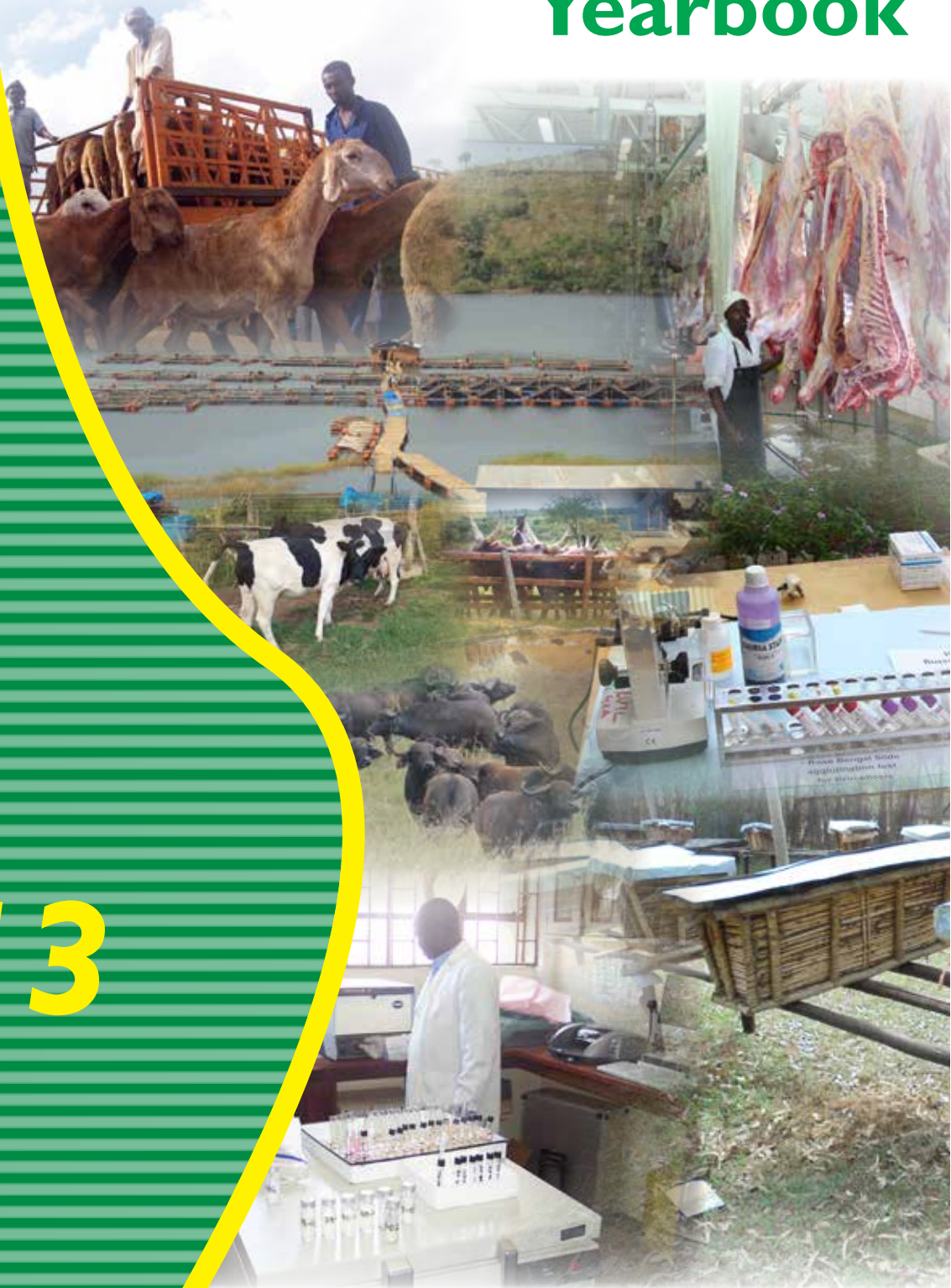


Pan African Animal Resources Yearbook

2013



AFRICAN UNION
**INTERAFRICAN BUREAU
FOR ANIMAL RESOURCES**

Pan African Animal Resources Yearbook 2013



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Pan African Animal Resources Yearbook

An AU-IBAR Publication

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The first edition of the “Bulletin of Epizootics in Africa”, the precursor to the PAHYB, was published in March 1953 with the aim of sharing information and knowledge on disease occurrences in Africa and the objective of development of a coordinated approach to managing animal health control in the African continent. I take pleasure in sharing the 1st editorial of the Book with you. Even then, the book preaches transparency in disease reporting in line with international standards, an obligation that is still being expounded to date. This demonstrates the concerted efforts and the commitment that Africa countries have been making towards supporting global transparency even during colonial era.

This objective of coordinating disease control and animal resource development in Africa has not changed over the years, and has become even more pertinent in view of the ever increasing need for food of animal origin, and in realization of the challenges being faced with animal disease control in the face of the increasing global competition for trade in animals globally.

While a lot of effort is being made to enhance animal resources development on the continent, one of the major challenges is the lack of accurate and reliable data and information to guide and support decision making; as well as assess progress being made in the sector. The PARYB presents tacit evidence of the situation with regards to not only disease control on the continent but the progress being made animal resourced development on the overall.

Thus as AU-IBAR gradually evolves from a purely Animal Health institution to other areas of Animal Resources, the contents of the Yearbook is equally evolving gradually. In this edition of the book data and information on animal population and fisheries and aquaculture production and trade have been added. Future editions of the book will be expanded to all other areas of animal resources including human resources, trade and marketing, capacity etc, in order to provide more comprehensive information for decision making and give more impetus to inter- and cross-sectoral collaboration. The Animal Resources Information System (ARIS) is one of the tools that has the potential to contribute to this gradual transformation in data management, and will help to streamline reporting and transparency across the continent.

Prof. Ahmed El-Sawalhy
Director AU-IBAR/Head of Mission

E D I T O R I A L

The first number of the Bulletin of Epizootic Diseases in Africa appears in print fifteen months after the Bureau was opened at Muguga.

Every possible obstacle in the production of a periodical was met with in accentuated form by virtue of comparative isolation from modern facilities coupled with additional difficulties occasioned latterly by the local internal political disturbance which has reduced manpower in industry and delayed practical results.

The Bulletin is printed in English and French. The language of origin is recorded. Trusting that a source of adequate French translation would reveal itself as time went on, a considerable volume of material for publication was prepared or acquired in English. Time passed as a number of local efforts at translation were discarded. Ultimately a basic outside service supplemented by the Bureau staff appeared more satisfactory and I trust that French readers will accept this initial effort with patience and a promise to provide an improvement in the future.

The consequential result has been a near realisation in this first issue of the worst fears of Mr. Simmons mentioned in his Foreword but which it is hoped will be less evident with each succeeding issue.

Every effort will be made to publish three numbers in 1953 and to increase to a regular quarterly issue in 1954.

In addition to the Bulletin it is proposed to disseminate information by means of Information Leaflets which will be distributed by air mail at irregular intervals.

With the issue of the first number of the Bulletin, the Bureau proclaims its official christening and with the help of its well-wishers it is hoped that it will grow to a healthy maturity.

W.G. BEATON.

DIRECTOR

ACKNOWLEDGEMENT

The publication of this annual book of reference is made possible with active support, collaboration and contribution of African Union Member States through their untiring efforts in generating and sharing animal resources data regularly with AU-IBAR which forms the bulk of information used for the Animal Resources Yearbook. AU-IBAR commends their commitment in supporting transparency and mutual sharing of sanitary information to facilitate livestock development in the continent.

AU-IBAR also acknowledges the collaboration of partners, especially OIE and FAO from where some missing data and information (such as the Livestock population and Fisheries data) were sourced to complement the information provided to AU-IBAR directly by the AUC-MSs

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ABBREVIATIONS AND ACRONYMS

AHS	African Horse Sickness
ASF	African Swine Fever
AUC	African Union Commission
AU-IBAR	African Union- Interafrican Bureau for Animal Resources
CAC	Codex Alimentarius Commission
CAP	Caprine
CAR	Central Africa Republic
CBPP	Contagious Bovine Pleuropneumonia
CCPP	Contagious Caprine Pleuropneumonia
DRC	Democratic Republic of Congo
ECF	East Coast Fever
FAO	Food and Agriculture Organization
FMD	Foot and Mouth Disease
GDP	Gross Domestic Product
HPAI	Highly Pathogenic Avian Influenza
IBD	Infectious Bursa Disease
ILRI	International Livestock Research Institute
INAP	Integrated National Action Plans
IPPC	International Plant Protection Convention
IRCM	Integrated Regional Coordination Mechanism
LIMS	Livestock information Management System
LEISOM	Livestock Emergency Interventions to Mitigate food crisis in Somalia
LSD	Lumpy Skin Disease
MCF	Malignant Catarrhal Fever
MS	Member States
ND	Newcastle Disease
OIE	World Organisation for Animal Health
PAAT	Program Against African Trypanosomiasis
PANVAC	Pan African Vaccine Center
PPR	Peste des Petits Ruminants
PATTEC	Pan African Tsetse and Trypanosomiasis Eradication Campaign
REC	Regional Economic Community
RVF	Rift Valley Fever
S&GP	Sheep and goat Pox
TADs	Trans-boundary Animal Diseases
TB	Tuberculosis
USAID	United States Agency for International Development
VSF	Vétérinaires Sans Frontières
WAHIS	World Animal Health Information System
WTO	World Trade Organization

DEFINITION OF TERMS

Wherever used in this book, these terms have the following meanings:-

- **Epidemiological Unit:** According to the OIE Terrestrial Code, 'Epidemiological unit means a group of animals with a defined epidemiological relationship that share approximately the same likelihood of exposure to a pathogen. This may be because they share a common environment (e.g. animals in a pen), or because of common management practices. Usually, this is a herd or a flock. However, an epidemiological unit may also refer to groups such as animals belonging to residents of a village, or animals sharing a communal animal handling facility.
- **Outbreak²** : means the occurrence of one or more cases in an epidemiological unit.
- **Number of susceptible animals (population at risk)** - the number of animals that can be affected by a disease within an epidemiological unit.
- **Number of cases³** : the number of animals infected (diseased) by a pathogenic agent, with or without clinical signs.
- **Number of deaths:** the number of animals died from a disease within an epidemiological unit
- **Number of slaughtered animals** - means the number of sick or in-contact animals that are slaughtered to control a disease within an epidemiological unit, without restriction on the consumption of the meat by a human being.
- **Number of destroyed animals:** the number of animals destroyed and disposed in an epidemiological unit to control the spread of a disease.

¹Definition of Epidemiological Unit by OIE Terrestrial Code

²Definition by the OIE Terrestrial Code

³Definition of CASE by OIE Terrestrial Code

EXECUTIVE SUMMARY

This year's edition of the PAHYB, which has now been renamed as “the PanAfrican Animal Resources Yearbook” is the 1st in the expanded version of the book which includes data from not only animal health, but livestock population and Fisheries data as well. Information on key decisions affecting livestock and animal resources development in the continent, such as the Ministerial decisions has also included in the book. Subsequent editions of the book will contain additional data from Livestock trade and marketing as well as human resources etc.

During the year under review 42 Member States (MSs) of the African Union (AU) submitted disease reports to the Interafrican Bureau for Animal Resources of African Union (AU-IBAR) compared to the 47 that submitted reports in 2012. This number is lower than the highest figure of 49 achieved in 2010 or the 47 received in 2012. For animal population data, only 33 MSs reported the updated year 2013 data to the OIE.

A total of 82 animal diseases were recorded in 2013 involving 27,767 outbreaks; and 2,303,277 cases, causing 1,230,377 deaths and the slaughter and destruction of 36,454 and 12049 animals, respectively. Despite the reduction in the number of countries that reported their animal health status to AU-IBAR in 2013, more outbreaks and higher loses of animals were reported during the reporting year compared to 2012. As in 2012, cattle is the most affected species in the continent accounting for 54.24% of outbreaks in 2013 followed by the Ovine/Caprine with 20.84%, Avian species with 8.97% and Canine 4.88%; while the highest of number of cases and loses in terms deaths, slaughter and destruction were reported on the avian species followed by small ruminants and swine. The most widely distributed animal disease on the African continent based on the number of countries affected is Rabies which was reported by 29 countries in the year 2013. Other diseases with significant spatial distribution in Africa which affected more than 20 countries include Newcastle Disease (27), lumpy skin disease (25), Peste des Petits Ruminants (24), Foot and Mouth Disease (23) and Contagious Bovine Pleuropneumonia (22). This patter is exactly similar to the situation in 2012 and indeed previous years. The deadliest diseases on the other hand that caused the highest loses in terms of deaths, slaughter and destruction of animals are ND, PPR and ASF.

The livestock population figures for 2013 showed that the 33 out of 54 African countries that submitted reports to the OIE had a total livestock population of 219.5 Million cattle, 317.2 Million Goats, 281.7 Million Sheep, 1135.4 Million Birds and 27.5 Million Pigs. The statistics showed that there has been no significant change in livestock numbers compared to the year 2012. This is probably because many countries based their livestock numbers on estimation and projection with no country reporting conducting an actual livestock census in the last 5 years.

In terms of individual country ownership, Ethiopia had the highest number of cattle outstandingly holding 25% (37.8 million) of the total cattle population in the continent, while Nigeria was the continent's major Sheep and Goat keeper making up 28 % (16.7million) of the total small ruminant population.. Regionally, East Africa holds over half of the continents cattle population (52%), followed by West Africa (21%) and South Africa (15%). Small Ruminant and Bird populations dominated in West Africa constituting 43% of the continents sheep and Goats and 39% of the Birds kept in the continent.

The Fisheries production and trade data presents a very serious challenge for the continent. Available information, sourced from the FAO, indicates that Africa on the overall contributes only about 7% of the global marine fish production, 23% of global inland fish production, and a pathetic 2% of the global aquaculture production; figures that are stagnating or even declining compared to previous years in many cases. In terms of relative fish production on country basis, only Morocco (No 19), South Africa (No 25) and Nigeria (No 26) are on the global list of high producing countries, while only Egypt (No 9) is reckoned with in Aquaculture. Though the potential for inland water fisheries on the continent is immense, the livelihoods of fisheries dependent communities on these water bodies are however being threatened by poor fishing practices, climate change, industrial, municipal and agricultural activities. A concerted effort to implement sound management practices in these bodies, especially shared water, is overdue.

The contribution of Africa to global trade in Fisheries and aquaculture is very similar to the production component, with the continent on the overall contributing 3.71% of global imports and 8.54% of global exports in 2012. The total effect is that an appreciable quantity of fish consumed in Africa is accounted for from imports due to increasing demand and declining or stagnating domestic fishery production, costing African countries hard foreign currencies to the tune of about 5 billion USD in 2012.

The lack of up to date livestock population data and the delay in submission of reports and poor quality of data have for many years remained a big challenge in Africa. Less than 5% of MSs submit reports on time, while the poor quality and technical details of the reports submitted by many countries coupled with plenty errors makes data analysis a big challenge at the continental level. This situation affects to a very large extent a good understanding of the livestock distribution and movement pattern as well as the epidemiological situation of animal diseases on the continent. This situation affects good planning of interventions and policy making on animal resource development in a coordinated manner. The rolling out and operationalization of the Animal Resource Information System (ARIS) at the national level is expected to help improve this situation. AU-IBAR is also implementing a good number of projects and interventions to support MSs in advancement of animal resources development throughout the continent in line with its mandate. Some of these projects include the VETGOV project, PANSPSO, IRCM, ARIS, STSD, Fisheries Governance, Fisheries trade, Animal Genetics and development of a continental PPR and ASF control strategy as well as a hosting of the ISCTRC secretariat.

During this reporting year, AU-IBAR initiated the development of a “continental livestock development programme” and a “continental strategy for development of animal resources in Africa (LiDeSA)” in line with the recommendation of African Ministers responsible for livestock development from the various African countries that was made in April 2013 at Abidjan Cote d’Ivoire.

INTRODUCTION

The Panafrican Animal Health Yearbook (PAHYB) is produced annually by AU-IBAR to share information on animal health in Africa and promote transparency in disease reporting. Thus the major content of the Yearbook is the analysis of monthly disease outbreaks based on the reports submitted by AU-MS within the year. A section of the book is devoted to providing information on the interventions carried out by AU-IBAR to ameliorate and improve the animal health situation on the continent through its various projects.

Following the transformation and gradual involvement of AU-IBAR in all other areas development in line with its mandate of promoting Animal Resource development in Africa, this edition of the Yearbook, which has now been renamed as “The PanAfrican Animal Resources Yearbook” provides not only the status animal diseases on the continent, but also information on additional areas of animal resources. The new chapters introduced are “Livestock population and Composition” “African Fisheries production and International trade” as well as the “summary of the major decisions taken by Ministers responsible for livestock development and Fisheries development” in the continent respectively. This last chapter is aimed at sharing the general thought process and demonstration of the political support being provided for animal resource development on the continent by the policy makers.

While providing an analysis of the animal resource situation on the continent, many of the issues and the problems associated with data quality and reporting in Africa in general become apparent. These include the lack of effective animal health systems, animal production indices and trade and marketing data. Other challenges include the lack of capacity in transforming decisions into action including lack of adequate trained/skilled staff and poor record keeping, among others.

The animal health data contained in the Yearbook are sourced from the monthly disease reports that MS submit to AU-IBAR most of which are based on passive data collection methods. Other data sources include the OIE/WAHIS from where livestock population data were obtained, and the FAO from where Fisheries and Aquaculture data were sourced. Therefore while the Yearbook contains some analysis of disease outbreak and other animal resources data as reported by or obtained from MSs, it is not a detailed academic study of the situation at national or the continent level. It should also be noted that while the reporting rate from MSs has continued to improve over the years, there are still cases of under reporting especially at the sub-national levels. The Yearbook should therefore be viewed as the general reflection of the situation on the continent during the year and used as such. It is nevertheless a very good guide for decision making on animal health matters at the country, regional and continental level, which is its main purpose.

An update of the interventions being carried out by AU-IBAR through its various projects in the area of animal health and animal resource development is also provided.

GENERAL STATUS OF MONTHLY ANIMAL DISEASE REPORTING

2.1. Trend of Disease Reporting by countries from 2000 to 2013

During the year 2013, 42 out of the 54 African countries have submitted their animal disease reports to AU-IBAR against the 47 countries that reported in 2012. The reporting rate for the year has therefore decreased to 77.77% compared to the 87.04% achieved in 2012 (Table 1 and figure 1). This decline represented the lowest reporting rate by countries since 2007 although it is expected that there will be improvement from now on. This optimism is borne out of the

gradual improvement in ownership of the process and continuous awareness creation campaigns in Member States (MSs) through workshops, meetings, conferences, etc. It is also expected that the roll out of the Animal Resource Information System (ARIS) and the operationalization of the VetGov policy hubs in member states will help to steadily improve disease report submission by all MSs of the African Union.

Table 1: Trend of disease reports to AU-IBAR (2000-2013)

Year	No. of countries that reported	Expected number of countries	% of countries reporting
2000	10	53	18.87
2001	11	53	20.75
2002	37	53	69.81
2003	40	53	75.47
2004	40	53	75.47
2005	37	53	69.81
2006	35	53	66.04
2007	37	53	69.81
2008	44	53	83.02
2009	47	53	88.68
2010	49	53	92.45
2011	42	53	80.77
2012	47	54	87.04
2013	42	54	79.25

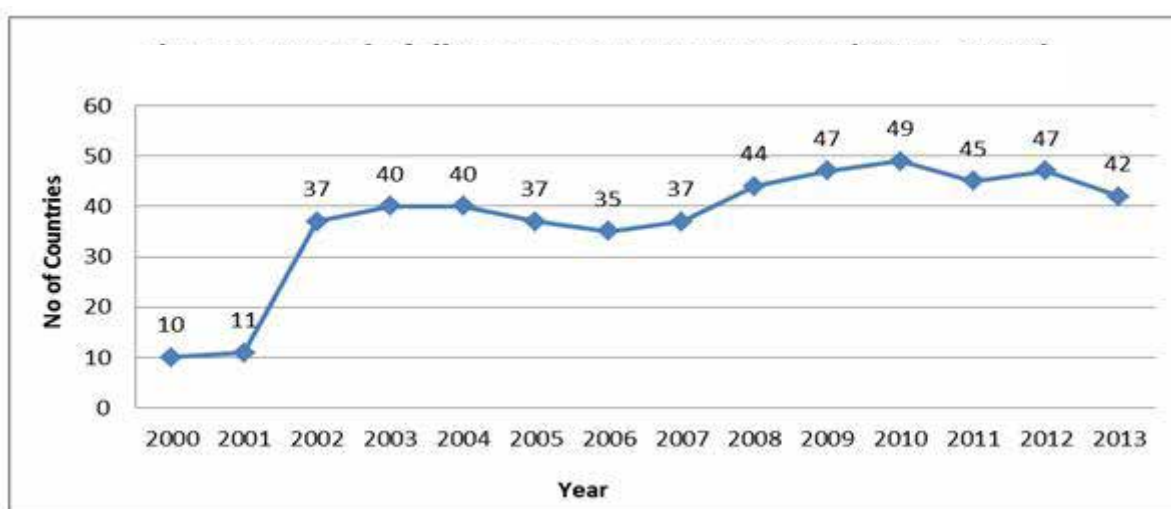


Figure 1: Trend of disease reports to AU-IBAR (2000-2013)

2.2. Status of monthly disease reporting in 2013

In 2013, 72.32% of the expected monthly disease reports were received from Member States against 84.75% in both 2012 and 2011 (Annex I). Although the greater majority of African countries submit disease reports to both AU-IBAR and OIE, since 2009 the submission rate to AU-IBAR has consistently been higher than the OIE. During 2013, 33 countries submitted reports to OIE compared to 42 countries that submitted reports to AU-IBAR. Nevertheless, there was decline in submission rate to both organization compared to 2012. Some countries submitted “zero reports”, indicating the absence of disease outbreaks during the reporting periods. Even though the importance of zero reporting in situations where there are really no disease outbreaks is appreciated, this indicator should be interpreted and/or used with caution for in some instances it might be due to under-reporting.

The reporting rate for animal population data is even worse as only 33 countries reported to the OIE from where the data for analysis of the livestock population and composition in the continent was obtained.

As usual the main challenges associated with data analysis over the years has been the

poor quality, inconsistency and lack of details of some important data components such as the population at risk, species, age and sex differentiation, details of laboratory diagnostic tests and results, geo-reference data, etc. Better analysis and interpretation of results will be done as the quality of reports and timeliness of submission improve.

2.3 Reporting formats

While MSs are encouraged to use the AU-IBAR report format, reports created in different format are still received which are then transferred into a central database and analyzed. In the year 2013, twenty seven (27) countries (64.29%) – up from 24 countries in 2012 - used the standard ARIS/ AU-IBAR format to submit their animal health reports to AU-IBAR. Other formats used within the year include, OIE format (4 countries - 9.52%), SADC/LIMS format (3 countries – 7.14%), FAO/TAD-Info format (2 countries – 4.76%) and non-specific/country own format (4 countries – 9.52%) (Figure 2).

With gradual roll out of the ARIS interoperability feature, the formats being used for reporting to AU-IBAR, OIE, TAD-Info and LIMS would be unified and the conflict of choice of the format to use will be completely eliminated.

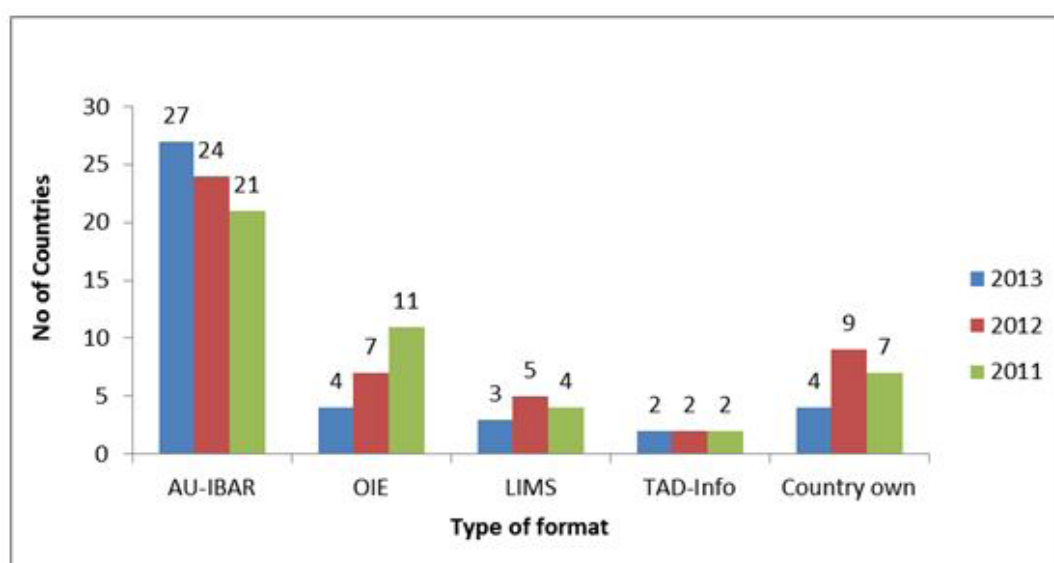


Figure 2: Different types of formats used by countries for reporting to AU-IBAR

3. GENERAL STATUS OF DISEASES IN AFRICA IN 2013

2013 There is no significant difference between the numbers of reported diseases in African countries compared to 2012. It is also observed a significant difference between the numbers of outbreaks, cases and loses in terms of death, animals slaughtered and those destroyed as a result of occurrence of the selected major disease between the year 2013 and 2012. However it should also be recognized that quantity and quality of data available is inherently related to reporting capacities which may not have changed significantly.

The general status of animal diseases described in this section and the details provided later for specific diseases are based on the reports received from countries. Where possible, the disease situation in 2013 is compared with that of the previous year. The spatial distribution of outbreaks is presented on shaded maps.

3.1. Diseases reported

A total of 81 animal diseases were recorded in 2013 compared to the 84 reported in 2012(Annex I). These diseases were reported by 39 countries against 47 in 2012. This include major known TADs and others important diseases with interest

to countries. It is noted a significant increase of the number of outbreaks (27,767) despite the decreased number of reporting countries (39) compared to 2012 23,679 outbreaks for 47 reporting countries. The reported diseases were analyzed by number of reporting countries, outbreaks, cases, deaths including losses and by their transboundary nature.

3.2. Disease situation by number of countries affected

In 2013, the most widely distributed TADs in Africa are ND, LSD, PPR, FMD, PPR, CBPP, ASF, SGP, CCPP, BT, RVF and AI. There is no significant variation on major TADs distribution across the continent compared to 2012 except the case of PPR. Figure 4 below provides details on the number of Member States affected by type of disease in 2013 in comparison to 2012.

Among other important diseases, Rabies as usual had the widest spatial followed by Anthrax, trypanosomosis, Brucellosis, Pasteulorosis and blackleg.. Figure 5 shows the number of countries affected by the other important diseases in 2013 in comparison with 2012.

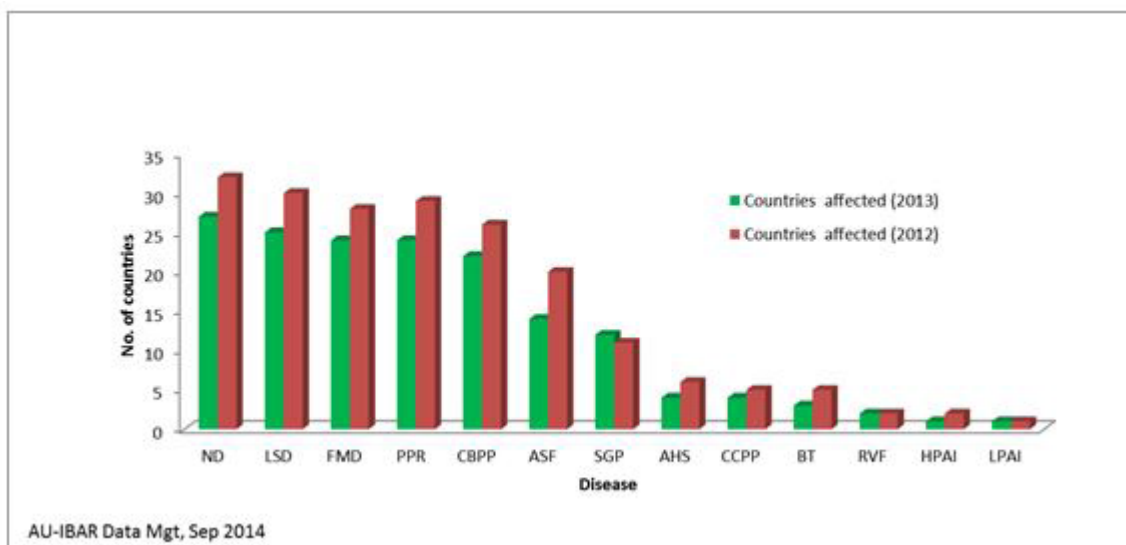


Figure 3: Number of countries affected by TADs in 2013

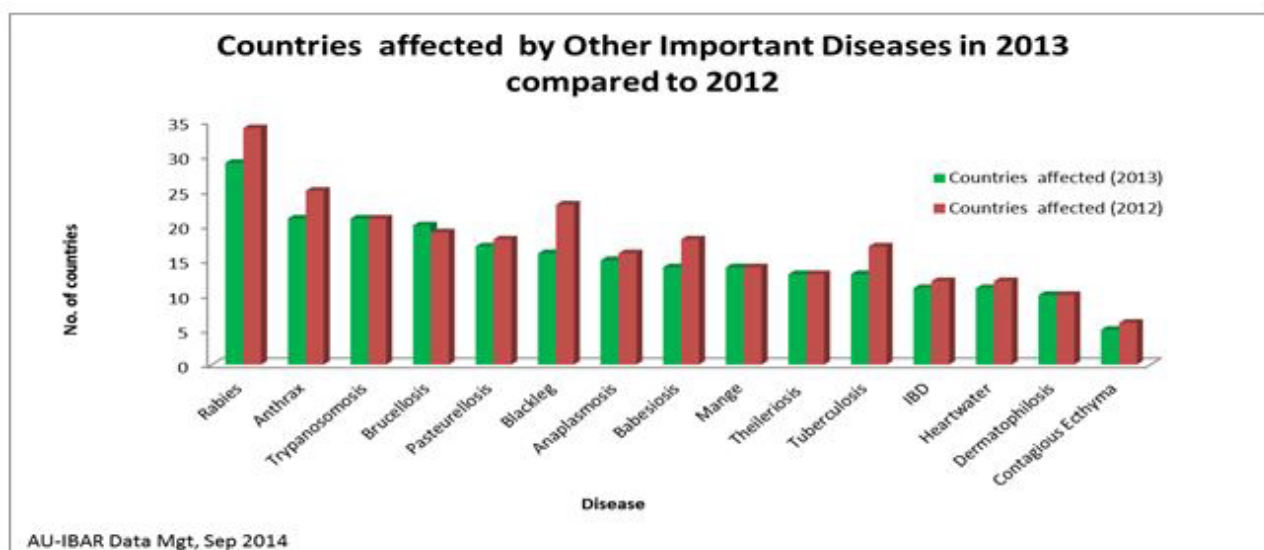


Figure 4 Number of countries affected by other important diseases in 2013

Among other important diseases, Rabies as usual had the widest spatial followed by Anthrax, trypanosomosis, Brucellosis, Pasteulorosis and blackleg. Figure 5 shows the number of countries affected by the other important diseases in 2013 in comparison with 2012.

distribution has not changed since 2005. This status is an indication of disease endemicity as well as lack of coordinated and harmonized efforts and interventions in controlling animal diseases at both national and regional levels. The widely reported diseases on the continent are shown in figure 5 below.

The status of the reported disease spatial

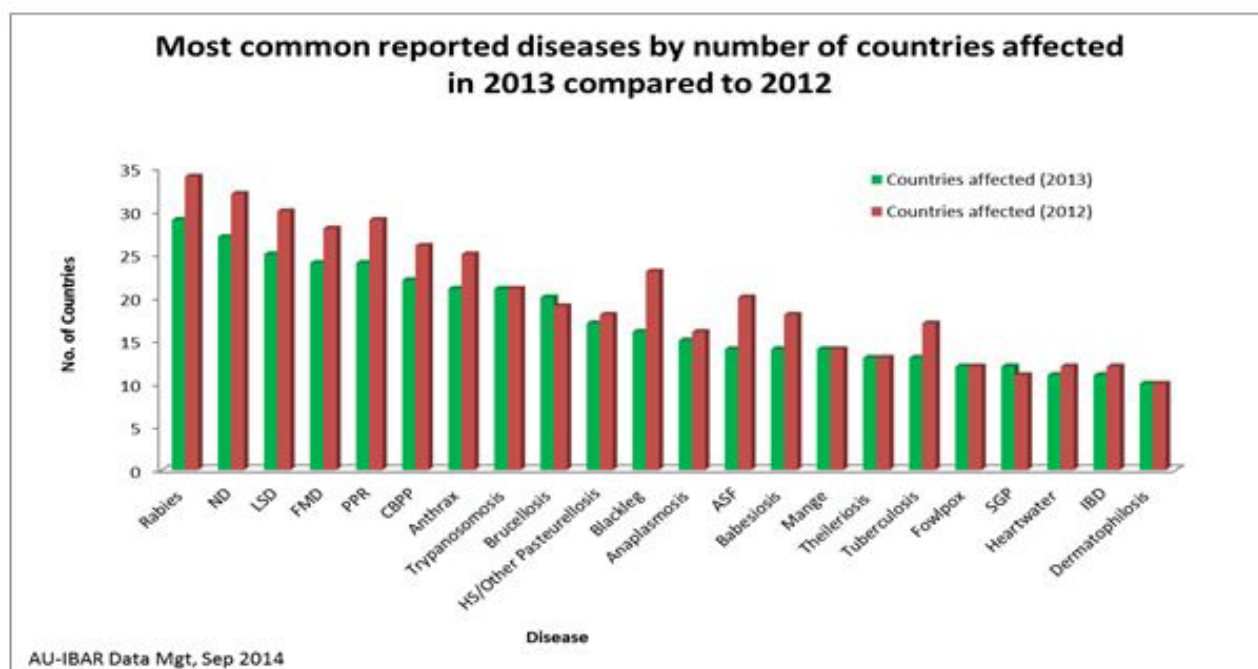


Figure 5: Most common reported diseases by number of countries affected

3.3. Disease situation by number of reported outbreaks

In 2013, a total of 27,667 outbreaks were reported compared 23,679 in 2012. Despite the decreased number of reporting countries, it is observed a significant increase number of outbreaks in 2013 compared to 2012. As in 2012, LSD had the highest number of outbreaks with 2,823 followed by rabies (1,759), anaplasmosis (1,714), PPR (1,691), Pastereollosis (1,672), Babesiosis (1,452) Brucellosis (1,433), anthrax (1,287) and Blackleg (1,228). The number of reported outbreak has

drastically increased this year compared to 2012. The detailed number of outbreaks and other parameters for all the diseases is provided in Annex 2, while figure 7 shows the most common reported diseases in terms of reported number of outbreaks.

In 2013, the number of outbreaks for major TADs has significantly increased compared to the previous year (Figure 8) despite the decreased number of reporting countries, as shown in figures 6, 7 and 8 respectively.

