



Briefing Note on FAO Actions on Fall Armyworm in Africa

FAO Briefing Note on FAW
Date: 1 September 2017

BACKGROUND

Fall Armyworm (*Spodoptera frugiperda*), FAW, is an insect native to tropical and subtropical regions of the Americas. Its larval stage (photo) feeds on more than 80 plant species, including maize, rice, sorghum, millet, sugarcane, vegetable crops and cotton. FAW can cause significant yield losses if not well managed. It can have a number of generations per year and the moth can fly up to 100 km per night.

FAW was first detected in Central and Western Africa in early 2016 (Benin, Nigeria, Sao Tome and Principe, and Togo) and in whole of mainland Southern Africa (except Lesotho and the Island States), in Cabo Verde, Cameroon, Ghana, Niger and Ethiopia, Burundi, Kenya, Rwanda, South Sudan, Uganda, and it is expected to go further. Its modality of introduction, along with its biological and ecological adaptation across Africa are still speculative. A map on page 5 shows the spread of the pest to-date.

FAW is a dangerous transboundary pest with a high potential of continuing to spread due to its natural distribution capacity and trade. Farmers will need great support to sustainably manage FAW in their cropping systems through Integrated Pest Management.



Figure 1- FAW feeding on a maize leaf, Zimbabwe. ©FAO/Edward Ogolla

FAO COORDINATION ROLE IN FAW MANAGEMENT

1. **Consultative meeting** in Harare (14-16 February 2017) with governments and stakeholders from Southern Africa, which addressed pest awareness, situational update, emergency preparedness and rapid response for management of plant pests and animal diseases.
2. FAO organized and co-organized two back to back meetings in Nairobi: FAO Southern Africa Technical meeting 25-26 April 2017, and All Africa consultative meeting AGRA/CIMMYT/FAO 27-28 April 2017:
 - a. **FAO Southern Africa FAW Technical Meeting (25-26 April 2017)** was held to review and update current status of the pest as well as to assess its impact on production and livelihoods with extended participation of all FAO sub-regional offices in Africa.
 - b. **All Africa Stakeholders Consultation meeting (27-28 April 2017)** main objectives were to review the status of the pest incidence and impact in Africa and discuss the options for minimizing damage caused by the FAW including provision of concrete

recommendations to effectively manage the pest in the continent. The meeting also identified appropriate partnerships to develop and deploy short-, medium- and long-term solutions to the African farming communities. Participants in the All Africa meeting included CIMMYT, IITA, CABI, AGRA, National Governments Plant Protection Officers and Extension Staff, Coordination of Agricultural Research and Development for Southern Africa, ICIPE, Association for Strengthening Agricultural Research in Eastern and Central Africa, Resource Partners, and world renowned experts on fall armyworm research.

- c. It has been agreed in the above meeting with partners that FAO takes the lead coordination role in FAW response in Africa.
- d. To take action on the above point, FAO organized a technical meeting in Rome, 12-16 June, gathering regional and sub-regional FAO crop production and protection officers and other relevant experts in HQ to review priorities and review a framework for FAW management.
- e. The above FAO meeting resulted in a draft framework titled “A Framework for the Coordinated Management of Fall Armyworm in Africa.

3. **A Framework for the Coordinated Management of Fall Armyworm in Africa:** Based on the actions points and recommendations identified in the All Africa Consultation meeting in Nairobi, FAO has formulated a region-wide multi-stakeholder Framework for the Coordinated Management of FAW. The Framework is composed of four components reconfigured into the following: FAW Sustainable management including surveillance and early warning and FAW management options; Impact assessment; Communication, training and raising awareness; and Coordination. This Framework is intended as a guide for the development of projects and programmes by the various stakeholders in the in the areas of their comparative advantages.

