Synoptic Summary

Southern and Eastern Africa Regional Technical Meeting on Preparedness and Response Actions to Emerging High Impact Trans boundary Crop and Livestock Pests and Diseases (Harare, Zimbabwe 14-16 February 2017)

1. Background

On 14 – 16 February 2017, FAO, in collaboration with the Southern Africa Development Community (SADC) and the International Red Locust Control Organization for Central and Southern Africa (IRLCO-CSA) organized a three-day Regional Meeting in Harare, Zimbabwe, which was attended by key government ministries and departments responsible for disaster management, plant protection and livestock health and production. In addition to the government participants, the meeting was also attended by specialist regional and international/inter-governmental organizations, development partners, non-governmental organizations (NGOs), private sector representatives, academic institutions and other major stakeholders from countries that are affected or at risk from priority transboundary crop pests and animal diseases.

The meeting was financially supported by the FAO, USAID, DFID, and the Africa Solidarity Trust Fund (ASTF).

2. Objectives

The objectives of the meeting were;

- To provide a platform for sharing of information, experiences and knowledge on emerging/re-emerging transboundary pests and diseases of crops and livestock in the region.
- To assess the preparedness and response capacities of countries, identify key constraints and opportunities for more effective response and collaborative management of transboundary pests and diseases of crops and livestock and to share good practices.
- To suggest a harmonized action plan that will aim at improving countries preparedness and early response for disease threat.

3. Meeting Summary

The meeting was attended by more than 100 participants drawn from East and Southern African countries namely; Angola, Botswana, Lesotho, Madagascar, Malawi, Namibia, Tanzania, Seychelles, South Africa, Uganda, Rwanda, Kenya, Zambia and Zimbabwe; Development partners (DFID, USAID), SADC, United Nations agencies (WFP, UN-OCHA), NGOs (LEAD, OXFAM), CIMMYT, Deutsche Gesellschaft fürInternationale Zusammenarbeit (GIZ) GmbH, Centre for Agriculture and Biosciences International (CABI), academia (University Zambia, University of Lancaster, University of Zimbabwe, MUWRP Influenza Research laboratories, College of veterinary Medicine Animal Resources and Biosecurity, Regional Diagnostic Laboratories) private sector actors and other development partners and inter-governmental organizations, including, OIE, IRLCO-CSA, APHIS, CIMMTY, International Federation of the Red Cross Red Crescent Societies.

The main focus of the meeting was on preparedness and response to a number of emerging and emerging high impact transboundary crop and livestock Pests and diseases particularly Fall Armyworm (FAW), African Armyworm, Tomato Leaf Miner and the Maize Lethal Necrosis Diseases and Highly Pathogenic Avian Influenza (HPAI) which are currently affecting or threatening the Southern African region, with potentially devastating impacts on livelihoods and food security. This report provides a summary of the outcome of the meeting, the current status of the fall armyworm, HPAI and other high impact transboundary pests and diseases in the region, and the actions agreed to strengthen the preparedness and response capacities of countries.

I. Fall Armyworm

Outbreaks of fall armyworm (FAW) have so far been reported in seven SADC countries (see Figure 1).The pest was first detected in Zambia in December 2016 and has subsequently spread to Malawi and Zimbabwe (detected in January 2017), Botswana, South Africa and Swaziland (detected in February 2017). The meeting noted that given the rapid rate of spread of the pest, the remaining SADC mainland countries are at risk from further trans boundary spread.