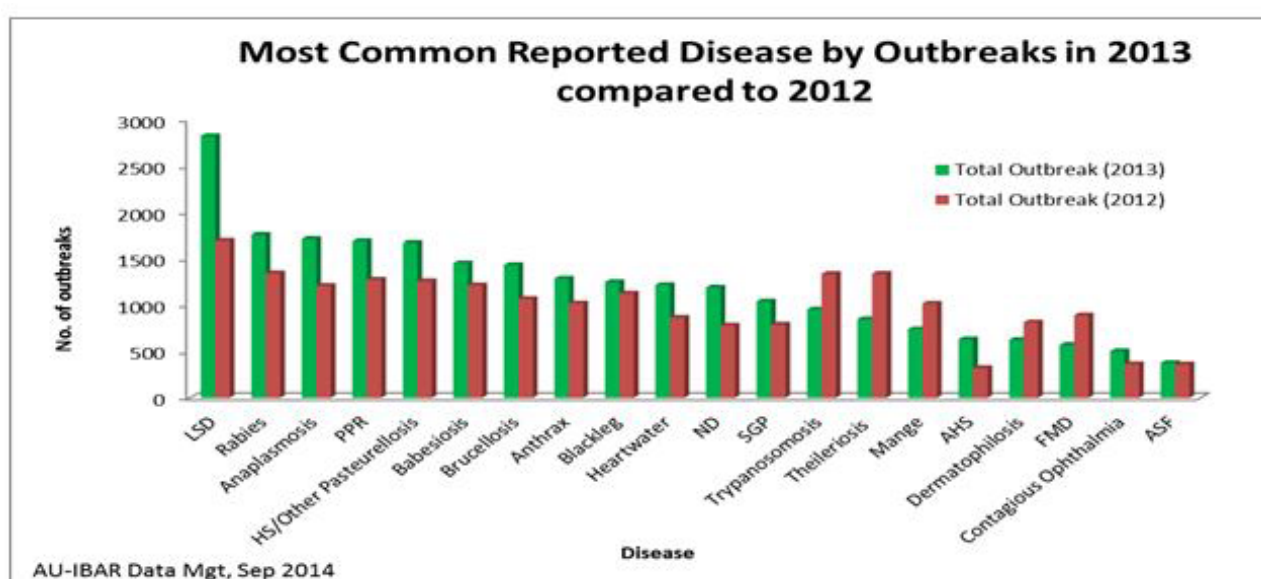


Figure 6: Most common reported diseases by number of outbreaks

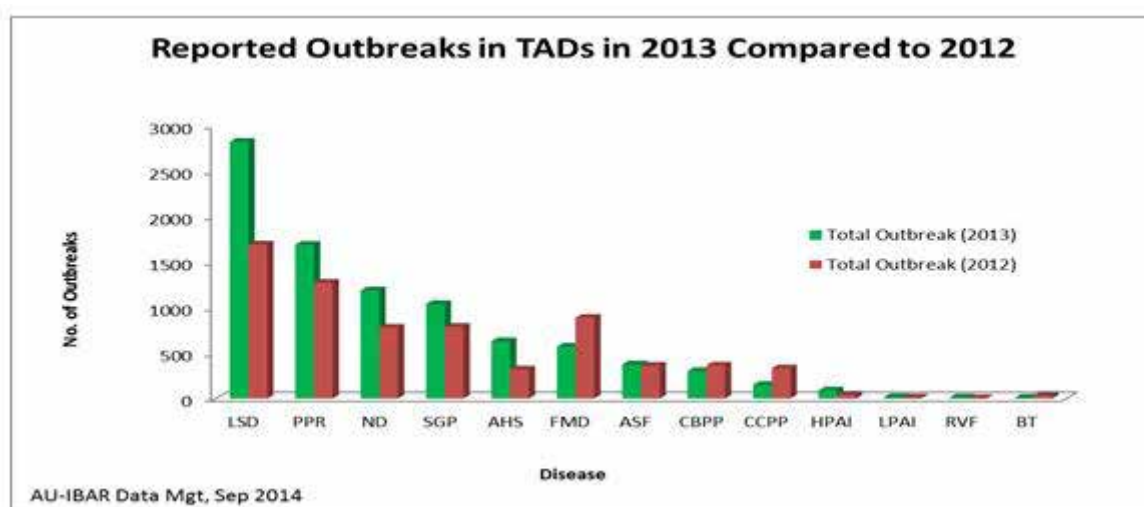


Figure 7: Comparison of the number of outbreaks in TAD in 2013 and 2012

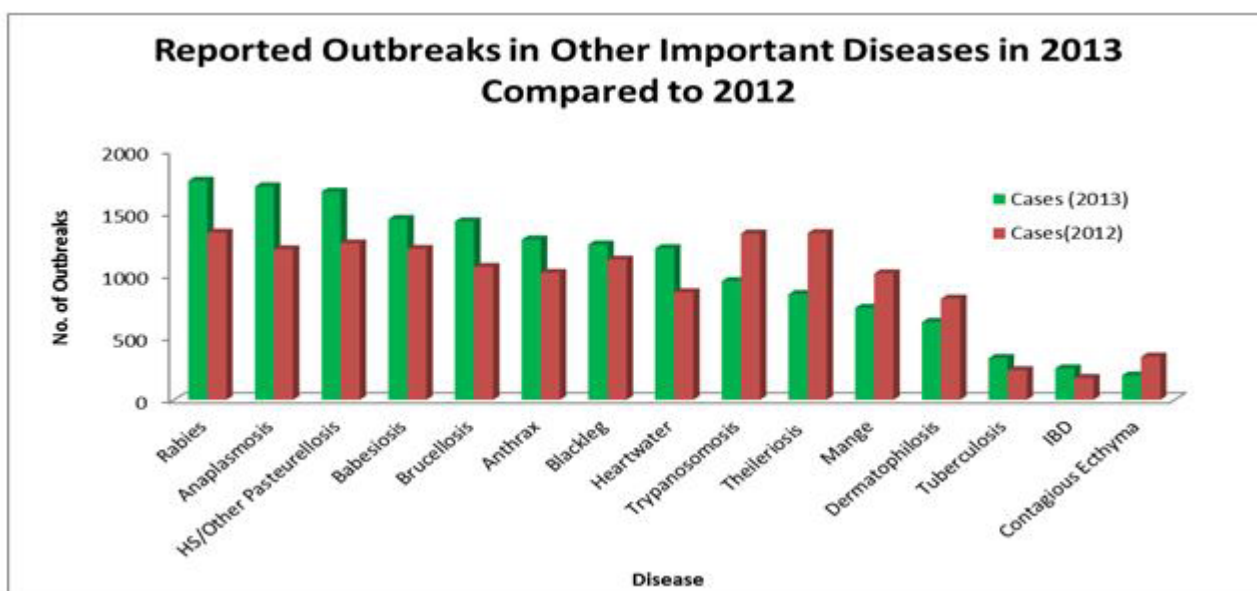


Figure 8: Comparison of the number of outbreaks in other important diseases in 2013 and 2012

3.4. Disease situation by number of cases in reported outbreaks

In 2013, a total of 2,303,277 cases were reported against 5,286,686 in 2010, 2,025,190 in 2011 and 1,572,614 in 2012. There is a significant increase of the number cases during the reporting period despite the decreasing number of reported

countries. The highest number of cases resulted from ND, HPAI, PPR, LSD, ASF and CBPP for TADs. Trypanosomosis, IBD, Babesiosis and theileriosis for the other important diseases (figures 9 and 11). Similar to the previous years, the avian species recorded the highest number of cases (Figure 12).

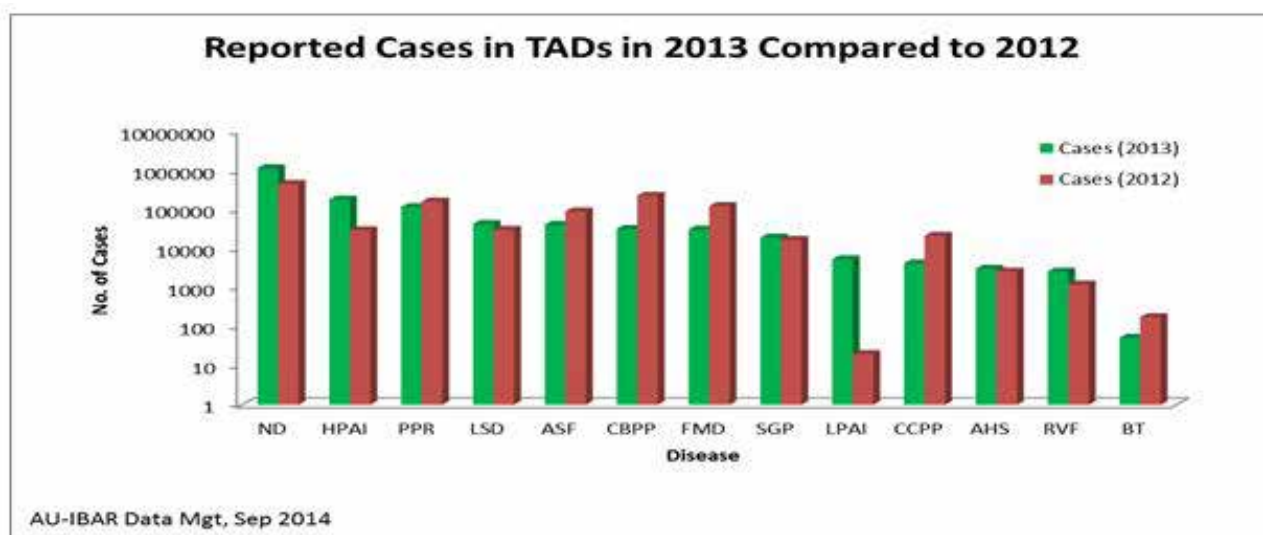


Figure 9: Reported cases in TADs in 2013 compared to 2012

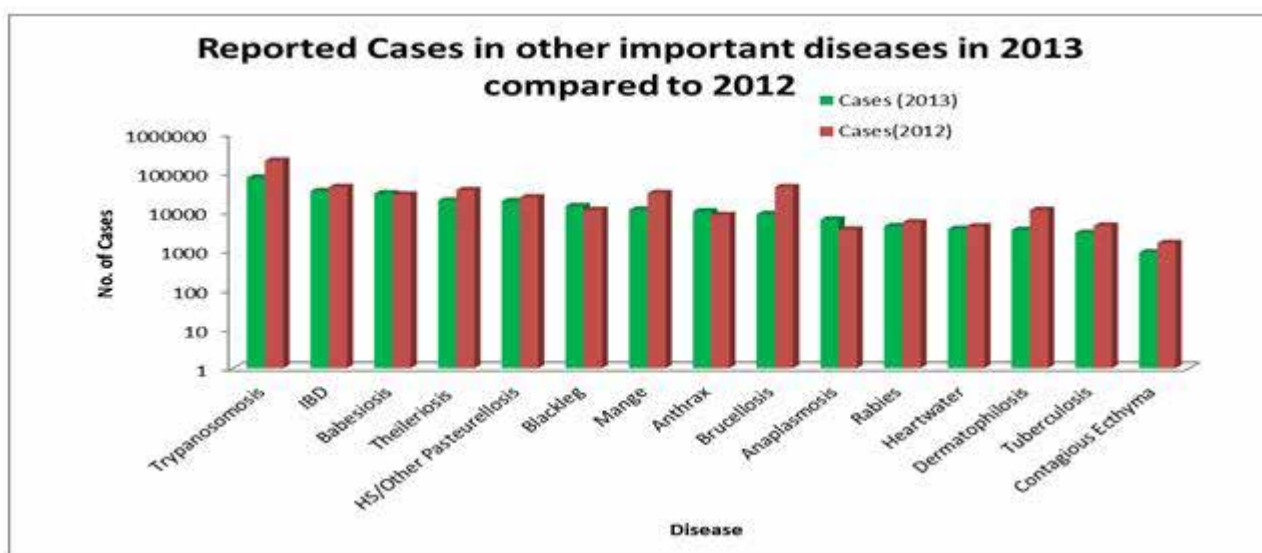


Figure 10: Reported cases in other important diseases in 2013 compared to 2012

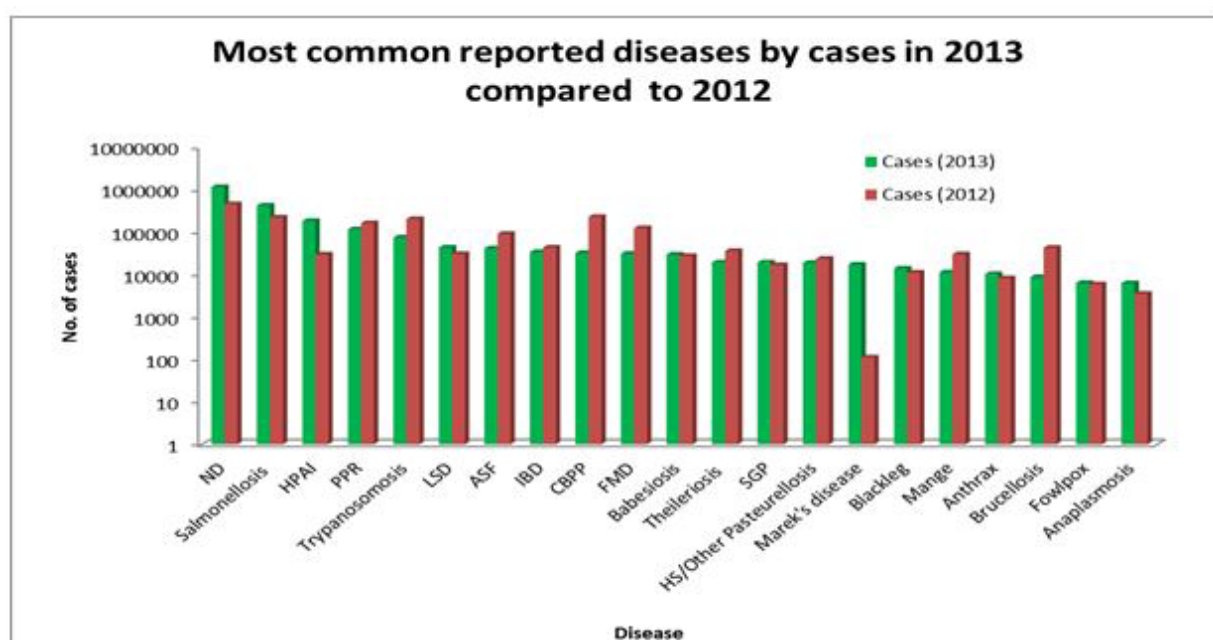


Figure 11: Most common reported diseases by number of cases in reported outbreaks in 2013

3.5. Disease situation by number of deaths in reported outbreaks

In 2013, a total of 1,230,377 animals died as a result of diseases compared 498,149 animals in 2012. There is a significant increase of animal deaths despite the decreased number of countries that have submitted disease reports. As usual the highest losses were recorded in the avian species as a result of ND outbreaks, followed by PPR, ASF, HPAI and CBPP as observed in 2012. The total number of animals slaughtered and destroyed

as a disease control measure during 2013 was 36,454 and 1,876,163 respectively as compared to 163,123 slaughtered and 358,284 destroyed in 2012, respectively. These figures indicate that significant numbers of animals are being lost to diseases annually and give justification for greater investment in disease prevention and control across the continent. The significance of this recommendation will even become more apparent when monetary values are attached to indicate the value of losses being incurred annually by low income earners in the continent. Figures

14, 15 and 16 give the status of the reported deaths due to diseases in 2013 as compared to 2012.

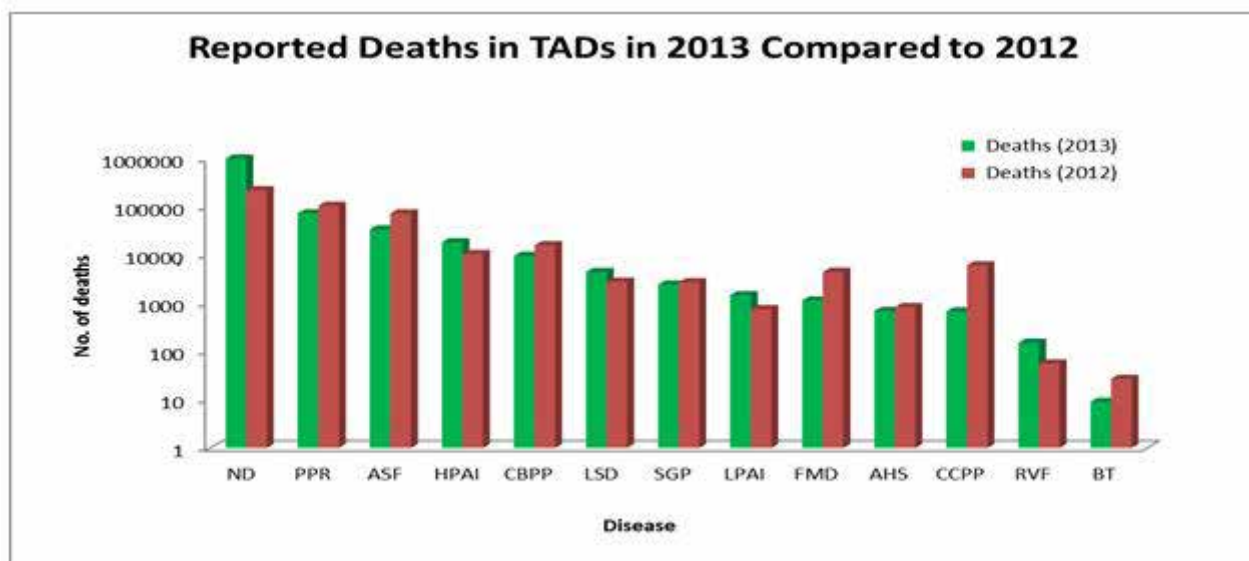


Figure 12: Reported deaths in TADs in 2013 compared to 2012

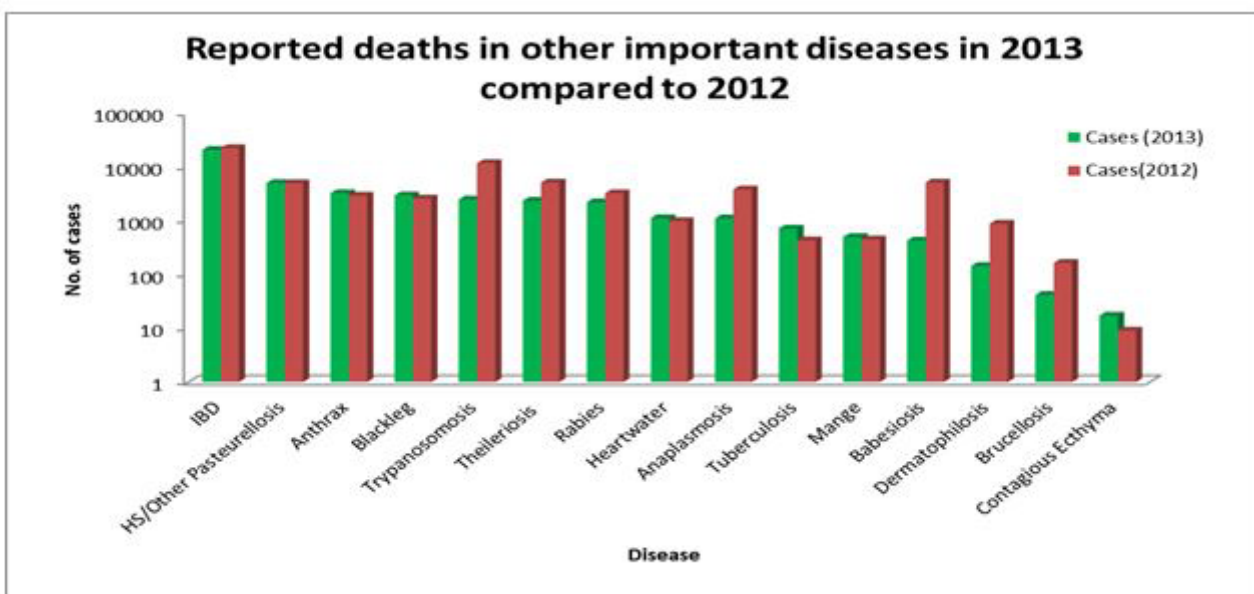


Figure 13: Reported deaths in other important diseases in 2013 compared to 2012

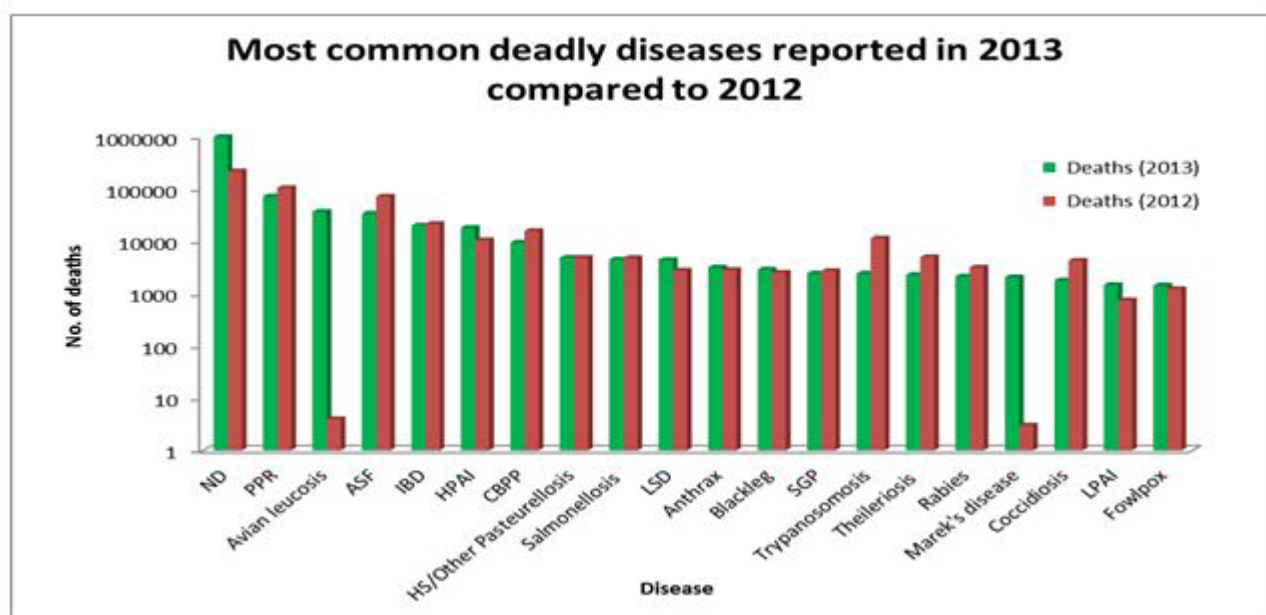


Figure 14: Most common deadly diseases reported

3.6. Disease situation by species affected in the reported outbreaks in 2013

As in 2012, Bovine is the most affected species in the continent accounting for 54.24 in 2013 followed by the Ovine/Caprine with 20.84%, Avian species with 8.97% and Canine 4.88% (Figure 17).

avian species accounted for 77.77% of cases and 87.77% of deaths followed by Bovine (11.42% and 2.49%) and Ovine/Caprine (7.63% and 6.45%). Figure 18 gives the details of species involvement in cases during the reporting period. The proportion of animal species that died and the total losses suffered due to the reported diseases in 2012 is presented in figure 19.

In terms of the number of cases and deaths the

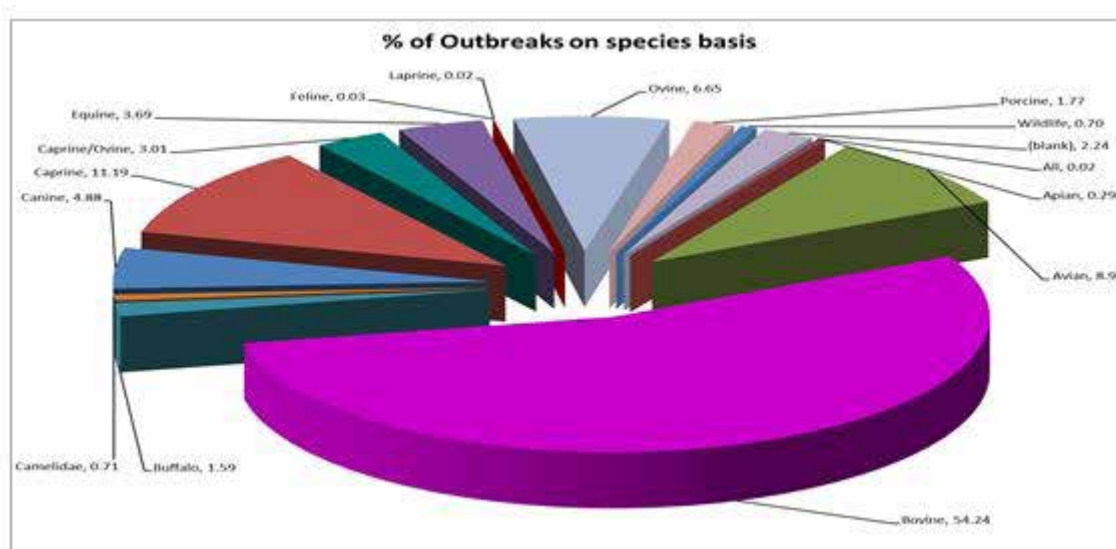


Figure 15: Disease situation by species affected in the reported outbreaks in 2013

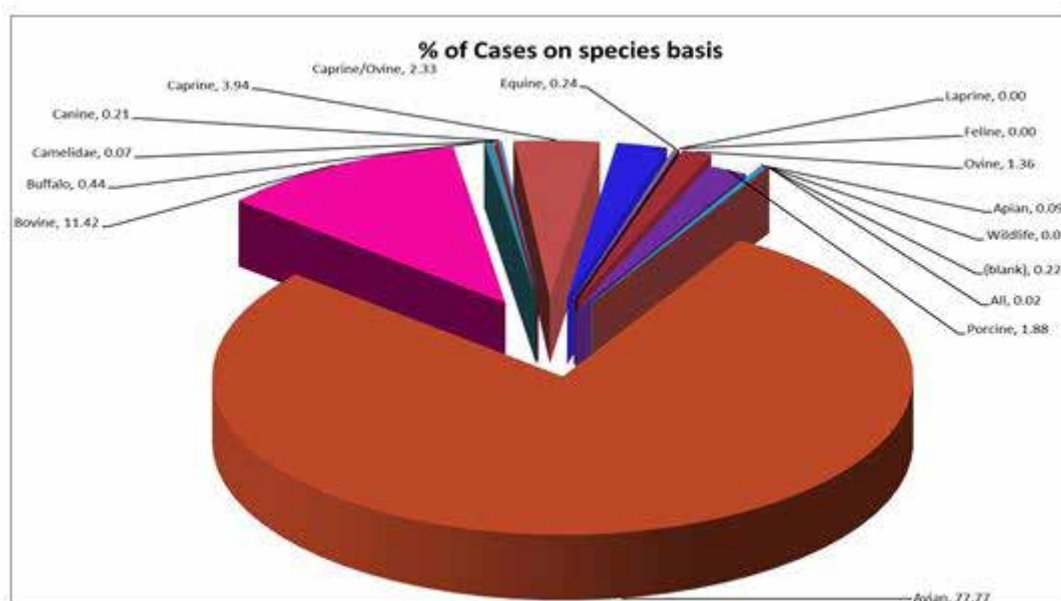


Figure 16: Proportion of cases by species affected in the reported outbreaks

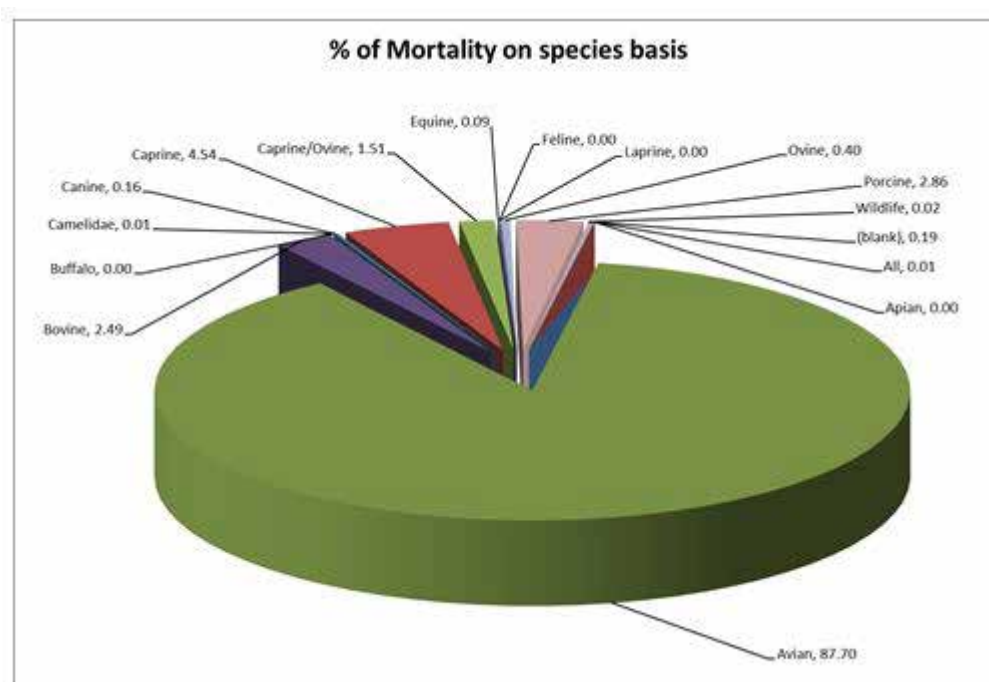


Figure 17: Proportion of mortalities by species affected in the reported outbreaks

3.7. Nature of disease outbreak investigation and confirmation by laboratory

In 2013, 45% of the reports received did not provide the diagnostic methods used to determine the disease involved in the outbreaks against 26% in 2012. Only 9% of reported outbreaks were confirmed by laboratory techniques as follows 1% by advanced laboratory techniques, 1% basic laboratory, 2% combined clinical signs and laboratory and 5% were based

on laboratory diagnosis. This situation calls for the Veterinary Services of MS to put in extra efforts to strengthen the linkage between epidemiology units and diagnostic laboratories and to improve laboratory networking and diagnostic capacity in general.

The comparative data for methods of diagnosis used to confirm reported outbreaks are shown in Figure 20.

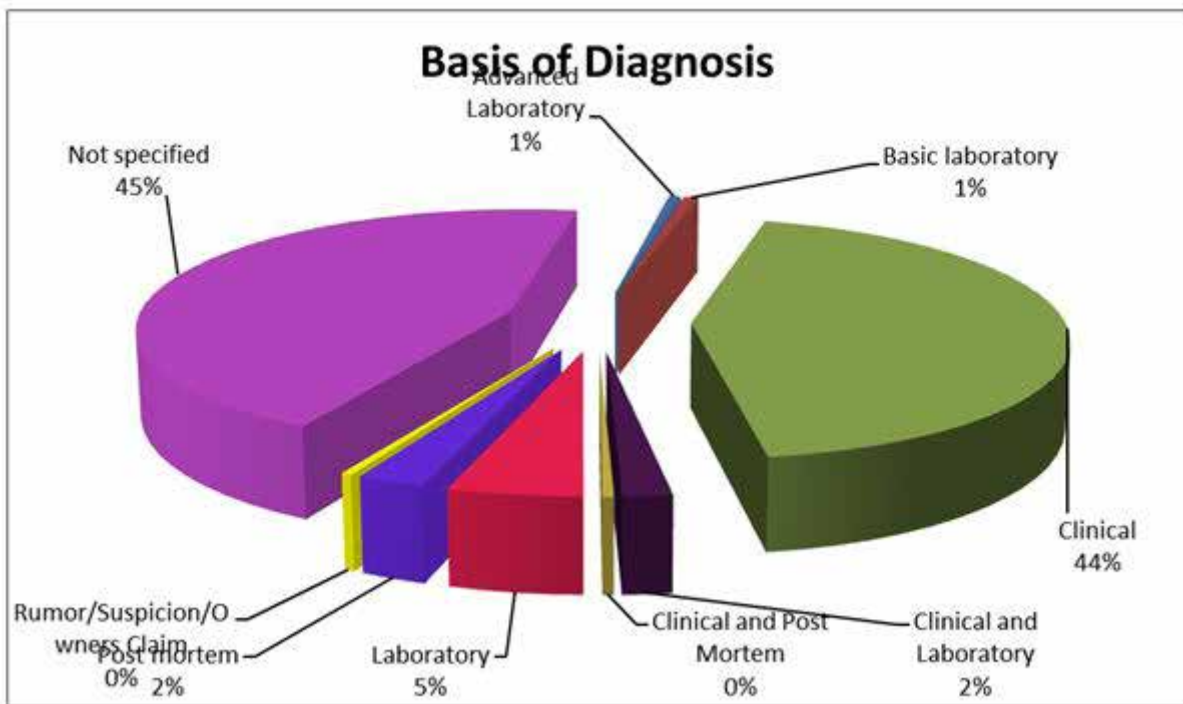


Figure 18: Nature of disease outbreak investigation and confirmation by laboratory

4. SITUATION OF MAJOR ANIMAL DISEASES

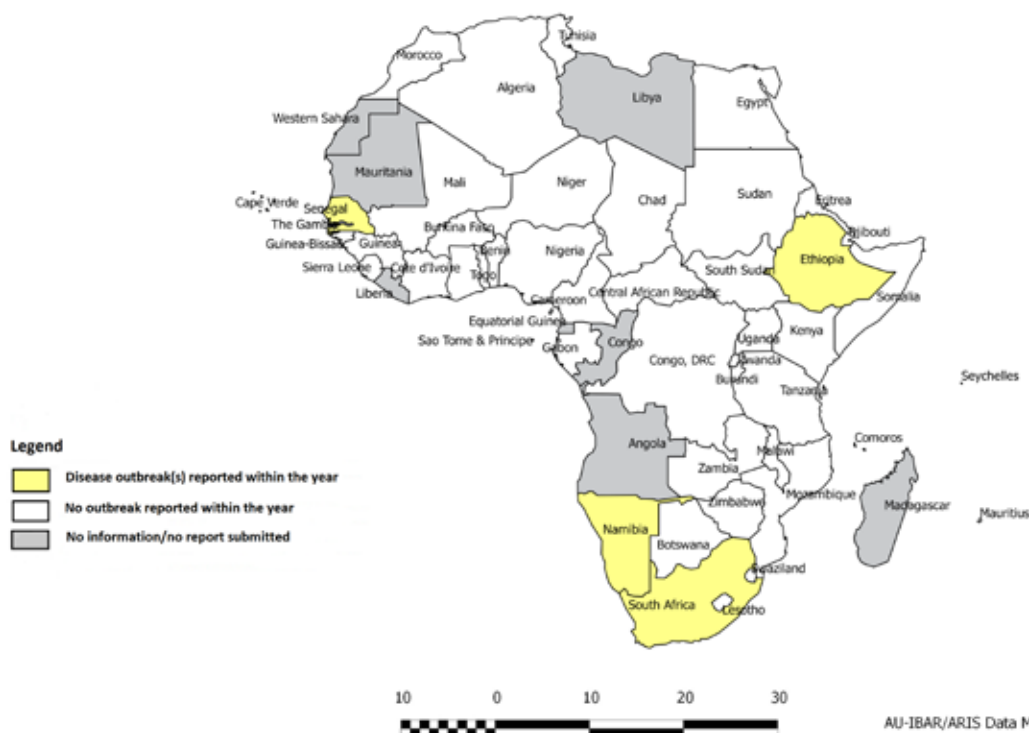
4.1. African horse sickness (AHS)

During 2013, a total of 632 AHS outbreaks were recorded in 4 countries, compared to 322 outbreaks from 6 countries in 2012 and 627 outbreaks from 6 countries in 2011. The four affected countries in 2012 had been reporting since 2008 implying the significance of ASF in those countries (see table 2 for the list of affected countries). Considering the importance

of equine species for transportation, farming as well as racing, the affected countries should step-up their efforts to reduce the impacts of AHS. The highest number of AHS outbreaks was reported from South Africa with 418 (66.14%) outbreaks followed by Ethiopia with 202 (31.96%) reported outbreaks. Overall, due to AHS, a total of 3,028 horses were affected with 686 reported mortalities representing a 22.66% case fatality rate.

Table 2: Countries reporting African horse sickness

Country	Number					
	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Ethiopia	202	460200	2342	450	0	
Namibia	1	1	1	1		
Senegal	1					
South Africa	428	320	685	235		1
Total (4)	632	460521	3028	686	0	1



Map I: Spatial distribution of African Horse Sickness in Africa in 2013

In terms of temporal distribution, the highest number of outbreaks was reported in the month of March with 112 outbreaks, a trend similar to the previous year (Chart 1 below).

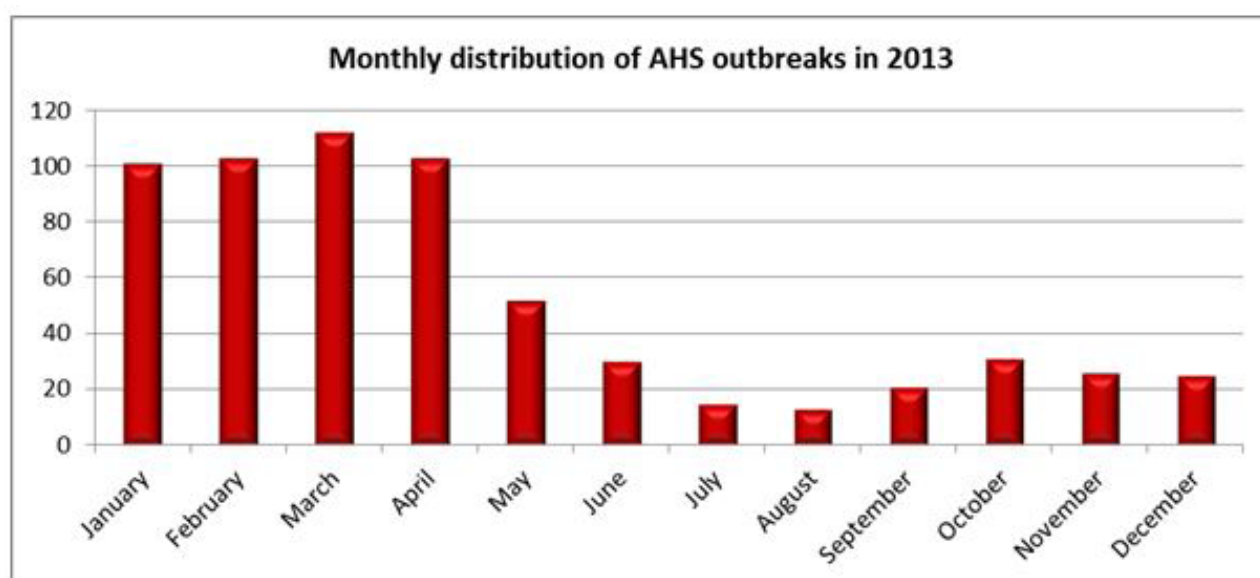


Chart 1: Monthly Distribution of AHS Outbreaks in the Affected Countries

4.2. African swine fever

During the reporting period, ASF was reported in 14 countries affecting a total of 361 epidemiological units. The outbreaks involved 40,562 cases and 33,892 deaths, representing

a case fatality rate of 83.55%. With exactly similar trends as of the previous two years, the Democratic Republic of Congo registered the highest number of outbreaks (76) accounting for 21% of the reported outbreaks and 42% of ASF mortalities on the Continent.

