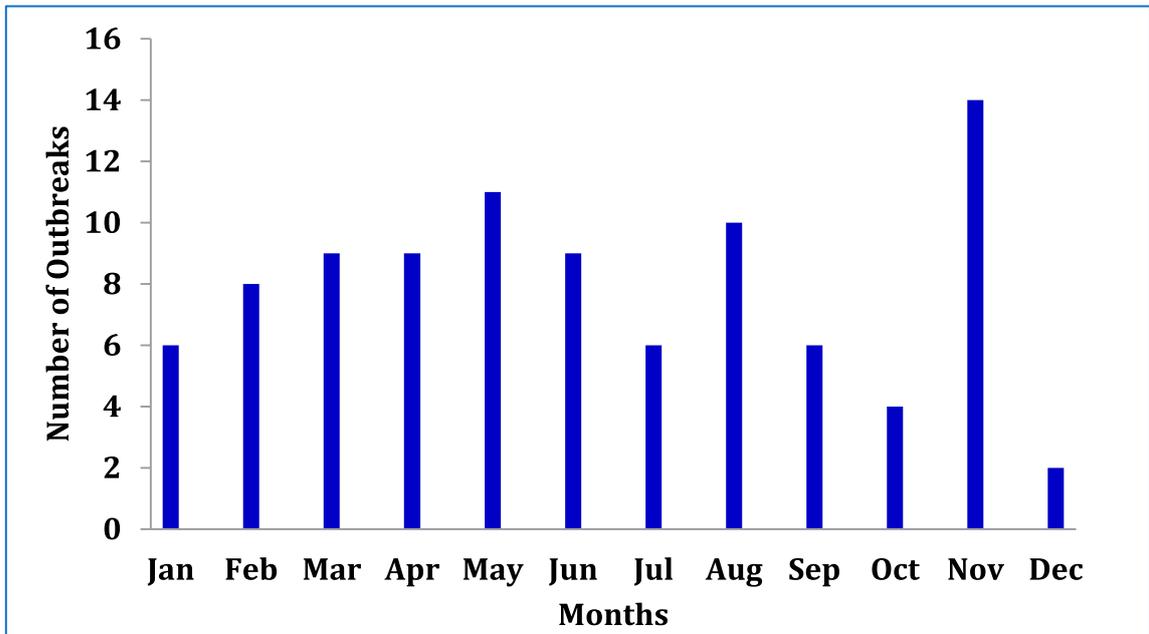


Figure 7.10: Temporal distribution of Goat mange in 2011

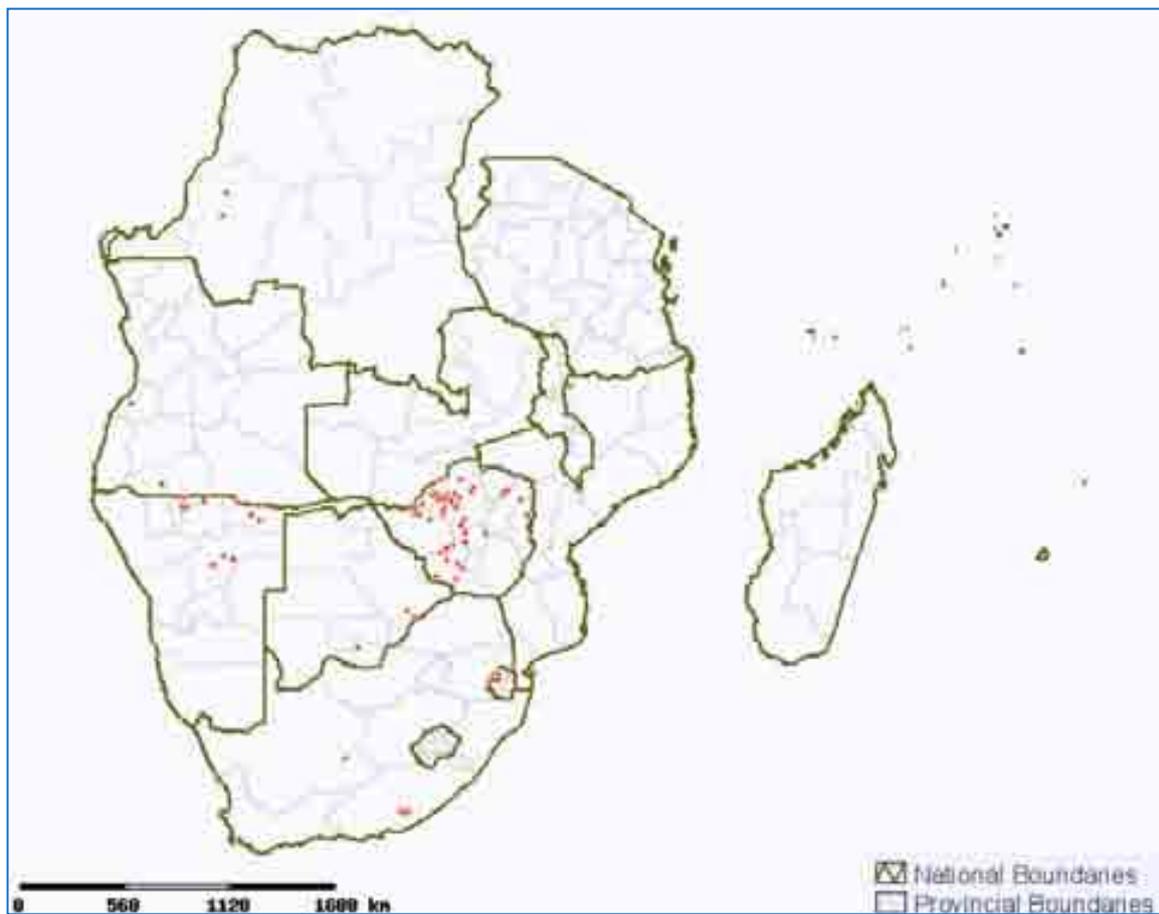


Figure 7.11: Spatial distribution of Goat mange in 2011

7.7 Heartwater

Heartwater (HW) is an important tick-borne disease of the region. In 2011, HW was reported in the same 8 MS that reported occurrence in 2010. It killed 923 animals, mainly cattle (537). A total of 86 sheep and 300 goats died as a result of HW in the year. Zimbabwe (364) had the highest number of Heartwater deaths. Cattle (65%) were the main species affected by HW outbreaks followed by goats (28%) and sheep (7%).

Table 7.13: Outbreaks of Heartwater from 2008 to 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Botswana	84	385	255	-	-
Mozambique	11	49	27	-	-
Namibia	2	3	2	-	-
Swaziland	38	83	33	-	-
Tanzania	1	113	5	-	-
South Africa	129	449	90	1	-
Zambia	28	490	147	-	-
Zimbabwe	372	1,014	364	-	-
Total	665	2,586	923	1	-

