

**Darwin Initiative Main/Post/D+ Project
Half Year Report
(due 31st October 2018)**

Project reference:	24-030
Project title:	Controlling an invasive aquatic plant for improved biodiversity and livelihoods.
Country(ies)/territory(ies):	Zambia.
Lead organisation:	Birdlife International.
Partner(s):	BirdWatch Zambia; Centre of Agriculture and Bioscience Information (CABI); Zambia Environmental Management Agency (ZEMA).
Project leader:	<i>Paul Kariuki Ndang'ang'a</i>
Report date and number (e.g., HYR3)	HYR2
Project website/blog/social media etc.	https://www.birdwatchzambia.org/darwin-project/

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

This report is focused on the updates from April 2018 - September 2018

During the period, the following progress has been achieved:

Under Output 1 (Environmental Impact and Risk Assessment guiding mitigation measures for biologically controlling *Salvinia molesta*):

- After a successful review and no objection comment from the Zambia Environmental Management Authority (ZEMA) on the submitted Environmental Project Brief (EPB), ZEMA inspected the project site in May 2018. Major outputs of the inspection were:
 - ZEMA visited Lukanga Swamp and confirmed the presence and extent of infestation of the *Salvinia molesta*.
 - ZEMA confirmed the exact locations where ponds for rearing the biocontrol agent would be constructed. This was to ensure that the ponds would not be located on a heritage site, grave yard or national monument and that they will be within a good proximity from the community to avoid disturbance.
 - Written concerns and opinions on the project and its proposed biocontrol activities were obtained from the Fisheries Officer and the Senior Headman on behalf of the Fisheries Department and the Community respectively.
 - Official approval for biocontrol activities of the project was received from ZEMA early July 2018.

Under Output 2 (Fishing community members have increased the capacity and interest to participate in *Salvinia* control)

- During the follow up survey conducted in June, the BirdWatch Zambia (BWZ) field team had some meetings with the Provincial Fisheries Officer (PFO) for Central Province, the headman at Chilwa and Personnel from Ngabwe District council office

to introduce BirdWatch Zambia and the activities it has been carrying out in and around the Lukanga swamps through the years and most importantly to highlight on the current biocontrol project and its anticipated activities.

- Since the ZEMA approval for biocontrol was received, 12 meetings have been held with a total of 254 community members from one side of the Lukanga swamp concerning the biocontrol activities that are almost ready to begin. This is the area where BWZ have an established and functional site support group as well as a long built relationship with the local traditional leaders that have eased contact with the community members.
- The site support group has since cleared the selected locations for construction of the biocontrol agent rearing ponds. Additionally, BWZ has kept all the traditional leaders at the site updated with the project progress.
- The first training of institutional partners from the fisheries department at Waya was successfully conducted. Waya is the entry point into the swamp with the largest harbour and where BWZ has focused much of their biodiversity monitoring assessments over the years. This training was on pond management and weevil monitoring prior to weevil introduction and rearing. This was the beginning of a series of trainings to be conducted in all entry points around the swamp before the end of the year.

Under Output 3 (*Salvinia molesta* control in Lukanga Swamp improves habitat for wetland biodiversity including increased fish stock leading to increased food security for fishing community households)