Table 3: Countries reporting African swine fever

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	61	29728	1212	896	66	26
Burkina Faso	37	11310	2774	1793		
Cameroon	13	1406	1176	956	183	268
Central African Republic	16	26462	3960	2368	0	0
Democratic Republic of Congo	76	2038450	14567	14248	422	15
Ghana	12	4669	1352	1262	41	267
Malawi	28	42962	9142	7695	1833	900
Mozambique	3	174	136	42		94
Nigeria	6	652	362	284	30	86
Rwanda	64	2567	674	605	1857	659
Tanzania	22	29205	3085	2546		
Togo	17	865	103	39	105	12
Uganda	2	212	14	6	3	
Zambia	19	6756	2005	1152		
Total (14)	376	2195418	40562	33892	4540	2327



Month	Number of Outbreaks
January	39
February	27
March	30
April	39
May	34
June	27
July	40
August	32
September	22
October	33
November	34
December	19

Chart 2: Monthly Distribution of ASF Outbreaks in the Affected Countries

4.3. Avian Influenza

Both highly pathogenic and low pathogenic avian influenza occurred in Africa during the reporting period. Egypt is the only country on the Continent that has been reporting highly pathogenic avian influenza (HPAI) due to H5N1 since 2009, whereas low pathogenic avian influenza (LPAI) has been reported in South Africa for three years in a row since 2011.

Egypt reported a total of 90 outbreaks of HPAI

involving 179,306 cases and 18,238 deaths of birds. Except for its apparent entrenchment in Egypt, the risk of HPAI occurrence has significantly reduced on the continent. The countries that reported occurrence of HPAI in the last few years include Egypt (2009, 2010, 2011, 2012 and 2013), South Africa (2010, 2012) and Togo (2008). Furthermore, 16 outbreaks of LPAI were reported in South Africa in 2013 causing a total of 5293 morbidities and 1461 mortalities of birds, representing a case fatality rate of 27.6%.

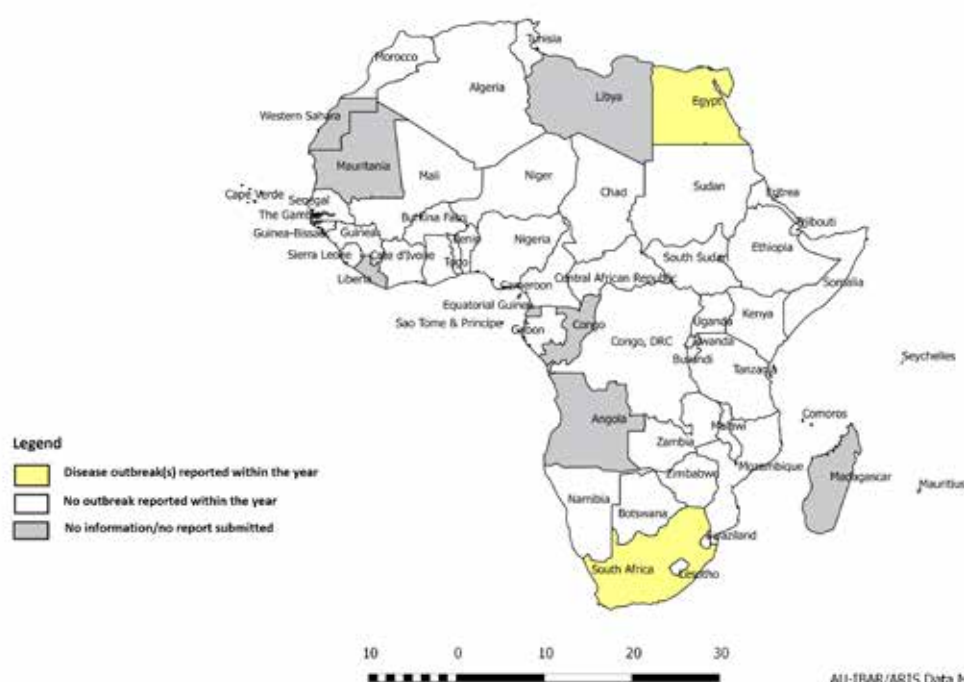
Table 4: Countries reporting Avian Influenza (HPAI and LPAI respectively)

HPAI

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Egypt	90	180320	179306	18238		160075
Total (1)	90	180320	179306	18238		160075

LPAI

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
South Africa	16	462098	5293	1461		0
Total (1)	16	462098	5293	1461		0



Map 3: Spatial distribution of HPAI and LPAI in Africa in 2013

Unlike the trend in the previous year where HPAI was reported throughout the year, there seems to be a temporal trend of HPAI occurrence in 2013 with the highest number of HPAI outbreaks reported during the first quarter of the year

(chart 3). This may point to the mild winter weather as an important risk factor, which is normally experienced in Egypt from November to April.

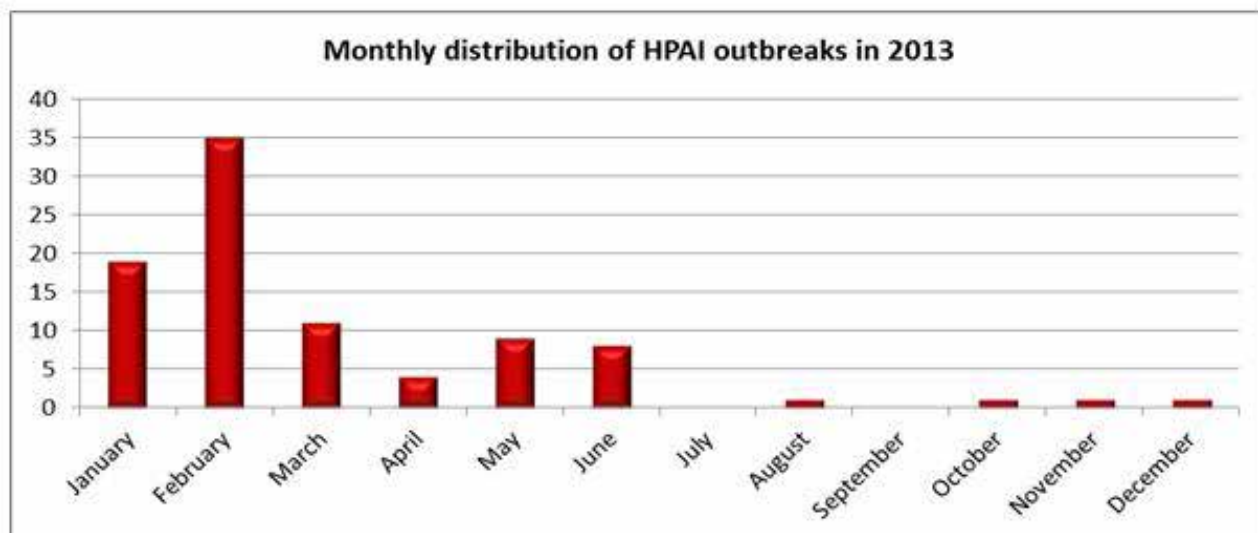


Chart 3: Monthly Distribution of HPAI Outbreaks in Egypt

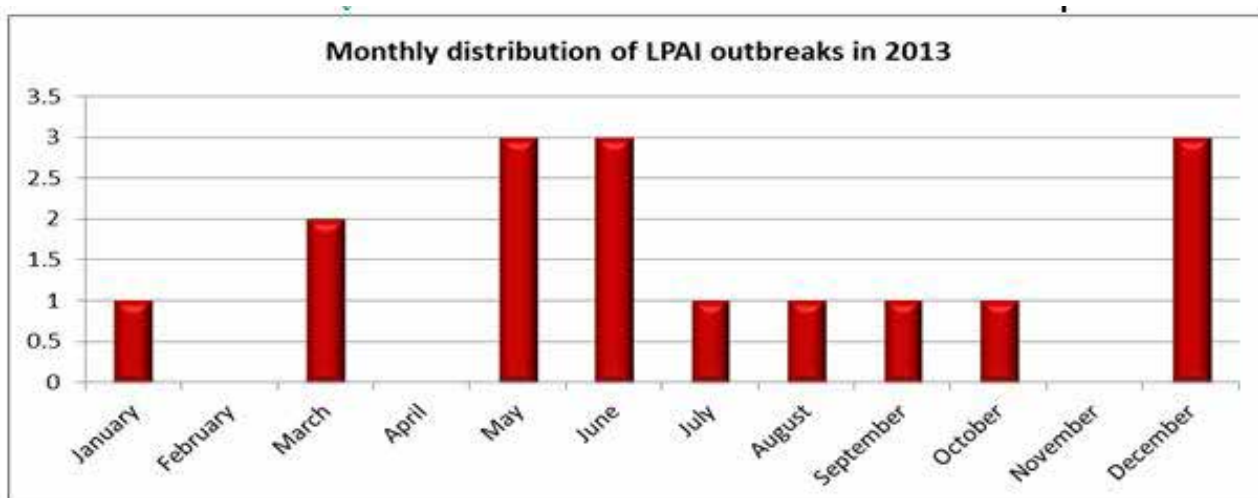


Chart 4: Monthly Distribution of LPAI Outbreaks in South Africa

4.4 Bluetongue

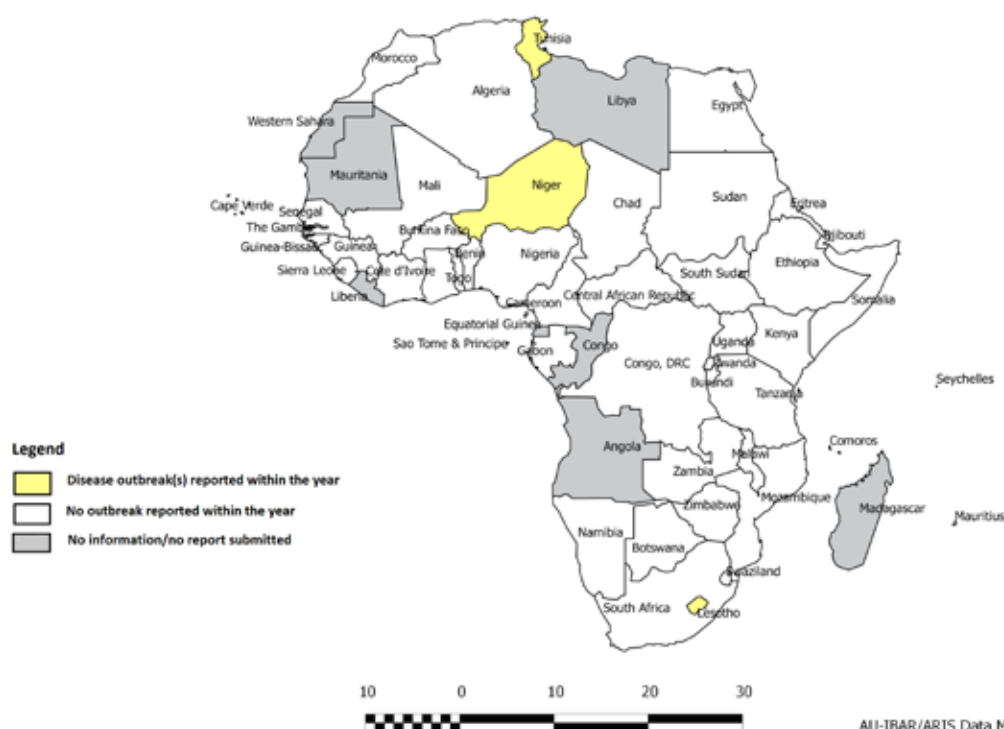
Three countries reported bluetongue in 2013, which include Lesotho, Namibia and Tunisia. Although the consistent trend of bluetongue occurrence in the Northern and Southern Africa regions may not rule out circulation of the virus in other parts of Africa, it calls for further epidemiological studies to describe and understand the underpinning factors for its constant occurrence. Since 2008 BT has

been reported in only eight Member States of AU, which include Algeria, Botswana, Comoros, Lesotho, Namibia, Tunisia, South Africa and Zimbabwe.

In 2013, the highest number of bluetongue outbreaks were reported by Lesotho with 7 outbreaks (70%) followed by Tunisia and Namibia (table 5).

Table 5: Countries reporting Bluetongue

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Lesotho	7	677	43	5		0
Namibia	1	1	1	1		
Tunisia	2	118	8	3	0	0
Total (3)	10	796	52	9	0	0



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Map 4: Spatial distribution of Bluetongue in Africa in 2013

The occurrence and distribution of the disease is governed by ecological factors (i.e. high rainfall, temperature, humidity and soil characteristics), hence BT infections have seasonal trends. According to the reports submitted by Member States in 2013, the peak season for BT occurrence

seems to be during the months of January to March with 7 outbreaks (70%) occurring during this season (chart 4). This phenomenon can be attributed to the high shower experienced from December to April in the Southern Africa region, where 80% of the total outbreaks were reported.

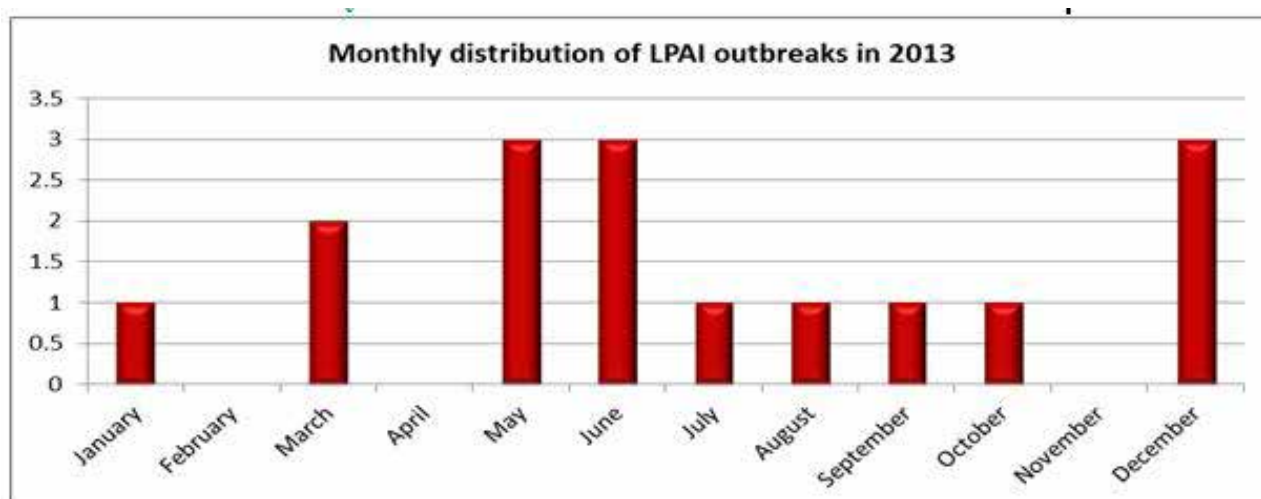


Chart 4: Monthly Distribution of Bluetongue Outbreaks

4.5. Contagious Bovine Pleuropneumonia

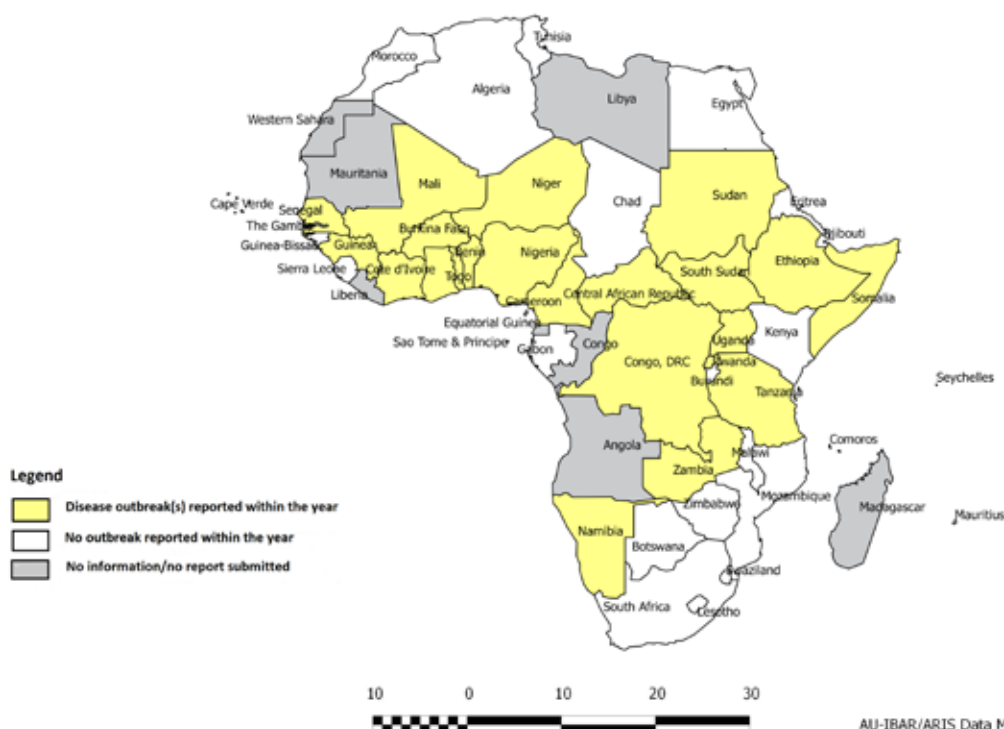
The situation of CBPP in 2013 is not different from the previous years characterized by large number of affected countries and reported outbreaks. During the reporting period, CBPP was reported in twenty-two countries involving mainly west and eastern Africa regions (map 5). In 2013, 301 epidemiological units were affected by CBPP inflicting 31,740 cases and 9538 deaths, with an estimated case fatality rate of 30%

(table 6). In comparison with the previous year, a decrease has been observed in the number of CBPP outbreaks and deaths by 17.3% and 39.9%, respectively. The highest number of CBPP outbreaks were reported in Ethiopia with 64 (21.3%), followed by Ghana with 53 (17.6%) and Central African Republic with 48 (15.9%) outbreaks, respectively. After experiencing CBPP in nearly four decades in 2012, Senegal continued reporting the disease in 2013.

Table 6: Countries reporting CBPP

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	10	15422	216	25	17	0
Burkina Faso	11	12258	382	108		
Cameroon	17	966	162	47	0	0
Central African Republic	48	105691	13656	6202	0	0
Cote d'Ivoire	1	43	16	5		
Democratic Republic of Congo	22	3765540	13978	2519	1558	0
Ethiopia	64	702942	944	140	28	
Ghana	53	7011	82	0	759	0
Guinea Conakry	5	1665	52	19	528	2
Mali	3	432	10	2	3	
Namibia	1	33	18	0		
Niger	7	1096	9	7		
Nigeria	10	2488	158	68	166	0
Rwanda	3	690	365	35	230	112
Senegal	4	2331	279	122		
Somalia	1	29	5	0		
South Sudan	1	358	16	2	0	0
Sudan	2	195	40	28	0	0
Tanzania	12	16880	495	87		

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Togo	12	265	34		34	
Uganda	3	7837	89	0	0	
Zambia	11	3195	734	122		
Total (22)	301	4647367	31740	9538	3323	114



Map 5: Spatial distribution of CBPP in Africa in 2013

In terms of seasonality, CBPP appears to have no defined temporal trend in 2013 with the disease having been reported throughout the year without significant variability in the number of reported outbreaks between the months, except for the month of January, which experienced the highest peak of CBPP outbreaks during the year (chart 5). In 2012, the highest number of outbreaks was observed in the month of December.

affected countries as evidenced by the increasing number of reporting countries. The available control measures include vaccination and movement control, but there seems to be challenges in effectively applying the control tools particularly movement control. Spread of the disease is largely attributed to uncontrolled movement of cattle, which is a common phenomenon in the extensive production systems.

CBPP control remains a big challenge for many

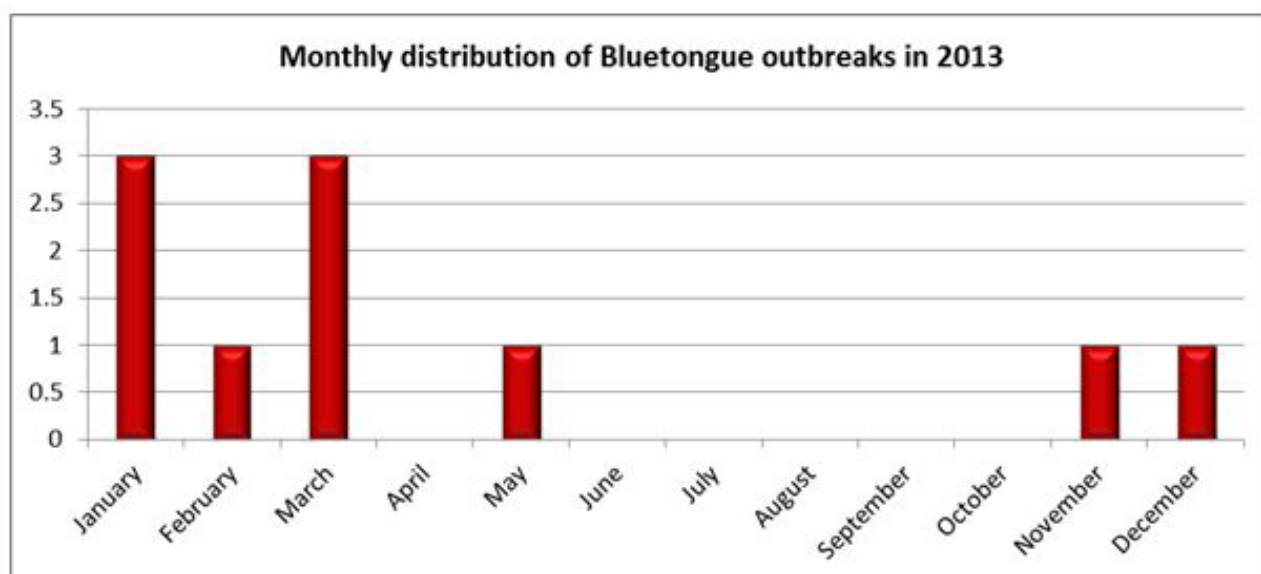


Chart 5: Monthly Distribution of CBPP Outbreaks

4.6. Contagious Caprine Pleuropneumonia

Four Eastern Africa countries, which include Ethiopia, Kenya, Somali and Tanzania reported occurrence of CCPP in 2013 (Map 6). The East Africa region seems to be the hotspot of CCPP occurrence on the Continent as most reported outbreaks over the past several years originated from this region. It is ;however, difficult to rule out the presence of CCPP in other parts of the continent as cases of under-reporting and adequate laboratory capacity may not be present to correctly diagnose the disease in many

countries. On the other hand, misclassification of cases maybe a possible scenario if the basis of diagnosis for reported outbreaks is observation of clinical manifestations. In endemic countries, it would be seemingly reasonable to believe that diagnosis of a disease occurrence based on just clinical signs could likely lead to a wrong conclusion and misclassification of cases. Therefore, it is prudent to integrate the epidemiology and filed units with the laboratory component of veterinary services in order to enhance the accuracy of reported outbreaks.

Table 7: Countries reporting CCPP

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Ethiopia	18	527610	2362	430	81	
Kenya	2	926	205	52	0	
Somalia	127	14468	1393	187	26	19
Tanzania	5	13506	211	3		
Total (4)	152	556510	4171	672	107	19

In 2013, the disease affected 152 epidemiological units (54.6% decrease from the previous year) involving 4171 cases and 672 deaths, with a case fatality rate of 16.1% (Table 7). The highest fatalities were recorded in Ethiopia followed by Somalia with 2362 and 1393 mortalities of goats, respectively.

The monthly distribution of CCPP outbreaks in 2013 has shown a contradictory trend with that of the previous year. In 2012 the incidence of CCPP was higher from May to December suggesting that risk factors for occurrence and transmission of the disease are more prevalent during this period of the year in the affected countries. However, reports from the same



Map 6: Spatial distribution of CCPP in Africa in 2013

affected countries in 2013 showed higher incidence of CCPP outbreaks from January to March suggesting no temporal trend of CCPP occurrence in Ethiopia, Kenya, Somalia and Tanzania (Chart 6). However, it should be noted

that understanding the multiple risk factors that underpin occurrence of diseases couldn't be extrapolated from passive disease reports; rather would require structured longitudinal studies and application of multi-variant analytical tools.

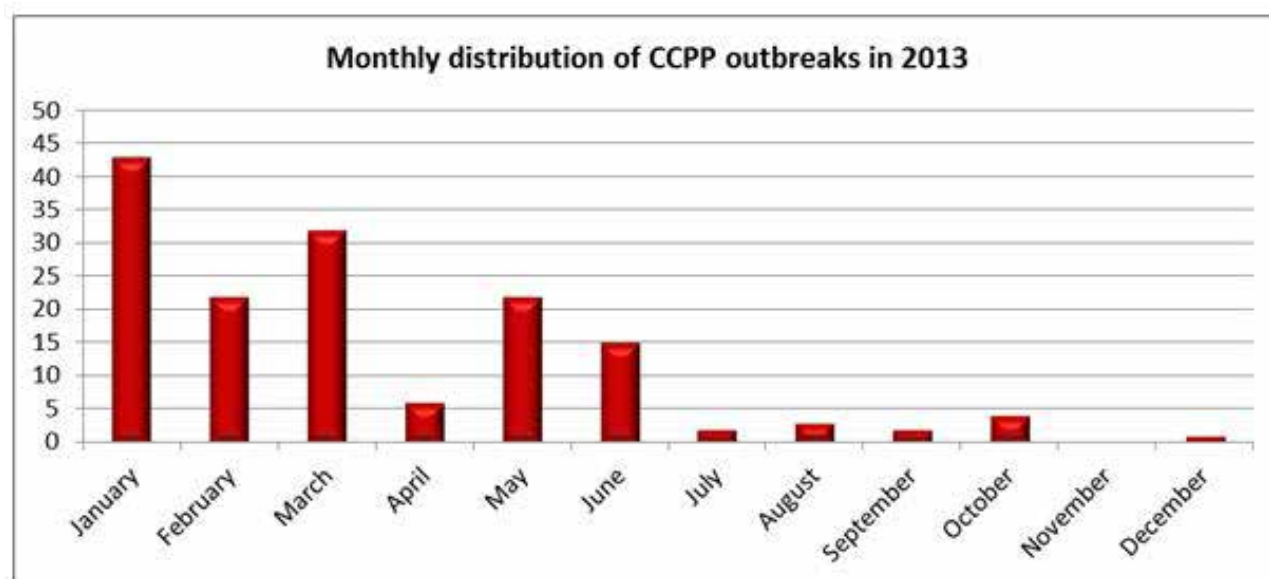


Chart 6: Monthly Distribution of CCPP Outbreaks

4.7. Foot and Mouth Disease

Foot and Mouth Disease occurred in 23 countries in 2013, making it the fourth most widely distributed TAD on the African continent after ND, LSD and PPR (map 7). This trend has been consistent over the past few years suggesting that these are the four top priority diseases taking geographical coverage as a criterion.

A total of 570 outbreaks of FMD were reported from 23 countries in 2013 compared to 889

outbreaks from 29 countries in 2012 and 902 outbreaks from 28 countries in 2011. During the year a total of 30,327 cases leading to 1134 deaths were reported from the infected countries, with an estimated case fatality rate of 3.47%. DRC (218) followed by CAR (200), and Cameroon (182) reported the highest number of fatalities (Table 8). However, there is information neither about the past exposure status of the affected epidemiological units nor about the age group of animals died due to the disease in the affected countries.

Table 8: Countries reporting FMD

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	95	75665	5134	113	76	2
Burkina Faso	36	38810	3664	123		
Cameroon	15	1738	796	182	0	58
Central African Republic	5	14282	1200	200	0	0
Cote d'Ivoire	1	79	37	8		
Democratic Republic of Congo	14	1363257	1369	218	176	14
Egypt	40	2708	629	9		
Ethiopia	113	408083	7499	101	4	
Ghana	3	1790	281	2	0	0
Kenya	6	93	55	6	0	
Namibia	2	2286	36	0	0	0
Niger	86	4704	665	57		
Nigeria	3	626	30	0	0	
Rwanda	1	125	8	3	3	
Senegal	7	4347	829	67		0
Somalia	29	1457	160	8	0	0
South Africa	33	32374	322	0		10
Sudan	5	7366	229	4	0	0
Tanzania	13	16605	2642	12		
Togo	11	1757	548	15	20	
Uganda	13	41337	449	0	0	
Zambia	1	81	9	0		
Zimbabwe	38	53854	3736	6	0	0
Total (23)	570	2073424	30327	1134	279	84

Regarding the monthly distribution, FMD appeared to occur throughout the year (Chart 7). However, FMD occurrence showed a higher incidence in the months of January and February followed by August and September. It is difficult to explain this kind of trend and draw plausible

conclusion unless a comprehensive study is undertaken to understand the main risk factors underpinning FMD's temporal distribution.

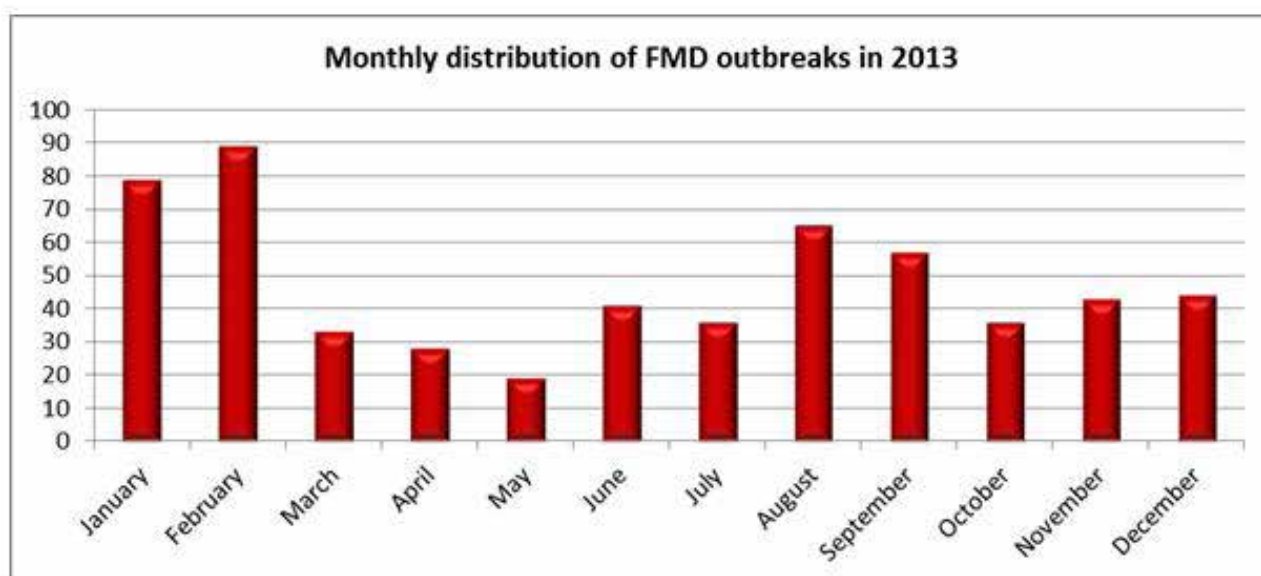
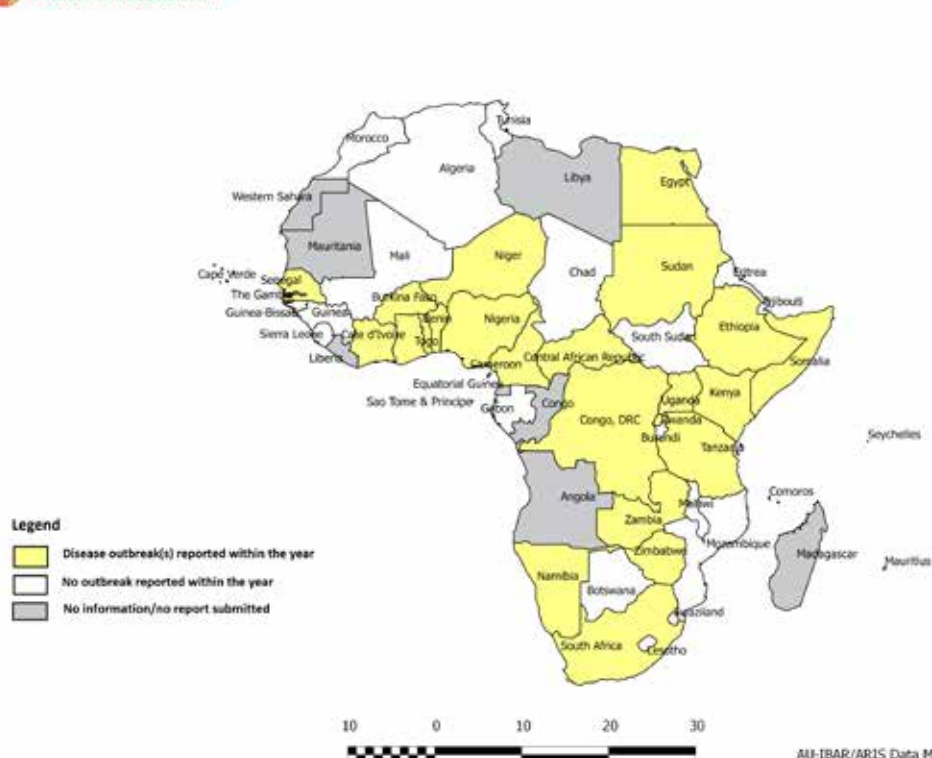


Chart 7: Monthly Distribution of FMD Outbreaks

From the reports submitted by MS, it is evident that the serotypes of majority of outbreaks are not known, an indication of either the weakness of the laboratory capacity or lack of laboratory support to FMD outbreak investigations on the continent. It is also apparent that the majority of the reported cases were diagnosed based on clinical signs, further demonstrating the weak link between field epidemiological investigation

and laboratory diagnosis. As effectiveness of vaccination to control FMD largely depends on knowledge about the circulating serotypes, it's important that countries make the necessary effort to understand the circulating serotypes particularly if they use vaccination as a control tool. Other control measures reportedly used include movement control, slaughter and quarantine.



Map 7: Spatial distribution of FMD in Africa in 2013

4.8 Lumpy Skin Disease

Lumpy skin disease was reported by 25 African countries in 2013, representing a 16.7% decrease from the previous year (table 10). The disease covered all the geographical regions of Africa, making it as the second most widely distributed TAD on the continent after ND (map 8). A total of 2823 epidemiological units (66.5% increase from last year) were affected by LSD involving 42,530 cases and 4411 deaths, representing an increase

from last year by 41.8% morbidity and 58.4% mortality, respectively. Malawi reported the highest number of cases (10630) from only 38 outbreaks, while Ethiopia (7352) and Zimbabwe (6179) reported the second and third highest number of cases from 337 and 1557 outbreaks, respectively. Furthermore, Malawi reported the highest number of LSD mortalities with 1319 (29.9%) followed by Zimbabwe with 994 (22.5%) and Senegal with 500 (11.3%) deaths.

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	4	12053	117	3	0	0
Botswana	1	2	1	0	0	0
Burkina Faso	8	3036	55			
Cameroon	4	219	25	9	0	2
Democratic Republic of Congo	25	1350464	4363	331	334	30
Egypt	11	3217	106	5		
Ethiopia	337	1466722	7352	397	5	
Ghana	1	29	5	0	1	0
Kenya	5	73	5	12		
Malawi	38	76069	10630	1319	575	291
Mozambique	1	266	3	0	0	0
Namibia	8	955	40	0	0	0
Niger	8	377	32	0		
Nigeria	1	200	10	15	15	
Rwanda	14	997	44	7	6	6
Senegal	26	3992	3728	500		7
South Africa	59	4306	212	17		0
South Sudan	1	12366	306	33	0	0
Sudan	8	4624	104	5	0	7
Swaziland	559	662723	5588	447	0	78
Tanzania	26	33731	1228	108		
Togo	7	90	20		20	
Uganda	3	127	11	0	0	
Zambia	111	59278	2366	209		
Zimbabwe	1557	1354719	6179	994	20	20
Total (25)	2823	5050635	42530	4411	976	441

Although LSD seems to have occurred throughout the year, a higher incidence of outbreaks was observed during the months of January to April consistent with the trend during

the previous two years, which may be attributed to high vector abundance in the severely affected countries during this period (Chart 8).



Map 8: Spatial distribution of LSD in Africa in 2013.

