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TECHNICAL EMERGENCY ASSISTANCE FOR THE MANAGEMENT AND CONTAINMENT OF FALL ARMYWORM AFFECTING MAIZE PRODUCTION IN NIGERIA

March 2019

SDGs:



Countries:

Nigeria

Project Codes:

TCP/NIR/3604

FAO Contribution:

USD 465 000

Duration:

6 September 2017 – 31 December 2018

Contact Info:

FAO Office in Nigeria

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Implementing Partners

Federal Ministry of Agriculture and Rural Development (FMARD), Institute of Agricultural Research and Training (IAR&T).

Beneficiaries

Extension officers (male and female) from Agriculture Development Projects (ADPs), State Ministries and Department of Agriculture, Farmers from project states, researchers from universities and research institutions, Nigerian Agricultural Quarantine Service (NAQS) officers.

Country Programming Framework

CPF Priority Area E: Support for improved disaster-risk reduction and emergency management.

Output E1.1: Institutional capacity of State and local government strengthened for gender-sensitive disaster-risk reduction, emergency preparedness response in agriculture sector.



BACKGROUND

The Fall Armyworm (FAW) is a highly destructive plant-eating insect, attacking a great number of different plant species and causing massive economic loss. The pest was first observed in Nigeria in 2016, and since then has continued to ravage maize fields at an alarming rate. Given that maize is a national major food staple and relevant to the food security and nutrition of nearly 200 million people, the spread of FAW is a major concern. Against this background, FAO provided technical support to safeguard the food and nutrition security and livelihoods of people living in FAW-affected areas, and to develop the capacities of main stakeholders in the surveillance, monitoring and control of FAW.

IMPACT

As a result of the training courses and agricultural inputs provided by the project, beneficiaries' capacities to tackle FAW were greatly increased, and damage to farmers' crops was significantly reduced. This has contributed to increasing maize yields, and therefore food security and nutrition; protecting livelihoods; and generating higher income. The positive impact of the project is clearly indicated in this testimony from one of the project beneficiaries: "The FAW project has really exposed us to fall armyworm identification, best technologies and best practices for effectively managing FAW. The training given and inputs supplied to us have really helped to curtail the havoc of FAW in our farms" (Oyewale Abayomi, Osun State).

ACHIEVEMENT OF RESULTS

- The capacities of 1 320 stakeholders (male and female) were strengthened on the detection and monitoring of the presence of FAW on the field.
- 1 200 farmers in the twelve project states, 50 researchers and 50 extension officers were trained on FAW importance, biology, recognition and management options; as well as on other relevant topics, such as Integrated Pest Management (IPM), Good Agricultural Practices (GAP), pesticide use and pesticide risk reduction and Farmer Field School (FFS).
- Beneficiaries were trained to use Fall Armyworm Monitoring and Early Warning System (FAMEWS) mobile application, developed by FAO for FAW monitoring and data capturing.
- 1 200 farmers' productive capacities were boosted through the provision of agricultural inputs, such as certified maize seed, fertilizer, herbicide, insecticide, knapsack sprayer, personal protective equipment (PPE), and pheromone traps and lures.
- Extension officers were able to reactivate the Farmer Field Schools (FFS) in their various stations, and are now using the platform to disseminate information on FAW.
- Sensitization and public awareness were increased on FAW and its control through different types of media (e.g. posters, pamphlets, situation reports), the dissemination of information on FAW through information and communication technology (ICT), and the creation of a WhatsApp platform for FAW in the 12 project states.
- A National Task Force on FAW was inaugurated; and a sustainability framework was established both at federal and state government levels.

IMPLEMENTATION OF WORK PLAN

All activities were carried out within the planned budget. A no-cost four month extension was requested and approved, in order to complete all the project activities.

FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that:

- partners ensure that traps are mounted and monitored regularly. In addition, continuous data capturing should be carried out with FAMEWS, to ensure that country information is available on the global FAW platform;
- the Government actively seek donor funding to create more awareness in areas that were not covered by the project;
- donor funding be sought to conduct further trials to revalidate and test some IPM strategies for FAW;
- the Government and private sectors provide funds to support the building of response capability of national institutions on FAW; and that sustainable activities for FAW management be coordinated at all tiers of Government, through the National Task Force on FAW;
- donor funding be sought in order to reach more affected farmers, especially in the states not covered by the project, considering the devastating nature of FAW. In addition, a comprehensive survey of the entire country should be conducted.

SUSTAINABILITY

1. Capacity development

The project greatly contributed to the development of local knowledge through the organization of training sessions that built the capacities of different stakeholders on the knowledge and best management practices required for the successful control of FAW. Project beneficiaries showed enthusiasm, and are already practising what they learned.

An inception workshop was held with key stake holders and high-level government officers, which effectively encouraged buy-in for the project, as well as ensuring sustainability. In addition, the establishment and inauguration of the National Task Force was facilitated, which will work directly with the Government to provide support on tackling the menace of FAW.

