# DPLR3\1062

Darwin Plus Local - Final Report (1)

**Officer: Linzi Ogden**

## Section 1 - Darwin Plus Local Project Information (Essential)

### Project Reference Number

DPL00083

### Q1. Project Title

*No Response*

### Overseas Territory(ies)

☑ British Indian Ocean Territory (BIOT)

### Lead Organisation or Individual

British Indian Ocean Territory Administration

### Partner Organisation(s)

N/A

### Value of Darwin Plus Local Grant Award

£8,174.22

### Project Start Date

01 April 2024

### Project End Date

31 March 2025

### Project Leader Name

Caroline Gittins

### Project Website/Twitter/Blog etc.

N/A

### Report Author(s)

Caroline Gittins

## Report Date

01 May 2025

## Project Summary

*No Response*

## Project Outcomes

| | |
|---|---|
| Checked | **Biodiversity: improving and conserving biodiversity, and slowing or reversing biodiversity loss and degradation;** |
| Unchecked | **Climate Change: responding to, mitigating and adapting to climate change and its effects on the natural environment and local communities;** |
| Unchecked | **Environmental quality: improving the condition and protection of the natural environment;** |
| Checked | **Capability and capacity building: enhancing the capacity within OTs, including through community engagement and awareness, to support the environment in the short- and long-term.** |

## Section 2 - Project Outcomes (Essential)

## On a scale of 1 (high – outcome substantially exceeded ) to 5 (low – outcome substantially did not meet expectation ), how successful do you think your project has been?

⦿ 3 - Outcome met expectation

## Project outcomes and justification for rating above

The project set out to better understand options for restoring forest ecosystems on Diego Garcia, in locations where former coconut plantations are dominated by a monoculture of self-set coconut palms. Two methodologies were trialled for full restoration at Site 1 and assisted restoration at Site 2, both in 1Ha sites. Although coconut dominated, these sites were chosen because they have a partial understorey of native hardwood trees.

Outcomes for Biodiversity have been achieved by clear-felling Coconut trees, 195 in Site 1 and 150 in Site 2. Both methods pulled up sprouting coconuts and the forest floor was cleared of palm fronds that smother saplings. This vegetation was heaped up in corrals so it decomposes and returns nutrients back to the top soil. In addition to these interventions, Site 1 was planted with 33 native saplings that demonstrate a 81% survival rate. Additional opportunities for recovery were provided by reseeding the under storey. It was decided to develop a Reforestation Protocol so future BIOT staff or volunteers can continue to monitor the restoration of both sites and, potentially, expand the area of restoration.

Additionally, the project established a native species plant nursery. The nursery will enhance the capacity within the territory by providing a space to regrow native saplings as stock for out planting in Site 1. A sample group of 12 saplings (Calophyllum inophyllum) were collected in 3 size classes (0-10cm, 10-20cm, 20cm-35cm.) Sapling growth was monitored as well as observations made regarding the suitability of the containers and the benefit of shelter from direct sunlight and drainage to avoid waterlogging. The nursery remains a work-in-progress, it is built from upcycled materials and plant pots made from marine litter collected at beach cleans. BIOT has ongoing ambitions to formalise the site.

The project has enhanced BIOT's capability for native forest restoration by revitalising the use of forestry equipment such as chainsaws which were already in store on island. The project provided the opportunity for technical input and mentoring from a Forestry Commission specialist, as a result a chainsaw qualified Royal Marine (RM) is now upskilled in working with coconut trees.

The recreational trail was established at Site 1. As the coconut trees were felled, the logs were cross cut by the RM and moved by volunteers to mark the boundary of the pathway. Within the 1Ha site the route is circular and weaves between Bird Nest ferns (Asplenium nidas) and under the shaded canopy of the native woodland, predominantly Neisosperma oppositifolia. Along the trail you can observe the saplings used in the reforestation efforts, this is an interesting feature for recreational observation and provides practical access for ongoing monitoring. The community engagement has connected people with nature, many are now informed and invested in the island's ecological health. The BIOT Environment team intend to maintain a collaborative dynamic between the personnel on island beyond the scope of the project, the Reforestation Protocol will assist with passing on this work stream to future Environment staff.

## Supporting Evidence - file(s) upload

DPLR 31062_Coconut Chaos to Native Woodland _terrestrial restoration on Diego Garcia
01/05/2025
14:58:39
pdf 2.76 MB

DPLR 3 1062 Letter of Appreciation from BIOTA v2
01/05/2025
14:58:35
pdf 100.17 KB

DPLR 3 1062_Risk Assessment
01/05/2025
14:58:34
pdf 222.15 KB

## Supporting Evidence - links to published document/online materials

Project presentation (.pdf)

Risk Assessment (.pdf)

US Volunteer Letter of Appreciation (.pdf)

Monitoring data spreadsheet (excel)

## Project Challenges

Due to competing priorities within the BIOT Administration, there were significant delays in the starting of this work. Unforeseen work burdens on personnel prevented the provision of their support. Additionally, this was

linked to the need for engaging support from staff in roles where forestry lay outside their terms of reference.