FAO ACTIONS IN RESPONSE TO FAW

FAO has taken and is taking several actions in response to FAW:

1. **FAW Experts Meeting:** FAO organized a South-South Cooperation FAW Technical Experts’ Meeting in Accra, Ghana from 18-20 July bringing together experts from the Americas, Africa and others to share and update the state of knowledge on sustainable FAW management for smallholder family farmers. The experts reviewed key areas of management, including biological control, monitoring, economic thresholds, use of bio-insecticides, and the impact of plant biodiversity on FAW ecology. A summary of the meeting is in preparation.
2. **Farmers Field School (FFS) Curriculum Development:** Taking advantage of the experts’ meeting, FAO brought together FFS Master Trainers from across Africa to work with researchers to draft an FFS curriculum on Integrated Pest Management for FAW. This will be used to train additional FFS trainers, and roll-out the FAW component in FFS in affected African countries. FFS are currently used to build knowledge and skills of agricultural advisers and farmers in over 40 African countries. Training topics cover FAW identification, life cycle and behaviour; preventative measures to reduce infestation and help plants withstand damage to minimize yield loss; early scouting; mechanical controls; use of botanical pesticides and biological control agents; pesticide risk reduction; monitoring and surveillance, and more. The curriculum consists of practical experiments, field studies and exercises that can be implemented with extension workers and farmers throughout a season-long FFS. The first sub-regional training will occur in Nigeria in September. Training of FFS Master

Trainers will be organized shortly in other sub-regions of Africa, so that FFS can be rolled out through thousands of Farmer Field Schools implemented by FAO, governments, extension services, farmer organizations and their financial and technical partners. The curricula will also be useful for short training of agricultural advisers and for village rallies.

3. **FAW early warning system development:** FAO is finalizing a standard core set of data to be collected and recorded in the field for FAW monitoring that was identified by farmers and stakeholders. This will allow the same data to be collected in all countries and facilitates comparative analysis as well as training. It is also a prerequisite for the development of field tools such as a mobile phone app, databases and geographic information systems.
4. **FAW impact monitoring:** FAO is working closely with CIMMYT and CABI, and has taken a leading role in formulating initial actions for impact monitoring and has been supporting assessment processes in Southern Africa (more details below). FAO is now working to deepen coordination and partnership on impact monitoring with CABI and CIMMYT at the continental level.
5. **A side event** on FAW status in Africa and way forward including FAO's role and actions has taken place during FAO Conference on 4 July 2017. The panel of the event gathered Ministers of Agriculture of Zimbabwe and South Africa, Deputy Minister of Ghana, Ambassador of the UK and Director of DFID Africa.
6. **An Advisory Note, Q&A and Key FAO messages on FAW** were prepared in addition to two notes on FAO position on the use of pesticides and Genetically Modified (GM) maize and widely shared within FAO HQ and Decentralized offices in Africa. All notes are posted on the FAO Food Chain Crisis website (<http://www.fao.org/food-chain-crisis/how-we-work/plant-protection/fall-armyworm/en/>).
7. **FAO projects:** Technical Cooperation Programme (TCP) projects on FAW management are ongoing in Central Africa (Sao Tome and Principe, 2016, and Democratic Republic of Congo, early 2017), and a new TCPE is to start in Ghana. Several other TCP projects will be implemented soon in other African countries. An OFDA-funded project is starting covering East African countries.

Specific actions at sub-regional level:

Central Africa: TCP projects on FAW management are ongoing in Sao Tome and Principe (started in 2016), and in Democratic Republic of Congo (started early 2017). FAO has organized a workshop with stakeholders in Central Africa namely NPPO's, IAPSC, IITA, the RECs (ECCAS and CEMAC) and PRASAC, in Kinshasa, DRC, 11 to 13 July 2017. A training of trainers' course on FAW management will be organized, in collaboration with IITA and national research and training institutions, in September 2017.

Eastern Africa: Affected countries in that sub-region have already started interventions by implementing their national action plans facilitated by FAO. Most of the countries have so far managed to control FAW through regular monitoring, pesticide application, and hand picking of FAW larvae. Some countries have already prepared their action plans on FAW prevention and control (e.g. Ethiopia, Kenya, Rwanda, Uganda) while others (Burundi, Djibouti, Somalia, South Sudan) are yet to do so. The pest is yet to be reported in Somalia and Djibouti. Support is being provided to South Sudan to prepare its action and contingency plans. FAO has been facilitating information and knowledge exchange among countries within Eastern Africa and between the various sub-regions and enhancing South-South Cooperation, e.g. facilitation of the visit of Sudanese experts to Ethiopia. FAO will be implementing a project funded by USAID/OFDA for a budget of USD 944,000 "Establishing an emergency community-based Fall Armyworm monitoring, forecasting, early warning and management system in eastern Africa" in collaboration with the Desert Locust Control Organization for Eastern Africa (DLCO-EA), CABI, ICIPE, and Ministries of Agriculture of Eastern African countries. FAO conducted a sub-regional FAW training of trainers in Addis

