



Piloting and Upscaling Biorational and Biological Control Strategies for sustainable Fall Armyworm Management in Africa (BIOFAWMA)



KOUNOUTCHI Kokouvi

Chief Pests and Plant Quarantine Division.

Project coordinator in Togo

INTRODUCTION

- Applicant: International Institute of Tropical Agriculture (IITA)
- Budget: 1.2 M Euro for 3 years
- Countries: Benin, Togo, Malawi and Zambia
- Togo (55 500 euro)
- Financial partner: BMZ/GIZ-funded
- Beneficiaries :
 - ✓ Amount (direct) : 248,808 farming households
 - ✓ Amount (indirect): nearly 5000 000
 - 1,610,269 beneficiaries profiting from IPM interventions,
 - 3,220,538 beneficiaries based on a 20% impact by biological control agents.



THE PROJECT'S GOALS



- Respond to and mitigate the impact of FAW in four African countries and consequently increase and sustain maize production and commercialization activities for resource-poor farmers and consumers, thereby alleviating the threat to food security, income generation and livelihoods



- To achieve the goal (= purpose) of sustainably managing FAW, IITA proposes a multi-disciplinary and multi-stakeholder approach by deploying mutually compatible best-bet control options that are environmentally friendly and adapted to cropping conditions prevailing in the target countries

SPECIFIC OUTPUTS AND ACTIVITIES CARRIED OUT



- ❖ The use of efficient biorational (neem, *Bt*) and biopesticides (fungi, viruses) for their large-scale application in the four target pilot countries Benin, Malawi, Togo and Zambia.

- **Activities under this output include:**

- ✓ upscaling of efficient formulations of biopesticides aimed at controlling early FAW infestation;
- ✓ Realization of efficacy trials of bioinsecticides (Bt, neem, Fawligen)
- ✓ large-scale dissemination of the use of these bioinsecticides through farmer field schools



SPECIFIC OUTPUTS AND ACTIVITIES CARRIED OUT



❖ The introduction and field release of proven BC agents to achieve a 25% reduction of FAW attacks in small-scale maize cropping systems by the project year three.

- **Activities comprise:**

- ✓ Packaging for introduction and releasing exotic BC organisms
 - 2000 individuals of *Chelonus insularis* and
 - 1500 individuals of *Cotesia marginiventris* were released.
- ✓ Mass producing indigenous and exotic agents by validating robust mass rearing methods scalable for NARES;
- ✓ mass producing BC agents and supplying them to downstream players for large scale releases in project year three

SPECIFIC OUTPUTS AND ACTIVITIES CARRIED OUT



- ❖ the integration of biorational pesticides and biocontrol agents with other compatible management strategies for sustained FAW control



- **Related activities involve:**
 - ✓ evaluating both synergistic and antagonistic effects between BC agents, resistant varieties/lines and agronomic practices;
 - ✓ demonstrating large scale IPM control options
 - ✓ evaluating socio-economic of IPM interventions

SPECIFIC OUTPUTS AND ACTIVITIES CARRIED OUT



❖ the participation of all stakeholders in the validation, deployment and large-scale dissemination of the above control options, through appropriate capacity building campaigns

- **Activities include:**

- ✓ training of project stakeholders of different control options;
- ✓ building capacity of national plant protection and plant quarantine staff to conduct releases of exotic BC organisms;
- ✓ training of trainers to monitor pesticide resistance in FAW populations;
- ✓ conducting large-scale biocontrol / IPM sensitization campaigns



LESSONS LEARNED



- Capacity building enabled producers to better understand FAW
- it is difficult to eradicate FAW
- the use of biological and biorational solutions can significantly reduce FAW infestations
- surveillance and early warning are essential in the fight against FAW
- the establishment of producer field schools facilitates the rapid adoption of technologies by farmers

OUTLOOK



- ❖ Continue the training of farmers through field schools
- ❖ train technicians in rearing techniques and the release of parasitoids
- ❖ carry out the release of parasitoids in the 5 regions of Togo
- ❖ Continue sensitizing farmers on the importance of surveillance in the fight against FAW
- ❖ Educate farmers on the importance of significantly limiting the use of chemical insecticides to allow the success of biological control

THANK YOU