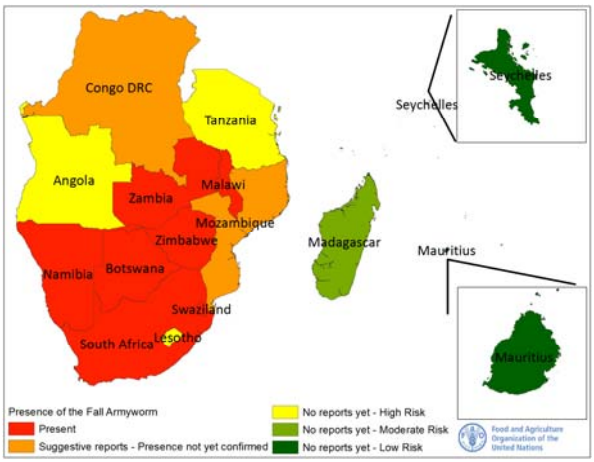

Figure 1 Status of Fall Armyworm Spread as of the 21/02/17

It was also observed that although the pest has preference for maize, it can affect a wide range of plant species (over 80) some of which are the main cultivated staple food and cash crops such sorghum, sugarcane, cotton, Irish potato, tomato, tobacco, spinach, crucifers, chrysanthemum, cucurbits, cucumber, sweet potato, common bean, cowpea, soyabean, groundnut, banana, and ginger. It can also devastate grass pastures thereby severely reducing the availability of livestock grazing pastures. FAW has the potential to remain active and to cause damage throughout the year and if not effectivelt managed has the potential to become endemic in the region. In maize the pest affects the crop at different stages from early vegetative stages up to physiological maturity. It damages leaves, feed inside whorls on growing plants which destroys developing tassels and also feed on developing kernels. All this means that the ongoing outbreaks will ultimately have huge impacts on crop yields in the region.

Figure 2 Damage by Fall Armyworm

At the meeting, it was reported that as of mid-February 2017, almost 223 000 hectares had so far been affected in Zambia, of which almost 90 000 hectares were maize, the main food staple, forcing many farmers to replant their crops. In Malawi some 17 000 hectares have so far been affected while in Namibia, approximately 50 000 hectares of maize and millet has been damaged and in Zimbabwe up to 130 000 hectares could be affected thus far. In Botswana, about 70 hectares was affected in two districts assessed to date.

In Southern Africa, the management of the FAW is still mainly by trial and error, the management is being informed by experiences in managing the African armyworm and stem-borers. As a result some countries had managed to suppress the pests although at high cost. In Zambia and Zimbabwe chemical spraying was effective on early vegetative crops and variable results have were observed on maize from tasselling to maturity. Due to the complexity of the infestation and gaps in technical capacities, countries are still struggling to accurately quantify the full extent of the damage.

II. Highly Pathogenic Avian Influenza

With regards to high impact livestock diseases, the meeting heard that Eastern Africa region is currently on high alert, following the recent incursion of H5N8 highly pathogenic avian influenza (HPAI) in Uganda and the ongoing combination of H5N1 and H5N8 HPAI in 12 West and Central African countries, were the viruses had become endemic. In Uganda, the H5N8 strain of HPAI was detected initially in wild migratory birds , along the shores of Lake Victoria, in January 2017, where it had caused thousands of deaths in wild bird species and subsequently spread to domestic poultry, with the same consequences. Avian influenza A(H5N8) viruses have been rapidly spreading, in Asia and in Europe, causing deaths in wild birds and in domestic poultry and more recently there has been transcontinental spread of H5N8 HPAI a number of African countries (Egypt, Nigeria and Cameroon).

According to the WHO, 'human infection with the A(H5N8) virus cannot be excluded, although, based on the limited information obtained to date, the likelihood is low'. The meeting noted that the great genetic diversity, the occurrence of multiple incursions in different countries and the propensity for continuous evolution of HPAI viruses, highlight the need for close monitoring and surveillance in affected and at risk countries, in order to timely identify potential reassortment events and mutations that could increase the zoonotic and pandemic potential of the viruses. It is also of utmost importance genetic sequences from different outbreaks are shared in existing databases such as the OFFLU platform, so that public authorities have easy access to the required information to design control and prevention strategies.

While noting that, so far, the recent H5N8 HPAI outbreak appears to be restricted to Uganda, an estimated 371 wild birds and 5 368 domestic birds are reported to have died, this was likely to be an under-estimate.Reports from communities in the affected districts indicate that wild bird deaths had been observed since mid-December 2016, thus indicating that the incursion of the virus may have preceded official reports and many wild bird and domestic poultry deaths may have been missed.