On Diego Garcia the personnel are generally on short fixed-term deployments leading to a frequent turnover of staff. Early in the project, extra time was required to re-establish relationships with local stakeholders who had recently arrived on island. While personnel are generally enthusiastic and happy to help, the restoration of tropical woodland sits outside of the scope of most people's roles which is why the Reforestation Protocol will be beneficial. It will capture the project goals, ways of working and who to liaise with to facilitate biodiversity outcomes. This knowledge can be retained for use in perpetuity.

Additionally, the legacy of the project will benefit from better investment in tools. This might seem like a small issue, however, Diego Garcia is a remote location without commercial hardware stores. Procuring quality equipment online is subject to trial and error. The shipping time can be lengthy and subject to delays or cancellations which is a limitation for planning and advertising work parties. The tropical climate is demanding on tool maintenance and metal parts rust quickly. To prevent broken shovels and pitchforks, a weatherproof store is necessary. This feedback into the ambition to formalise the nursery site.

## Lessons Learned

Depending on a small pool of personnel with chainsaw qualifications caused limitations. Additional duties were assigned as a priority to those personnel which prevented the provision of their support. Seeking an alternative option, a third party contractor was approached for conducting the felling. After several weeks they provided a Cost Estimate beyond project and match funding capacity ($ 598,273) and did not commit to a timeline to conduct the work. This resulted in inviting additional support to the island as an emergency measure. Despite being a cost effective remedy it committed a significant proportion of the funding to Travel and Subsistence. The legacy of the project will benefit from further investment into BIOTAs staff by providing training in forestry.

With a reduced capacity for providing support, this drove the need to foster relations with the US Volunteer programme. They work towards achieving the Military Outstanding Volunteer Service Medal (MOVSM) by attending events. By collaborating and hosting work parties it established vital support network and created community spirit.

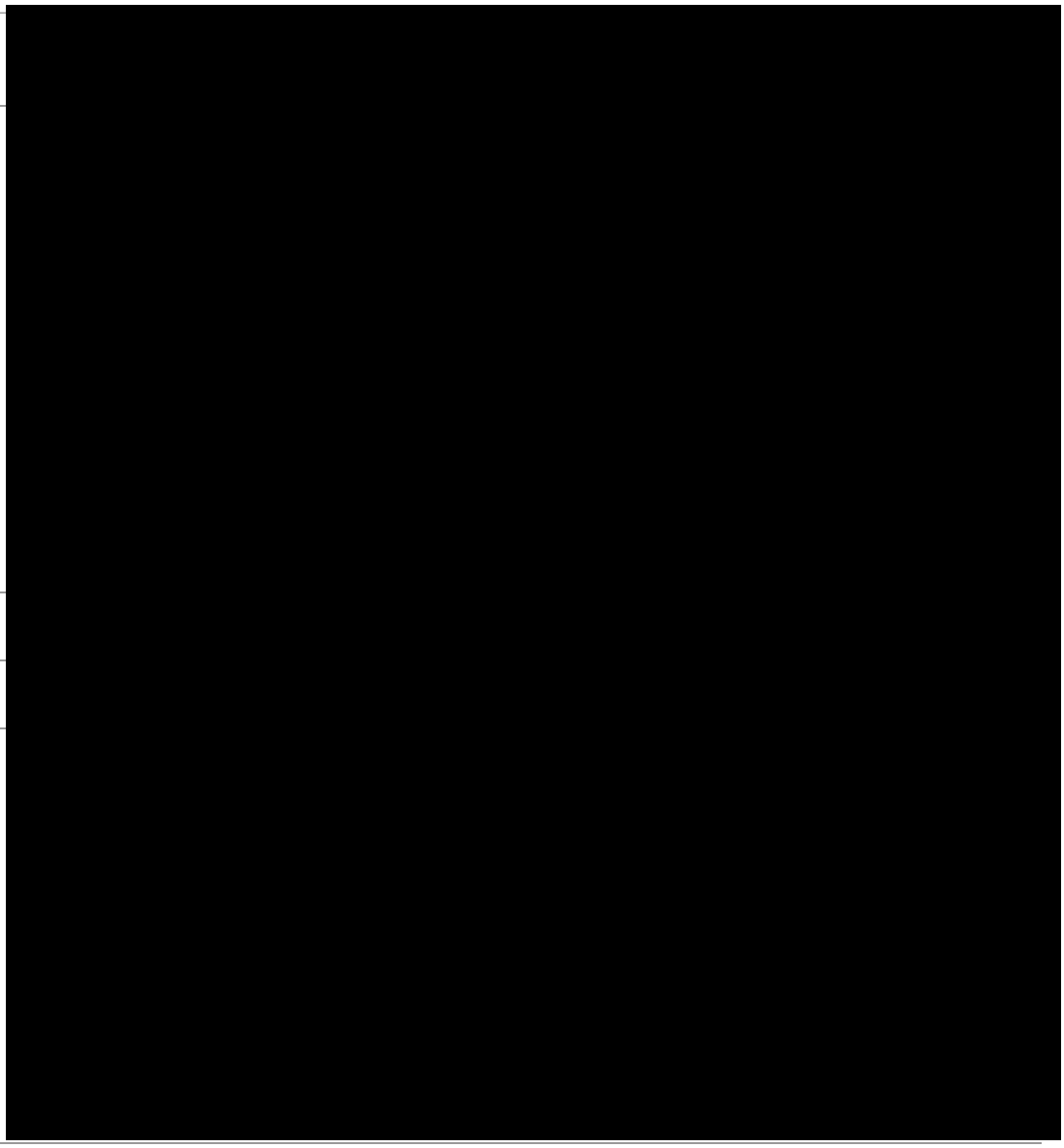
If I were to repeat the project, I would have engaged the US volunteer programme much sooner. Their desire for volunteering opportunities and enthusiasm for the project raised awareness to higher ranking authorities. Their influence could have driven faster change for formalising the Native Species Nursery. As part of the project legacy, I will continue to nurture stakeholder relationship, so the Reforestation Protocol is embedded in BIOTs way of working and remains accessible for the US Volunteer programme to continue to utilise.