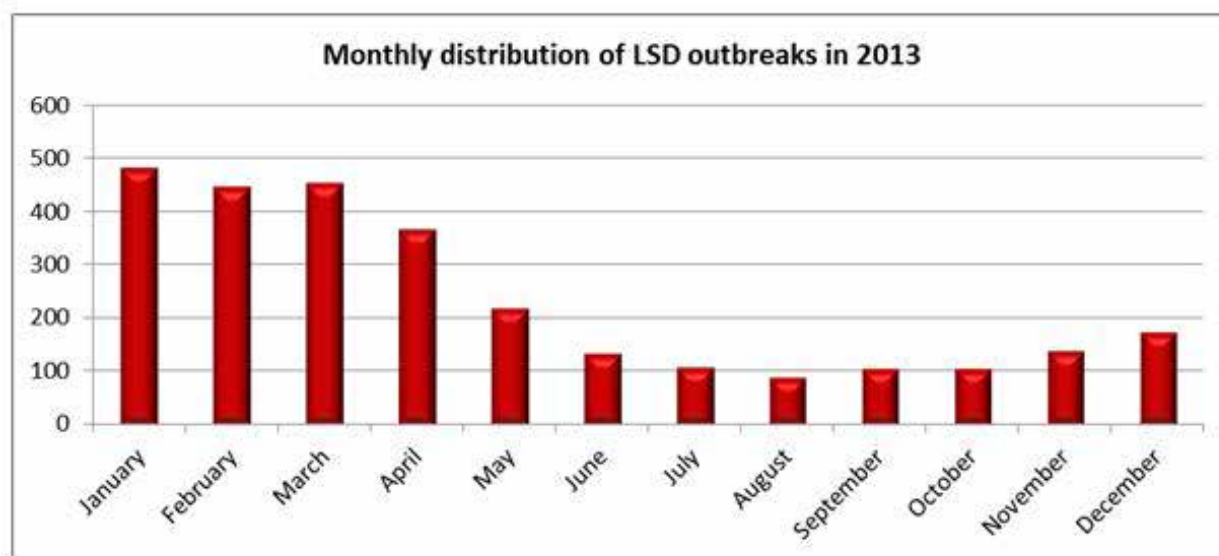


Chart 8: Monthly Distribution of LSD Outbreaks

4.9. Newcastle Disease

Newcastle disease is the most widely distributed TAD on the continent reported by 27 African countries covering the west, central, east and southern Africa regions in 2013 (Map 9). Overall, the disease affected a total of 1189 epidemiological units, representing 52.2% increase from last year and causing 1131994 cases and 992631 deaths with 151.3% morbidity and 352% mortality increase, respectively from last year. During the

year under report, ND caused a significant case fatality rate of 87.7% unlike from the previous year reports.).

The four countries with the highest number of reported outbreaks in decreasing order include Ethiopia (300), Nigeria (264), Zambia (164) and Benin (148). Benin, Ethiopia and Ghana also recorded the highest number of ND outbreaks in 2012 and 2011.

Table 10: Countries reporting ND

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	148	127901	12351	5281	43	71
Burkina Faso	15	13350	1922	1003		
Cameroon	13	4854	1675	1179	0	0
Central African Republic	20	55085	15735	8539	0	0
Cote d'Ivoire	2	1175	727	473	215	473
Democratic Republic of Congo	22	842452	28319	28044	259	0
Ethiopia	300	405554	30279	9803	166	
Ghana	78	304346	10579	2773	0	0
Guinea Bissau	3	223	87	90	0	7
Guinea Conakry	6	571	270	59	14	8
Kenya	12	292	160	44	20	6
Mali	1	4210	1452	1202		
Mozambique	3	5373	125	21	0	4
Namibia	3	17049	122	122		
Niger	6	409	111	111		
Nigeria	264	106117	2304	846	40	339
Rwanda	2		10	10	7	3
Senegal	2	1315	1120	1030		
Sierra Leone	3	787	417	165	0	0
South Africa	53	15444277	996052	911608		35616
South Sudan	2	259	79	76	0	
Sudan	2	400	107	56	50	0
Swaziland	2	40	16	16		
Tanzania	10	45201	1267	973		
Togo	11	3075	315	224	77	4
Zambia	164	197977	23085	16124		
Zimbabwe	42	39770	3308	2759	47	351
Total (27)	1189	17622062	1131994	992631	938	36882



Map 9: Spatial distribution of ND in Africa in 2013

Although the highest number of ND outbreaks was reported in July (24%), the disease appeared to be prevalent throughout the year without significant monthly variability and temporal

pattern. This may suggest the lack of seasonality for the risk factors that underpin the occurrence and maintenance of the disease (Chart 9).

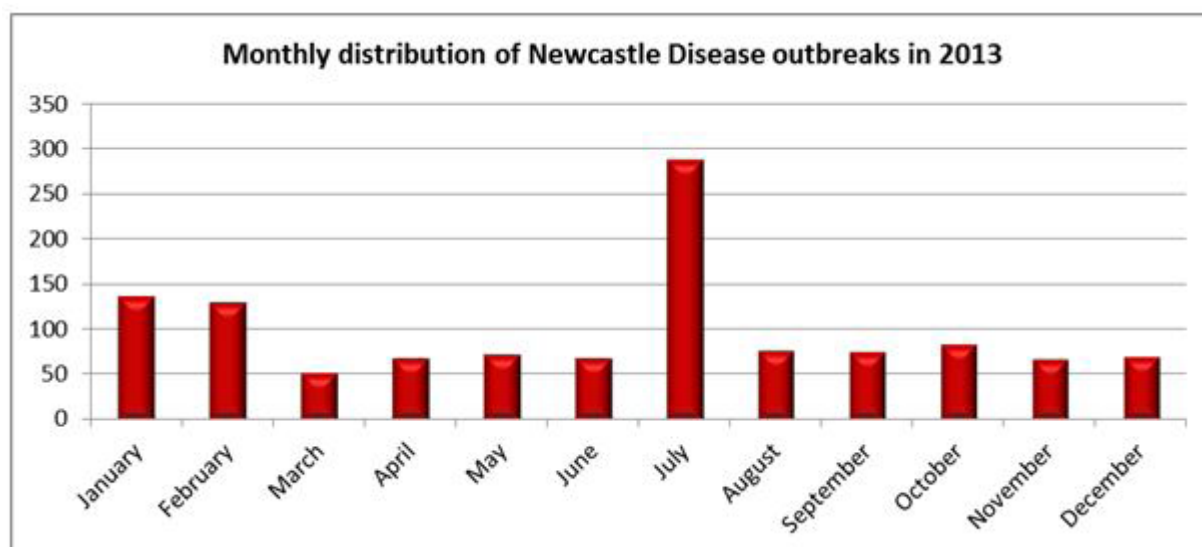


Chart 9: Monthly Distribution of ND Outbreaks

4.10. Peste des Petits Ruminants

The number of countries reporting PPR outbreaks has decreased from 29 in 2012 to 24 in 2013. Although the west, central and eastern Africa regions are largely regarded as endemic foci for PPR, the disease has been showing geographical advances towards the southern and northern regions of Africa with Tanzania (2008) and Zambia (2010) in the south and Algeria (2011) and Egypt (2012) in the north becoming the most recently infected countries on the continent. Most of the

reporting countries in 2013 also recorded the disease in the previous years (Map 10).

Although the number of affected epidemiological units has increased from 1275 in 2012 to 1691 in 2013, the impact of the disease in terms of morbidity and mortality has decreased by 28.3% (114521) cases and 30.9% (72503) deaths, respectively. The three countries with the highest number of outbreaks in decreasing order include Nigeria (774), Ethiopia (270) and Benin (218) (table 12).

Table 11: Countries reporting PPR

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	218	120594	14223	3146	166	715
Burkina Faso	1	276	32			
Cameroon	15	701	481	197	0	
Central African Republic	55	106078	17219	9882	0	8
Cote d'Ivoire	2	40	20	17		
Democratic Republic of Congo	84	3732743	59742	53872	815	0
Egypt	23	5072	423	59		
Eritrea	3	53000	456	247	135	396
Ethiopia	270	1023765	5946	1172	104	
Ghana	62	13884	1006	195	7	0
Guinea Bissau	16	1338	551	273	0	7
Guinea Conakry	29	1752	455	234	11	
Mali	2	258	30	16	3	
Niger	27	6375	520	138		
Nigeria	774	3886	1056	107	25	14
Senegal	9	1296	327	193	0	0
Sierra Leone	8	732	297	144	0	0
Somalia	34	18557	8569	1427	57	17
South Sudan	1	23000	86	36	0	0
Sudan	18	24331	1112	607	1	62
Tanzania	2	19534	639	89		
Togo	20	1524	260	150	99	
Tunisia	10	3174	512	212	0	0
Uganda	8	83142	559	90	0	
Total (24)	1691	5245052	114521	72503	1423	1219



Map 10: Spatial distribution of PPR in Africa in 2013

Apart from occurrence of the highest number of PPR outbreaks during the months of July and August (48%), there seems to be no defined temporal trend in the monthly incidence of PPR outbreaks and it occurred virtually throughout the year (Chart 10).

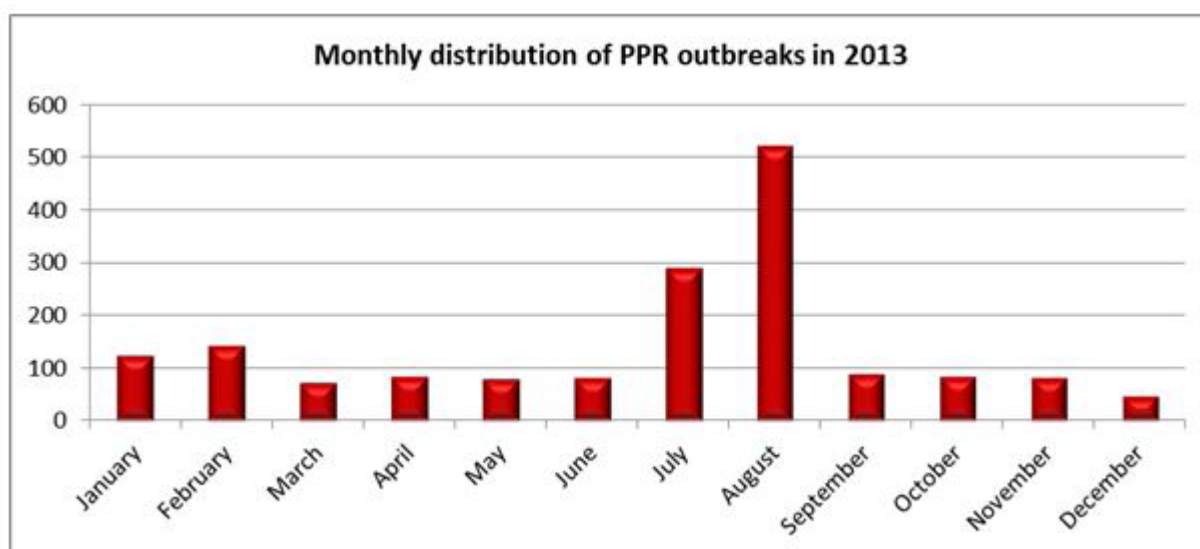


Chart 10: Monthly Distribution of PPR Outbreaks

4.11. Rift Valley fever

During the year under report, only Kenya and Senegal reported RVF. Kenya also reported RVF in 2012, while Senegal didn't report the disease within the last five years.

As RVF occurrence is associated with exceptional environmental phenomenon such as sustained heavy rainfall and flooding, it could probably be due to lack of such favorable environmental factors that led to occurrence of the disease in only two countries. Kenya reported one outbreak of RVF in 2013, a figure similar to last

year. The last major outbreak of RVF in Kenya was experienced in 2006, and it's not clear what environmental factors triggered the outbreaks in 2012 and 2013, while previous outbreaks in the Greater Horn of Africa were associated with El Nino – ENSO phenomenon. The RVF outbreaks in Senegal were reported in the months of September to December, (chart 12), which overlaps with the country's known rainy season that falls between June to October.

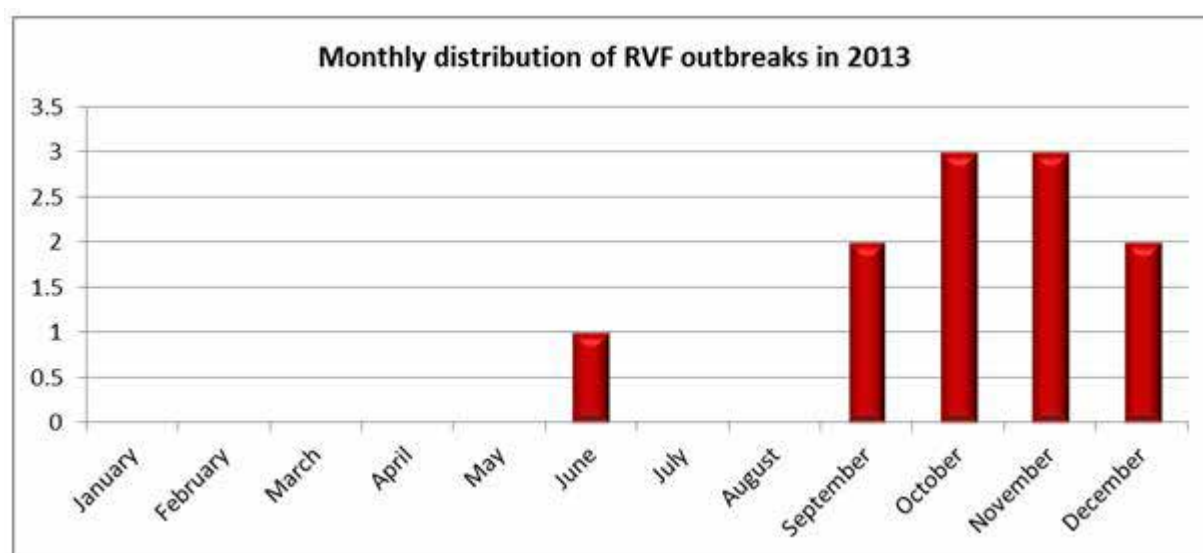
During the reporting period, a total of 11 outbreaks involving 2576 cases and 151 deaths were reported in Kenya and Senegal.

Table 12: Countries reporting RVF

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Kenya	1	8	5	7		
Senegal	10	6062	2571	144		30
Total (2)	11	6070	2576	151		30



Map 11: Spatial distribution of RVF in Africa in 2013



4.12. Sheep Pox and Goat Pox

In 2013, twelve countries reported occurrence of SGP in their territories, similar to the number of affected countries in 2012 (Table 13 and Map 11). The three countries that recorded the highest number of outbreaks in 2013 include

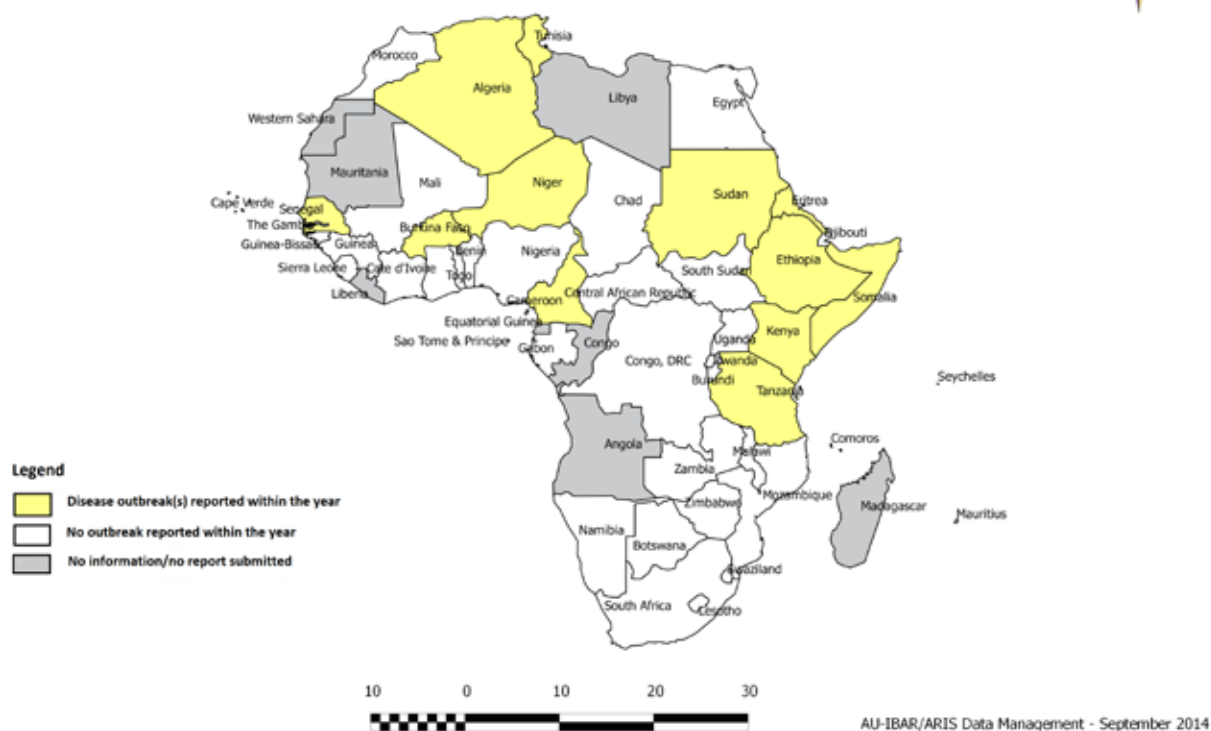
Ethiopia (697), Niger (195) and Algeria (50) in a decreasing order. Ethiopia and Niger reported also the highest number of outbreaks in 2012. Overall, a total of 1040 epidemiological units were affected on the continent causing 19035 cases and 2428 deaths during the month under report.

Table 13: Countries reporting sheep pox and goat pox

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	50	13292	544	21	5	160
Burkina Faso	2	603	116	20		
Cameroon	5	135	94	11	0	
Eritrea	2	2250	62	2		
Ethiopia	697	829252	14679	1545	158	
Kenya	1	0	3	0		
Niger	195	45718	1844	635		
Senegal	9	3186	348	26		
Somalia	55	9256	843	74	39	17
Sudan	9	2320	160	87	0	23
Tanzania	1	1071	2			
Tunisia	14	2737	340	7	0	0
Total (12)	1040	909820	19035	2428	202	200

Although January and February recorded the highest number of SGP outbreaks (42.9%), like many other TADs, the monthly distribution of occurrence of SGP did not show a significant temporal pattern with outbreaks reported throughout the year with no marked seasonal variability (Chart 11). It is difficult to provide any plausible explanation for this kind of temporal

trend, not only for SGP but also for many other reported TADs, unless focused studies are carried out to shed light on as to why there is no defined seasonality of disease occurrence, particularly of those diseases whose occurrence is underpinned by climatic parameters.



Map 12: Spatial distribution of SGP in Africa in 2013.

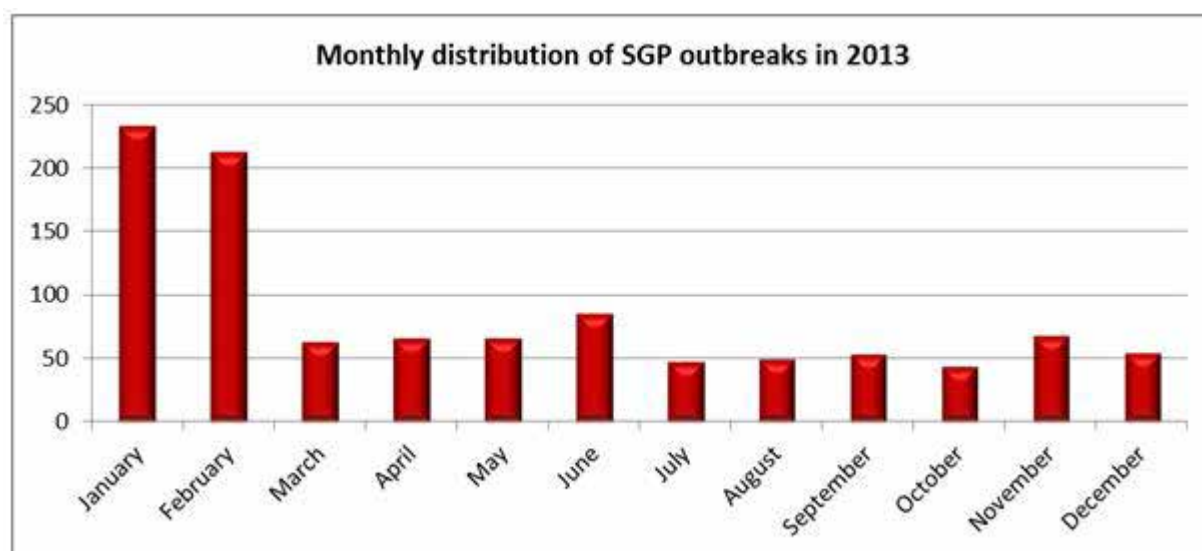


Chart 12: Monthly Distribution of SGP Outbreaks

5. SITUATION OF OTHER IMPORTANT DISEASES

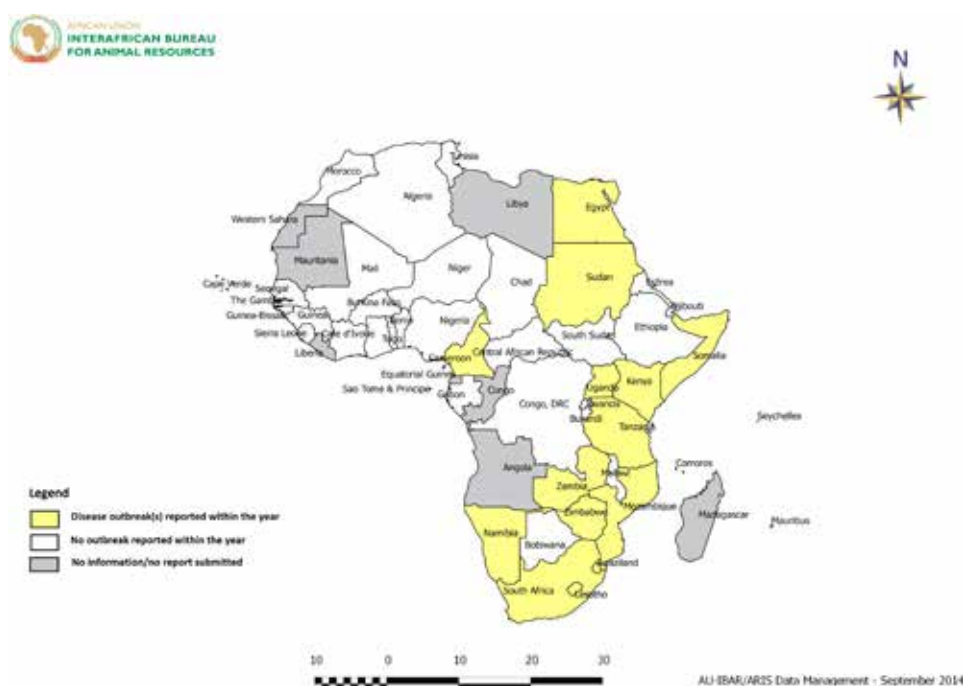
5.1 Anaplasmosis

Anaplasmosis was reported in 14 countries in Africa in 2013-down from 16 countries in 2012-with 1714 outbreaks and 1079 deaths. Similar to the previous year, Zimbabwe reported the highest number of outbreaks, constituting 73.87% of the total number of outbreaks in the continent. The geographical distribution of the disease (Map

13) showed that it was mainly recorded in the eastern and southern parts of the continent. In terms of monthly distribution of outbreaks, there was little variation between months, with June having the lowest number of outbreaks and December having the highest number of outbreaks (Chart 13). In terms of seasonality, outbreaks occurred in two peaks, January to May and June to December.

Table 14: Countries reporting Anaplasmosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Cameroon	5	196	43	6	0	
Egypt	108	801	607			
Kenya	11	45	26	6	0	0
Lesotho	5	35	5	1		0
Mozambique	11	1933	39	8	0	0
Namibia	3	1385	9	8		
Somalia	5	452	49	4	0	0
South Africa	26	259	47	5		0
Sudan	1	3000	80	45		
Swaziland	63	50160	432	12	0	207
Tanzania	31	40961	387	20		
Uganda	5	241	41	3	0	
Zambia	174	35247	2403	522		
Zimbabwe	1266	964955	2021	439	17	1
Total (14)	1714	1099670	6189	1079	17	208



Map 13: Spatial distribution of Anaplasmosis in Africa in 2013

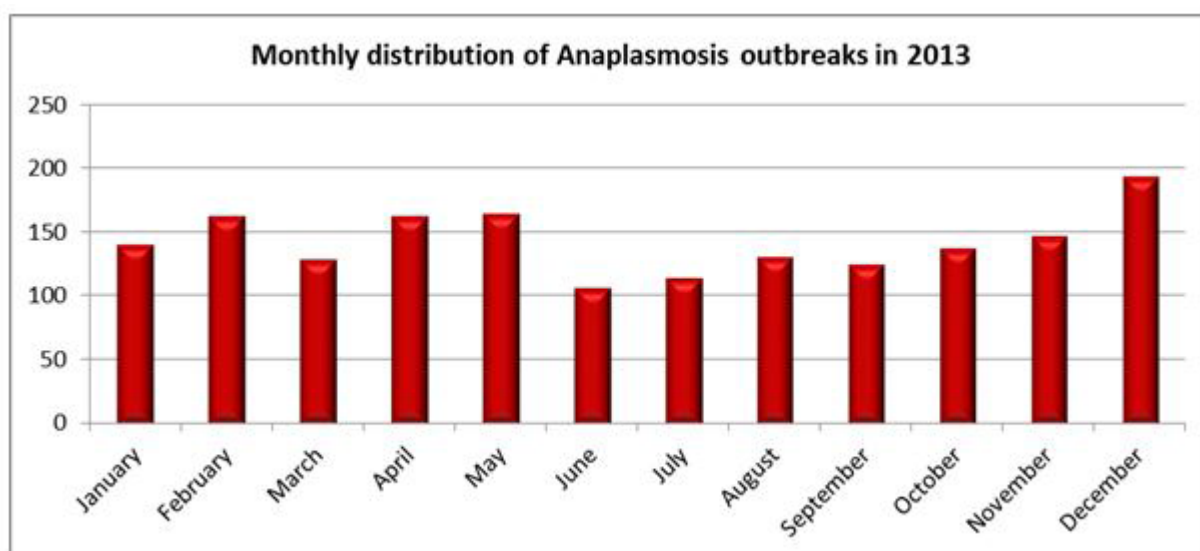


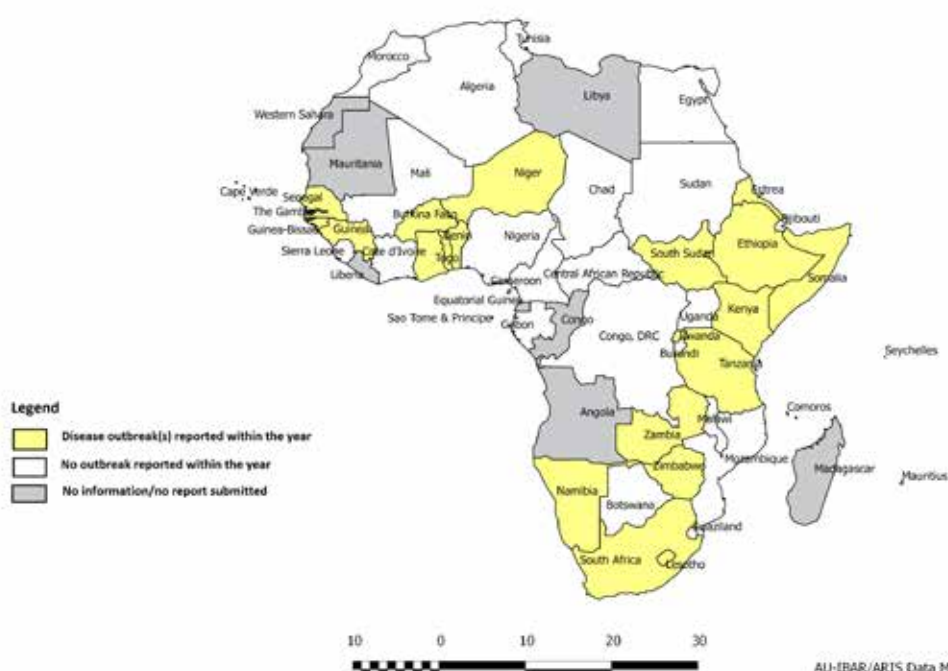
Chart 13: Monthly Distribution of Anaplasmosis Outbreaks

5.2 Anthrax

In 2013, 20 Member States reported outbreaks of the disease to AU-IBAR down from 25 in 2012. A total of 1287 outbreaks, 10140 cases and 3179 deaths were recorded within the year. Similar to 2012, the highest number of outbreaks were reported by Ethiopia (1067; 82.90%), which also recorded the highest number of cases (6797;

67.03%) and deaths (1945; 60.84%). There was a peak of outbreaks in January and February (chart).

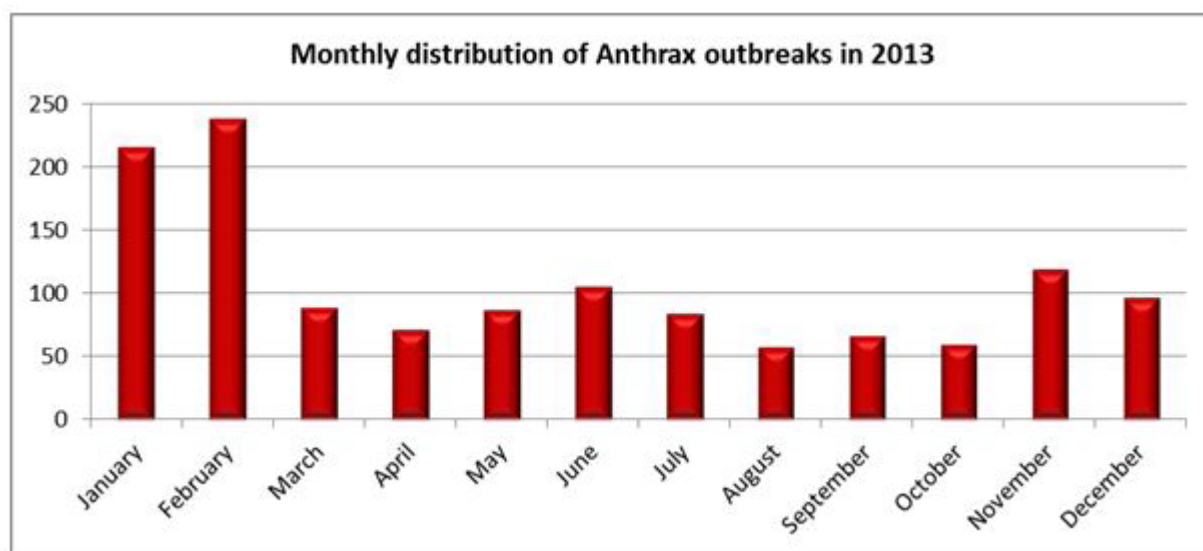
While vaccination remains the most important tool for controlling the disease, the data on vaccination submitted by member states is not significant enough to assess the effectiveness of the control measure.



Map 14 shows the spatial distribution of Anthrax in Africa in 2013.

Table 15: Countries reporting Anthrax

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	3	71	5	5	0	0
Burkina Faso	5	2400	28	28		
Eritrea	4	14503	248	81		50
Ethiopia	1067	882476	6597	1945	48	
Ghana	7	3971	103	96	0	0
Guinea Bissau	14	1406	124	92	0	0
Guinea Conakry	12	2542	33	33		
Kenya	2	98	9	8		
Lesotho	4	15704	12	12		0
Namibia	15	297	25	25	0	0
Niger	33	9663	429	261		
Rwanda	19	850	51	45		45
Senegal	6	25600	65	64		
Somalia	23	1546	117	86	0	5
South Africa	46	363	49	49		0
South Sudan	1	34000	2101	234	0	0
Tanzania	1	1800	1	1		
Togo	5	799	15	4	11	
Zambia	2	230	20	19		
Zimbabwe	18	20937	108	91	0	0
Total (20)	1287	1019256	10140	3179	59	100

**Chart 14:** Monthly Distribution of Anthrax Outbreaks

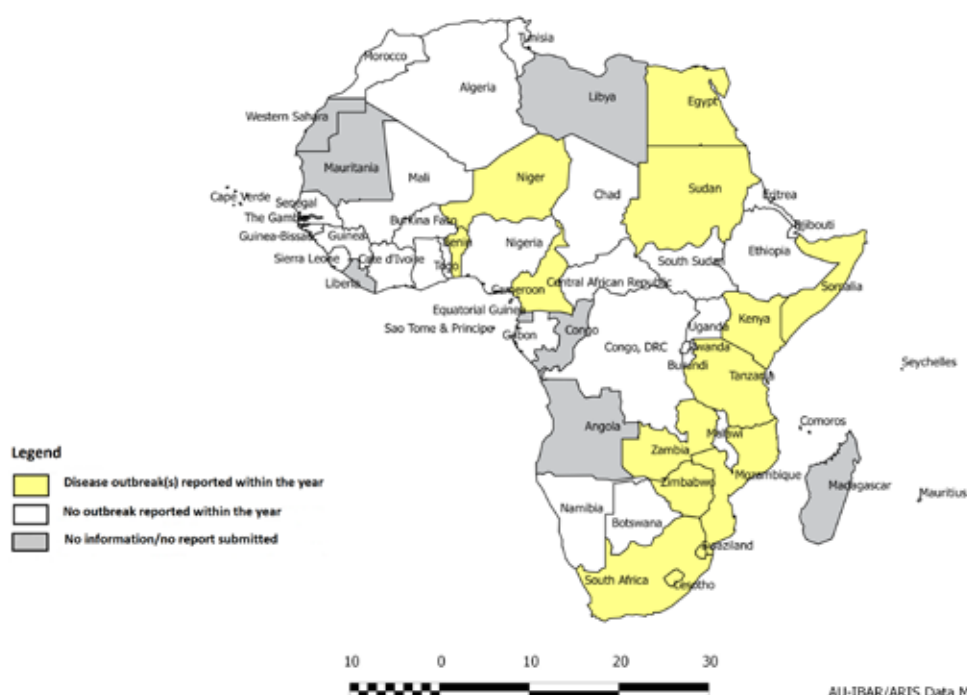
5.3 Babesiosis

In 2013, Babesiosis was reported by 14 countries down from 18 in 2012. A total of 1452 outbreaks, 28944 cases and 419 deaths were reported in the year (Table 17). Zimbabwe recorded the highest

number of outbreaks (634; 43.66%) followed by Egypt (588; 40.49%). The corresponding number of cases was highest in Egypt and cases (26183; 90.46%) followed by Zimbabwe (974; 3.36%). The highest number of outbreaks was reported in the month of February and the lowest in June.

Table 16: Countries reporting Babesiosis in Africa in 2013

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	11	277	277	1	19	0
Cameroon	1	12	7	0	0	
Egypt	588	28298	26183			
Kenya	2	4	3	0	0	0
Lesotho	2	16	2	0		0
Mozambique	6	715	13	6	0	0
Niger	17	1271	224	19		
Somalia	17	1402	204	31	0	0
South Africa	40	4060	207	98		0
Sudan	3	765	55	33	0	0
Swaziland	45	46512	305	6	0	257
Tanzania	19	19610	121	7		
Zambia	67	7409	369	55		
Zimbabwe	634	445275	974	163	4	1
Total (14)	1452	555626	28944	419	23	258



AU-IBAR/ARIS Data Management - September 2014

Map 15: Spatial distribution of Babesiosis in Africa 2013

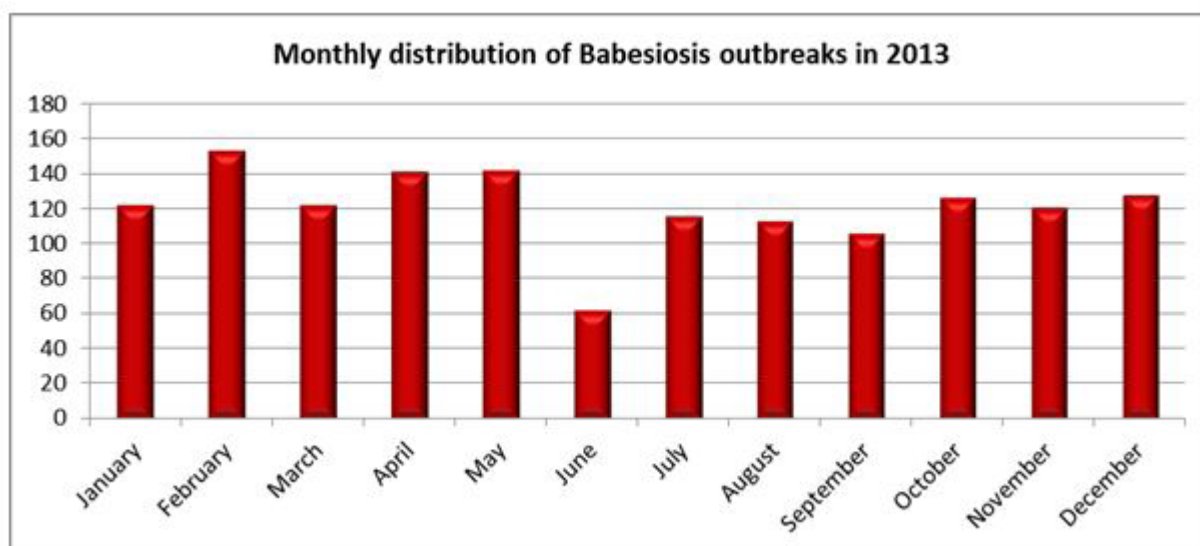


Chart 15: Monthly Distribution of Babesiosis Outbreaks

5.4 Bee Diseases

In 2013 one country, Algeria, reported three bee diseases namely; American Foulbrood, Nosemosis and Varroosis (Map 15). One outbreak of American foulbrood was reported

comprising 48 cases. A total of 24 outbreaks of Nosemosis were reported comprising 634 cases. The single outbreak of American foulbrood was reported in April. The outbreaks of Nosemosis were reported from February to May then in October and December.