A qualitative risk assessment was presented during the meeting and showed that given the southward seasonal wild bird migration flight pathways (*refer Figure 3*) , the low levels of awareness of the disease among communities and national authorities and the widespread legal and illegal cross-border trade in live birds and poultry products, the risk of HPAI spread to Tanzania, Kenya, Rwanda, DRC and Southern African countries is significantly high. This scenario, seriously challenges regional and national capacities to detect, respond to, and to control H5N8 HPAI, and puts the livelihoods and food security of communities and commercial farms in the region who depend on poultry for income and as a cheap source of high quality protein at risk. .

Figure 3 Wild bird migration into Africa

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III. Other Transboundary Pests and Animal Diseases

The meeting also discussed other trans boundary animal diseases affecting or threatening the region. It was noted that the ongoing rainy season and increased risks of flooding could result in heightened prevalence of animal and zoonotic disease vectors and thereby increased risk of outbreaks of vector-borne diseases such as Rift Valley Fever (RVF), which can have major societal impacts, including significant economic losses and trade restrictions. Other transboundary animal diseases of significance had also been reported in several countries in the region including; Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumonia (CBPP), African Swine Fever (ASF), New Castle Disease (ND) and Peste des petits ruminants (PPR). Cases of zoonotic diseases (transmissible to humans), such as, Anthrax and Rabies have also been reported to be on the increase. The meeting also discussed other pests such as African Armyworm, Red and African Migratory locusts, Oriental fruit fly, Banana wilt, Tomato Leaf Miner, Tropical Race 4 and Maize Lethal Necrotic Disease

4. State of preparedness to address emerging and re-emerging high impact transboundary pests and diseases in SADC Region

The overall state of preparedness at regional and national levels to address emerging TBPD was assessed with a focus on existing information and surveillance systems, early warning systems, contingency planning rapid response and coordination. Regional efforts for the

management of TBPD include; the Migratory Pest policy, SPS Annex to trade protocol, Fruit fly implementation strategy among other collaborative effort in partnership with FAO; including the African Solidarity Trust Fund (ASTF) initiative. The effective implementation of the above is constrained by low participation of member states in regional plant health forums, lack of a regional pest reporting mechanism to alert member states of eminent threats since the ICOSAM platform is adjunct and limited resources allocated for plant health issues. Nevertheless there are Regional level structures in place for the management of TBPD and include; Regional plant protection technical committees, Agriculture information system, SPS coordination committee meetings and emergency platforms.

At national level, information and surveillance systems vary across member states but are relatively weak. Timely access to pest information to guide decision making is hindered by inadequate diagnostic capacities and inter-sectoral information sharing, sub-optimal operation of national enquiry points and weak information management systems. Gas in the implementation of International Standards for Phytosanitary Measures (ISPMs) and Regional obligations also contribute to information and surveillance challenges. Exception is the surveillance system for locust which is in place but budgetary limitations hinder surveillance activities, a pre-requisite to information access.

Early warning systems (EWS) exist in some SADC member states but are constrained by fragmented early warning structures, absence of standard operating procedures and in some countries they are not operational (exist only on paper and lack active contact persons). The ICT infrastructure for the existing Early Warning System for locusts requires upgrading but EWS for Fall Armyworm is absent while for tomato leaf miner is inadequate.

Contingency plans exist. However, in many countries, the contingency plans are fragmented, lack flexibility to accommodate actors and the technical capacity and budgetary allocation for the Disaster and Risk Management Units (DMU) need to be significantly enhanced. Response in emergency situations varies from country to country. This is generally constrained by limited; budgetary allocation, awareness associated with the risk of transboundary pests and diseases (TBPD), laboratory infrastructure and technical diagnostic capacity and access to inputs such as traps and pesticides. Time lag to assemble response teams and challenges in command structures negate rapid response efforts. Outdated

regulatory framework was reported as an issue in one SADC member state. Coordination efforts need further streamlining as several member states highlighted challenges related to timely coordination and confusion during intervention, lack of clarity of roles and responsibilities and weak link between National Plant Protection Organizations (NPPOs) and other actors in plant health system owing to financial limitation for joint interventions. National SPS committees have a coordination role but in most countries these are weak and translate to a weak Regional SPS committee.

