



IC PROJECT REPORTING TEMPLATE AS PART OF THE STRATEGY AND PROCESS ON HOW THE IC REVIEWS AND ANALYSES ICD PROJECTS

Project Title: Strengthening Food Security through Efficient Pest Management Schemes Implementing the Sterile Insect Technique as a Control Method

Reporter: Walther ENKERLIN, IAEA

IPPC Secretariat/IC Member in charge:
Qingpo YANG/Lalith KUMARASING

Project Code (if applicable): RLA5082

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IC PROJECT REPORTING TEMPLATE

1. Project Profile	
Recipient Region(s)/ Countries	Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Venezuela
Donor/ Resource Partner	Technical Cooperation-IAEA
IC Representative (if applicable)	/
IPPC Secretariat Representation (if applicable)	/
RPPO Representation (if applicable)	/
Collaboration / Participating Organizations	IAEA / Counterpart institutions in the participating Member States
Project Budget (detailed funds and/or in-kind)	660 175 Euro
Project Timing	2020 Jan – 2021 Dec
2. Project Scope and Relevance to the IPPC and main outputs (max 200 words)	
<p>To improve and increase fruit and vegetable production using the Sterile Insect Technique and other leading-edge techniques, facilitating their commercialization.</p> <p>Challenges that contracting parties face in the implementation of area-wide pest control programmes, include:</p> <ul style="list-style-type: none"> • Long term commitment of the NPPOs and stakeholders • Lack of adequate phytosanitary legislation to support surveillance and control programmes including emergency response following international standards. • Lack of partnerships or strategic alliance between public and private sectors. • An effective outreach plan in support of surveillance and control activities targeted to stakeholders including decision makers, farmers, industry, and the general public. • Need for capacity building on detection, surveillance and control actions. 	
3. Project Supporting Materials [e.g. hyperlinks]	

The project aims to increase fruit and vegetable production in the Latin American and Caribbean region through effective fruit fly control and increased compliance with International Standards of Phytosanitary Measures (ISPM) to facilitate access to internal and external markets. To achieve this, it is necessary to reduce the losses in fruits and vegetables caused by native fruit flies and other non-native quarantine pests present in the region. Due to the high mobility and reproductive capacity of these insect pests, it is advisable to replace traditional means of control via insecticide application with the use of integrated pest management that includes the Sterile Insect Technique (SIT), establishing pest free areas, and pest free places and sites of production as well as fruit fly low prevalence areas. Likewise, the project builds the capacity to respond to the incursion of other fruit fly pests in the region and other pests such as the European grapevine moth (*Lobesia botrana*).

The project document is available on the IAEA website for internal use only.

List of technical cooperation IAEA projects [<http://www-naweb.iaea.org/nafa/ipc/field-projects-ipc.html>]

4. List project technical resources (i.e. guides, training materials, tools) that could be useful and used by other stakeholders

Procedures manuals and guidelines related to this project:

- Trapping guidelines for area-wide fruit fly trapping programmes [<https://www.iaea.org/sites/default/files/trapping-guideline.pdf>]
- Fruit sampling manual [<http://www.fao.org/3/ca5716en/ca5716en.pdf>]
- Action plan against invasive quarantine species of the genus *Bactrocera* [<https://www.iaea.org/resources/manual/plan-de-accion-en-caso-de-deteccion-de-moscas-de-la-fruta-no-nativas-reguladas-del-genero-bactrocera-spp-en-america-latina-y-el-caribe>]
- Guidelines for packing, shipping, holding and release of sterile flies [<http://www-naweb.iaea.org/nafa/ipc/public/Guideline-for-Packing-Sept2017.pdf>]
- Harmonized identification guideline of tefritids that might be considered of economic and quarantine importance in Latin America and the Caribbean [<https://www.iaea.org/resources/manual/harmonized-identification-guideline-of-tefritids-that-might-be-considered-of-economic-and-quarantine-importance-in-latin-america-and-the-caribbean>]

Infographics:

- Area-wide integrated pest management [<http://www-naweb.iaea.org/nafa/resources-nafa/area-wide-IPM-english-LR.mp4>]
- Using nuclear science to control pests [<https://www.iaea.org/newscenter/multimedia/videos/using-nuclear-science-to-control-pests>]
- Fruit fly standards can help gain market access [<https://www.iaea.org/newscenter/multimedia/videos/fruit-fly-standards-can-help-gain-market-access>]

E-learning Courses

- E-Learning Course on Packing, Shipping, Holding and Release of Sterile Flies in Area-Wide Fruit Fly Control Programmes [<http://www-naweb.iaea.org/nafa/news/2019-ipc-E-learning.html>]
- E-learning Course on Fruit Fly Trapping in Support of SIT Implementation in IAEA and FAO Member States [<https://elearning.iaea.org/m2/course/view.php?id=694>]

Brochures/Leaflets

- Update of the technical leaflet released in six languages on the discrimination between two invasive *Bactrocera* fruit fly pests [https://nucleus.iaea.org/sites/naipc/twd/Lists/News/Attachments/1191/bzonata_bdorsalis_EN_2018.pdf]

