

## Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus Half Year Report

*Note: If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.*

**Submission Deadline: 31<sup>st</sup> October 2022**

<b>Project reference</b>	29-012
<b>Project title</b>	Protecting biodiversity through biocontrol of papaya mealybug in East Africa
<b>Country(ies)/territory(ies)</b>	Kenya, South Sudan, Uganda
<b>Lead partner</b>	CABI
<b>Partner(s)</b>	Kenya Plant Health Inspectorate Service (KEPHIS), Kenya Agricultural and Livestock Research Organization (KALRO), National Museums of Kenya (NMK), National Agricultural Research Organization (NARO), University of Juba (UoJ)
<b>Project leader</b>	Ivan Rwomushana
<b>Report date and number (e.g. HYR1)</b>	HYR1
<b>Project website/blog/social media</b>	N/A

### **1. Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).**

CABI convened the project inception workshop from 29th June – 1st July 2022 in Kenya, that brought together the key project partners from Kenya, South Sudan and Uganda i.e., Kenya (KALRO, KEPHIS, NMK), Uganda (NARO/MAAIF) and South Sudan (University of Juba). The meeting, attended by 15 people aimed to provide project team members with a good understanding of the project and to plan for its successful implementation. The meeting also included a field visit to one of the release sites in Kenya to understand the implementation of a classical biological control of papaya mealybug (PMB), and learn lessons on how they can implement the same in their respective countries.

A Participatory Rapid Rural Appraisal (PRRA) was also conducted in Uganda to assess farmer's knowledge, perceptions and practices towards biological control of PMB to conserve biodiversity. This involved seventeen focus group discussions and interviews using semi-structured questions among 333 papaya fruit growers in six sub-counties. At least 77% male and 17% female respondents were conversant of PMB. Farmers mainly attributed the PMB outbreaks to low productivity and poor-quality fruits. They observed that trees take longer to bear fruit and when they do, they only last one season compared to an average of 4 before. It was estimated that before the pest invaded, farmers obtained UGX 6-8 million/acre each season (£1,800), but currently only obtain UGX 1 million/acre each season (£230). Pesticide sprays were the most common management practices though they were reported ineffective. Managing PMB with pesticides was very challenging due to waxy covering hence justifying the deployment of biological control using parasitoids.

In order to get the buy-in from stakeholders on biological control as a means to control PMB and conserve biodiversity, a workshop was held at NARO-Kawanda on 29th Sept 2022 to share the

results of the PRRA. The findings were shared with 77 (people) different stakeholders (farmers, researchers, regulators, Government officers, extension, media, private sector (pesticide distributors, etc) from various institutions in Uganda. Recommendations made for biological control as a sustainable and environmentally-friendly method for the management of PMB in Uganda, which also protects the environment.

An extension training manual for the Integrated management of PMB was also developed during the reporting period. The purpose is to guide training offered to papaya farmers on sustainable papaya production with a key focus on biological control, based on lessons learned worldwide. The manual also provides information about other key papaya pests that farmers are likely to encounter on their farms and how they can be managed within the IPM framework.

**2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.**

Following the inception meeting, subgrant agreements have been signed with NARO, KEPHIS, KALRO and UoJ and the funds disbursed. However, the NMK is yet to sign the sub-agreement due to management changes at the organization. This is likely to delay the start of the biodiversity assessment that was to be undertaken by NMK. The funds ring-fenced for NMK are therefore likely to be underspent if the contract is not finalized by the end of 2022. Efforts are underway to resolve the issues with NMK. Due to the risk of the funds for Uganda getting diverted if disbursed to the Ministry of Agriculture, the Ugandan partner has proposed for them to be managed through the CABI Uganda office.

**3. Have any of these issues been discussed with NIRAS-LTS International and if so, have changes been made to the original agreement?**

Discussed with NIRAS-LTS: No

Formal Change Request submitted: Yes (Logical framework)

Received confirmation of change acceptance No (The changes were minor)

Change request reference if known:

**4a. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this year?**

Yes  No  Estimated underspend:

**4b. If yes, then you need to consider your project budget needs carefully.** Please remember that any funds agreed for this financial year are only available to the project in this financial year.

**If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.**

**5. Are there any other issues you wish to raise relating to the project or to BCF management, monitoring, or financial procedures?**

No

**If you are a new project and you received feedback comments that requested a response (including the submission of your risk register), or if your Annual Report Review asked you to provide a response with your next half year report, please attach your response to this document.**

**Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with NIRAS-LTS International through a Change Request. **Please DO NOT send these in the same email.****

Please send your **completed report by email** to [BCF-Reports@niras.com](mailto:BCF-Reports@niras.com). The report should be between 2-3 pages maximum. **Please state your project reference number, followed by the specific fund in the header of your email message e.g. Subject: 29-001 Darwin Initiative Half Year Report**