Ababa, 24-28 July 2017 to increase the skills and knowledge of national plant protection and extension experts on FAW. Nine countries from the East Africa participated. The trained will in turn train other staff and farmers on management of the pest in their respective countries. Topics covered included FAW identification and diagnosis, scouting, early warning systems, contingency planning, impact assessments and Integrated management options for the pest. FAO and ASARECA will co-organize a Sub-regional FAW Strategy Development Meeting from 18-20 September 2017 in Entebbe, Uganda. The meeting will bring together a wide range of stakeholders (RECs, relevant research and development organizations, governments, private sector, resource partners, etc.) to ensure a strong coordination of FAW management at subregional level.

Southern Africa: FAO in collaboration with the Agricultural Research Council, CABI and CIMMYT conducted a regional FAW training of trainers in Pretoria, South Africa, 26-31 June 2017 to increase the skills and knowledge of national plant protection and extension experts on FAW. The training attracted 60 participants who will in turn train other staff and farmers on management of the pest in their respective countries. Topics covered included FAW identification and diagnosis, scouting, early warning systems, contingency planning, impact assessments and Integrated management options for the pest.

FAO is working with national Vulnerability Assessment Committees (VACs) in conducting household level FAW food security and livelihood impact assessments in six countries (Malawi, Mozambique, Namibia, Swaziland, Zambia, Zimbabwe). Qualitative assessment tools for the impact of FAW on food security and livelihood have been pre-tested and used in Zambia while similar action is expected in Namibia starting August 7, 2017. It is also developing qualitative case study tools for dissemination at the regional level. FAO has reached an understanding with the South African Agricultural Research Council for free service to Southern African countries in DNA mapping of present FAW strains and data storage. National level trainings for the rollout of the FAW regional mobile application surveillance system based on a grid of pheromone traps are currently on-going. So far South Africa, Swaziland and Zimbabwe have been trained. Other countries will be trained in the coming few weeks. FAO has procured 2600 traps for Southern Africa and these are being couriered to countries in the region. Seychelles has sent suspected FAW samples for Identification. No confirmation has yet been made.

Western Africa: Ghana has put in place a task force for FAW management. FAO is member of that task force and is providing advice on management measures. A rapid assessment of the situation has started on 5 June 2017. A TCPf for Ghana has been approved covering activities on early identification, surveillance, integrated control measures, awareness raising, and efficient pesticide use.

In the Gambia Government has put in place a national Task Force to inform decision on the management of the outbreak and requested the technical assistance of the FAO to urgently tackle this plague in order to protect this major raining agricultural campaign. Through a rapid surveillance exercise with a TCPf, it was established that the FAW has spread to all regions of The Gambia with the exception of one. In Senegal, due to shared borders with the Gambia and daily circulation of food between the two countries, the Government has requested FAO's support through a TCPf for a rapid assessment in the Southern part of the country close to the Gambia. An FAO mission will be travelling to Cabo Verde upon request of the Ministry for agriculture to conduct an assessment of the FAW invasion on the various affected islands. A SFERA has been granted for this exercise. FAO will conduct a sub-regional FAW training of trainers in Abuja, Nigeria 4-8 September 2017 to increase the skills and knowledge of national plant protection and extension experts on FAW in Western Africa. The trained will in turn train other staff and farmers on management of the pest in their respective countries. Topics covered include FAW identification and diagnosis, scouting, early warning systems, contingency planning, impact assessments and integrated management options for the pest. It is planned to hold back to back to this training a Farmers' Field School facilitators training on FAW management for farmers.

Map of areas affected by Fall Armyworm (as of 1 September 2017)



FAO Briefing Note on FAW

Date: **2 September 2017**

Email: Food-chain-crisis@fao.org

Web site: <http://www.fao.org/food-chain-crisis/how-we-work/plant-protection/fall-armyworm/en/>