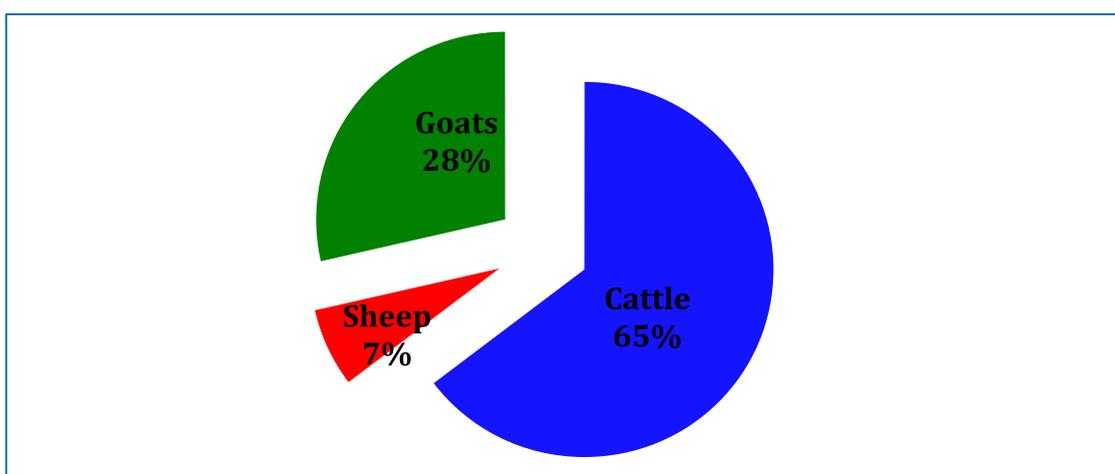


Figure 7.12: Species affected by Heartwater outbreaks in 2011

7.8 Trypanosomosis

A total of 51 Trypanosomosis outbreaks were reported in 6 SADC Member States. The DRC had the highest number of Trypanosomosis cases and deaths. It reported 23,540 of the total 25,624 cases and 3,700 of the total 3,907 deaths reported in the year.

Table 7.14: Member States affected by Trypanosomosis in 2011

Country	Outbreaks	Cases	Deaths	Destroyed	Slaughtered
Angola	1	3	3	-	-
D.R. Congo	4	23,540	3,700	63	520
Mozambique	3	28	-	-	-
Tanzania	2	267	15	-	-
Zambia	22	1,759	187	-	-
Zimbabwe	19	27	2	-	-
Total	51	25,624	3,907	63	520

Two less Member States reported Trypanosomosis in 2011 as Malawi and South Africa that had reported occurrence in 2010 had no report. Although significantly fewer outbreaks of Trypanosomosis were reported in 2011 than in 2010, the number of cases increased remarkably from 2,941 in 2010 to 25,624 in 2011. Trypanosomosis cases were reported throughout the year but peaked during the period March to August 2011.

Table 7.15: Outbreaks of Trypanosomosis from 2008 to 2011

Parameter	2008	2009	2010	2011
Countries affected	Data not available	7	8	6
Outbreaks	127	86	96	51
Cases	3,811	1,854	2,941	25,624
Deaths	296	511	158	3,907
Deaths/ Cases (%)	7.8%	27.6%	5.4%	15.2%