- A follow-up biodiversity assessment was conducted in June 2018 covering about 3000km² of the swamp. During this extensive visit; biodiversity assessments, fish Catch Per Unit Effort (CPUE) and socio-economic data was collected. In comparison to the baseline assessment undertaken in November 2017, significantly fewer numbers of birds were counted even when taking into account the bird migration season. In addition, the team also confirmed the presence of *Salvinia* infestations suggested from analysis of the satellite imagery, in areas that had not been visited previously. .
- Efforts were made to acquire the proposed biocontrol agent - the host specific *Cyrtobagous salviniae*, a weevil species, for introduction into Lukanga Swamp. To start with the field team visited Chanyanya in Kafue district (in South-eastern Zambia) which was the last known site within Zambia to have the agent. Unfortunately, *Cyrtobagous salviniae* was observed to be no longer present at the site as all the *Salvinia* had already been cleared by the agent, leaving it nothing to feed on. As the next alternative, with the help of Centre for Agriculture and Bioscience Information (CABI), the team started the process of importing the weevils from South Africa. An import permit was issued by the Zambia Agricultural Research Institute (ZARI) and shared with the Edgcombe Mass rearing centre in South Africa, who were responsible for exporting 2000 adult weevils to Zambia, upon clearance of all required national processes within South Africa. *NB: The weevils were eventually received from by BWZ from South Africa on 18th October 2018, beyond the duration covered by this report.*
- In preparation for rearing the biocontrol agent on-site, the site for construction of the first rearing ponds was cleared by the community members. Actual construction of the ponds is underway, preceded by procurement of the materials required.
- The restoration target of 200,000 ha is still anticipated to be achieved. The plan is to ensure that breeding is done extensively and weevil introductions are maximized during hot periods of the year (October-April). Introductions will be done at multiple sites of the swamp to ensure that the weevils spread and multiply quickly. *NB: Introductions already started on 19th October 2018.*

Under **Output 5 (Project management, impact monitoring and evaluation structures and processes ensure that the project objectives are achieved on schedule and within budget)**:

- Following delays by ZEMA in approving the project, which had implications on project budget spend, a change request to defer some project budget from year 1 into year 2 was submitted to Darwin Initiative and approved.
- The project leader and the finance officer at BirdLife have been in constant touch with the BWZ team in Zambia, including virtual meetings, and a face to face meeting at one of the BirdLife meetings, to monitor and follow-up on progress implementation and alignment with budget spend.
- A meeting was held with the project focal point person from Zambia Agriculture Research Institute (ZARI) to update them on the project and to discuss technical and logistical details regarding biocontrol agent rearing, including pond construction. ZARI committed to also collect some weevils from Lukanga Swamp, once established, and rear them at their facility at their headquarters in Lusaka as a risk mitigation measure.
- The BWZ team has been in constant communication with CABI who are the direct link to Edgecombe (the weevil supplier in South Africa). Meetings have been through skype as the CABI entomologist is now based in South Africa, and is very keen on visiting the project site in December 2018.
- All the Project Steering committee members have been contacted at various times for backstopping and advice on project activities, including M&E. However, a meeting for all members is scheduled for early November 2018. The committee now has an inclusion of Central Province Fisheries officer (PFO), World-Wide Fund for nature (WWF) wetlands officer and Ramsar focal point person in Zambia into the committee. These bring into the committee their expertise from their different fields for the interest of the success of the project. There is also a plan for all the committee members to visit the project site in November 2018.

2a. 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.

- Signage giving a message about the importance of Lukanga Swamp has been placed at the project site, branding it appropriately including a Darwin Initiative logo, at two locations representing different administrative districts. The signage replaces the initial Important Bird & Biodiversity Area (IBA) signage that had been erected by BWZ a few years ago but had been lost during road construction. The branding has improved local knowledge about the project site as several people have contacted BWZ with enquires.



- There is a consideration to have both permanent as well as temporary weevil rearing ponds. The permanent ponds will be made out of concrete (as initially planned) and handed over to the fisheries department once the project is finished, while the temporary ones will be lattice pools that are mobile and will be stationed in areas that are not so suitable to make the concrete ponds. This is in an effort to enhance and increase the number of weevil rearing and introduction sites.
- The new need to import the biocontrol agent from South Africa instead of obtaining it locally in Zambia caused an unforeseen (but only slight) delay in getting the agent introduced to the site. However we do not foresee this having any major negative implications on implementation of the project.
- A change request to carry forward underspent budget in year 1 to year 2, as well as add one staff member to the project was submitted and approved by LTS in August 2018. Project is now being implemented on the basis of these changes.

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS: Yes

Formal change request submitted: Yes

Received confirmation of change acceptance Yes

3a. 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: £

3b. 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 rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

N/A

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document. Additionally, if you were funded under R23 and asked to provide further information by your first half year report, please attach your response as a separate document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with LTS International through a Change Request.

Please send your **completed report by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk. The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 22-035 Darwin Half Year Report**