



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31 October 2016)

Project Ref No:	DPLUS051
Project Title:	Water Security and Sustainable Cloud Forest Restoration on Saint Helena
Country(ies)/Territory(ies)	Saint Helena
Lead Organisation	Saint Helena Government (Environment and Natural Resources Directorate)
Partner(s)	Connect Saint Helena, Arctium, CEH
Project Leader:	Trevor Graham – Derek Henry (proposed new project lead)
Report date and number (e.g., HYR3)	<i>HYR1 2016</i>
Project website/ Twitter/ Blog/ Instagram etc	
Funder (DFID/Defra)	<i>Darwin Plus</i>

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).

Project Planning – The project planning has been completed in partnership between Saint Helena Government, Connect Saint Helena, Arctium and CEH. RBK Kew (a project stakeholder) have also been very supportive and provided advice and access to facilities in support of the project. Delays were experienced due to the announcement that commercial flights for large passenger aircraft to Saint Helena would not commence on airport opening due to wind shear problems. At the time of writing, a decision to open the airport for passenger aircraft is due in mid-2017 (after further work is completed to manage the wind shear problem), with the shipping route via the RMS Saint Helena extended until July 2017.

Equipment purchase – The majority of equipment has been purchased, however there was a problem with the procurement of the DJI Phantom 4 Drone. Due to delays confirming transport arrangements to the island (passengers and cargo), the project equipment purchase was delayed until a confirmed freight route was published by Saint Helena Government (See Section 2). As a consequence, the last of the equipment was shipped to the island on 4th October 2016 and is due to be released by Customs by 20th October, just in time to be installed as part of the field survey and monitoring network installation phase of the project.

Dr Alan Gray (CEH) has been very generous and donated 4 soil moisture loggers to the project. CEH have also donated 5 complete mist/fog catchers to the project, which significantly enhances the meteorological data being collected. The only additional purchase was 5 data logger tipping bucket rain gauges which are to be affixed inside each mist/fog catcher. Connect Saint Helena have also donated 1 barometric logger and 2 water level loggers.

Based upon the water features survey and selection of monitoring locations, an in-line flow meter will be purchased for installation in a spring source close to Wells Gut. The costs of this additional purchase can be accommodated within the capital equipment budget.

Desk Study – data collection has been completed in the UK. A final review of data on Saint Helena is being completed during October 2016, as part of the monitoring network and baseline data collection field survey. The desk study reporting will be completed by December 2016, a 3

month delay when compared to the baseline timetable.

Drone test flights – RBG Kew (project stakeholder) have been extremely helpful and gave permission for Arctium to fly their DJI Phantom 4 at Wakehurst Place in preparation for the aerial survey on Saint Helena. Ben Sansom from Arctium flew drones with the RBG Kew remote sensing team at Wakehurst Place during September 2016 and had a successful time learning about vegetation surveys from Justin Moat and the Kew team. This knowledge is being used on island during October 2016. Arctium completed an aerial survey of the Millennium Seed Bank in return and have agreed to repeat the survey for Kew during the winter of 2016/17 in the UK. The Kew remote sensing team have also provided additional support by offering to process all the aerial images provided by Arctium, in order to create a photographic model of the project sites and to create a map of the surveyed areas for use in the vegetation survey (to be completed by Mike Jervois from EMD).

Drone Certification by ASSI and Saint Helena Airport – the use of a drone on the project for aerial surveys has required significant planning as Saint Helena airport is open to private aircraft and medivac flights. As the Peaks NCA lies within the operational Air Traffic Zone and Control Zone of the airport and the drone has a camera, the project flights have been classified as “Commercial” by Air Safety Support International, UK Government Air Safety Regulator for the Overseas Territories. As a consequence, Arctium has had to formally apply to fly on island, submit an operational manual, flight plans and application form.

The project team received Permission to Fly on 26th September 2016. The team thank Mr Bruce Dancy at ASSI and Gwyneth Howell (Saint Helena Airport Manager and Head of Operations). It should be noted that DPLUS051 is the first commercial drone flight to be approved for Saint Helena. This is a significant step as the airport and ASSI tested the new Saint Helena Airport Ordinance and its ancillary regulations as part of the approval process. The work completed by Arctium means that it will be much easier to obtain permission for any additional flights needed in 2017 and for other conservation aerial surveys on island.

Monitoring Network and Baseline Data Collection – The 2016 field surveys and installation of the monitoring network have been delayed by 3 months due to the announcement that Saint Helena Airport would not be open for commercial flights in the 2016 to 2017 financial year. Arctium arrived on island on 4th October to lead the field surveys and baseline data collection.