Map 16: Spatial distribution of Bee diseases in Africa in 2013

56 Varroosis outbreaks were however reported June to July, the disease was virtually reported involving 1312 cases. Although the Peak of the through the year except January and August. distribution of cases was in February to April and

Table 16: Spatial distribution of Bee diseases in Africa 2013

American foulbrood

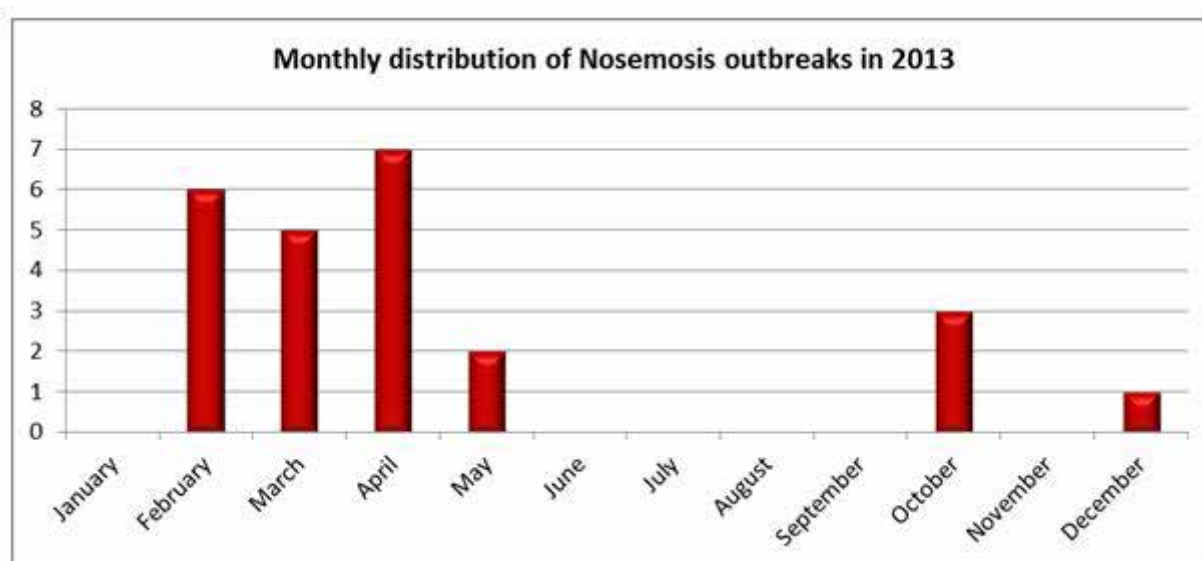
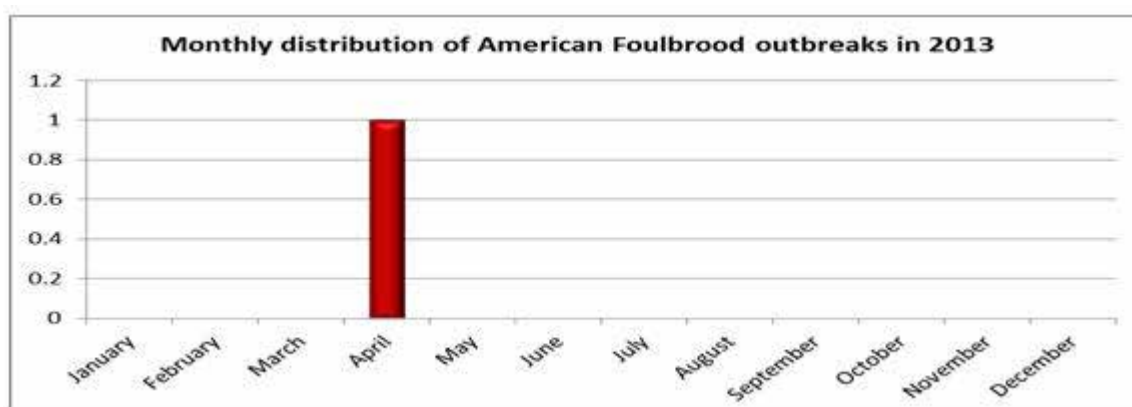
Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	1	48	48	0	0	48
Total (1)	1	48	48	0	0	48

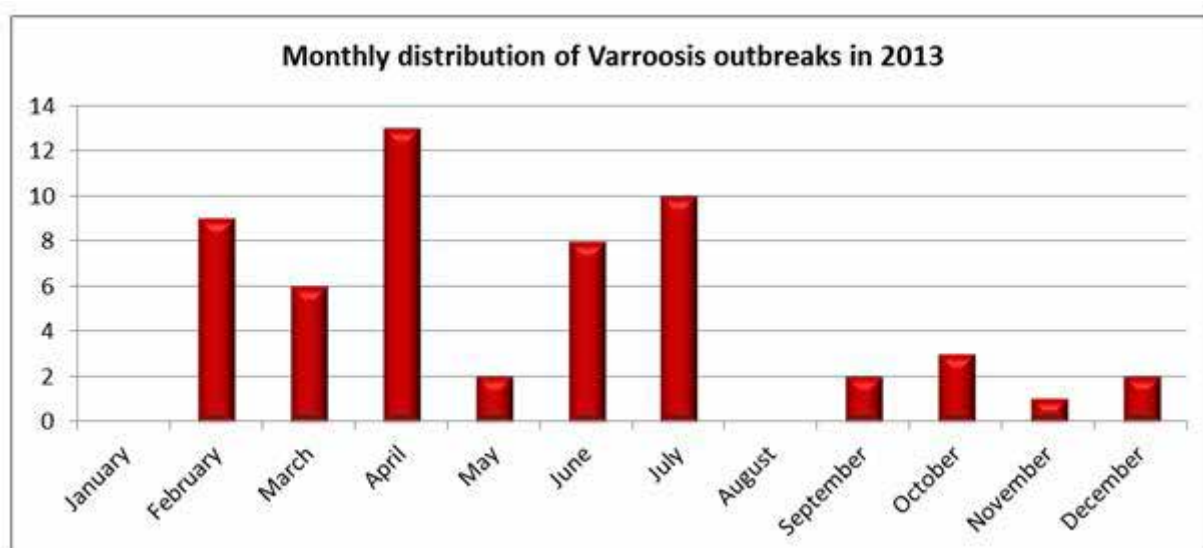
Nosemosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	24	634	634	0	0	634
Total (1)	24	634	634	0	0	634

Varroosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	56	1247	1312	0	0	1312
Total (1)	56	1247	1312	0	0	1312





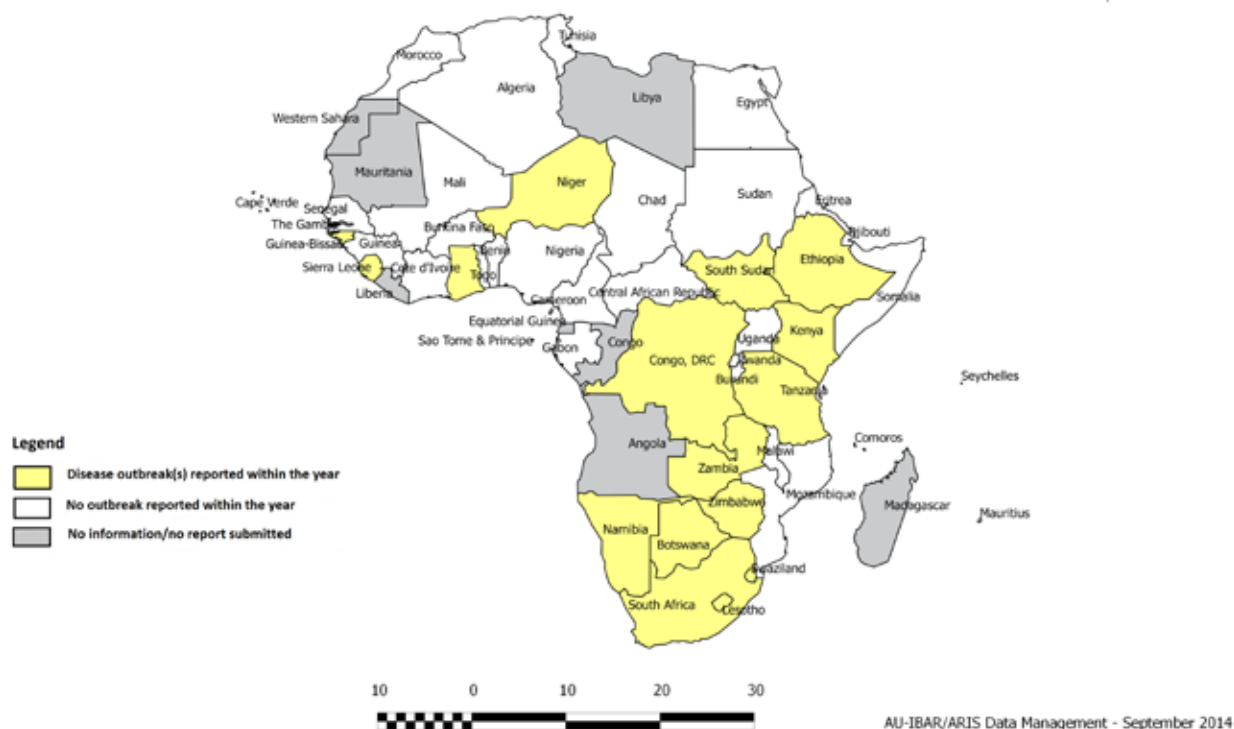
5.4 Blackleg

Blackleg was reported by 16 countries in 2013 down from 23 in 2012 (Table 18). A total of 1248 outbreaks, 13760 cases and 2878 deaths were recorded. Ethiopia reported the highest number

of outbreaks (654) followed by Zimbabwe (388). Ethiopia also recorded the highest number of cases (5319), followed by Zimbabwe (2546). The highest number of cases was reported in February and the lowest in June (chart).

Table 17: Countries reporting Blackleg

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Botswana	1	10	2	2	0	0
Democratic Republic of Congo	9	1937386	1230	396	217	100
Ethiopia	654	756782	5319	651	53	
Ghana	3	164	14	10	1	1
Guinea Bissau	15	1187	109	85	0	0
Kenya	5	220	11	2	0	0
Lesotho	1	27	1	1		0
Namibia	1	120	2	1	0	0
Niger	4	528	13	13		
Sierra Leone	4	4372	973	390	0	0
South Africa	15	0	62	18		0
South Sudan	1	34000	2101	234	0	0
Swaziland	50	59380	290	86	0	110
Tanzania	10	22094	90	34		
Zambia	87	13016	997	358		
Zimbabwe	388	250327	2546	597	9	3
Total (16)	1248	3079613	13760	2878	280	214



Map 17: Spatial distribution of Blackleg in Africa in 2013

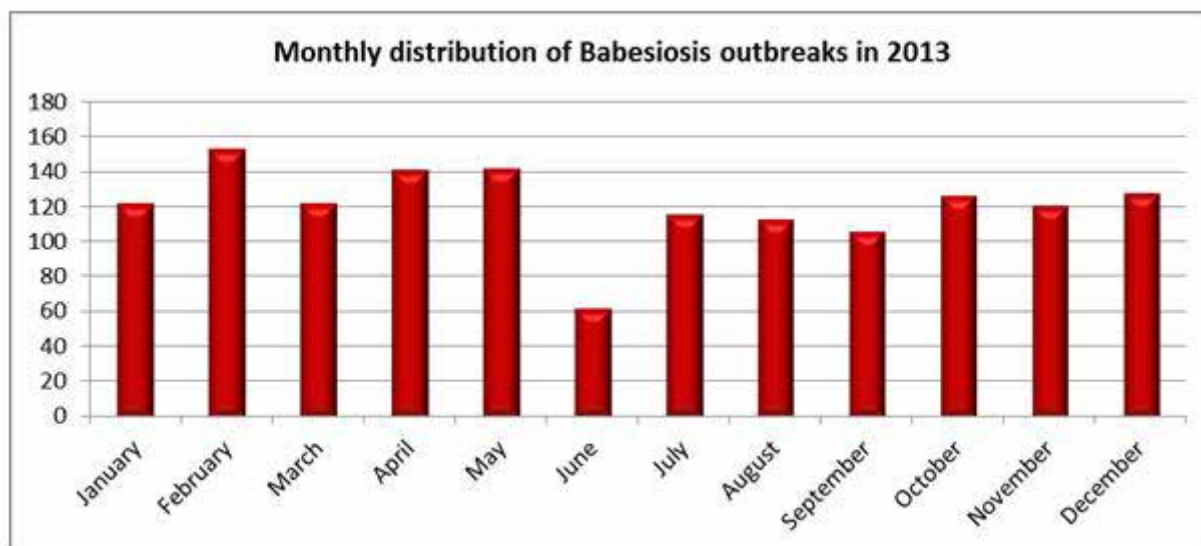


Chart 19: Monthly Distribution of Blackleg Outbreaks

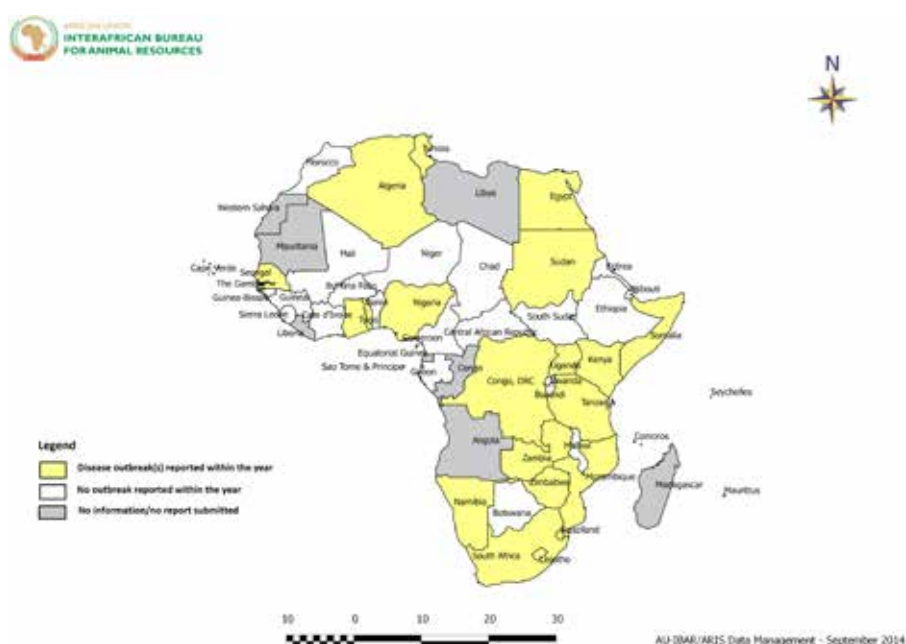
5.5 Brucellosis

During the year under review, the 20 countries reported occurrence of Brucellosis (Table 19) comparable to 19 countries in 2012. A total of 1433 outbreaks, 8582 cases and 41 deaths were

recorded. The highest number of outbreaks was reported by South Africa (634), followed by Algeria (445) and Egypt (162). South Africa also reported the highest number of cases (4701) as well as deaths (17). The highest number of outbreaks was in April and May (chart).

Table 18: Countries reporting Brucellosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	445	5378	987	2	985	0
Democratic Republic of Congo	2	25754	15	0	7	8
Egypt	162	523	1037			
Ghana	1	6	1	0	1	0
Kenya	1	10	2	0		
Lesotho	1	2138	7	0		0
Mozambique	22	5032	99	3	52	5
Namibia	3	135	5	0	0	0
Nigeria	1	1	1	0	0	
Senegal	1	28	7	4		
Somalia	11	1037	24	5	4	1
South Africa	634	38099	4701	17		890
Sudan	1	151	24	0	0	0
Swaziland	104	132029	823	2	0	290
Tanzania	1	514	1			
Togo	1	100	2		2	
Tunisia	3	1390	107	0	0	0
Uganda	16	10899	604	0	0	
Zambia	11	1713	110	5		
Zimbabwe	12	1059	25	3	0	0
Total (20)	1433	225996	8582	41	1051	1194



Map 18: Spatial distribution of Brucellosis in Africa in 2013

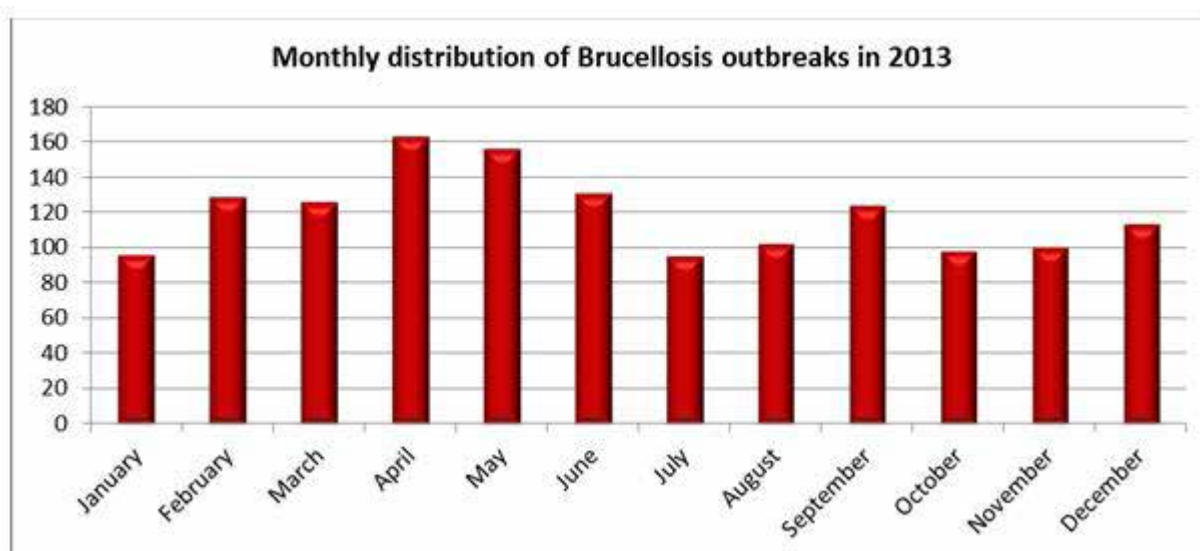


Chart 20: Monthly Distribution of Brucellosis Outbreaks

5.6 Dermatophilosis

Dermatophilosis also known as streptothrichosis was reported by 10 countries during the year 2013 (Table 21) which was the same as in 2012. A total of 624 outbreaks, 3396 cases and 142 deaths were recorded. Like previous years Zimbabwe

reported the highest number of outbreaks (519). This was followed by Zambia (76) and Ghana (13). Zimbabwe also recorded the highest number of cases (1675) and deaths (81) followed by Zambia (1324 cases and 31 deaths). The highest number of cases was reported in April and the lowest in November (chart).

Table 19: Countries reporting Dermatophilosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Cameroon	1	11	4	0		
Democratic Republic of Congo	1	45859	183	0	0	
Ethiopia	4	16	42	9	0	
Ghana	13	514	49	0	5	0
Lesotho	1	200	70	19		0
Mozambique	2	340	12	0		0
Nigeria	2	65	4			
South Africa	5	26	33	2		0
Zambia	76	13532	1324	31		
Zimbabwe	519	588747	1675	81	5	0
Total (10)	624	649310	3396	142	10	0



Map 19: Spatial distribution of Dermatophilosis in Africa in 2013

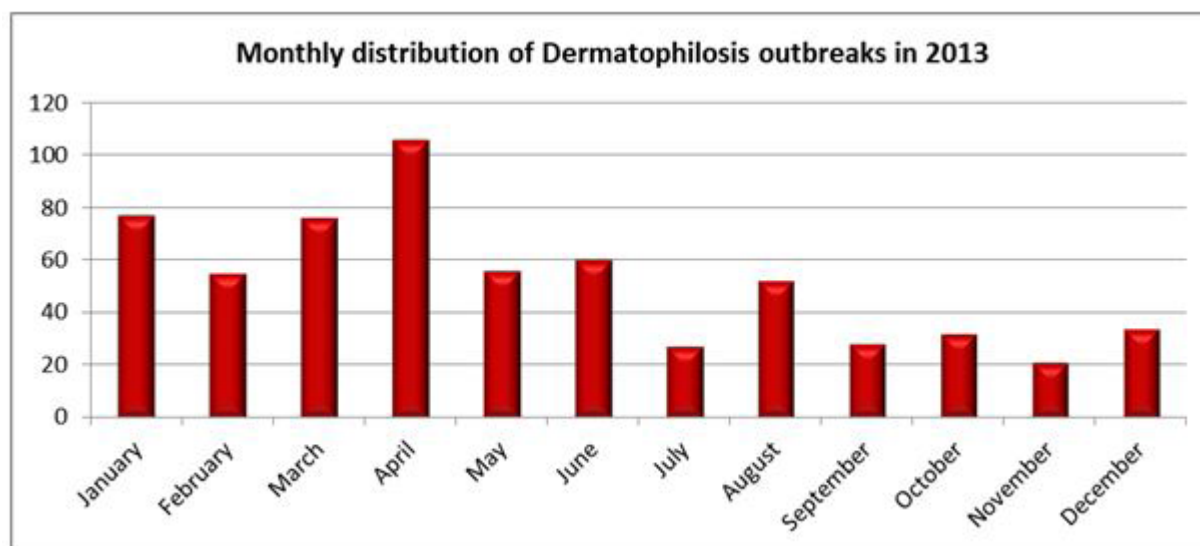


Chart 21: Monthly Distribution of Dermatophilosis Outbreaks

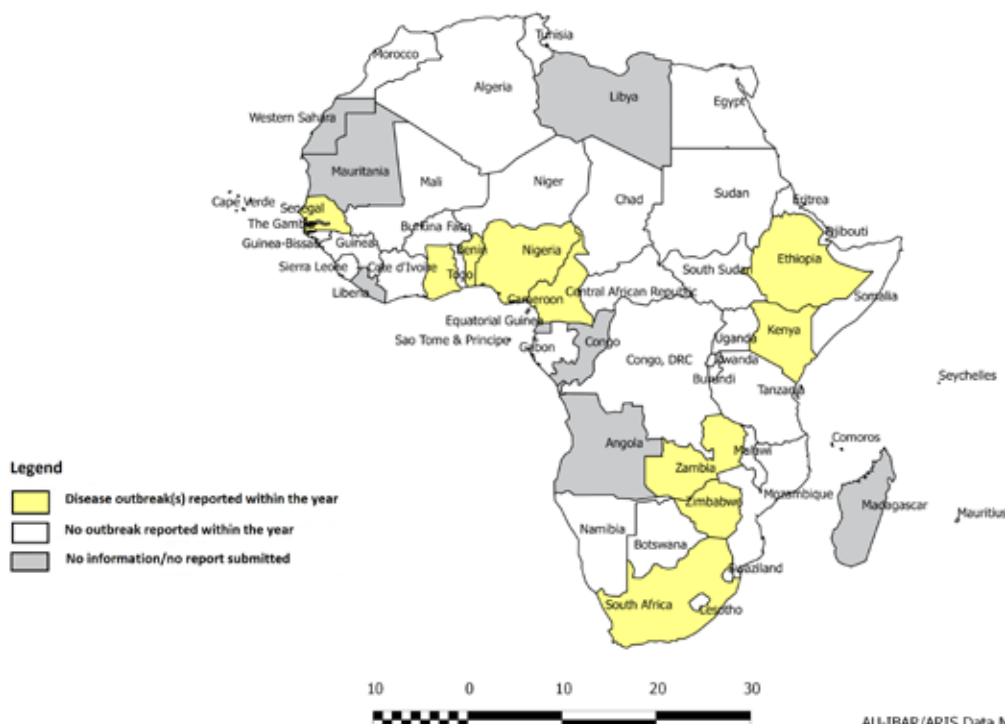
5.7 Gumboro disease (Infectious Bursal disease)

In 2013, 10 countries reported Gumboro outbreaks (Table 22) down from 12 in 2012. A total of 253 outbreaks, 33384 cases and 20097 deaths were recorded. Ghana recorded the

highest number of outbreaks (82) followed by Zambia (68) and Zimbabwe (68). Zambia recorded the highest number of cases (15883) and deaths (14092) followed by Ghana (13630 cases and 3878 deaths). The highest number of outbreaks occurred in July and the lowest in March with peak mortality in April and July.

Table 20: Countries reporting Gumboro disease

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	2	1800	400	325	0	0
Cameroon	2	850	736	356		
Ethiopia	10		60	36	0	
Ghana	82	153367	13630	3878	0	0
Kenya	4	220	83	49	6	0
Nigeria	14	56632	329	114	0	0
Senegal	1	500	285	200		
South Africa	2	0	203	5		3
Zambia	68	170594	15883	14092		
Zimbabwe	68	30222	1775	1042	24	0
Total (10)	253	414185	33384	20097	30	3



Map 20: Spatial distribution of IBD (Gumboro) disease in Africa in 2013

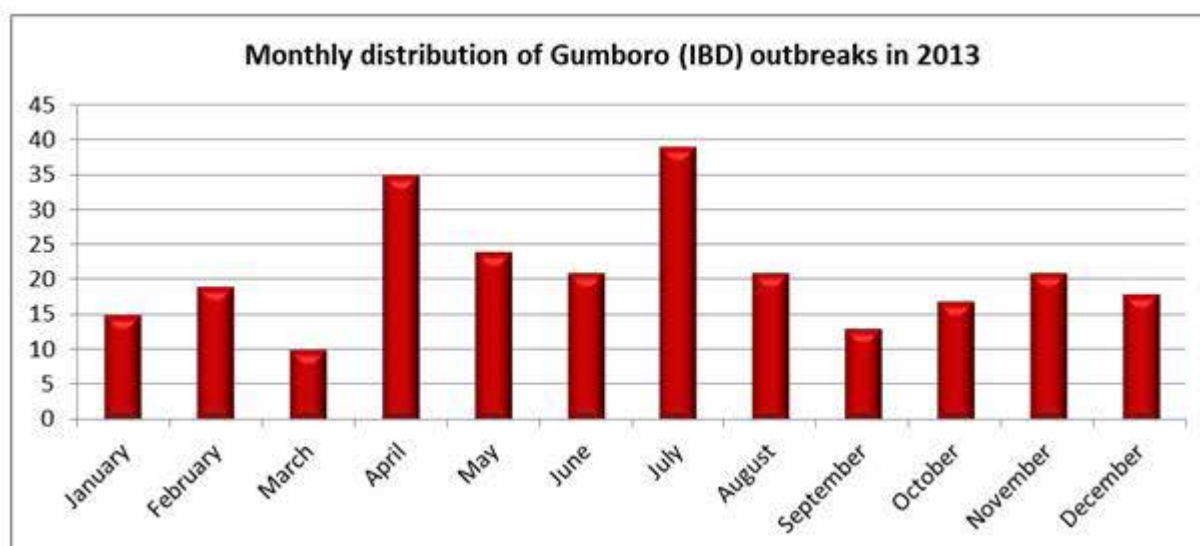


Chart 22: Monthly Distribution of Gumboror Outbreaks

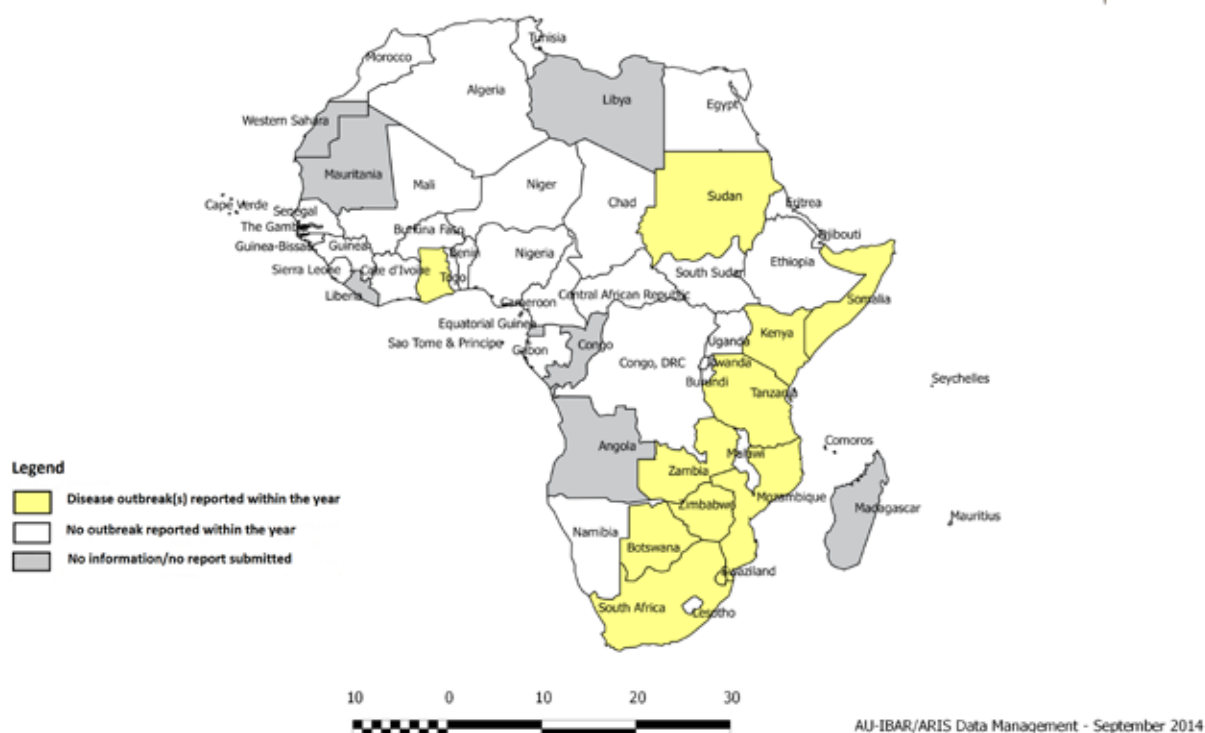
5.8. Heartwater

Heartwater or Cowdriosis a rickettsial disease of ruminants caused by *Ehrlichia ruminantium* was reported by 11 countries in 2013, a decline from 12 countries in 2012. A total of 1217 outbreaks, 3597 cases and 1093 deaths (Table 23) were reported. Zimbabwe reported the highest number of outbreaks (879), followed by Zambia (106), South Africa (101), Swaziland (58) and Botswana (23). Correspondingly, the highest number of cases was reported in Zimbabwe

(1706), followed by Zambia (942), Somalia (355), South Africa (246) and Swaziland (140). Monthly distribution of outbreaks was almost similar across the twelve months (Chart 20), suggesting that outbreaks did not exhibit seasonality trends. The countries that have been reporting this disease as well as the disease parameters on the continent have remained almost the same for the last few years suggesting that the prevailing conditions for sustaining the disease have remained unchanged over the years.

Table 21: Countries reporting Heartwater

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Botswana	23	817	49	43	0	0
Ghana	11	123	18	0	14	0
Kenya	17	97	18	3	0	0
Mozambique	3	62	6	4	0	0
Somalia	7	1988	355	42	0	0
South Africa	101	217	246	109		3
Sudan	1	249	58	9	0	0
Swaziland	58	46378	140	33	0	
Tanzania	11	7356	59	1		
Zambia	106	12757	942	286		
Zimbabwe	879	515303	1706	563	6	5
Total (11)	1217	585347	3597	1093	20	8



Map 21: Spatial distribution of Heartwater in Africa in 2013

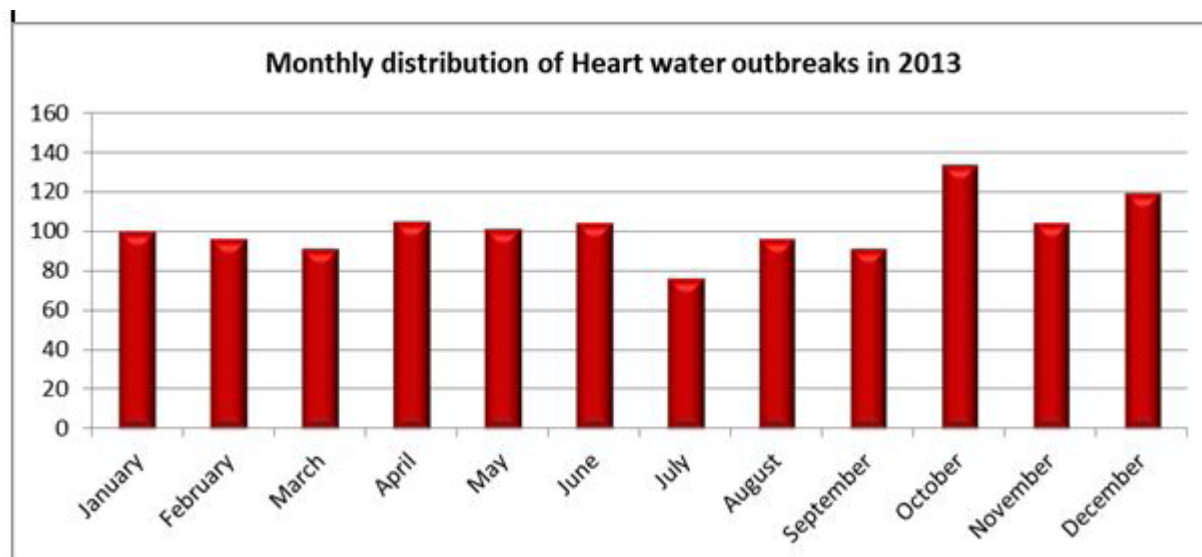


Chart 20: Monthly Distribution of Heartwater Outbreaks

5.9 Mange

Mange is a skin disease of mammals caused by a tissue-burrowing arthropod, the mange mite. Mange is not associated with heavy mortalities but is a serious cause of skin defects and economic loss in term of loss of productivity

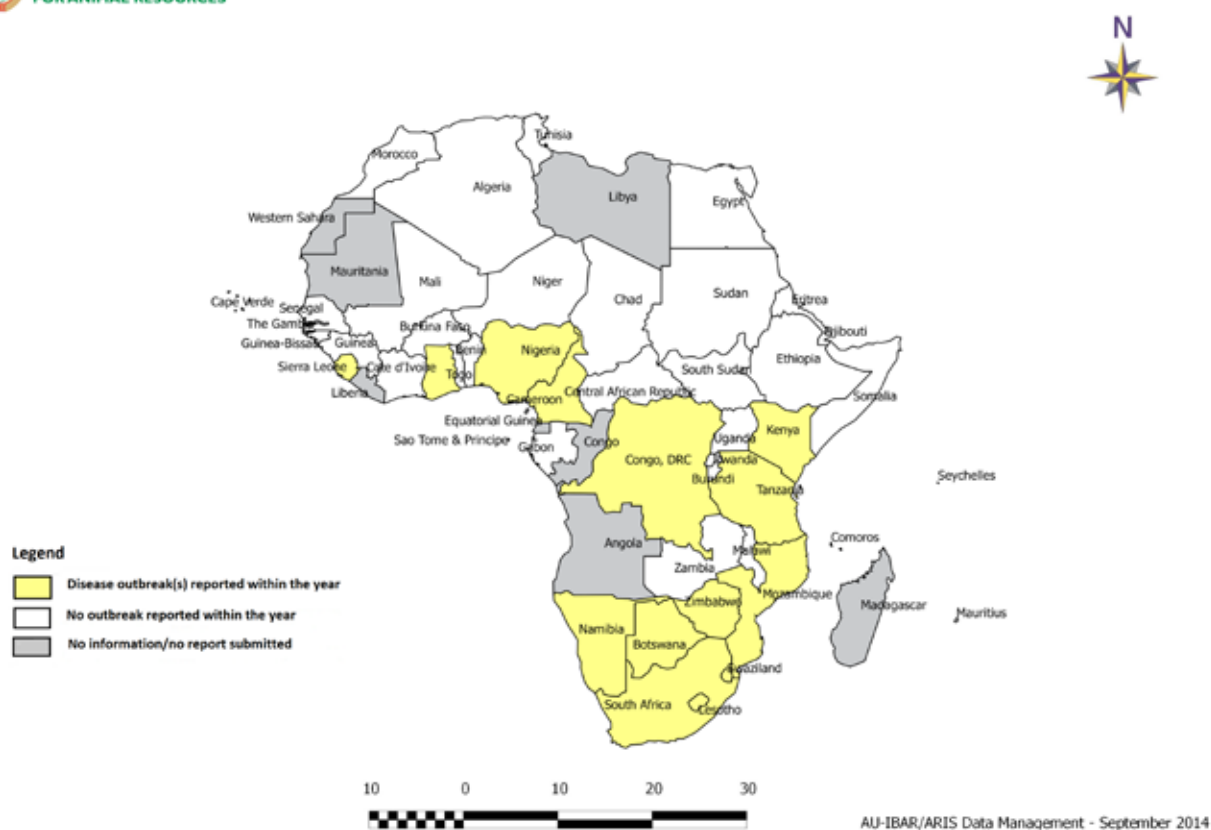
of affected animals and spoilage of hides which affects export trade in the commodity.