5. Provide a list of project experts that could be recommended to other stakeholders and describe why

1. Experts in implementation of area-wide IPM programmes using SIT against fruit fly pests
 - Gerardo Ortiz – Free-lance Mexico [jaloortiz212@hotmail.com]
 - Jesús Reyes – Free-lance Mexico [jesusreyes20@hotmail.com]
 - Jose Luis Zavala – Free-lance Mexico [jlzavalalopez@gmail.com]
 - Andrés de la Cruz – Moscamed Programme Mexico SENASICA-SADER [delacruz_baron@yahoo.com.mx]
 - Pedro Rendon – Moscamed Programme Guatemala USDA-APHIS [pedro.rendon@aphis.usda.gov]
 - David Midgarden – USDA-APHIS Riverdale, USA [david.g.midgarden@usda.gov]
 - Patrick Gomes – Free-lance USA [bugman5100@gmail.com]
2. Experts in implementation of male annihilation technique (MAT) for control of fruit fly pests of the genus *Bactrocera*
 - Cesar Paredes – USDA-APHIS USA [cesar.paredes@usda.gov]
 - Preaduth Sookar – Ministry of Agro-Industry and Food Security, Reudit, Mauritius [psookar@govmu.org]
3. Experts in fruit fly surveillance and emergency response
 - Ricardo Rodriguez – Free-lance Chile [klili53@gmail.com]
 - Edgar Cotoc – Free-lance Mexico [edgar.cotoc.programamoscamed@gmail.com]
 - Nick Manaoukis – USDA-APHIS USA [nicholas.manoukis@usda.gov]
4. Experts in fruit fly diagnostics (identification/systematics)
 - Allen Norrbom – USA [allen.norrbom@usda.gov]
 - Marc de Meyer - Africa Museum Belgium [marc.de.meyer@africamuseum.be]
 - Gary Steck – USDA – ARS USA (Gary.Steck@freshfromflorida.com)
 - Vicente Hernandez-Ortiz – Instituto de Ecología A.C. México (teretina@hotmail.com)
 - Jorge Guillen – Free-lance [ingjguillen@gmail.com]
5. Experts in fruit fly mass-rearing
 - Oscar Zelaya – OIRSA El Salvador [ozelaya@oirsa.org]
 - Gustavo Taret – ISCAMEN Argentina [gustavotaret@yahoo.com.ar]
 - Edwin Ramirez – Mocamed Guatemala [edwin.ramirez@medfly.org.gt]
6. Experts in economic assessments

- John Mumford – Imperial College UK [j.mumford@imperial.ac.uk]
 - Diznarda Salcedo – Private consultant Mexico [diznardasalcedo@gmail.com]
 - Ana Larcher Carvalho – Portugal [Ana.Catarina.Carvalho@iscte-iul.pt]
7. Experts in risk assessments and international regulatory procedures
- Robert Griffin – Free-lance USA [rlgriffin53@gmail.com]
 - Edgar Cotoc – Free-lance Mexico [edgar.cotoc.programamoscamed@gmail.com]

6. Describe successes and challenges that could be promoted for the benefit of other stakeholders

There are plenty of success stories available related to this project on fruit fly control using an area-wide IPM with a SIT component that could be shared with stakeholders:

- Guide for Establishing and Maintaining Pest Free Areas – Case studies [<http://www.fao.org/3/ca5844en/CA5844EN.pdf>]
- Argentina's Newly Recognized Fruit Fly Free Areas Expedite Fresh Fruit Exports to China [<https://www.iaea.org/newscenter/news/argentinas-newly-recognized-fruit-fly-free-areas-expedite-fresh-fruit-exports-to-china>]
- Nuclear Technique Opens New Markets for Ecuador's Fruits [<https://www.iaea.org/newscenter/news/nuclear-technique-opens-new-markets-for-ecuadors-fruits>]
- The Mediterranean fruit fly outbreak in Manzanillo, Colima, Mexico, has been officially declared eradicated [<https://www.gob.mx/agricultura/prensa/reporta-agricultura-la-erradicacion-de-colima-de-la-mosca-del-mediterraneo-salvaguardada-produccion-y-exportacion-hortofruticola-del-pais>]
- Nuclear Technique Helps Dominican Republic Eradicate Insect Pest That Hurt Agricultural Sector [<https://www.iaea.org/newscenter/pressreleases/nuclear-technique-helps-dominican-republic-eradicate-insect-pest-that-hurt-agricultural-sector>]
- At Mexico-Guatemala Border, Sterile Insect Technique Has Controlled the Northward March of Medflies Since 1982 [<https://www.iaea.org/newscenter/news/at-mexico-guatemala-border-sterile-insect-technique-has-controlled-the-northward-march-of-medflies-since-1982>]

7. List targeted beneficiaries [i.e. regions, countries, RPPOs, NPPOs and other institutions]

The main direct beneficiaries are farmers and the horticultural industry. Other beneficiaries include fruit consumers in general. This project also has positive impact on the environment.