

Darwin Initiative Main/Post/D+ Project Half Year Report (due 31st October 2017)

Project reference	23-018
Project title	Alleviating rural poverty through conflict mitigation and improved crop yields
Country(ies)/territory(ies)	Zimbabwe, Botswana
Lead organisation	WildCRU, University of Oxford
Partner(s)	Victoria Falls Wildlife Trust
Project leader	Andrew Loveridge
Report date and number (e.g., HYR3)	HYR2
Project website/blog/social media etc.	www.wildcru.org

1. Outline progress over the last 6 months (April – Sept) 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).

At a national and international scale the project trials and showcases the effectiveness of novel livestock protection techniques to mitigate impacts of biodiversity and reduce the need of lethal control of globally threatened predators, while highlighting the economic and ecological value of viable predator populations and improving food security for local communities. The project comprises four anticipated outputs, the progress of which will be detailed in the below.

Output 1: Showcasing benefits of the project to international development agencies

Since April, the programme was showcased to several development agencies (ALERT, DREAM project/CIRAD, WEZ), safari tourists and the Zimbabwe Tourism Authority. Two film teams (National Geographic & Tom Varley) visited and filmed the programme and its impact on rural livelihoods. In June 2017, the concept was part of a presentation to a team of theme park designers in Zimbabwe to potentially feature the programme in the theme park to increase awareness in the general public. In July 2017, the concept was discussed with leaders in commodity-based trade to discuss the potential of commodity-based predator-friendly meat trade for future financial self-sustainability of the programme. The programme will be presented at a workshop on commodity-based trade in early November 2017 to discuss this idea in further detail. Several funding application for the continuation of the programme were submitted to the IUCN, European Commission and Biotechnology and Biological Sciences Research Council in 2017 and we are hoping to be successful in sourcing additional funding.

Output 2: Decreasing levels of human-predator conflict

We currently have in place 10 Community Guardians (CGs) in village communities directly adjacent to Hwange National Park, Zimbabwe (Tsholotsho and Mabale) and have deployed one additional mobile boma and trained 9 associated families (56% female headed) in boma management, adding to a total of 13 bomas, housing 981 cattle of 99 families. In preparation of the cropping season 2017/2018, 65 fields have been treated with mobile bomas and maize seeds will be distributed at the onset of the rainy season late October/early November. 134 warning alerts were sent in the last reporting period and the team tracked 314 km of transect, completed 379 herd sightings, conducted 4 lion chases and enforced 12 kraals. Since April 2017, 25 cattle, 16 donkeys, 120 goats and 1 sheep were killed by lions. More than 90% of livestock depredation incidences occurred at night, while no livestock was killed inside mobile bomas, showcasing the effectiveness of the enclosures. 282 cattle were vaccinated against

botulism, anthrax and black-quarter disease, 1058 cattle were treated against ticks, 47 cattle were treated for anaplasmosis and heart-water disease, and 40 female calves were vaccinated against brucellosis and contagious abortion. The annual Community Guardian training workshop was hosted in Tsholotsho in October 2017.

In Victoria Falls, 79 warning alerts were sent via the Whatsapp group and 4 CGs tracked 239 km of transect, conducted 171 herd sightings and 5 lion chases. In close collaboration with the local traditional leaders, 29 households (17.2% female headed) in 4 village communities were selected, issued with 4 mobile bomas (housing 421 cattle) and trained in boma management. Between April and September 2017, 18 fields were treated with bomas and their impact will be measured in the coming cropping season. A total of 39 head of livestock (29 cattle, 7 donkeys, 3 goats) were killed by lions (80% at night, 8% inside traditional livestock enclosures). However, no livestock was killed inside mobile bomas. In addition, 439 cattle were examined by a veterinarian and 7 cattle were treated for disease.

In Botswana, 4 mobile bomas have been installed in the Boteti and the Chobe Enclave areas (2 bomas each). During workshops in both areas, the community was trained in boma installation and rotation schemes will be implemented in the coming month. These bomas will serve to demonstrate their effectiveness to the wider community and the Government of Botswana to increase acceptance of the technique before introducing it on a wider scale.

Since April 2017, two GPS collars were replaced and one new collar was deployed in the Victoria Falls area. Additional collars will be deployed and changed around Hwange National Park and in Botswana in the next reporting period.

One scientific publication was published on the risk of pathogen transmission at the wild/domestic herbivore interface at protected area boundaries.

Output 3: Decreasing number of predators killed in retaliation for livestock predation

In Zimbabwe, two lions were killed in retaliation for livestock predation (Hwange area), compared to 13 lions that were destroyed in all project sites during the first year. Even though we are expecting variations in retaliatory killings this might be an indication for increased acceptance of the predators in the area. Baseline surveys on predator populations have been carried out in southern Hwange National Park (Dzivanini, Jozivanini areas), in Zambezi Park and in Matetsi Safari Area Units 6&7 and suggest a total population of 550 adult lions in Hwange and 85 adult lions in Zambezi National Park/Matetsi 6&7. In Botswana, historical conflict data from the Botswana Department of Wildlife and National Parks is currently being collected. A camera trap survey (200 camera traps) has been conducted in Makgadikgadi Pans National Park and data is currently being analysed. A survey of Chobe Forest Reserve will follow in 2018. In order to quantify the effect of interventions on rural livelihoods and attitudes towards conservation, a baseline surveys (46 interviews) has been conducted in the Boteti region of Botswana in September 2017, providing employment to two villagers (including one physically handicapped community member).

Output 4: Increased crop yields and food security

Crop growth and yields on boma treated and control fields have been monitored during the crop growing season 2016/2017 around Hwange National Park, Zimbabwe. First bomas have been installed on crop fields in the Chobe Enclave area of Botswana and crop growth and yields will be measured and compared with control sites throughout the coming rainy season.

In September 2017, baseline surveys to quantify yield and contribution to household food security have been carried out in the Boteti region of Botswana (46 interviews, see Output 3).

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.

The amendments to the permit application process in Botswana are ongoing, however the programme has been approved by the Government of Botswana and permission for its implementation has been granted, showcasing the high standing of the programme in the

country. Through matched funding, a Programme Coordinator has been hired for Botswana, who started to fully introduce the programme into both project sites in September 2017.

An ongoing significant concern is the devaluation of the Pound Sterling against other global currencies. This has effectively reduced available project budgets by around 20%. While we are still trying to manage the available budgets to take this into account, realistically, we may need to adjust budgets and outputs in order to factor in this unexpected change in circumstances.

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: No

Formal change request submitted: No

Received confirmation of change acceptance No

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?

We would like to flag up the unavoidable challenges imposed by the devaluation of the Pound Sterling and the continuous effect of this on project budgets.

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**