During 2013, 14 countries reported 739 outbreaks with 11095 cases and 487 deaths (Table 24). This indicates that the situation has improved as compared to 2012 when 14

countries reported 1016 outbreaks with 29530 cases, and 442 deaths. The monthly distribution of outbreaks showed a peak around July and August (Chart 21).

Table 22: Countries reporting Mange

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Botswana	3	80	18	6	0	0
Cameroon	1	23	2	0	0	
Democratic Republic of Congo	13	4073640	2468	107	359	0
Ghana	257	7284	1885	28	1	0
Kenya	1	1	8	1	0	0
Lesotho	2	64	18	0		0
Mozambique	1	12	6	0	0	0
Namibia	6	9375	419	0	0	0
Nigeria	187	965	213	1	0	6
Sierra Leone	8	424	152	62	0	0
South Africa	62	20198	4473	127		1
Swaziland	18	15778	100	10		
Tanzania	1	700	45			
Zimbabwe	179	59014	1288	145	7	3
Total (14)	739	4187558	11095	487	367	10



Map 22: Spatial distribution of Mange in Africa in 2013

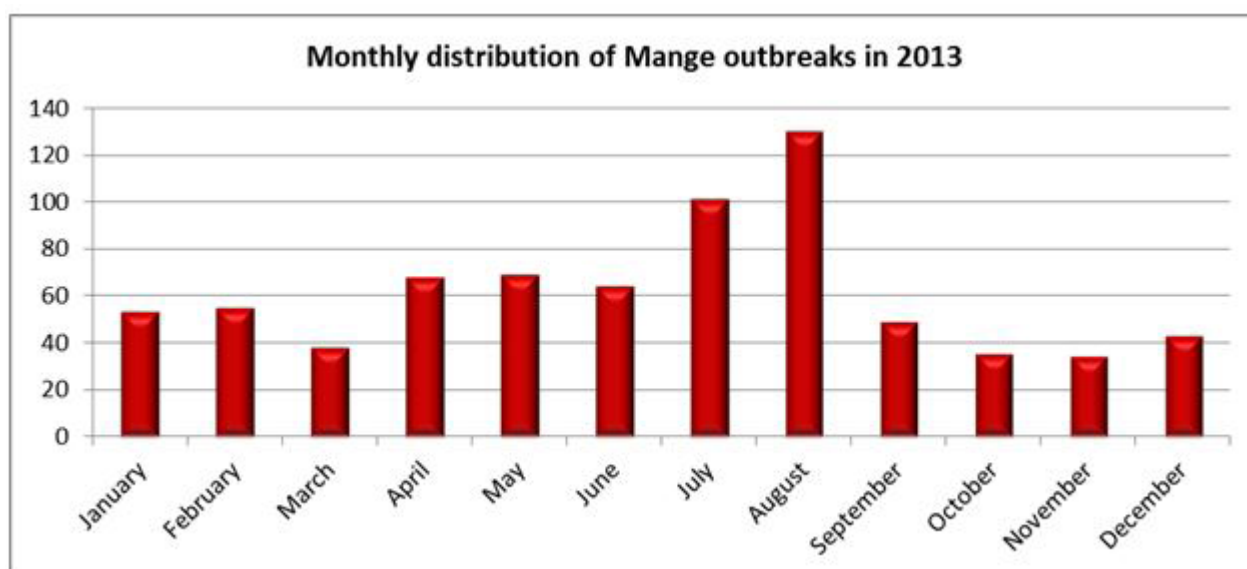


Chart 21: Monthly Distribution of Mange Outbreaks

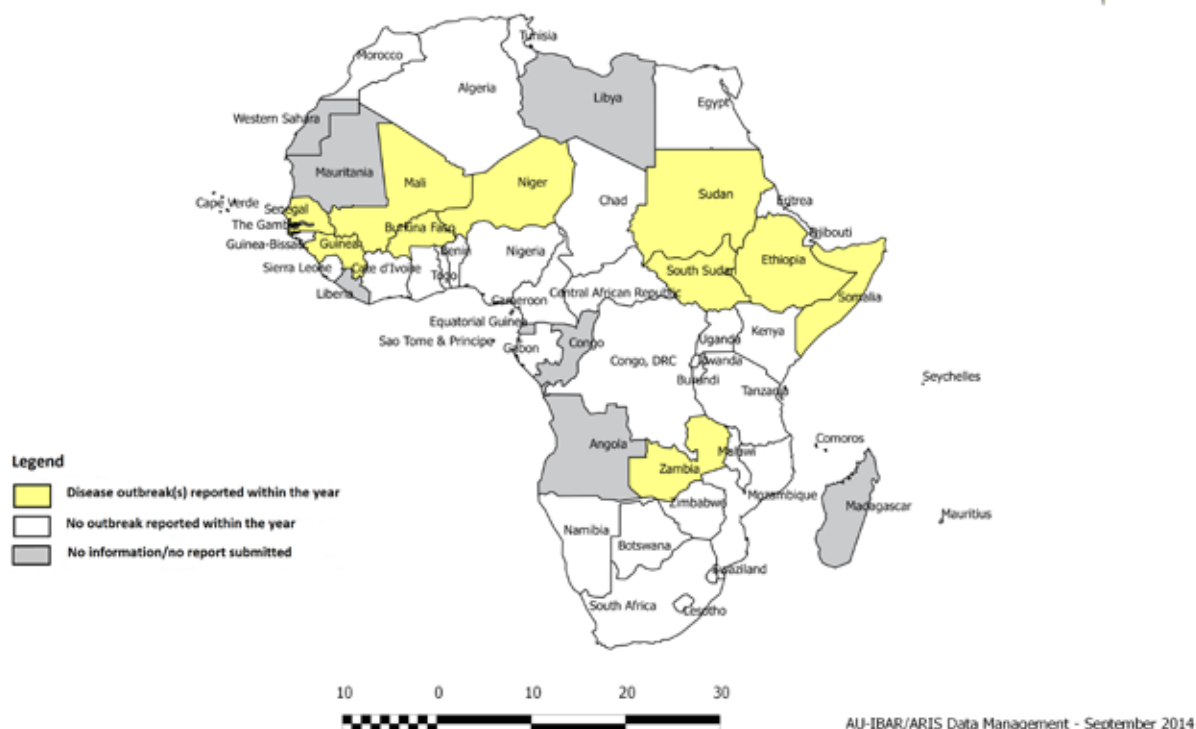
5.10 Haemorrhagic Septicaemia and other Pasteurellosis

During 2013, 10 countries reported Haemorrhagic septicaemia and other pasteurellosis with a total of 1211 outbreaks, 14,122 cases and 2530 deaths. This is a decline from 18 countries that reported 1257 outbreaks, 23,219 cases and 4845 deaths in 2012. Ethiopia recorded the highest number

of outbreaks (1063) followed by Niger (81) and Zambia (22), a pattern similar to that of the previous year. Correspondingly, Ethiopia reported the highest number of cases and deaths (10067 and 1495) followed by South Sudan (2836 and 501), Zambia (345 and 156), Niger (212 and 55) and Sudan (172 and 59). The outbreaks generally occurred in January and February (Chart 22).

Table 23: Countries reporting HS and other Pasteurellosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Burkina Faso	12	3270	338	170		
Ethiopia	1063	948380	10067	1495	185	
Guinea Conakry	9	3390	48	30		
Mali	1	1328	34	30	2	
Niger	81	6384	212	55		
Senegal	4	249	45	30		
Somalia	6	202	25	4	0	0
South Sudan	8	86690	2836	501	0	0
Sudan	5	14970	172	59	0	10
Zambia	22	3115	345	156		
Total (10)	1211	1067978	14122	2530	187	10



Map 23: Spatial distribution of HS and other Pasteurellosis in Africa in 2013

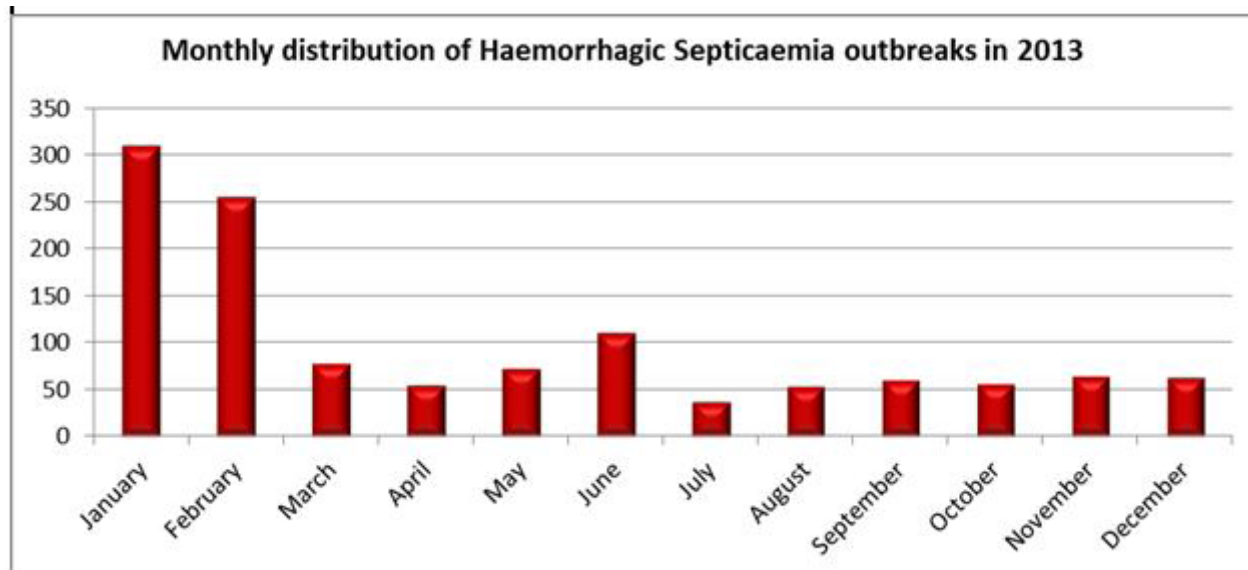


Chart 22: Monthly Distribution of HS and other Pasteurellosis Outbreaks

5.11 Rabies

Rabies is the most widely reported and distributed disease in Africa, a situation that has been consistently so for many years. In 2013 a total of 29 countries reported 1759 outbreaks with 4221 cases and 2142 deaths (Table 26). The

situation was similar to 2012 when 34 countries reported 1343 outbreaks involving 5279 cases and 3166 deaths. Algeria (490) reported the highest number of outbreaks in 2013, followed by South Africa (293), Namibia (289), Burkina Faso (172), Zambia (95) and Zimbabwe (91).

Table 24: Countries reporting Rabies

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	490	10062	633	133	10	491
Benin	1	92	2	0	0	2
Botswana	9	73	11	9	0	0
Burkina Faso	172		270	270		
Cameroon	9	43	43	10	3	1
Central African Republic	5	976	220	147	2	0
Cote d'Ivoire	2	232	3			
Democratic Republic of Congo	8	15967	335	31	46	120
Eritrea	3	1495	16	3		14
Ethiopia	77	22189	346	259	11	
Ghana	41	1437	52	37	0	14
Kenya	7	85	11	5	1	0
Lesotho	4	348	8	8		1
Mozambique	7	99	7	0	0	7
Namibia	289	6650	483	387	0	0
Nigeria	33	1874	34	27	5	1
Rwanda	45	12	97	68		771
Senegal	9	9	24	8		1
Sierra Leone	5	1122	66	34	0	0
South Africa	293	5795	311	170		148
South Sudan	2	122	11	11	0	0
Sudan	12	1062	23	7	0	16
Swaziland	16	6196	20	14		
Tanzania	5	3500	33	20		
Togo	8	536	11	11		
Tunisia	6	1443	167	167	0	60
Uganda	15	189	25	0	0	
Zambia	95	63896	629	205		
Zimbabwe	91	25446	330	101	1	21
Total (29)	1759	170950	4221	2142	79	1668

Map 24 illustrates the spatial distribution of health.

Rabies outbreaks in Africa in 2013. The disease is present in all regions of the continent. Despite Rabies being one of the major zoonotic diseases in the continent widely reported by Member States, many countries are still under-reporting. This is mainly so because of enormous gaps in the reporting networks including poor linkages with public health services to determine the number of human cases, an essential parameter to substantiate the impact of Rabies on public

In terms of species distribution, Dogs were the most affected species (Figure 21), accounting for 67% of all outbreaks followed by cattle (14%) and wildlife (5%). Rabies cases in wildlife were mainly reported by Namibia (34) and South Africa (33). In terms of monthly distribution there was very little variation between months across the year (Chart 26).

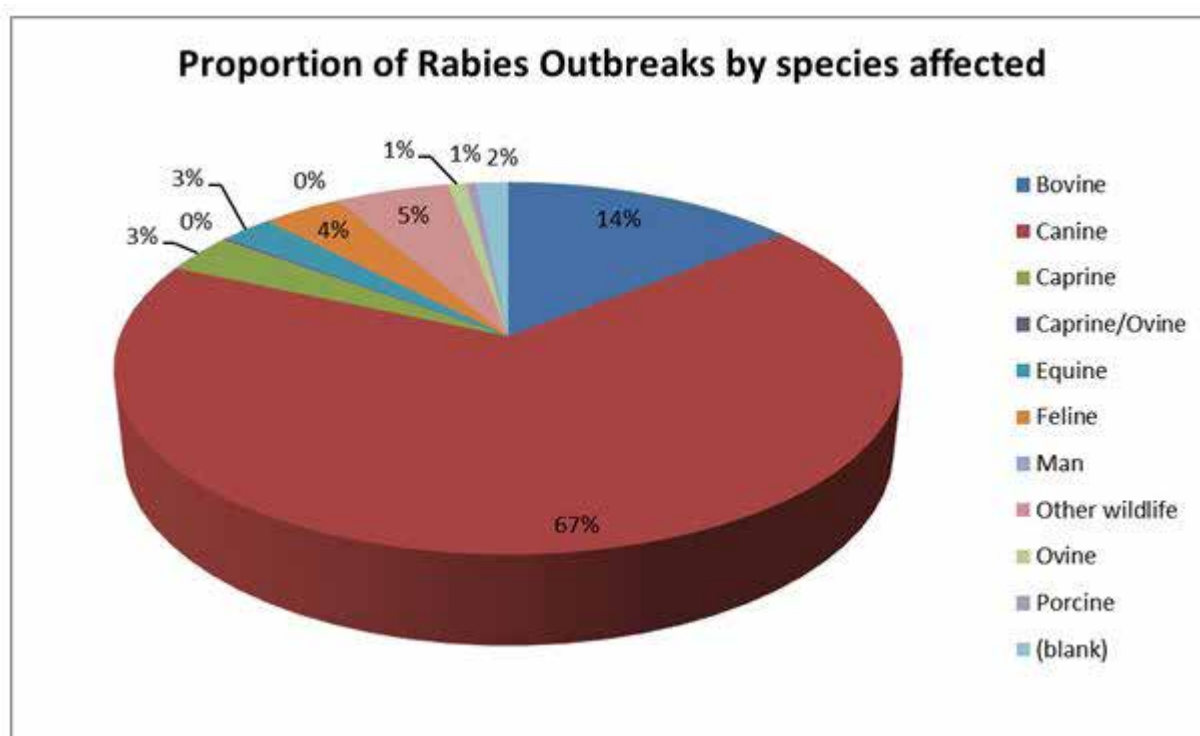


Figure 21: Proportion of species affected with rabies during 2012



Map 24: Spatial distribution of Rabies outbreaks in Africa in 2013

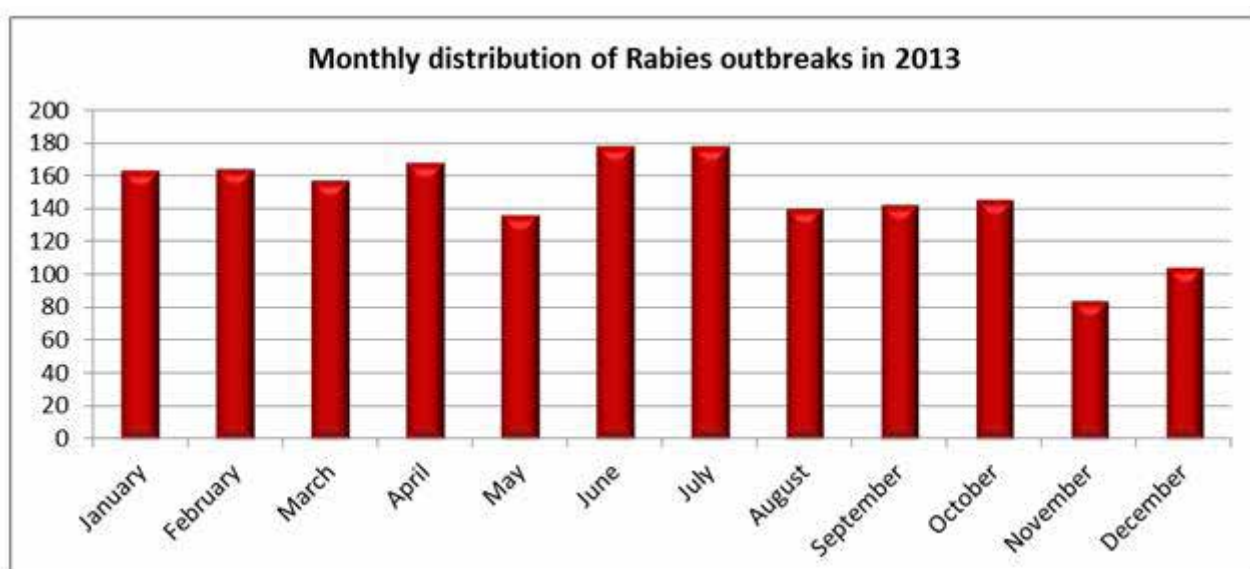


Chart 26: Monthly Distribution of Rabies Outbreaks

5.12 Theileriosis

Bovine Theileriosis also known as East Coast Fever (ECF) or more commonly as Corridor disease in Africa is most prevalent in central and eastern Africa. During 2013, 12 countries – down from 13 countries in 2012 - reported 849 outbreaks with 19038 cases and 2289 deaths

(Table 27). Egypt (332) reported the highest number of outbreaks, followed by Kenya (260), Zambia (141), Zimbabwe (44) and Tanzania (28). In terms of cases and deaths, Zambia (7524 and 1488) and DRC (5555 and 570) reported the highest numbers, respectively. Monthly distribution of outbreaks was pretty similar across the year apart from the peak in January.

Table 25: Countries reporting Theileriosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Democratic Republic of Congo	8	964623	5555	570	92	0
Egypt	332	5679	4701			
Kenya	260	1234	435	26	15	0
Mozambique	8	1892	37	25	0	0
Senegal	1	2	2	0		
Somalia	2	206	17	6	0	0
South Sudan	2	632	32	11	0	0
Sudan	12	4153	192	78	18	9
Tanzania	28	22954	346	37		
Uganda	11	497	81	10	2	
Zambia	141	112705	7524	1488		
Zimbabwe	44	10516	116	38	1	0
Total (12)	849	1125093	19038	2289	128	9



Map 25: Spatial distribution of Theileriosis in Africa in 2013.

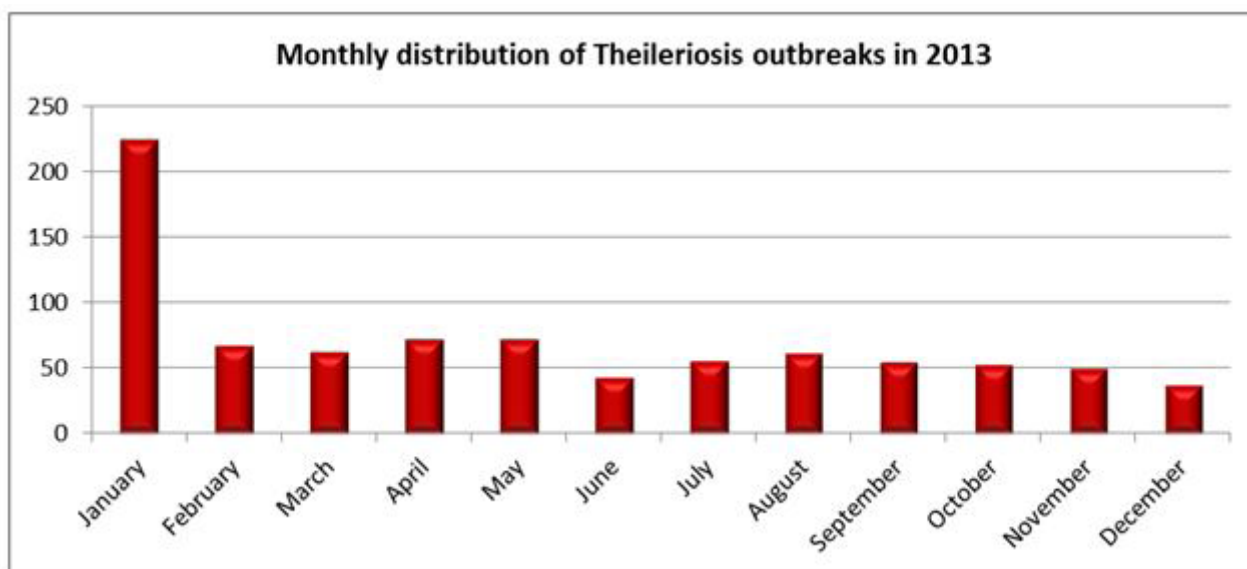


Chart 27: Monthly Distribution of Theileriosis Outbreaks

5.13. Trypanosomosis

During 2013, 20 countries—down from 21 countries in 2012—reported 953 outbreaks of trypanosomosis with 73018 cases and 2413 deaths (Table 28). The situation has improved compared to 2012 when 21 countries reported 1336 outbreaks involving 199612 cases and 11424 deaths. Benin (510) reported the highest number of outbreaks, followed by Somalia (189), Zambia (66), Egypt (49) and Togo (39). Correspondingly,

Benin reported the highest number of cases (63161), followed by Somalia (3793), Zambia (1859), South Sudan (1319), Cameroun (969) and Sierra Leone (622). In terms of mortality, Benin still reported the highest number of deaths (1034), followed by South Sudan (846), Sierra Leone (246) and Zambia (142). In terms of monthly distribution of outbreaks, there was a higher peak between January to April and a lower peak between May to December (Chart 28).

Table 26: Countries reporting Trypanosomosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Benin	510	275229	63161	1034	1133	0
Botswana	1	2	1	0	0	0
Cameroon	13	1525	969	11	0	
Democratic Republic of Congo	3	226753	250	26	161	0
Egypt	49	182	145			
Ghana	14	4626	62	0	0	0
Kenya	9	69	10	1	0	0
Mozambique	1	57	4	3	0	0
Namibia	5	7	7	1	0	0
Nigeria	11	319	63	0	6	0
Sierra Leone	3	6713	622	246	0	0
Somalia	189	14880	3793	80	26	11
South Africa	6	38	7	0		1
South Sudan	2	10300	1319	846	0	0
Tanzania	17	25478	371	12		
Togo	39	4311	240	10	55	
Tunisia	1	735	90	0	0	0
Uganda	2	39972	28	1	0	
Zambia	66	15242	1854	142		
Zimbabwe	12	16301	22	0	0	0
Total (20)	953	642739	73018	2413	1381	12



Map 26: Spatial distribution of Trypanosomosis in Africa in 2013

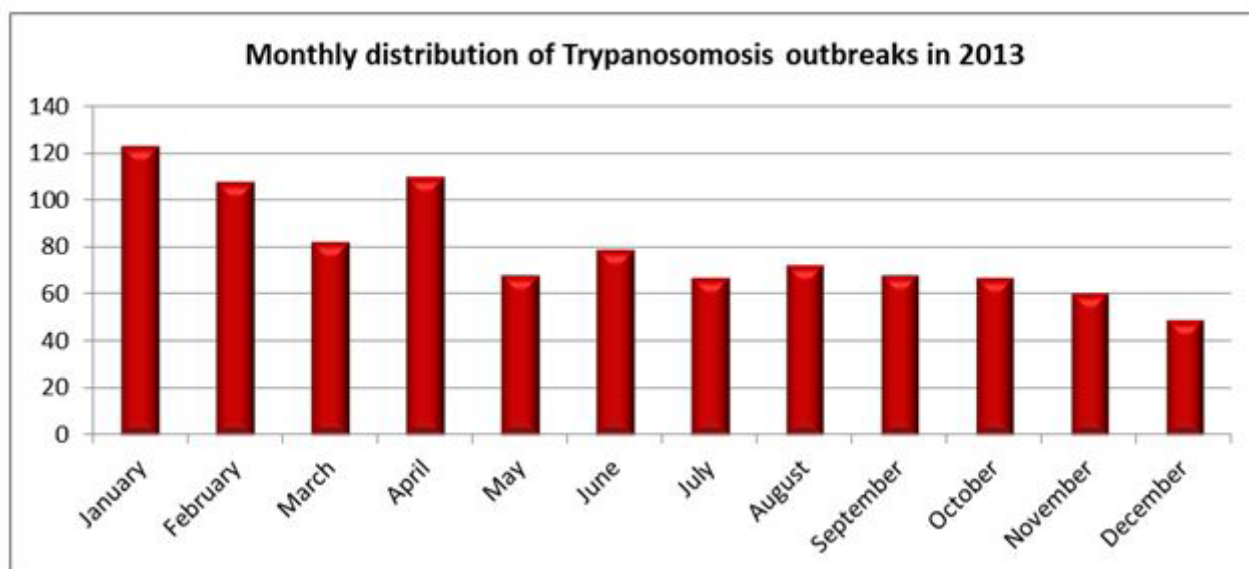


Chart 28: Monthly Distribution of Trypanosomosis Outbreaks

5.14 Tuberculosis

During 2013, 13 countries-down from 17 countries in 2012, reported 335 outbreaks with a total of 2835 cases, 701 deaths, and 1874 animals slaughtered and 56 destroyed as a control measure against the diseases (Table 29). Generally, all these parameters are lower than those reported in 2012, suggesting either improved disease control or diminished disease reporting. Certainly in many countries the sources of data were abattoir sources, given the number of animals slaughtered and destroyed. This suggests meat inspection services in many countries have become more effective regarding

the control of tuberculosis. Algeria (82) reported the highest number of outbreaks, followed by Egypt (53), Ghana (52), Togo (52) and South Africa (36). The highest number of cases was reported by DRC (1093), followed by Egypt (508), Tunisia (499), Benin (202) and Togo (201). Similarly, DRC reported the highest number of deaths (621), followed by South Africa (39) and Zambia (31). Correspondingly, the highest number of animals slaughtered were in DRC (811), followed by Tunisia (499), Benin (200) and Algeria (198). In terms of monthly distribution of outbreaks across the year, there was a higher peak between January and July and a lower peak between August and December (Chart 29).

Table 27: Countries reporting Tuberculosis

Country	Outbreaks	Susceptible	Cases	Deaths	Slaughtered	Destroyed
Algeria	82	1951	201	3	198	0
Benin	21	35943	202	0	200	0
Cameroon	1	11	1	1		
Democratic Republic of Congo	21	1768525	1093	621	811	0
Egypt	53	135	508			
Ghana	52	1768	89	3	85	1
Mozambique	2	377	8	2	5	1
Niger	3		14		14	
Nigeria	1	1	1	0	1	
South Africa	36	2358	89	39		40
Togo	52	2105	79	1	61	14
Tunisia	1	36954	499	0	499	0
Zambia	10	655	51	31		
Total (13)	335	1850783	2835	701	1874	56



Map 27: Spatial distribution of Tuberculosis in Africa in 2013

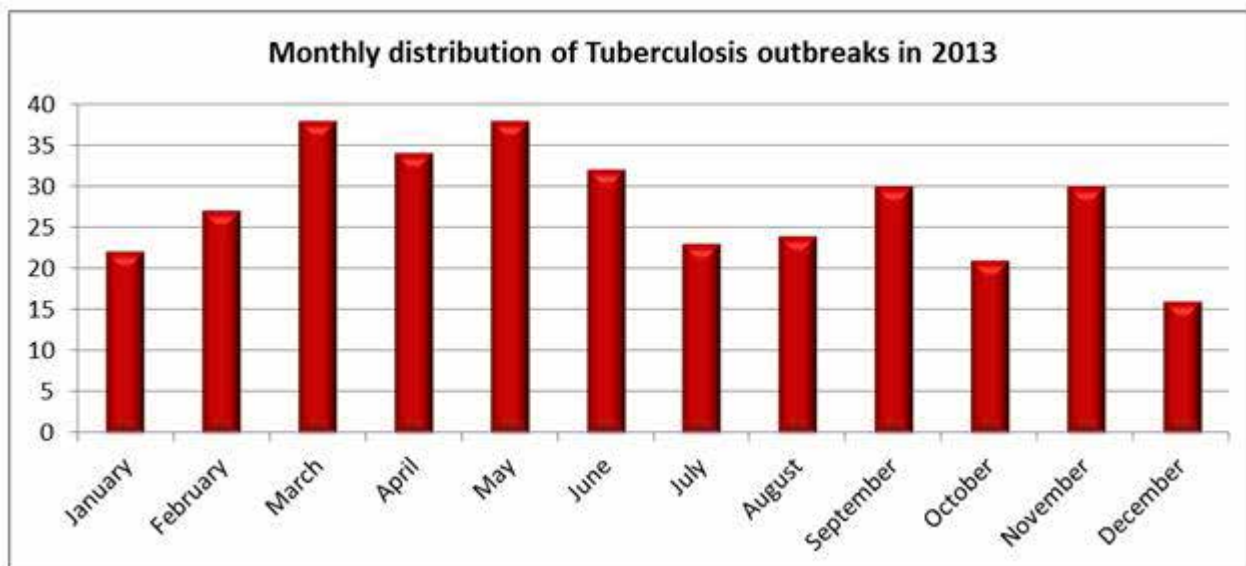


Chart 29: Monthly Distribution of Tuberculosis Outbreaks

6. AFRICA LIVESTOCK POPULATION AND COMPOSITION IN 2013

The animal population data for the year 2013 was obtained from the World Organization for Animal Health (OIE) World Animal Health Information (WAHID). The data is based on reports submitted to the OIE through WAHIS.

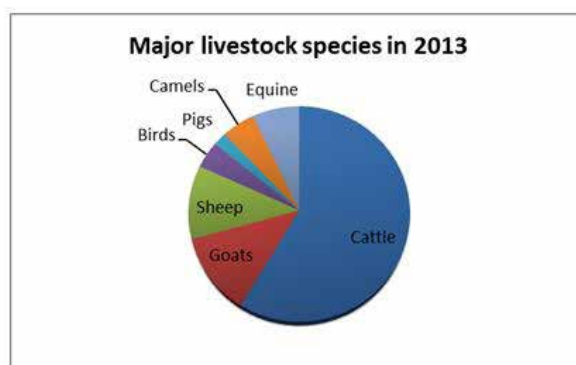
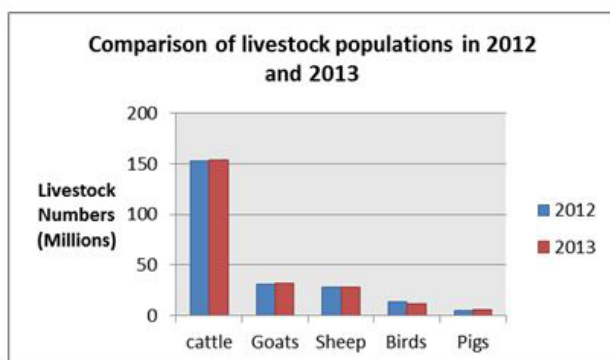
In 2013, 33 out of 54 African countries reported a total livestock population of 219.5 Million cattle, 317.2 Million Goats, 281.7 Million Sheep, 1135.4 Million Birds and 27.5 Million Pigs. The table 28 below breaks down the livestock population

per species in numbers and in Tropical Livestock Units (TLU).

As compared to livestock populations from the same countries in 2012, there has been no significant change in livestock numbers with cattle and small ruminant populations each increasing by 0.1%. Moreover, In comparison to the previous year the population of birds decreased by 0.7% in 2013

Table 28: Livestock population of selected species in Africa in 2013

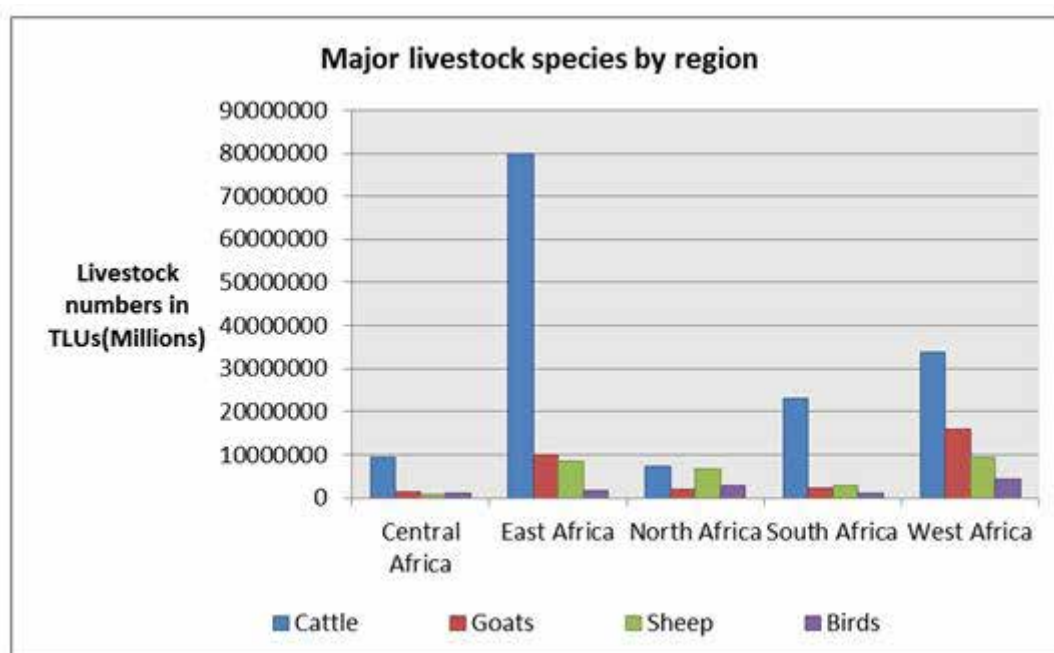
Livestock Species	Numbers(Million)	TLUs(Million)	Population Sizes in %
Cattle	219.5	153.7	58%
Goats	317.2	31.7	12%
Sheep	281.7	28.2	11%
Birds	1135.4	11.4	4%
Pigs	27.5	5.5	2%
Camels	14.5	14.5	5%
Equine	26.5	21.2	8%



Ruminants (excluding camels) were by far the most common livestock species in 2013, constituting 80% of the total livestock population. Among ruminant species cattle were the most prevalent species making up 71% of the population, followed by goats and sheep which made up 15% and 13% respectively.

On the other hand, Monogastrics comprising of Birds, Pigs, Camels and Equine composed less than a third (19%) of the total livestock population.

Regionally, East Africa holds over half of the continents cattle population (52%), followed by west Africa (21%) and south Africa (15%). Small Ruminant and Bird populations dominated in west Africa constituting 43% of the continents sheep and Goats and 39% of the Birds kept in the continent.



Among the 33 African countries that submitted animal population reports, Ethiopia had the highest number of cattle outstandingly holding 25% (37.8 million) of the total cattle population in the continent. On the other hand, Nigeria was the continent's major Sheep and Goat keeper

making up 28 % (16.7million) of the total small ruminant population.

The table 29 below shows the top 5 cattle, Sheep and Goat keepers from the 33 African countries

Table 29: Leading livestock keeping Countries in Africa in 2013

CATTLE		SHEEP AND GOATS	
Country	Numbers in TLUs(Millions)	Country	Numbers in TLUs(Millions)
1.Ethiopia	37.8	1.Nigeria	16.7
2.Sudan	20.8	2.Sudan	7
3.Kenya	12.2	3.Ethiopia	5
4.Nigeria	10.7	4.Kenya	4.7
5.South Africa	9.7	5.Mali	3.3

7. AFRICAN FISHERIES AND AQUACULTURE PRODUCTION AND INTERNATIONAL TRADE IN 2013

Total fish production from African marine fisheries in 2012 were estimated at 553,6745 mt which constituted about 7 % of the global catch (7,9705,910 mt) (Table 30). This is a slight improvement as compared to the annual production from the continent in the preceding years. The trend in African marine fisheries production over the last decade has generally mirrored that of the global trend, which has been variously described as either 'stagnant or declining'. This sector is a major source of fiscal revenue and with potential for impacting positively on the economic growth of AU member states. This potential is however under serious threat largely due to issue of governance. This calls for major reforms to the systems of governance in line with present realities. The marine fisheries is conducted in the African large marine ecosystems, namely the Guinea Current, the Canary Current, Agulhas and Somali Current, the Benguela Current, as well the Mediterranean

and the Red Seas.