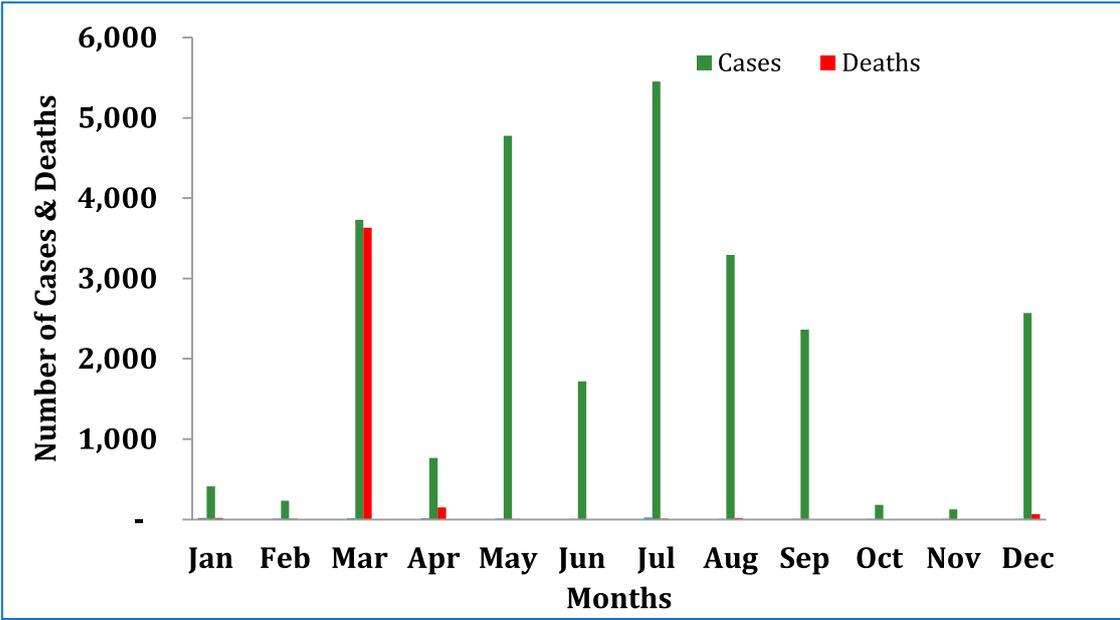


Figure 7.13: Temporal distribution of Trypanosomosis in 2011



Figure 7.14: Spatial distribution of Trypanosomosis in 2011

8. MEAT INSPECTION

The Meat Inspection (MI) module of LIMS is designed to facilitate collection, collation and analysis of diseases or conditions that lead to the rejection of animals presented for slaughter at ante-mortem inspection and lesions that lead to full or partial condemnation of carcasses, parts of carcasses, organs, and parts of organs during post mortem inspection. Key information generated from data collected includes economic losses arising from condemnation of carcasses, organs and parts of carcasses or organs and epidemiological statistics on the frequency of occurrence. Some Member States have been providing MI data. It is hoped that all countries will start supplying these reports so as to get a regional picture.

As was highlighted earlier in this book, Lesotho, Namibia and Swaziland are the only countries regularly submitting monthly MI reports. This makes any regional collation of MI reports impossible.

9. VACCINATIONS

Like the Meat Inspection Module, Vaccinations Module is designed to complement the data from disease occurrence reports. The module is designed to capture data on vaccination campaigns and attributes of the vaccines used. Data on both prophylactic and control vaccinations can be accommodated. This information is useful for measuring achievements towards set targets. In the event of vaccine failure, details of source will become important to MS. Namibia, South Africa, Swaziland and Zimbabwe are the four countries that regularly submit vaccination report.

10. CONCLUSION AND RECOMMENDATIONS

There has been a tremendous improvement in submission of disease reports by Member States to SADC over the years since LIMS was established. However, there is still room for improvement on the timeliness of submissions and quality of the data. The recruitment of SADC Agricultural Information Management System (AIMS) officers, one coordinating LIMS is a positive move that should be followed up by similar moves in Member States. Member States should establish sub national LIMS units and ensure availability of trained personal to improve data flow (quality and timeliness) from field to national LIMS units.

The use of the Animal Health component and general improvement in disease occurrence reporting that has been observed since LIMS was established should be matched for other components, especially Animal Production and Marketing. If this is done, the Animal Health Yearbook should become a more integrated Animal Health and Production Yearbook.

The continued improvement of LIMS system is essential if utilisation is to be improved and maximum benefits are to be derived from LIMS. Member States and SADC should continuously review the entire process of collecting, transferring, storing and analysing livestock data. This means that the software (LIMS application) and the agreed procedures need to be continuously improved.