In order to enhance preparedness, participants developed action plans and following elaborate plenary discussions recommendations were made. The action plan is depicted in Annex 1 and recommendations are highlighted in 1.3.

5. Recommendations

1. The existing information and surveillance systems have improved over the years but remain relatively weak owing to variability in quality of information gathered, limited surveillance, inadequate sharing of information and implementation of International Standards for Phytosanitary Measures. To address these gaps at both national and regional levels, it is recommended that capacity building be undertaken and pest risk analysis teams established, member states undertake surveillance in accordance with international treaties, develop standard operating procedures and improve information sharing at national level. Further to facilitate information sharing at Regional level, the adjunct ICOSAM should be revived and member states commit to reporting obligation in line with SPS Annex to SADC trade protocol.
2. Early warning system (EWS) is absent in some SADC member states and where present it is fragmented or non-operational. Consequently, there is a challenge to developing a regional EWS as it draws from nationally generated and disseminated information. To improve EWS it is recommended that further training on PRA and EW be conducted, support accorded to development of binding policies and national governments commit to timely sharing of information. Further the existing ICT infrastructure for locust EW should be upgraded and budget allocation for purchase of traps increased.

3. Gaps in contingency plans include; inadequate technical capacity in Disaster Management Units, lack of flexibility to accommodate contingency frameworks and budgetary constraints. It is recommended that policy makers be engaged to facilitate updating of contingency plans at national and regional level, review of legal frameworks and development of harmonized regional contingency plans be undertaken.
4. To realize Rapid Response in emergency situations, it is recommended that pre-requisite structures such as functional standing committee be established, ensure adequate resource allocation and key stakeholders be engaged for collective interventions. Strong laboratory diagnostic and technical capacity is important for timely action and response and should be supported.
5. To enhance coordination at national and regional levels, it is recommended that national governments support national SPS committees, increase resource allocated to DMU, revive relevant SADC structure and support regional technical committee forums.
6. It is recommended that targeted aggressive awareness creation campaigns be launched to enlighten stakeholders on risks associated with TBPD.
7. Several emerging and re-emerging pests have been recently introduced to the African continent. It is recommended that priority research areas be supported to address knowledge and information gaps, including development of appropriate integrated management options under SADC Region conditions.

6. Next Steps

The meeting agreed and committed to the following next steps:

a. Provision of technical support to member countries:
   - FAO undertook to support countries to urgently carry out assessments of the impact of FAW: infestation levels, distribution, GIS mapping, damage, results and losses; including impact on food security; food safety as well as trade implications
   - Participants also committed to initiate resource mobilization, which will be informed by the results of the planned assessments, for enhanced preparedness and response, and to strengthen risk communication capacities;
   - FAO and partners will support the setting up and strengthening of national surveillance systems for FAW and other crop pests and for HPAI, through provision of technical assistance and advice; and in the specific case of FAW, through provision of pheromone insect lure traps which are used for capturing armyworm and monitoring their spread.; and to support the deployment of sentinel/fixed position monitoring sites to governments, research and academic institutions.
   - Ensure availability of equipment and reagents for laboratory testing are in place to detect and diagnose emerging/re-emerging plant pests and circulating avian influenza viruses and other transboundary diseases;
   - Assess levels of regional and national preparedness: field and diagnostic capacities, material and equipment, task forces.
   - Regional networking, capacity building activities, scientific and technical collaborations should be encouraged and sustained at a national, regional and global level
   - Review, update and consolidation of national action plans at regional and national levels - customize local needs according to pest/ disease status.
   - Enhance human resource capacity in surveillance and diagnostics
   - Establish community based pest forecasting system

b. Update SADC Council of Ministers on emerging / re- emerging pests and diseases threats

c. Organize a FAW technical meeting to discuss national/regional strategic planning; research needs as well as comprehensive management strategies (April).