The Inland fisheries are a significant source of relatively affordable protein and livelihoods for huge number of Africans, especially rural communities. Africa is home to numerous networks of rivers and lakes which inhabit huge diversity of fish species. These include transboundary lakes such as Lake Victoria, Tanganyika, Chad etc. Catches from inland water fisheries in Africa increased from 325 787 mt in 1950 to 2 705 519 mt in 2012 representing over 23 % of total global production of 11,630,320 mt. Though the potential for inland water fisheries on the continent is immense, the livelihoods of fisheries dependent communities on these water bodies are however being threatened by poor fishing practices, climate change, industrial, municipal and agricultural activities. A concerted effort to implement sound management practices in these bodies, especially shared water, is overdue.

Table 30: Total fisheries production (mt) in Africa by subsector (Marine, Inland and aquaculture)

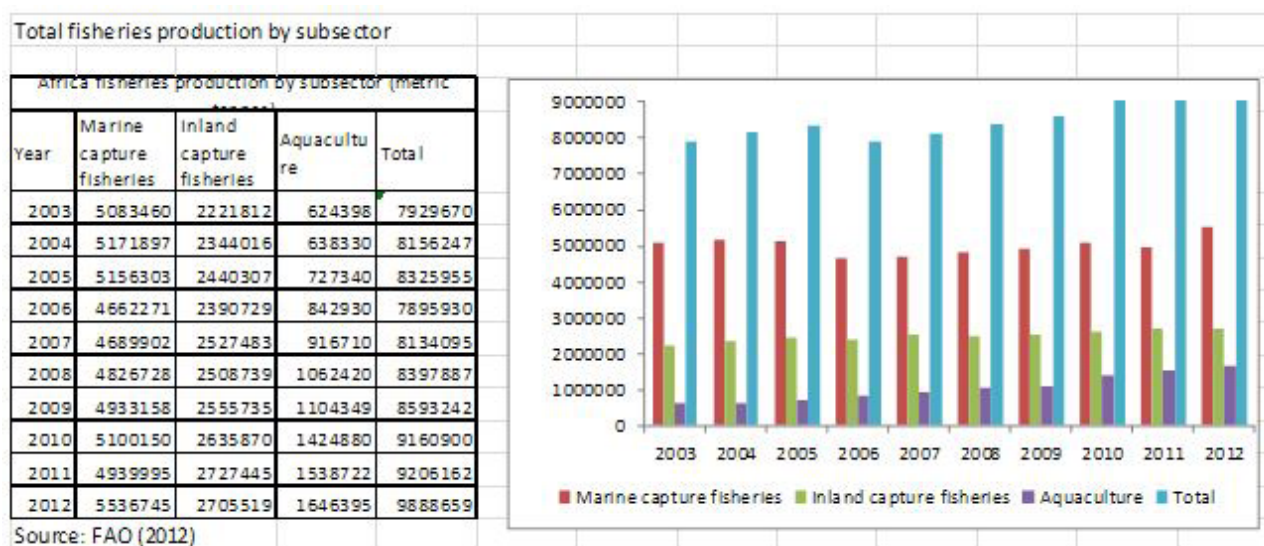


Table 31: Relative fish production by AU countries against Non-AU countries- 2012, FAO (2012)

Capture fisheries production in 2012 by major producers		
Countries	Rank	Production (mt)
China	1	16167443
Indonesia	2	5813800
USA	3	5128381
India	4	4862861
Peru	5	4841524
Morocco	19	1171496
South Africa	25	701711
Nigeria	26	668754

Aquaculture production in 2012 by 1st ten major producers		
Countries	Rank	Production (mt)
China	1	41108306
India	2	4209415
Vietnam	3	3085500
Indonesia	4	3067660
Bangladesh	5	1726066
Norway	6	1321119
Thailand	7	1233877
Chile	8	1071421
Egypt	9	1017738
Myanmar	10	885168

Table 32: Marine fishery production (mt) in Africa and the World

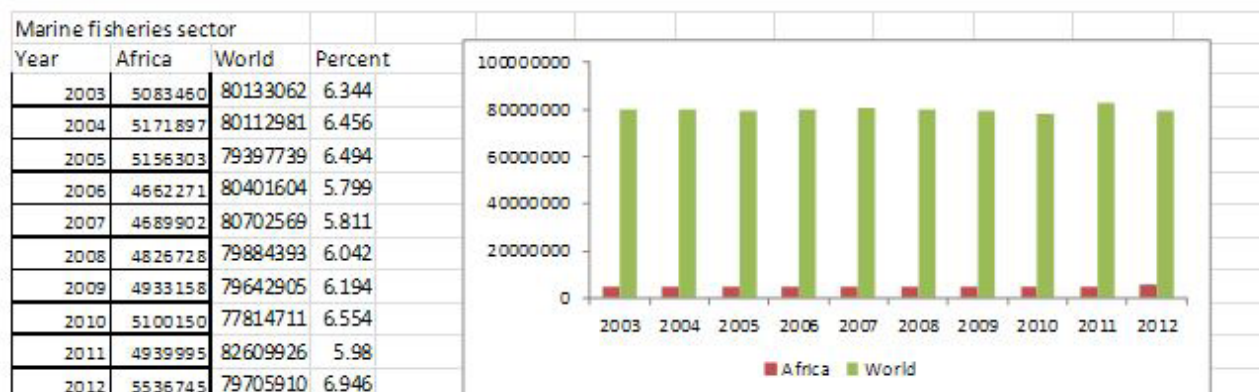
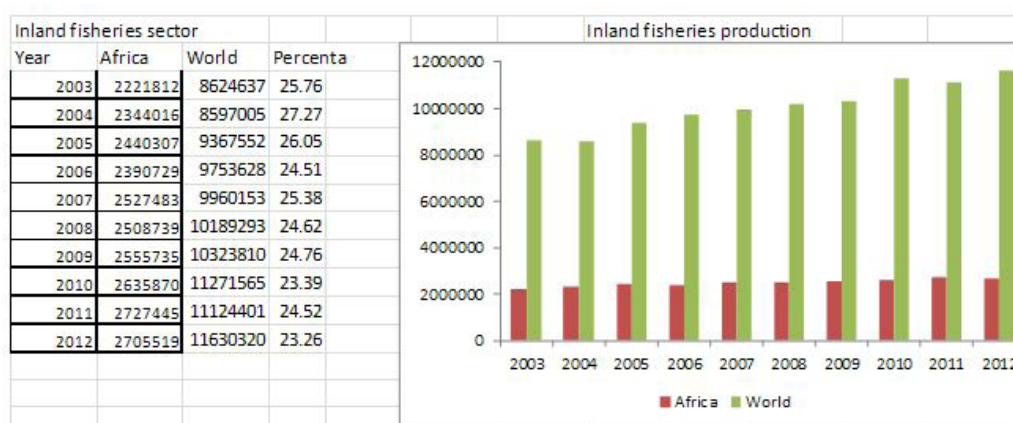


Table 33: Inland water fishery production (mt) in Africa and the World



Total aquaculture production in the continent in 2012 was estimated at 1, 646,395 mt. This represents about 2 % of total global production as compared to 26 % from Asian countries. The bulk of the production in Africa in 2012 was from Egypt (1,017,737 mt), Nigeria (253,898 mt) and Uganda (95,906 mt). There is great potential

for aquaculture development for enhanced contribution to food security and employment but the sector is constrained by numerous factors, including weak capacity, inadequate regulatory frameworks to support sustainable aquaculture development etc.

Table 34: Aquaculture production (mt) in Africa, Asia and the World

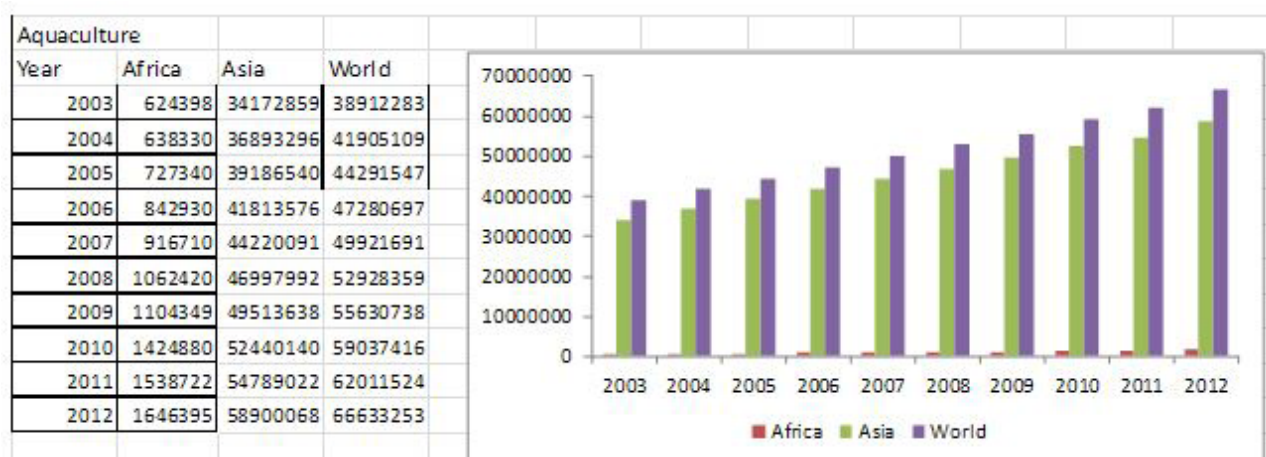


Table 35: Comparison of contribution (%) of African capture fisheries and aquaculture production to global production

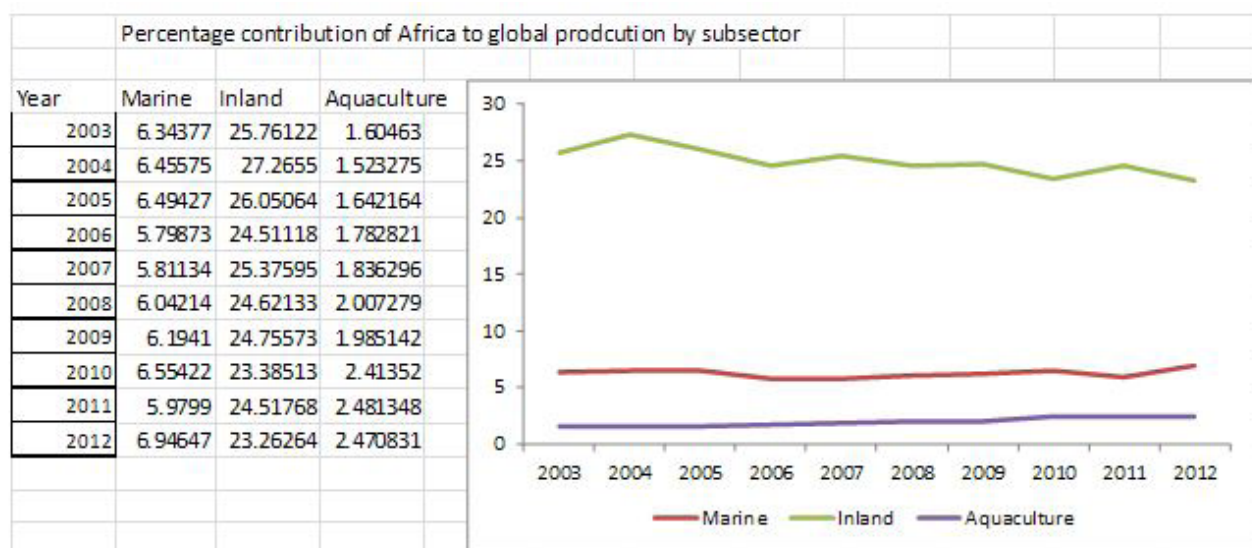
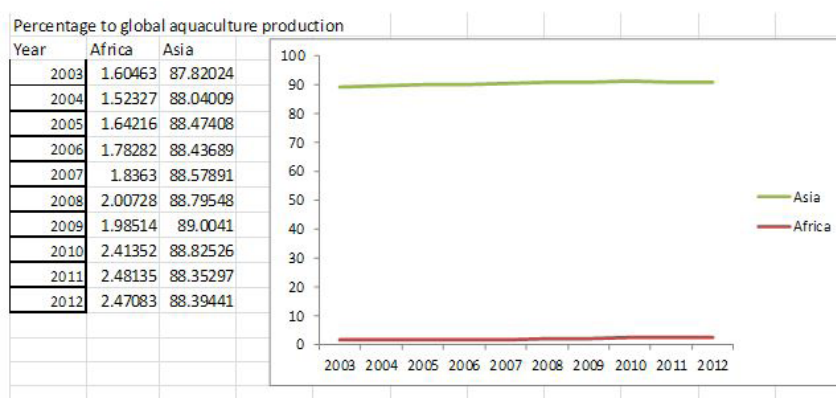


Table 36: Comparison of the contribution (%) of African and aquaculture production to Asia



An appreciable quantity of fish consumed in Africa is accounted for from imports due to increasing demand and declining or stagnating domestic fishery production, costing African countries hard foreign currencies to the tune of about 5 billion USD in 2012. At the same time Africa is earning substantial revenue from fish exports (11 billion USD in 2012) representing about 8 % of global international fish export trade. The issue here is the weak capacity of African countries for

economic value additions to increase revenue from their fish and fisheries products. The capacity to adequately negotiate for equitable and sustainable fisheries agreements with foreign investors in the sector has become a cause for concern on the continent. There is also a growing demand to strengthen intra-regional fish trade on the continent for increased supplies internally, income and poverty reduction. The fish trade project is designed to some of these challenges.

Table 37: Comparison of value (USD) of export and import of fish and fish products in Africa

Value of Global and Africa fish imports				Value of Global and Africa fish Exports			
	World	Africa		World	Africa		
	USDx1000	USDx1000	% value by Africa	USDx1000	USDx1000	% value by Africa	
2003							
2004							
2005							
2006	90834090	2247936	2.47	86017822	6913773	8.04	
2007	98902777	2689093	2.65	93499925	7142107	7.1	
2008	108033340	2939532	2.65	101896993	7378815	6.92	
2009	99694453	3239460	3.17	99962739	7327856	7	
2010	111313770	3239076	2.83	109274148	8544236	7.25	
2011	129805068	5160304	3.98	129594931	10529693	8.13	
2012	129466673	4796867	3.71	129298794	11086031	8.54	

Source: FAO (2012)

Value of fish Import and export in Africa x 1000 USD		
Year	Import	Export
2006	2247936	6913773
2007	2689093	7142107
2008	2939532	7378815
2009	3239460	7327856
2010	3239076	8544236
2011	5160304	10529693
2012	4796867	11086031

percentage contribution to international fish trade		
Year	Import	Export
2006	2.47	8.04
2007	2.65	7.10
2008	2.65	6.92
2009	3.17	7.00
2010	2.83	7.25
2011	3.98	8.13
2012	3.71	8.54

8. AU-IBAR INTERVENTIONS ON ANIMAL RESOURCES IN 2013

8.1 ANIMAL RESOURCES INFORMATION SYSTEM (ARIS)

The goal of AU-IBAR through the development of THE Animal Resources Information System (ARIS) is to enhance animal resources data management and help position AU-IBAR, the Regional Economic Communities (RECs) and AU member states as the core and reliable sources of comprehensive animal resources information in Africa. ARIS2 is therefore aimed at enabling and supporting the collection and analysis of reliable animal resources data and information from Africa in a timely manner to support planning and decision making.

During the year 2013, AU-IBAR concentrated mainly on the improvement of the hosting environment and system features, and continuous roll out of the Animal Resources Information system (ARIS-2) to AU MSs. This process involved overhauling the system operational platform and development of additional features based on experiences gathered so far. Specifically the new features being developed and/or enhanced included:

- Creating interoperability between ARIS-2 and other information systems especially the OIE/World Animal Health Information System (WAHIS);
- Integrating Mobile data upload
- Publicly published content to enable public access to selected reports
- Publicly accessible forum

The roll out process involved training of various stakeholders including head users at AU-IBAR headquarters, regional and national system administrators as well as regular data submitters at the national level. Eight (8) countries were trained in 2013, bringing the total number of MSs and RECs where ARIS has been rolled out to 27

MSs and 8 RECs as at end of the year 2013.

8.2 IMPROVING ANIMAL DISEASE SURVEILLANCE IN SUPPORT OF TRADE IN IGAD MEMBER STATES (SURVEILLANCE OF TRADE-SENSITIVE DISEASES – STSD) PROJECT

In an effort to reduce the impacts of animal diseases on trade performance of the livestock sector in the IGAD region, AU-IBAR in partnership with IGAD Secretariat are implementing the project: **Improving Animal Disease Surveillance in Support of Trade in IGAD Member States, in short “Surveillance of Trade Sensitive Diseases – STSD”**.

The overall objective of the STSD is “**to improve the contribution of livestock to food security and safety, economic growth and poverty reduction in IGAD region**”, and

The specific objective of the project is “**to reduce the impact of TADs and zoonoses on trade in livestock and livestock products in the IGAD region**”. The expected results of the project are two, which include:

- Result 1:** Animal Identification, Traceability and Health Certification Systems Improved; and
- Result 2:** Surveillance Systems and Disease Control Strategies Improved at national and regional levels.

The STSD is financed by the European Union with a total budget of 5,880,000 Euros and will be implemented for a total period of 32 months up to 15th June, 2016.

Development of the project took nearly two years and the Contribution Agreement between

EU and AU-IBAR was signed in October 2013. The project benefits all the eight Member States of the IGAD region and is implemented jointly by AU-IBAR and IGAD Secretariat.

Actual implementation of the project will start in 2014 immediately after the signing of partnership agreement between the implementing partners, AU-IBAR and IGAD Secretariat and the official launch of the project that is scheduled to be carried out on February 18, 2014 in Djibouti.

The STSD was designed to have a total of 28 activities under the two result areas: 7 activities under result one and 21 activities under result two.

Immediately after launching the project will implement two key activities in the first year:

- Development of 2 guidelines on LITS and AHC which will be subsequently used to implement other related activities of the project in the 2nd and 3rd years; and
- Creation of a regional coordination forum on LITS and AHC, which will serve as a platform to coordinate the fragmented initiatives in the region and provides avenue for experience sharing among stakeholders

Through these activities, especially under result 2, the project will support the beneficiary countries to build disease early detection, reporting and rapid response capacities through procurement of laboratory diagnostic supplies, cars, motorcycles as well as provision of tailor-made training programs. In addition, the STSD will also support the establishment of coordination mechanisms and development of regional framework for the progressive control of PPR and other SRDs in the IGAD region.

8.3 Improving Food Security and Reducing Poverty through intra-regional Fish Trade in sub-Saharan Africa

Sub-Saharan Africa is one of the two regions in

the world that suffer from high rates of hunger and poverty. While there are increasing efforts to increase the production and access of staple cereals in the region, there is limited attention given to the improvement of the availability and access to fish and fish products to the more than 400 million people on the continent who depend on fish as a vital source of nutrition.

The trade in fish and fish products among African countries is becoming increasingly important for the region's food security and economic development. Despite the potential of intra-regional fish trade in addressing the region's food and nutrition insecurity, as well as poverty reduction through wealth creation, this type of trade is often overlooked and neglected in national and regional policy. As a result, intra-regional fish trade has largely remained informal, with low volumes traded by artisanal and small – medium enterprises, most of which are headed by women.

The overall objective of this four-year action is to improve food and nutritional security and reduce poverty in sub-Saharan Africa by enhancing the capacities of regional and pan-African organizations to support their member states to better integrate intra-regional fish trade into their development and food security policy agendas. To achieve the overall goal, the programme will deliver the following specific results:

- Information on the structure, products and value of intra-regional fish trade in food security in Sub Saharan Africa generated and made available to stakeholders.
- A set of recommendations on policies, certification procedures, standards and regulations, well embedded in national and regional fisheries, agricultural, trade and food security policy frameworks in sub-Saharan Africa.
- Increased capacities for trade amongst private sector associations, in particular of women fish processors and traders and aquaculture

producers, to make better use of expanding trade opportunities through competitive small and medium scale enterprises.

- Adoption and implementation of appropriate policies, certification procedures, standards and regulations by key stakeholders participating in intra-regional trade in four selected trade corridors in Sub-Saharan Africa.

The proposed action would focus on four main trade corridors in Western, Southern, Eastern and Central Africa. The trade corridors are transport links targeted for spatial development by the African Union according to existing knowledge of volumes of traded fish and where trade flows are being monitored.

- **Corridor A** runs from Dakar to N'djamena, passing through Senegal, Mali, Burkina Faso, Niger, Ghana, Nigeria and Chad.
- **Corridor B** runs from Dar es Salaam [Tanzania] to Durban [South Africa], passing through Zimbabwe, Botswana, Zambia, Malawi, Mozambique, and Democratic Republic of Congo.
- **Corridor C** runs from Mombasa to Goma, passing through Kenya, Uganda, Burundi, Rwanda and Democratic Republic of Congo.
- **Corridor D** runs from Libreville to N'djamena via Yaoundé, passing through Gabon, Cameroon and Chad.

The main actors in this action are WorldFish, the NEPAD Planning and Coordinating Agency [NPCA] and the African Union Inter-African Bureau for Animal Resources [AU-IBAR]. WorldFish will coordinate and manage the overall implementation of the action to ensure effective delivery of outputs. Collaborative implementation formations will be established at sub-regional, trade route corridor and national level. The selected RECs (COMESA, SADC, ECOWAS, EAC and ECCAS) as the key drivers of the CAADP and its fisheries components are critically important stakeholders in implementation of the proposed action. Collaborative arrangements and synergies

will be sought with RECs using the AUC and NPCA umbrella for the implementation of this action.

8.4 Strengthening institutional capacity to enhance governance of the fisheries sector in Africa

Africa has vast fish resources (in marine, inland capture and aquaculture) producing benefits to the continent through revenue, employment and general contribution to socio-economic growth and development. The current benefits can be increased substantially in a sustainable manner with sound management practices and institutional arrangements for the development of the sector. However, the continent continues to be burdened with numerous problems that are hindering long term resources sustainability and reducing prospects for increasing fisheries contribution to food security, poverty alleviation and wealth creation. Among the key constraints are:

- Weak Monitoring, Control and Surveillance (MCS) resulting in illegal, unregulated and unreported (IUU) fishing;
- Low returns from the exploitation of fish resources
- Weak and uncoordinated institutions governing the sector
- Lack of knowledge and evidence to foster reforms;
- Untapped potential of small scale fisheries
- Undeveloped Aquaculture sector in view of the increasing demand for fish products and declining fish stocks in capture fisheries in marine and inland waters on the continent

The **overall objective** is to enhance the contribution of fisheries resources to food security and economic growth in Africa. The **specific objective** is to improve institutional and policy environment for sustainable management and utilization of fisheries resources in Africa.

The proposed objectives will be achieved through the following expected outcomes:

- Institutional capacity and regulatory frameworks for sustainable fisheries management improved
- Sustainable fisheries management in small-scale fisheries including inland water bodies enhanced
- Institutional capacity and regulatory framework for aquaculture development strengthened
- Advocacy, lessons learning for knowledge sharing and capacity for increased returns from fisheries and access to market enhanced

The project will be **implemented** in joint management with AU-IBAR as the lead institution. A partnership arrangement between AU-IBAR and NEPAD Planning and Coordinating Agency (NPCA) will be signed in which details of the activities to be implemented by the NPCA are elaborated.

To ensure effectiveness and sustainability, the project will work with stakeholders and institutions at national, regional and international levels.

The ultimate **beneficiaries** of the project will be fishermen, aquaculture producers, fisherfolks and citizens of AU member states. The capacity in line ministries will be strengthened for effective fisheries management. Regional institutions, i.e. Regional Economic Communities (RECs), Regional Fisheries Bodies (RFBs), Civil Society Organizations CSO, etc., would also gain immensely from this project through institutional strengthening activities,

8.5 Animal Genetics Project

In 2013 AU-IBAR completed the formulation of the project titled “**Strengthening the Capacity of African Countries to Conservation and Sustainable Utilization**

of African Animal Genetic Resources” and signed a € 14,929 million contribution agreement with the EU for its implementation, in order to strengthen the capacity of countries and Regional Economic Communities to sustainably use and conserve African animal genetic resources. Through this project, AU-IBAR aims at initiating mechanisms to institutionalize relevant national and regional policy, legal and technical instruments in countries. The project particularly intends to establish the status and trends of animal genetic resources in Africa; develop policy frameworks for the sustainable use of animal genetic resources (AnGR); strengthen or establish national and regional conservation strategies and initiatives; enhance advocacy, communication, capacity building, data sharing and information dissemination; and strengthen or establish national and regional strategies and initiatives.

During the same period, the following achievements were made:

- Consultative meetings were held with implementing Partners, including FAO, ILRI, CIRDES and WALIC (formerly ITC), to agree on their roles and responsibilities;
- 50 AU MS were assisted and supported to prepare and submit timely their Country Reports as a contribution of the continent to the preparation of the Second state of the world on animal genetic resources (2nd SoW-AnGR) led by FAO ;
- The assessment of the status and trends of animal genetic resource in all MS is in progress including assessment of policies and legislations on AnGR in Africa that will inform the formulation of coherent policy and legislative frameworks for the management of AnGR including monitoring breeds at risk;
- The architecture for an African Animal Genetic information system has been developed, validated and a strategy for assessment of information needs defined;
- The process of establishment of Sub-regional

focal points for AnGR completed in East and southern Africa with the selection of institutions hosting the secretariat, the development of the road maps for the establishment of the SRFP and the appointment of Regional coordinators.

- AnGR Ex-situ and In-situ conservation facilities have been assessed in 6 countries (Burkina Faso, Uganda, Kenya, Botswana, Zimbabwe, and Ethiopia) for consideration to be upgraded as regional gene banks.

For the year 2014, as the project completes its inception phase, complying with the contribution agreement by developing implantation work programme, validating the Monitoring and Evaluation strategy, the Commination and Visibility Strategy during a Steering committee meeting, focus will also be on implementation of project key actions including:

- Completion of the “state of AnGR in Africa in order to identify threatened ruminant breeds and breeds at risk of extinction”;
- Completion of various assessments of: “existing policies and regulations on the use of animal genetic resources including genetic improvement of livestock in Africa”; “the genetic and socio-economic impact of production and management systems ie. crossbreeding with exotic breed, intensification , transhumance and commercialisation on local AnGR”; and “selection programs (including breeding objectives) on animal genetic diversity in West, Central and East Africa”
- Development of “national, regional and continental guidelines for the formulation and harmonization of crossbreeding policies”; “regional frameworks and policies for in situ and ex situ conservation”; “technical standards and protocols (including property rights and benefits sharing) for the exchange and use of genetic materials” and “harmonized tools (protocols) for Characterization and Inventory of AnGR”;
- Initiation of various supports including - to

“Member states to establish and implement their National Action Plan for AnGR within their livestock policy; to establish or strengthen their national breeding and conservation strategies as part of their National Action Plan for AnGR”; - for “the development of regional (REC based) conservation policies and strategies for transboundary breeds and populations that are at risk; for the establishment of a regional/ sub-regional facility for ex situ conservation, in particular cryogenic storage and establish a gene bank on AnGR”

8.6 Other initiatives on Animal Health and Wildlife

AU-IBAR has embarked in others important initiatives in the areas of animal diseases control. These initiatives are being done in close collaboration with keys traditional technical partners namely FAO, OIE, ILRI, RECs, AU-PANVAC and MS. During the year of 2013, PPR, ASF and PROCNADA strategies are under development.

8.6.1. Panafrikan Progressive Control Program of Peste des petits ruminants (PCP- PPR)

Following the 9th Ministerial conference held in April 2013 in Abidjan, Cote D'Ivoire, The Ministers in Charge of Animal Resources in Africa recommended that AU-IBAR and AU-PANVAC in close collaboration with partners to spearhead the development of a continental program for the control of PPR in Africa. The Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) has flagged PPR eradication as a major issue for attention. This was repeated during the Africa regional steering committee meeting held in Nairobi, Kenya in July 2012 by incorporating PPR in the GF-TADs Action Plan of 2012 - 2016. Therefore a joint AU-IBAR and AU-PANVAC PPR taskforce has developed a for a Progressive Pan

African Program Control of PPR in Africa (PCP-PPR) program. The ultimate outcome of this continental program (in relation to regional and national programs) will be a major contribution to sustainable development in Africa.

The overall objective of this continental PPR control program is to contribute to food security, poverty alleviation and resilience of livestock-dependent communities in Africa. Its specific objective is to progressively control PPR and to control other small ruminant priority diseases in Africa.

The main components of the program are the following:

- Epidemiological Status and socio-economic impacts of PPR; and other small ruminant priority diseases established
- Control/eradication strategies for PPR and small ruminants priority diseases designed and implemented
- Animal health service delivery enhanced
- Coordination and harmonization of PPR control at regional and continental levels improved

The implementation of the programme will entail four phases which will be implemented simultaneously in the various member States based on the epidemiological and socio-ecological considerations in each country and region.

The overall required budget for program is Euros 142 million for the first phase of 5 years.

8.6.2. Regional strategy for the control of African swine fever in Africa (ASF)

African swine fever (ASF) is one of the most dreaded transboundary swine diseases because it causes high mortality in pigs, it has devastating socio-economic consequences, and has the potential for international spread that can lead to global food insecurity and economic

impact. Unlike most diseases of livestock, there is no vaccine or specific treatment for ASF. Therefore prevention, control or eradication of ASF is complex and difficult and require better strategies. Worse still, there is lack of intra-regional cooperation towards the control of the disease in Africa. The need for the establishment and implementation of a regional strategy for the prevention and control of ASF in Africa is therefore crucial and urgent.

In recent years, the international community, national authorities, the pig production sector and researchers are trying to solve the problem in a sustainable way in order to eliminate constraints on pig production and enhance rural development. The African Union's Interafrican Bureau for Animal Resources (AU-IBAR), the Food and Agriculture Organization of the United Nations (FAO) and the International Livestock Research Institute (ILRI) have been collaborating since March 2013 to implement a regional strategy to control ASF in infected countries and to prevent its spread to non-infected countries. The strategy proposed actions against ASF and a framework towards this action triggered by enhanced collaboration and partnership between farmers, veterinary and animal production services, researchers, African governments, civil society and development partners. . It is articulated around three founding principles.

- The first principle is knowledge-based, meaning that the control of the disease should be based on the best available epidemiological knowledge and experience of ASF to reduce its prevalence and prevent its further spread. This aspect includes the following activities: the collection and analysis of existing information relevant to epidemiology and control, surveillance of the ASF situation in the region, increased capacity for field diagnosis through training and research in pig management, value chain analysis and molecular epidemiology studies, diagnosis and vaccine development.
- The second principle regards an area-

specific approach ensuring that country and sector-specific epidemiological scenarios and technical options for prevention and control are taken into account in order to have appropriate outbreak management for different systems and socio-economic situations.

- The third principle is to use a holistic approach to promote a gradual transformation of the less biosecure, small-scale, scavenging (extensive) production system into a more biosecure, small-scale, semi-intensive production system. This requires the harmonization of policy and legislation as well as coordination and resource mobilization in order to integrate traditional veterinary approaches with other components of animal production. Constraints in pig production are interrelated and need to be addressed via an integrated approach combining health, genetics, feeding, husbandry practices and organization at the producer level, as well as public and private partnerships to support the swine sector. In addition, the research community should provide sound evidence to inform prevention and control programmes about viable interventions.

An implementation action plan was developed to translate into concrete actions, especially at the level of the pig owners and the veterinary services the regional strategy. This action plan is a means to articulate possible short, medium and long term streams of actions but also to assign them among the key stakeholders that ought to be engaged in the prevention and control of ASF in Africa. Although the formulation of a regional strategy and action plan are fundamental prerequisite, it needs to be accompanied by a control program to effectively prevent and control the disease.

8.6.3. Strategic framework for the progressive control of neglected animal diseases in Africa (SF-PROCNADA)

Africa is home of most the known endemic animal diseases and zoonoses. The continent still endure the highest disease burdens globally both in animal and human populations. Many of these diseases have not been given adequate attention to their control both by national governments and development partners. As such, they are viewed as neglected diseases (NDs) but their effects/impacts are not negligible despite having a negative impact on poor livestock dependent communities.

To reverse this trend, many international organizations dealing with the animal health issues such as the African Union-Interafrican Bureau for Animal Resources (AU-IBAR), African Union-Pan African Vaccine Centre (AU-PANVAC), the United Nations of Food and Agriculture Organization (FAO) and the World Organization for Animal Health (OIE) now are trying to feature them in their control system plan whose success depends heavily on the degree of perception of these diseases by the public at large and the authorities, independently of their health or economic impact. This is required to attract necessary opportunities for resources allocation.

AU-IBAR has been spearheading efforts to develop and implement various interventions against animal diseases on the continent. A notable example is the recently completed Vaccine for the Control of Neglected Animal Diseases in Africa project (VACNADA), Livestock Emergency Intervention in Somalia (LEISOM) whose exit strategy recommended the consolidation of the achievements of the project for sustainable control of animal diseases in Africa. However, given the numerous diseases that impact negatively the livelihood of livestock farmers, it was felt recommended that AU-IBAR should to develop a comprehensive control strategy approach for their progressive control with the consideration on bridging the gaps between animal and human health and taking into account the regional specificities and African context as well. It was also felt that, due the fact

that many diseases prevailing in Africa stood the risk of being neglected, there was need to define the concept of neglect as well as to prioritize the diseases involved, in a comparative and transparent manner, in order to rationally allocate the limited resources for their prevention and control.

The proposed strategic framework for the progressive control of neglected animal diseases (SF-PROCNADA) On the basis of this, the following strategic framework document has been developed in response to these considerations. Its objectives and outputs focus on some of the major drivers for occurrence, spread and persistence of animal diseases important to the poor livestock dependent communities in Africa, but neglected. The approach pursued in the strategic document builds on a number of structures and mechanisms related to similar issues that have been already established by the specialized international agencies such as FAO, OIE and the World Health organization (WHO).

The overall objective of the Framework is to establish how best to introduce measures that are practical, proportional and sustainable to achieve the control of neglected animals diseases (NADs) by increasing awareness as well as surveillance and control systems at national, regional and continental levels, and by supporting them through strong and stable public and animal health services and effective national communication strategies.

In this respect, national authorities play a key role in devising, financing and implementing these interventions. Successful implementation will contribute significantly to the overall goal of improving animal and public health, and therefore the livelihoods of poor livestock dependent communities.

There are eight (8) strategic elements to this framework including the determination of the

epidemiology of the disease; the determination of the socio-economic importance of the disease; the prevention and control tools of the disease; the advocacy, communication and resource mobilization; the research and development; the capacity building; the coordination and partnerships; and the learning and knowledge management.

The achievement of these major components will involve the strengthening of existing animal and public health surveillance, response, prevention and preparedness systems at the country, regional and continental levels.

Priority diseases including PPR, ASF, Rabies, Brucellosis, Newcastle disease, Tuberculosis and RVF for interventions and associated actions need to be identified by officials at the country level using a scoring disease approach developed by AU-IBAR with the view to provide African countries with a simple and user friendly tool enabling them not only to qualify diseases as neglected or not, but also to assess their priorities for ranking purposes. However, it should be understood that this approach was not intended to modify the OIE lists of animal diseases. The idea here is to come up with a relative ranking process rather than to define an absolute cutoff beyond which diseases are not considered important.

The implementation of this strategic framework will be guided by key principles. These include the adoption of a multidisciplinary, multinational and multisectoral approach; the integration of technical, social, political, policy and regulatory issues; and the establishment of broad-based partnerships across sectors and along the research. They will include engagement of the veterinary and human medical community, and research institutions.

Finally, the document has been prepared on the basis that its main messages are relevant to all African countries. Of course not all the

requirements proposed will have the same importance or indeed applicability for all countries. It is for each country to interpret the document in the light of its unique circumstances.

A control program will be developed to translate into concrete action the proposed strategic framework for the progressive control of NADs and zoonosis in Africa under the African Initiative for the progressive control of NADs in Africa (AI-PROCNADA). The initiative was endorsed by the 9th GF-TADs African steering committee held from 8-9 July in Ouagadougou, Burkina Faso.

8.6.4 Wildlife health

AU-IBAR is cognizant of the important relationship that exists between biodiversity and emerging as well as endemic animal diseases and zoonoses in Africa. A good example is the current Ebola pandemic that has caused immense economic losses and human suffering in some western African countries. The vast and rapid changes to our landscapes, food production practices, and other large-scale environmental changes have resulted not only in impacts on wildlife biodiversity and ecological dynamics, but have also demonstrated profound implications for human health. These changes are driving increased disease incidence and burden on the continent. AU-IBAR is therefore adopting an integrated One Health (OH) approach to the management of diseases and seeks to leverage on the health impacts so as to mitigate the underlying threats to biodiversity and stable ecosystems.