The project was designed to draw key actors from organizations/ministries that could adopt and expand on the existing framework used for the implementation of the project.

Partnership was established with other agencies, e.g. *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ), United States Agency for International Development (USAID), International Institute of Tropical Agriculture (IITA), International Fund for Agricultural Development (IFAD); and meetings were held with partners on the coordination of FAW-related activities in the country. Partners were also members of the National Task Force, which would enable them to provide inputs for action formulation on FAW.

The Federal Ministry of Agriculture and Rural Development (FMARD) was expected to own the process at the end of the project, and to work in collaboration with the National Task Force.

2. Gender equality

The needs of both male and female participants were considered, and support was provided throughout the project. Equal access was given to women and men to all the opportunities provided.

3. Environmental sustainability

All project activities were carried out within the agro-ecological farming system.

4. Human Rights-based Approach (HRBA) – in particular Right to Food and Decent Work

The assistance that was provided to the beneficiaries through the project to produce crops free from pest attack will enable them to substantially increase yields, and provide them with adequate food.

5. Technological sustainability

The approach and knowledge transferred were simple and flexible. In addition, indigenous knowledge was encouraged among farmers.

6. Economic sustainability

It is strongly advised that the Government seek donor funds in order to extend the project to other areas. It is also recommended that stakeholders be provided with further support by the Government and other agencies.

DOCUMENTS AND OUTREACH PRODUCTS

- ❑ Fall Armyworm Situation Report. FAO.
- ❑ Assessment of Fall Armyworm: *Spodoptera frugiperda* (Lepidoptera: Noctuidae) in Nigeria. J.E. Smith.
- ❑ Facing the challenge of Fall Armyworm in Nigeria (Project Highlights). FAO.
- ❑ Pamphlet: Fall Armyworm: The invasive pest - What you need to know. FAO.
- ❑ Poster: Fall Armyworm and Control. FAO

ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

Expected Impact	Food and Nutrition Security of the Population and Livelihoods Safeguarded		
Outcome	Capacities to detect monitor and control the fall armyworm infestation in maize production established		
	Indicators	<ul style="list-style-type: none"> Capacities of 100 extension officers, 50 researchers, 1 200 farmers and 20 other stakeholders were built on FAW surveillance, management and control. Beneficiaries were trained on the use of FAMEWS, a mobile application developed by FAO. 1 200 farmers were provided with agricultural inputs to boost their maize production. Surveillance materials (pheromone traps and lures) were provided for 1 200 farmers, 12 states Agriculture Development Projects (ADPs), Nigerian Agricultural Quarantine Service (NAQS) and universities. 	
	Baseline	Zero capacity for FAW management/control	
	End Target	<ul style="list-style-type: none"> Successful control of FAW on maize farmlands. Capacities of stakeholders on FAW from 12 states strengthened. Trainees drawn from FMARD, ADPs, research institutions, universities. 	
	Comments and follow-up action to be taken	Beneficiaries to cascade knowledge acquired to others in their communities. Involvement of local government should be encouraged	
Output 1			
	National capacities for Fall Armyworm surveillance and monitoring of incidence of FAW in affected areas improved		
	Indicators	Target	Achieved
	100 extension officers, 50 researchers, 1 200 farmers and 20 others from ADPs, FMARD, universities, NAQS and research institutes' capacities built on FAW surveillance, monitoring and the use of FAMEWS for monitoring and data capturing	1 200 maize farmers, 100 extension workers and 50 researchers and other stakeholders well informed and equipped with knowledge and hands-on experience on FAW, its detection and control, and the use of surveillance material and FAMEWS application	Yes
Baseline	0		
Comments	Beneficiaries were linked with FAW resources developed by FAO, and provided with surveillance tools (pheromone traps and lures). Partners should ensure that traps are mounted and monitored regularly; and continuous data capturing should be carried out with FAMEWS, to ensure that country information is available on the global FAW platform.		
Activity 1.1			
	Lauching Workshop		
	Achieved	Yes	
	Comments	Implemented successfully	
Activity 1.2			
	Capacity building and institution arrangement, and the establishment of community-based FAW early warning, monitoring and forecasting		
	Achieved	Yes	
	Comments	<ul style="list-style-type: none"> The National Taskforce on FAW was established. The training of 100 extension workers, 50 researchers, 1 200 farmers, and other stakeholders on FAW surveillance and monitoring and early warning system in the 12 project states was successfully carried out. Pheromone traps and lures were distributed to farmers, extension workers, quarantine services, research institutes and relevant stakeholders. Beneficiaries successfully downloaded the FAMEWS application and used it to capture data on the field. 	