To date, 17 monitoring locations have been identified within the study area and all equipment will be installed by 1st November. The project team had a successful training day on 14th October, held at the EMD/ANRD offices in Scotland (Saint Helena) and also at Connect’s offices in Jamestown on 28th October.

Project Partnerships, Efficiencies and Data Sharing – Since arriving on island, the DPLUS051 project team have had meetings with project staff from DPLUS029 (Lourens Malan), DPLUS052 (Samantha Cherrett), DPLUS025 (Amy Dutton) and received support from DPLUS039 (Elizabeth Clingham). All Darwin Plus projects on Saint Helena are finding that there is knowledge which can be shared with other project teams to save time, money, time in the field and to enhance the interpretation of their own project data. It is hoped that the areas of co-operation and efficiency can be further developed over the next 2 years.

- Accommodation – support from DPLUS039;
- Data sharing – remote sensing, meteorological, mapping (DPLUS051, DPLUS052, DPLUS025);
- Field surveys – access to remote areas in Wells Gut and Grapevine Gut, identification of water features in the sub-catchments during vegetation surveys (DPLUS029).

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.

Saint Helena Airport Opening Delay

The opening of Saint Helena airport has been delayed due to technical problems. As a consequence, there is no commercial passenger air service to Saint Helena. Due to continued delays with airport operation, Saint Helena Government (SHG) announced on 12th July 2016 that the schedule for the Royal Mail Ship (RMS) Saint Helena would be extended until 1st July 2017 and the ship will be used for all passenger and freight services (<http://www.sainthelena.gov.sh/maintaining-access-to-st-helena-ascension-2/>).

As air freight for equipment is no longer an option, all equipment has needed to be shipped to the island via the RMS. All field equipment has been ordered by SHG with the support of Arctium and will now arrive on island between mid-August and 4th October 2016. This has delayed the timeframe for installing the project's environmental monitoring network (originally scheduled for June 2016).

LTS were contacted as soon as these delays were understood and have been working with the project partners to review the programme and provide guidance concerning the change management request which was forwarded in August 2016. LTS advised the project team that further clarification of information in the change request was needed before the form would be accepted and agreed that a revised change request for could be submitted in October 2016 whilst the Project Manager was on island and able to discuss certain details with the proposed project lead and Saint Helena Government finance department.

The overall project progress has been delayed by approximately 3 months due to the announcement regarding the airport.

The budget has been impacted due to the increased costs of travel to the island by air (to Cape Town and by ship (Royal Mail Ship Saint Helena) to the island. Travel time has increased by 14 days for the 2016 monitoring network and baseline data collection field survey.

The budget has a shortfall of £4,725 in the 2016/17 financial year. The project team have identified savings of £4,725 in the GIS Consultancy budget due to the recruitment of local support and further efficiencies identified between DPLUS051 and DPLUS052.

Equipment Purchase

It was frustrating to find out that the Saint Helena Government supplier had not complete the purchase of the DJI Phantom 4 drone, as indicated in formal communications. The drone was to be used to create a digital map of the study area, to determine the percent coverage of each candidate catchment with endemic and invasive plant species. The mapping data would also feed into the digital elevation model we are creating. This information was relayed to Arctium one week before travelling to the island to complete the field surveys. Arctium contacted LTS immediately and suggested hiring Arctium's company drone (a DJI Phantom 4) to the project as a short term solution. LTS agreed to the equipment hire and enquired about the legacy impact to the project as a drone had not been purchased. The overall legacy of the project is not impacted greatly as the drone accounted for 5% of the total capital expenditure identified for the project. The team are looking at alternative solutions so a drone can be used for annual vegetation surveys in the Peaks beyond the life of the project.

Project Lead

The Project Lead, Mr Trevor Graham, is no longer employed by Saint Helena Government. As a consequence, Mr Derek Henry, acting Director of Environment and Natural Resources Directorate in Saint Helena Government, will fill the post of Project Lead. LTS are awaiting a

copy of Mr Henry's CV before agreement of this change.

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 – LTS requested further clarification before acceptance of change request. Revised change request submitted on 18th October 2016.

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?

There is still significant uncertainty regarding the date when commercial flights may start operation on Saint Helena. At present, we do not anticipate a project underspend in this financial year, however it is possible that there will be a shortfall in funds in 2017/2018 if access to the island continues to be provided by the RMS Saint Helena. A similar increase in staff costs is anticipated if flights do not start in time for the October 2017 field survey.

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.

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**