To achieve the foregoing, AU-IBAR is developing project proposals on wildlife and ecosystem health in collaboration with Member States and RECs. An example is the proposal entitled “Mapping of PPR and Other High Consequence Wildlife Diseases to Inform Animal Disease Policy and Control Strategies in East Africa”. This was developed jointly with The Member States and Secretariat of the East African Community. The

proposal seeks to investigate the geographical occurrence of serotypes and genotypes of selected pathogens circulating in wild animals in East Africa. Wild animals are important agents in the epidemiology of diseases that affect livestock and zoonotic pathogens. Specifically, this study will focus on Peste des Petits ruminants (PPR), a rapidly spreading and highly infectious disease of great mortality in domestic small ruminants. Little is known about the genetic lineages of PPR virus that is circulating in East Africa and in particular the role of wild animals in its epidemiology. Under this platform designed for detecting PPR in wild animals, other important endemic diseases such as Brucellosis, Bovine tuberculosis (BTb), African swine fever (ASF), Rift Valley Fever (RVF) of similar importance but having scanty up-to-date epidemiological information will concurrently be studied.

A broader project proposal “African Wildlife and Ecosystem Health Project” seeks to address the many constraints to wildlife and ecosystem health in Africa. These include weak policies, low technical competencies, limited knowledge and weak inter-sectoral collaboration at national, regional and continental levels. The overall objective of the project is to improve livelihoods, public health and wildlife conservation on the continent through a harmonized and coordinated wildlife and ecosystem health approach.

Both of the aforementioned projects are in the pipeline for resource mobilization and their implementation is critical to an effective holistic management of animal health on the continent. In particular they will enhance understanding of MS on important health issues at the wildlife-livestock-human nexus as well as improve their capacities to address the same.

9. SUMMARY OF THE MAJOR RECOMMENDATIONS OF MINISTERIAL MEETINGS IN 2013

9.1 Ninth (9th) Conference of African Ministers responsible for Livestock Abidjan, Côte d'Ivoire; 18 – 19 April 2013

The Ninth Conference of Ministers responsible for Animal Resources in Africa was held in Abidjan, Côte d'Ivoire on 18th and 19th April 2013. The Conference was organized by the African Union - Interafrican Bureau for Animal Resources (AU-IBAR) under the auspices of the African Union Commission (AUC). The theme of the conference was “Investing in livestock to accelerate regional integration and prosperity in the Context of African Renaissance”. Its main objectives were to review progress made since the last Conference of Ministers held in Entebbe, Uganda in May 2010 and to consider other contemporary matters related to the development and utilization of animal resources in Africa, especially with regard to promoting public and private sector investment in the sector.

RECOMMENDATIONS

On Investing and financing animal agriculture in Africa

1. **Noting** the low level of compliance with the 2003 Maputo commitment on 10% allocation of national budget to agriculture;
2. **Concerned about** the lack of significant progress since the 8th conference in increasing public and private investments in the livestock sector;;
3. **Recognizing** the need to reassess the contribution of livestock to the Agricultural GDP taking into consideration the other non- monetary contribution of livestock to national economies to affirm its socio economic importance;
4. **Considering** the inadequate financial support mechanisms for the livestock sector;
5. **Reaffirm** the need for MS to comply with the 2003 Maputo commitments to allocate 10% of national budget to Agriculture of which at least 30% should be for livestock in order to attain 4.2% annual growth in the sector;
6. **Recommend** that AU and RECs establish “Livestock Expert Pools” to strengthen country CAADP processes especially the Post-Compact livestock investment interventions;
7. **Recommend** that AU in consultation with the RECs lead the formulation of a comprehensive livestock sector reform/development strategy with clear targets and definition of roles and responsibilities of all stakeholders; and subsequently develop a continental programme and coordinate the mobilization of resources for its implementation;
8. **Request MS** to provide incentives to commercial banks and micro finance institutions i n order to increase their financial support to the livestock with particular attention to smallholders
9. **Request MS** to allocate adequate resources to strengthen their veterinary services as guided by the OIE PVS gap analysis and ensure disease control strategies are mainstreamed in their national agricultural priorities.
10. **Reiterate** the need for AU to organize a livestock summit to engage the AU Heads of State and Governments on decisions on livestock resources issues;

On creating an enabling environment to support sustained growth in the livestock sector in Africa

- 11. Recognizing** that the current policy and institutional environment in the Animal Resources sector is not conducive to support investment and sustained growth in the sector;
- 12. Cognizant** of the need to fully engage state and non-state actors in policy formulation;
- 13. Considering** the need for Member states and RECs to invest in data collection and analysis as a foundation for evidence based policy formulation, emergency preparedness, planning, and sectoral strategy formulation;
- 14. Recommend** that Member States and RECs engage in policy and institutional reforms, and strengthen partnerships, human capacity in the livestock sector to create enabling environment to foster investments and improve service delivery;
- 15. Recommend** that AU and RECs enhance initiatives fostering regional integration through harmonisation of veterinary and animal science curricula based on

international standards, mobility of professionals and mutual recognition of qualifications by MSs;

- 16. Encourage** Member States and RECs to establish and operationalize Livestock Policy Platforms as a mechanism for an inclusive approach that brings together representatives of public sector and non-state actors and establish linkages with CAADP at national and regional levels;

On the threat of climate change and vulnerability of the livestock sector

- 17. Considering** the recurrent emergency crisis related to climate-induced events on the continent and the peculiar vulnerability of island states, coastal and pastoral areas to climate change and other specific livestock related challenges;
- 18. Recognizing** the need for decisions makers and grassroots communities to timely access accurate climate monitoring information;
- 19. Recommend** that AU, RECs and technical partners assist MSs in identifying and strengthening initiatives on conservation and utilisation of Animal genetic resources (AnGR) that are adapted to local conditions, including establishment of gene banks for in-situ and ex-situ conservation;
- 20. Recommend** that AU and RECs assist MSs to operationalize the pastoral policy framework, in the context of CAADP;
- 21. Recommend** that AU-IBAR and RECs in partnership with other relevant institutions develop and facilitate the implementation of early warning systems and emergency mechanisms involving grassroots communities in response to climate change, with special attention to island states and coastal areas;
- 22. Recommend** that AU, RECS and development partners support MSs to develop and implement programmes aiming at strengthening resilience of livestock dependent communities to extreme events;

On strategies to unlock the potential of the livestock in Africa

- 23. Concerned** about the poor competitiveness of African livestock products in domestic, regional and global markets, the constraints for intra and inter regional trade in Africa caused by

poor infrastructure, legislative barriers, persistence of non-tariff barriers and limited involvement of stakeholders along the value chain;

- 24. Recognizing** that support for market-oriented value chains, if not properly implemented may marginalize the smallholder livestock producers;
- 25. Cognizant** of the important role of small ruminants in the food security and livelihoods of livestock-dependent communities, and the impact of PPR on their production and productivity;
- 26. Considering** the need for regional cooperation in animal health sector;
- 27. Considering** the increasing threats caused by ticks and tick-borne diseases and indiscriminate use of acaricides by livestock producers leading to resistance of ticks to acaricides and pollutions of the environment as well as public health concerns;
- 28. Cognizant** of the need to sustain the effective participation of AU MS in OIE activities;
- 29. Encourage** member states to adopt a Value Chain approach as a strategy for investment based on national and regional comparative advantages with a view to enhancing intra and inter regional trade in livestock and livestock products;
- 30. Request** AU, RECs and technical and development partners to assist MS in establishing and implementing national strategies for the control of ticks and tick-borne diseases taking cognizance of emerging technologies such as vaccination against ticks;
- 31. Recommend** MSs to actively support grassroots organizations to access services and markets with special focus on women organizations;;
- 32. Endorse** the Pan African PPR progressive control strategy developed by the AU and recommend that AU, MSs, RECs and development partners mobilize necessary resources for its implementation under the coordination of AU-IBAR with the support of AU-PANVAC, OIE and FAO;
- 33. Encourage** MS and RECs to apply the compartmentalization and commodity based trade concepts and the principle of equivalence to improve access to markets;
- 34. Encourage** MSs to update their annual contributions to the OIE to ensure their effective participation in the standard setting process;
- 35. Endorse** AU-SAFGRAD Strategic plan 2014-2018 and recommend that AUC, RECS and international organizations and development partners provide technical and financial support for its implementation, including assisting countries and RECs in developing their CAADP-Compact and investment plans for the semi-arid and arid areas of Africa;
- 36. Recommend** that AUC provides AU-PANVAC with the necessary resources to ensure the destruction of the remaining Rinderpest virus containing materials and MSs to transfer what is deemed necessary to AU/PANVAC for safe storage;
- 37. Recommend** that Member States and RECs develop national and regional Tsetse and Trypanosomiasis (T&T) Strategies and Action Plans that are aligned to the continental PATTEC Strategic and Action Plans, increase their public investment, and participate in a resource mobilization conference on T&T interventions, commemorating PATTEC at fifteen years and reviewing progress made scheduled to be held in 2015;;

ADOPTION OF MINISTERS' REPORT

- 38.** The Ministers highlighted the challenges faced within the livestock sector, and shared measures that their respective countries have taken to address these challenges;
- 39.** The Ministers agreed on the need for urgent actions to improve public and private sector investment in the livestock sector, improve human resource capacity and position the livestock

- sector to better play its role of poverty alleviation, trade and promoting regional integration;
40. They also supported the need for policy and governance reforms within the livestock sector in order to enhance the contribution of animals to sustainable food and nutrition security and economic growth, within the CAADP framework;;
 41. In conclusion, the Ministers thanked the Government of the Republic of Côte d'Ivoire for hosting the 9th Conference of Ministers responsible for Animal Resources in Africa, and the organizers for facilitating their participation;;
 42. After deliberations, the Ministers adopted the report and requested that it be submitted to AU Policy Organs for further consideration and adoption;
 43. Propose that the next meeting be held in 2015 in Egypt.

Done in Abidjan, April 19

9.2 AU Joint Conference of Ministers of Agriculture, Rural Development, Fisheries and Aquaculture

1 – 2 May 2014, Addis Ababa, Ethiopia

We, the Ministers of Agriculture, Rural Development, Fisheries and Aquaculture, having met at the AUCC in Addis Ababa, Ethiopia from 01-02 May 2014, on the Theme of the Year of Agriculture and Food Security: “Transforming Africa’s Agriculture for Shared Prosperity and Improved Livelihoods through Harnessing Opportunities for Inclusive Growth and Sustainable Development”.

Recognizing and appreciating the African Union Assembly of Heads of State and Government for having declared, during its 19th Ordinary Session, the Year 2014 to be the Year of Agriculture and Food Security, marking the 10th Anniversary of the Adoption of the Comprehensive Africa Agriculture Development Programme (CAADP).

Acknowledging the progress made in the realization of the 2003 Maputo Declaration on Agriculture as enshrined in the CAADP framework, the challenges faced, the important lessons learnt over the last decade through implementation of CAADP, and reflecting on the prospects and opportunities for accelerated agricultural growth and transformation through sustaining the momentum.

Convinced that accelerated agricultural growth and transformation is a sine qua non for achieving Africans’ aspirations for shared prosperity, improved livelihoods and dignity, as well as peace and security.

Stressing the strategic significance of ensuring that all segments of our populations, particularly women, the youth, and other disadvantaged sectors of our societies, must participate and directly benefit from the growth opportunities.

Also convinced that success in an inclusive agricultural growth and transformation will have the most direct, positive consequential impact on achieving broader sustainable development goals in Africa, including poverty reduction, greater social equity and better environmental stewardess.

Recognizing the need for enhancing conservation and sustainable use of fisheries and aquaculture resources through coherent policies as well as governance and institutional arrangements at national

and regional levels,

Acknowledging the potential of the aquaculture sector to generate wealth, social benefits and contribute to the development of the African economy, and the importance of fish and fish products in food and nutrition security and livelihoods;

Considering the need to harness the benefits of Africa's fisheries and aquaculture endowments through development of value chains, accelerated trade and marketing

Emphasizing recognizing the role of research and science in transforming fisheries and aquaculture production and productivity to exploit its full potential

Concerned over the limited value addition in fisheries and aquaculture coupled with the high level of post-harvest losses especially in small scales fisheries, and taking note of the absence of specific financial mechanism to support SMEs in fisheries and aquaculture:

- i. **Commend** the African Union Commission (AUC) and the NEPAD Coordination and Planning Agency (NPCA) for the articulation of a vision and clear goals for Accelerated Africa's Agricultural Growth and Transformation to be achieved during the next decade, on which we deliberated during our meeting
- ii. **Endorse** the Report of the Senior Officials and Experts of Agriculture, Rural Development, Fisheries and Aquaculture, who met from 28-30 April 2014; also endorse the key messages that arose from the interactive discussions that we held with stakeholders on the basis of the proposed vision and goals.

iii. Hereby adopt the following Resolutions:

a) *On acceleration of inclusive growth of agricultural production and productivity to:*

- i. At least double the current level of productivity, focusing on inputs, irrigation and mechanization, Sustain Annual sector growth in Agricultural GDP at least 6%
- ii. Support production and utilization of cost-effective and quality agricultural inputs, mechanization and agrochemicals (for crops, livestock, fisheries and aquaculture) that are affordable and accessible to all stakeholders.
- iii. Invest in efficient and effective water management and irrigation infrastructure to facilitate a stable and predictable water supply system, as well as affordable, reliable renewable energy for agricultural production.
- iv. Put in place measures and mechanisms for ensuring equal access to opportunities, including land, productive assets, knowledge information and skills, for women, the youth, pastoral groups and other socially disadvantaged groups
- v. Support professionalization of smallholder producers and family agriculture through vocational training programs
- vi. Endorse the Science Agenda for Agriculture in Africa (S3A) to increase the level of ATFP annual growth through technology generation, dissemination and adoption, and skilled human resources
- vii. Endorse the Guiding Principles on Large Scale Land Based Investments (LSLBI) in Africa, prepared by the Joint AUC-AfDB-ECA Land Policy Initiative that is aimed at assisting Member States to generate an optimum benefit from such investments.

b) On harnessing markets and trade opportunities for transformation and shared prosperity, to:

- i. Reduce poverty through agriculture by half, through among other things, creating job opportunities for at least 30% of the youth in agricultural value chains.
- ii. Triple Intra-African Trade
- iii. Accelerate intra and inter-regional trade in Africa aimed at bolstering demand for African agricultural products, including simplifying and formalizing the current trade practices.
- iv. Fast-track establishment of Continental Free Trade Area (CFTA) and transition to a continental Common External Tariff (CET) scheme to promote intra-African value-addition and trade in food and agriculture, without compromising quality and standards
- v. Reform policies and institutions to facilitate investment in markets and trade infrastructure and promote inclusive regional agricultural value chain development, focusing on strategically selected agricultural commodities
- vi. Commit to coordination mechanisms put in place at continental level to promote African common position on agriculture-related international trade negotiations and partnership agreements.
- vii. Strengthen the capacities of smallholder producers in the areas of entrepreneurship, leadership and organization development, negotiations and entry to markets including contracting.
- viii. Reduce PHL at least by half. Invest in infrastructure for market and value-chain development at national, regional and continental levels, including, local manufacturing transport, energy, ICT, post-harvest handling, processing, storage and distribution.
- ix. Support and facilitate preferential entry and participation for women and youth in gainful and attractive agri-business opportunities.
- x. Promote the establishment of platforms for multi-actors interactions.

c) On achievement of food and nutrition security goals, to

- i. Commit to Zero Hunger by 2025, reduce stunting by 50%
- ii. Take concrete measures that ensure good governance and necessary policy reform and legal frameworks to prioritize food and nutrition security agenda towards meeting the 2025 ending hunger goal.
- iii. Develop and operationalize social protection packages and agro- entrepreneurship programs that target rural smallholders, especially women and youth
- iv. Develop and apply context-specific and realistic indicators for tracking food and nutrition security, considering the complexity of the food and nutrition security issue
- v. Prioritize livestock and integrate animal welfare issues as an important part of agriculture development and transformation and as a key strategy towards realizing the food and nutrition security goals.
- vi. Develop an African position on Genetically Modified Organisms (GMOs) and capacity for Africa to take advantage of the opportunities.
- vii. Strengthen strategic food and cash reserves to respond to food shortages occasioned by periodic prolonged droughts or other disasters/emergencies
- viii. Strengthen early warning systems to facilitate advanced and proactive responses to disasters and emergencies with food and nutrition security implications
- ix. Target priority geographic areas and community groups for interventions on Food and Nutrition
- x. Encourage and facilitate increased consumption of locally produced food items, including the promotion of innovative school feeding programs that use food items sourced from the local

farming community

- xi. Enhance the nutritive quality of food items through fortification of necessary elements.

d) On enhancing resilience of Africa's agriculture to climate change and other types of hazards, to

- i. Ensure at least 30% of farm/pastoral households be resilient to shocks
- ii. Support the integration of the resilience-building agenda into Africa's contribution to the post-2015 Framework for Disaster Risk Reduction, sustainable development agenda, and climate change.
- iii. Accelerate implementation of the Climate Change Response Strategies at national level and the Africa Regional Strategy for Disaster Risk Reduction and its Programme of Action in line with the Hyogo Framework for Action (HFA)
- iv. Support capacity development and increase investments for resilience building initiatives, including social security for rural workers
- v. Integrate climate change adaptation and disaster risk reduction programs and mainstream both into NAIPs and RAIPs
- vi. Strengthen and actively participate in continental, regional, and national platforms for enhanced coordination, experience sharing and mutual learning
- vii. Improve availability and access by smallholder farmers to reliable and up to date climate and risk information, knowledge, technology and instruments (e.g., crop and livestock insurance) to facilitate climate-resilient and risk-informed agricultural development process through investments on climate and weather information services
- viii. Promote the conservation and development of crops varieties and livestock breeds that can withstand and adapt to harsh climate conditions, including use of indigenous genetic resources
- ix. Improve risk management and resilience capacity for the most vulnerable groups, including women, children, and socially disadvantaged groups.
- x. Prioritize the vulnerable ecosystems such as forests, arid and semi-arid lands, soil health, soil erosion, biodiversity, etc., where the challenges of desertification and land degradation are acute.
- xi. Develop and implement in-country pilot projects on climate change and desertification impacts on agriculture, for possible scaling up of best practices and strengthen resilience.
- xii. Set realistic targets on additional number of farm households practicing climate smart agriculture by 2025

e) On enhancing public-private partnerships and investment financing for African agriculture, to:

- i. Sustain the momentum of allocating an increased percentage of national annual budgets to agriculture, in line with the 10% minimum commitment, also putting in place measures to ensure efficiency and effectiveness of these investments.
- ii. Put in place mechanisms and systems to recognize and appreciate performance of Member States with respect to progress on key agreed-upon commitments.
- iii. Establish and/or strengthen inclusive public-private partnerships for at least five (5) priority agricultural commodity value chains with strong linkage to smallholder agriculture.
- iv. Put in place and/or strengthen financing schemes that are friendly to smallholder enterprises to support their transition to viable businesses.
- v. Create multi-stakeholder platforms to promote mutual financing mechanisms.
- vi. Promote and prioritize local resources mobilization for agriculture investment to discourage

heavy dependence on external sources of funding that may limit a sense of ownership and buy-in by farmers and other stakeholders.

- vii. Establish and strengthen the capacities of domestic apex private sector intermediary institutions for inclusive facilitation and coordination to ensure engagement of private sector in CAADP implementation.

f) On harnessing the potentials of fisheries and aquaculture resources, to:

- i. Endorse the AU Policy Framework and Reform Strategy for Fisheries and Aquaculture in Africa
- ii. Undertake reforms to address governance of fisheries and aquaculture and develop institutions that lead to sustainable fisheries and aquaculture in line with the AU policy framework and reform strategy for fisheries and aquaculture
- iii. Develop fisheries and aquaculture as an integral component of sustaining the CAADP momentum results framework
- iv. Scale-up integrated aquaculture development as a means of increasing rural productivity and food security and nutrition
- v. Accelerate trade by developing fish value chains, promoting responsible and equitable fish trade and marketing in order to significantly harness the benefits of Africa's fisheries and aquaculture endowments

g) On Sustaining the CAADP Momentum Results Framework, to:

- i. Commit the Principles and Values of the CAADP Process
- ii. Endorse the CAADP Results Framework as a key tool:
 - to translate Africa's agricultural development goals into tangible targets; to track, monitor and report on progress as well as facilitating mutual learning and accountability
 - to foster alignment and coordination and rallying multi-sectoral efforts towards common goals
 - to accompany further planning and programming for new programs
- iii. Strengthen Africa's capacity for knowledge and data generation and management to support evidence based planning and implementation
- iv. Strengthen multi-institutional platforms for regular peer review, mutual learning and mutual accountability.
- v. Commit to an Agricultural Review Process to be conducted every two years; and a mid-term review, after five years, of the 2015-2025 CAADP key goals.

IV. Request:

- a. The AU Commission and NPCA to develop an implementation strategy and roadmap that facilitates translation into results, of the vision and goals of the CAADP 2025 Africa Accelerated Agricultural Growth and Transformation (3AGTG 2025);
- b. The AU Commission and NPCA, in collaboration with partners to develop mechanisms that enhance Africa's capacity for knowledge and data generation and management to strengthen evidence based planning and implementation.
- c. The AU Commission and NPCA, in collaboration with African relevant scientific institutions, to undertake a study to explore the possibility of developing an African position on GMOs with a view to taking advantage of the opportunities that this may present.

- d. The AU Commission and NPCA to institutionalize a system for peer review that encourages good performance on commitments and periodically recognize exemplary performance through awards.
- e. The AU Commission and RECs to facilitate the acceleration of economic integration to boost intra-Africa trade in food and agriculture.
- f. The AU Commission, NPCA and RECs to establish African Centres of Excellence for Aquaculture, Capture fisheries, biodiversity studies and oceanography to enhance capacity for fisheries and aquaculture research.
- g. The RECs to support the efforts of Member States in developing value chains, promoting responsible and equitable fish trade and marketing, through significantly harnessing the benefits of Africa's fisheries and aquaculture endowments
- h. Development Partners to rally their technical and financial support in a harmonized and coordinated manner behind implementation of these resolutions.

V. Recommend the AU Assembly to endorse the following commitments on Africa Accelerated Agricultural Growth and Transformation Goals to be achieved by 2025 (3AGTGs 2025):

- a. Recommit to the Principles and Values of the CAADP Process
- b. Recommit to the allocation of at least 10% of public spending on agriculture
- c. Commit to Zero Hunger
 - i. At least double productivity (focusing on Inputs, irrigation, mechanization)
 - ii. Reduce Post Harvest Losses (PHL) at least by half
 - iii. Improve Nutrition: reduce stunting by half
- d. Commit to reduce poverty through agriculture by half.
 - i. Sustain annual sector growth in agricultural GDP by at least 6%
 - ii. Establish and/or strengthen inclusive public-private partnerships for at least five (5) priority agricultural commodity value chains with strong linkage to smallholder agriculture.
 - iii. Create job opportunities for at least 30% of the youth in agricultural value chains.
- e) Commit to triple Intra-African Trade in Agricultural commodities and services
- e. Commit to ensuring at least 30% of farm/pastoral households to be resilient to shocks
- f. Commit to the CAADP Results Framework and to an Agricultural Review Process to be conducted every two years.

10. ANNEXURES

ANNEX 1: STATUS OF MONTHLY DISEASE REPORTING BY COUNTRIES IN 2013

	Country	MONTHS - 2012												% REPORTING			
		J	F	M	A	M	J	J	A	S	O	N	D	2012	2011	2010	2009
1.	Algeria													100%	100%	100%	100%
2.	Angola													100%	0%	100%	100%
3.	Benin													100%	100%	100%	100%
4.	Botswana													100%	100%	100%	100%
5.	Burkina Faso													100%	100%	100%	100%
6.	Burundi													100%	0%	100%	100%
7.	Cameroon													100%	100%	100%	100%
8.	Cape Verde													0%	0%	0%	0%
9.	CAR													83.33%	100%	100%	100%
10.	Chad													100%	100%	100%	100%
11.	Comoros													0%	100%	100%	100%
12.	Congo Brazzaville													100%	100%	100%	100%
13.	Cote d'Ivoire													100%	100%	100%	100%
14.	Djibouti													100%	100%	100%	100%
15.	DR Congo													91.67%	100%	100%	0%
16.	Egypt													100%	100%	100%	50%
17.	Equatorial Guinea													0%	0%	100%	0%
18.	Eritrea													100%	100%	100%	100%
19.	Ethiopia													100%	100%	100%	100%
20.	Gabon													0%	100%	100%	100%
21.	Gambia													0%	100%	100%	100%
22.	Ghana													100%	100%	100%	100%
23.	Guinea Conakry													100%	100%	100%	100%
24.	Guinea Bissau													100%	100%	100%	100%
25.	Kenya													100%	100%	100%	100%
26.	Lesotho													100%	100%	100%	100%
27.	Liberia													100%	100%	75%	0%
28.	Libya													33.33%	0%	0%	0%
29.	Madagascar													0%	100%	41.67%	50%
30.	Malawi													100%	100%	100%	100%
31.	Mali													50%	100%	100%	100%
32.	Mauritania													100%	100%	100%	100%
33.	Mauritius													100%	0%	100%	100%
34.	Mozambique													33.33%	83%	100%	100%
35.	Namibia													100%	100%	100%	100%
36.	Niger													100%	100%	100%	100%
37.	Nigeria													100%	100%	100%	100%
38.	Rwanda													100%	100%	100%	0%
39.	Sahrawi																
40.	Sao Tome & Principe													100%	0%	0%	100%
41.	Senegal													100%	100%	100%	100%

	Country	MONTHS - 2012												% REPORTING			
		J	F	M	A	M	J	J	A	S	O	N	D	2012	2011	2010	2009
42.	Seychelles													100%	58%	100%	100%
43.	Sierra Leone													100%	66%	100%	100%
44.	Somalia													100%	100%	100%	100%
45.	South Africa													100%	100%	100%	100%
46.	Sudan													100%	100%	100%	100%
47.	South Sudan													100%	NA	NA	NA
48.	Swaziland													100%	100%	100%	100%
49.	Tanzania													100%	100%	100%	100%
50.	Togo													100%	100%	100%	100%
51.	Tunisia													100%	100%	100%	100%
52.	Uganda													100%	100%	100%	100%
53.	Zambia													100%	100%	100%	100%
54.	Zimbabwe													100%	100%	100%	100%
														84.75%	84.78%	94.23%	88.46%

Full Reports
 Zero Reports
 No Reports

ANNEX 2: LIST OF DISEASES REPORTED IN AU-IBAR MEMBER STATES IN 2013 AND RELATED QUANTITATIVE DATA ARRANGED IN ORDER OF NUMBER OF OUTBREAKS

	Disease	Countries	Outbreaks	Susceptible	Cases	Slaughtered	Deaths	Destroyed
1	Actinobacillosis	1	1	0	1		0	1
2	Africa Horse Sickness	4	632	460521	3028	0	686	295
3	African Swine Fever	14	376	2195418	40562	4540	33892	193
4	American fowlbrood	1	1	48	48	0	0	1
5	Anaplasmosis	14	1714	1099670	6189	17	1079	1095
6	Anthrax	20	1287	1019256	10140	59	3179	107
7	Avian Infectious Bronchitis	1	20	7079	359	10	61	19
8	Avian leucosis	2	11	107124	1		36911	
9	Avian mycoplasmosis	1	1	5707	97		31	
10	Babesiosis	14	1452	555626	28944	23	419	593
11	Blackleg	16	1248	3079613	13760	280	2878	383
12	Bluetongue	3	10	796	52	0	9	9
13	Botulism	6	95	35770	487	0	169	75
14	Bovine Genital Campylobacteriosis	2	5	22	8	0	0	4
15	Bovine Viral Diarrhoea	1	1	80	3		0	1
16	Brucellosis	20	1433	225996	8582	1051	41	707
17	Camelpox	2	24	3038	313	20	20	3
18	Canine Borreliosis	1	17	1501	76		2	17
19	Canine Distemper	7	109	10734	632	0	160	79
20	Coccidiosis	9	326	111147	5177	5	1799	273
21	Colibacillosis	1	1	80	60		10	
22	Contagious Bovine Pleuropneumonia	22	301	4647367	31740	3323	9538	135
23	Contagious Caprine Pleuropneumonia	4	152	556510	4171	107	672	3
24	Contagious Ecthyma	5	196	4869	897	7	17	165
25	Contagious Ophthalmia	2	503	290694	1047	4	25	403
26	Contagious pustular dermatitis	1	72	17042	414	3	9	49
27	Cysticercosis	4	109	259491	698	21	0	97
28	Dermatophilosis	10	624	649310	3396	10	142	458
29	Distomatosis	5	49	1131780	1080	894	29	40
30	Duck Virus Enteritis	1	1	56420	35	0	35	
31	Echinococcosis/Hydatidosis	2	128	47646	876	3065	0	84
32	Enterotoxaemia	3	80	13966	330	0	228	72
33	Enzootic abortion of Ewes	1	1	74	2	0	0	1
34	Enzootic bovine leukosis	1	1	6	1		0	
35	Equine viral anaemia	1	2	1960	276		53	2
36	Erysipelas	5	13	6013	123	75	16	5
37	Foot and Mouth Disease	23	570	2073424	30327	279	1134	155

	Disease	Countries	Outbreaks	Susceptible	Cases	Slaughtered	Deaths	Destroyed
38	Footrot	7	202	120648	461	0	21	120
39	Fowl Cholera	5	8	85399	377	6	260	4
40	Fowl Typhoid	3	10	152702	2164	46	1229	
41	Fowlpox	12	375	162178	6267	7	1434	265
42	Haemorrhagic Septicaemia	10	1211	1067978	14122	187	2530	15
43	Heartwater	11	1217	585347	3597	20	1093	897
44	Helminthosis	3	4	46707	147	0	7	2
45	Highly Pathogenic Avian Influenza	1	90	180320	179306		18238	39
46	Infectious Bovine rhinotracheitis	1	1	80	1		0	1
47	Infectious Bursal Disease	10	253	414185	33384	30	20097	127
48	Infectious Coryza	5	247	95202	4715	312	1159	202
49	Intoxication	1	2	28	18		18	
50	Lameness	1	1	102	11	0	0	
51	Leptospirosis	1	1	755	1	0	0	1
52	Low Pathogenic Avian Influenza	1	16	462098	5293		1461	16
53	Lumpy Skin Disease	25	2823	5050635	42530	976	4411	1399
54	Malignant Catarrhal Fever	4	50	42218	264	12	195	38
55	Mange	14	739	4187558	11095	367	487	464
56	Marek's disease	4	4	17100	16832	0	2061	
57	Mastitis	6	346	134797	555	10	46	257
58	Nairobi sheep disease	1	1	120	4	1	2	1
59	Newcastle Disease	27	1189	17622062	1131994	938	992631	356
60	Nosemosis	1	24	634	634	0	0	14
61	Old World Screwworm	2	33	11092	45	0	1	32
62	Other Clostridial Infections	2	7	795	97	0	36	7
63	Paratuberculosis	3	12	6357	15	6	4	7
64	Parvoviral Disease	2	5	68	7	0	0	
65	Pasteurellosis	7	461	186692	4421	14	2337	58
66	Peste des Petits Ruminants	24	1691	5245052	114521	1423	72503	427
67	Piroplasmosis	2	76	7918	772		145	4
68	Poisoning	1	1	452	35		35	
69	Pox	2	8	446	147	0	51	
70	Q-fever	1	1	74	15		12	1
71	Rabies	29	1759	170950	4221	79	2142	734
72	Rift Valley fever	2	11	6070	2576		151	3
73	Salmonellosis	8	62	243012	413390	14642	4498	45
74	Scrapie	1	1	20	19	0	5	1
75	Sheep and Goat Pox	12	1040	909820	19035	202	2428	75
76	Strangles	1	2	11	4		0	2
77	Theileriosis	12	849	1125093	19038	128	2289	217

	Disease	Countries	Outbreaks	Susceptible	Cases	Slaughtered	Deaths	Destroyed
78	Traumatic reticulo-pericarditis	1	2	11	2		0	
79	Trichomonosis	1	22	216	48	0	2	17
80	Trypanosomosis	20	953	642739	73018	1381	2413	482
81	Tuberculosis	13	335	1850783	2835	1874	701	156
82	Varroosis	1	56	1247	1312	0	0	39
	Grand Total		27767	59513569	2303277	36454	1230377	12049

SN	Country	Cattle	Sheep	Goats	Shoats	Birds	Swine	Equine	Camels	Dogs	Cats	Buffaloes	Hare/ Rabbits	Bees
1	Benin	2111000	842000	1678000	2520000	16941000	398000	1556	0				115418	
2	Burkina Faso	8912433	9007564	13485889	22493453	40990790	2299836	1234973	18013					
3	Botswana	2556228	173920	755934	929854	0	7957	196259	287	133932	17013	61105		
4	Cameroon	5600000	3000000	4000000	7000000	45000000	1500000	0	0					
5	Congo DRC	1145222	1284790	4225300	5510090	22316000	981435	0	0					
6	Djibouti	40000	400000	600000	1000000	0	0	6800	50000					
7	Algeria	1909455	26572980	4910700	31483680	194411814	0	208590	344015				2021737	1271609
8	Egypt	3002778	2337486	1083518	3421004	24992	0	1059955	66801			2238140	1894583	
9	Ethiopia	53990061	25489204	24060792	49549996	50377142	0	9005430	2245581	1900000				5207300
10	Ghana	1590000	4156000	5751000	9907000	61565711	638000	2468	0	493125	116549			
11	Guinea	4704299	1616747	2174820	3791567	517006	96344	0	0					183045
12	Guinea Bissau	1325413	304745	649083	953828	1482641	343680	4355	0					
13	Kenya	17501684	17259360	29715633	46974993	32612620	305036	0	2985153					1842496
14	Lesotho	830560	2605710	890358	3496068	3978293	119939	316090	0	262500	30900		2940	
15	Morocco	3172984	19956385	6235861	26192246	0	0	1540167	197550					480200
16	Mozambique	1680787	851644	3167511	4019155	0	990292	28027	0	186937		401		
17	Mali	10012966	13735523	19126806	32862329	36850378	77594	517605	978980					
18	Malawi	1241714	255928	5356545	5612473	17200	2754414	107	0					
19	Mauritius	7302	2211	27430	29641	6000000	15287	900	0				3000	
20	Mauritania	1773563	10073138	6714042	16787180	0	0	0	1379417					
21	Namibia	2671062	2225708	1848718	4074426	698023	185079	324066	290					
22	Nigeria	15316025	57685216	109362672	167047888	224264490	8361713	1286505	92699	4943836	3448779		2794981	921667
23	Sudan	29840000	39483000	30837000	70320000	45500000	0	8312148	4751000					
24	Senegal	3313055	5571335	4754845	10326180	39269866	354474	972598	4740					
25	Sierra Leone	517000	682000	803000	1485000	9460000	17000	0	0					
26	Swaziland	627486	16286	458516	474802	1833717	38861	11691	20	96357		95		
27	Chad	6879722	2886282	6287562	9173844	48000000	74319	883799	1374307					
28	Togo	428772	1111977	2526059	3638036	15344011	944979	0	0					

SN	Country	Cattle	Sheep	Goats	Shoats	Birds	Swine	Equine	Camels	Dogs	Cats	Buffaloes	Hare/ Rabbits	Bees
29	Tunisia	646157	6855520	1274460	8129980	97172000	2000	187805	80000	568154		65	96133	329500
30	South africa	13919931	20331685	6138146	26469831	50792224	1585955	0	0					
31	Uganda	12896041	3721028	13910274	17631302	41725658	3928218	0	0					
32	Zambia	3995142	697352	1386420	2083772	28114625	1207248	0	0					
33	Zimbabwe	5368106	513741	2995776	3509517	20161788	310101	426232	0	740519		10000		
	TOTALS	219526948	281706465	317192670	598899135	1135421989	27537761	26528126	14568853	9325360	3613241	2309806	6928792	10235817

ANNEX 4: Contact addresses of Directors of Veterinary Services and Animal Production

No.	COUNTRY	DIRECTOR OF VETERINARY SERVICES	DIRECTOR OF ANIMAL PRODUCTION	DIRECTOR OF FISHERIES
1.	ALGERIA	Dr. Rachid Bouguedour Directeur des Services Vétérinaires Ministère de l'Agriculture et du Développement Rural 12, Boulevard Colonel, Amirouche 16000 ALGER, ALGERIE Tel: (213-21) 743 434/711712 Fax: (213-21) 743 434/7463 33 Email: dsva1@wissal.dz ; rbouguedour@yahoo.fr	Dr Ichou Sabrina SOUS DIRECTRICE DU DEVELOPPEMENT DES FILIERES ANIMALES brinaichou@yahoo.fr	Mr Hamid Benderradjihbenderradji@gmail.com
2.	ANGOLA	Dr. Jose Antonio Directeur général des services vétérinaires Ministério da Agricultura do Desenvolvimento Rural Av. Comandante Gika-Largo Antonio Jacinto No. 55-56, C.P. 10578, LUANDA-ANGOLA Tel: (244-222) 324 067/323 217/321 429 Fax: (244-222) 324 067 Email: dnap@ebonet.net Ricardona16@yahoo.com.br	Ing. Manuel Maidi Abolia Head of Animal Production Department maidiabolia@yahoo.com.br	Maria Esperança Pires dos Santos esperancamaria2000@yahoo.com.br Mobile: +244 912243214
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