Output 2	Public Awareness on FAW Established		
	Indicators	Target	Achieved
	Sensitization and awareness creation on FAW through 500 posters, 300 pamphlets, 200 situation reports, radio jingles in different languages, bulletins and television	All relevant stakeholders (policy-makers, extension workers, farmers, Non-governmental Organizations [NGOs], others) sensitized to and made aware of FAW impact and control in the project states	Yes
Baseline	Low sensitization and awareness of FAW among stakeholders.		
Comments	It is recommended that the Government actively seek donor funding to create more awareness in areas that were not covered by the project.		
Activity 2.1	Public awareness created		
	Achieved	Yes	
	Comments	<ul style="list-style-type: none"> 500 posters, 300 pamphlets, 200 situation reports were distributed to Federal and State Ministries of Agriculture, ADPs, farmers, and other agricultural agencies. Radio jingles were produced in different major languages. Information on FAW was disseminated through information and communication technology (ICT). A WhatsApp platform was created for FAW in the 12 project states. 	
Output 3	National capacities for FAW management strengthened		
	Indicators	Target	Achieved
	100 extension officers, 50 researchers, 1 200 farmers' capacities strengthened on FAW identification, ecology, and control measures, with emphasis on Integrated Pest Management (IPM), Good Agricultural Practices (GAP), pesticide use and pesticide risk	1 200 farmers, 100 extension officers and 50 researchers' capacities for FAW developed	Yes
Baseline	Low capacities on FAW information and management in affected states.		
Comments	The various set targets were achieved.		
Activity 3.1	Development and testing of IPM strategies for FAW		
	Achieved	Yes	
	Comments	This output was achieved; some botanicals and other products were tested. However, there is still the need for validation. The National Task Force, in collaboration with FAO, FMARD and other stakeholders will revalidate the effectiveness. Further trials should be conducted to revalidate and test some strategies.	
Activity 3.2	Selection and registration of low risk pesticides, in particular biopesticides		
	Achieved	Yes	
	Comments	Total Crop Protection, a locally produced low-risk pesticide was screened and registered by the National Agency for Food and Drug Administration and Control.	
Activity 3.3	Built response capability of national institutions on FAW		
	Achieved	Yes	
	Comments	The capacities of stakeholders were built on FAW importance, biology, recognition and management options, and IPM, GAP, pesticide use and pesticide risk reduction and Farmer Field School (FFS). The trainees were expected to pass on the training to other extension workers and farmers in their communities. It is recommended that the Government and private sectors support with funds, and that sustainable activities for FAW management be coordinated at all tiers of Government, through the National Task Force on FAW.	
Activity 3.4	Strengthening pest management capacity at the producer level		
	Achieved	Yes	
	Comments	1 200 farmers in the twelve project states were trained on to how to control FAW. Their capacities were strengthened on the various control options and decision-making; and practical field training sessions were conducted on early detection and monitoring of FAW. The FFS approach was used and encouraged. Extension officers are to continue to work with farmers through FFS.	

Restore productive capacity and enhance livelihoods in the worst affected vulnerable households			
Output 4	Indicators	Target	Achieved
		Number of farmers affected by FAW infestation on their fields, number of agricultural inputs provided for affected farmers, survey conducted, and Letter of Agreement signed	Capacities of 1 200 farmers built on FAW and its control, agricultural inputs provided to boost maize productive capacities. Survey report of the 12 project states submitted
Baseline	0		
Comments	<ul style="list-style-type: none"> • Capacities of 1 200 farmers built on FAW and its control. • Agricultural inputs, such as certified maize seed, herbicide, fertilizer, knapsack sprayer, PPE, pheromone traps and lures and crop protection solution were provided to the 1 200 farmers to boost their maize productive capacities. • A survey report of the 12 project states was conducted and submitted. 		
Activity 4.1	Identification of consultant, implementing partners and beneficiaries		
	Achieved	Yes	
	Comments	Implementing partners at all tiers of government, and other agencies and beneficiaries were identified and involved in project implementation. It is strongly advised that donor funding be sought in order to reach more affected farmers, especially in the states not covered by the project, considering the devastating nature of FAW.	
Activity 4.2	Identification of livelihood options		
	Achieved	Yes	
	Comments	FMARD, in collaboration with extension officers from the ADPs in the 12 project states, profiled 1 200 beneficiaries and identified their livelihood options. Technical assistance was provided.	
Activity 4.3	Support in restoring productive capacity		
	Achieved	Yes	
	Comments	1 200 farmers in the project states were provided with agricultural inputs, such as certified maize seed, herbicide, fertilizer, insecticide, knapsack sprayer, PPE, pheromone traps and lures.	
Activity 4.4	Monitor and evaluate the impact of FAW IPM strategies on livelihood		
	Achieved	Yes	
	Comments	A survey was conducted to establish the incidence and severity on crops affected by FAW in the 12 project states; the socio-economic impact of the pest was also assessed. It is highly recommended that donor funding be sought to conduct a comprehensive survey of the entire country.	

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