Annexes

Disease	outbreaks	cases	deaths	destroyed	slaughtered
Actinomycosis	11	12	1	-	-
African horse sickness	745	1,302	525	2	-
African swine fever	171	152,503	139,820	987	9,710
Anthrax	68	550	567	-	-
Avian chlamydiosis	1	13	-	-	-
Avian infectious bronchitis	7	147	25	85	-
Avian salmonellosis	6	1,492	185	-	-
Avian tuberculosis	1	3	1	-	-
Blackleg	463	3,908	968	4	6
Bluetongue	70	1,405	478	21	-
Botulism	39	76	39	-	-
Bovine anaplasmosis	869	4,348	840	-	1
Bovine babesiosis	416	1,136	216	1	-
Bovine brucellosis	660	6,405	89	1,063	301
Bovine cysticercosis	210	5,696	1	5,391	2,733
Bovine genital campylobacteriosis	19	36	1	-	-
Bovine tuberculosis	147	4,128	39	81	1,236
Canine distemper	105	470	91	-	-
Caprine and ovine brucellosis	2	9	-	-	-
Coccidiosis	173	2,380	479	10	-
Contagious agalactia	6	8	-	-	-
Contagious bovine pleuropneumonia	104	10,230	1,076	22	1,503
Contagious cap. pleuropneumonia	8	223	35	-	-
Contagious equine metritis	11	35	-	-	-
Contagious ophthalmia	146	374	5	-	-
Contagious pustular dermatitis	65	958	23	-	-

Annexes

Corridor disease (<i>T.p. lawrencei</i>)	7	25	6	1	-
Dermatophilosis	460	4,623	233	15	1,198
Distomatosis (Liver Fluke)	48	391	23	29	125
Dourine	22	50	3	-	-
East Coast fever (<i>T.p. parva</i>)	69	641	177	-	20
Echinococcosis/hydatidosis	89	527	-	41	2,097
Enterotoxaemia	32	112	92	-	-
Enzootic abortion of ewes	5	102	77	-	-
Enzootic bovine leukosis	3	9	-	-	-
Equine encephalomyelitis	1	1	-	-	-
Equine piroplasmiasis	16	18	-	-	-
Equine rhinopneumonitis	1	1	1	-	-
Foot and mouth disease not typed	205	8,357	243	11	25
Foot and mouth disease type SAT 1	2	13	-	11	-
Foot and mouth disease type SAT 2	24	2,386	-	18	-
Footrot	103	659	13	-	-
Fowl cholera	1	3	-	-	-
Fowl pox	222	5,341	2,045	2	2
Fowl typhoid	-	-	-	-	-
Goat mange	94	21,156	687	5	104
Haemorrhagic septicaemia	17	72	26	-	-
Heartwater	792	2,586	923	1	-
Highly pathogenic avian influenza	47	20,218	208	18,385	-
Horse mange	4	7	3	-	-
Infectious bovine rhinotracheitis	3	18	-	-	-
Infectious bursal disease	73	6,219	3,296	-	-

Annexes

Infectious coryza	128	2,760	552	-	38
Listeriosis	1	1	-	-	-
Lumpy skin disease	948	15,717	376	1	67
Malignant catarrhal fever	23	46	32	6	-
Marek's disease	4	16	3	-	-
Mastitis	178	268	8	-	-
Mucosal Disease	7	57	-	-	-
Newcastle disease Not typed	205	374,183	262,921	69,305	38,360
Old World screwworm	91	279	4	51	-
Other Clostridial Infections	3	3	1	-	-
Other Pasteurellosis	5	14	8	-	-
Ovine epididymitis	83	575	46	266	-
Paratuberculosis	2	3	2	1	-
Peste des petits ruminants	73	75,053	49,838	873	17,636
Porcine cysticercosis	1	2	-	-	-
Pullorum disease	1	100	70	-	-
Rabies	801	1,221	800	194	11
Rift Valley fever	134	3,810	3,390	-	-
Salmonellosis	4	146	99	-	-
Salmonellosis	1	5	-	-	-
Scrapie	1	-	-	-	-
Sheep Scab (mange)	117	16,685	21	-	-
Strangles	4	12	3	-	-
Swine erysipelas	4	10	-	7	-
Theileriosis Not typed	145	6,694	1,635	-	-
Toxoplasmosis	1	1	-	-	-

Annexes

Trichomonosis	39	108	-	-	-
Trypanosomosis	117	25,624	3,907	63	520
Varroosis of honey bees	1	1	-	1	-
Total	9,985	794,776	477,276	96,954	-

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