# Section 3 - Project Finance (Essential)

## Project Expenditure

| Project Spend (indicative) since last Annual Report | 2023/24 Grant (£) | 2023/24 Total actual Darwin Plus Costs (£) | Variance % | Comments (please explain significant variances) |
|---|---|---|---|---|
| **Staff Costs** | [redacted] | | | |
| **Consultancy Costs** | | | | |

| | | | |
|---|---|---|---|
| **Overhead Costs** | | | |
| **Travel and Subsistence** | | | |
| **Operating Costs** | | | |
| **Capital Items** | | | |
| **Others** | | | |
| **Total** | 6,919.60 | 8,386.55 | 21% |



## Please provide a short narrative summary on project finances.

When the project was planned some of the funding was intended to train the Environmental staff with chainsaw qualifications and invest in VH Radio training. Diego Garcia is a remote location which posed logistical issues for BIOT Environmental staff to return to the UK for Chainsaw training.

Additionally, the availability of chainsaw courses did not align with staff annual leave dates. To conduct the clear felling of the forestry sites we decided to utilise the chainsaw ticketed personnel within BIOTA. However, across 2024 the BIOT Administration and base operations experience unforeseen competing priorities which meant our colleagues could not support the project. This resulted in BIOT inviting additional support to the island from forestry specialists. Two guests attended the island for a fortnight in January, one was a technical specialist from the UK Forestry Commission and the other was a reforestation specialist from Chagos Conservation Trust. The project funding covered their travel and subsistence for one fortnight. Not only did they complete the assisted afforestation site, the added benefit of hosting them was that they mentored the Royal Marine with a chainsaw licenses. This has helped to normalised participation in forestry from the wider BIOT Administration.

## Section 4 - Contribution of Project to Darwin Plus Programme Objectives

Please select up to **one** indicator that applies within **each group/indicator list (A, B, C, D)** and report your results for that indicator in the text box underneath. If you do not have relevant results to report for any of the indicators in a particular group, you can leave them blank.

Please also submit some form of evidence (above) to demonstrate any results you list below, where possible.

### Group A: Capability and Capacity - Core Darwin Plus Standard Indicators (select one)

| | |
|---|---|
| Checked | **DPLUS-A01: Number of people from key national and local stakeholder groups completing structured and relevant training.** |
| Unchecked | **DPLUS-A02: Number of secondments or placements completed by individuals of key local and national stakeholders.** |
| Unchecked | **DPLUS-A03: Number of local/national organisations with improved capability and capacity as a result of project.** |
| Unchecked | **DPLUS-A04: Number of people reporting that they are applying new capabilities (skills and knowledge) 6 (or more) months after training.** |
| Unchecked | **DPLUS-A05: Number of trainers trained reporting to have delivered further training by the end of the project.** |

## Group A Indicator Results

Across 8 events the project hosted a total of 94 volunteer from British Forces, US Military, third party contractors and visiting science expeditions. The personnel were briefed on forestry concepts, plant ID and safe manual handling of tools. The volunteers also learnt about harvesting of seeds and saplings.

### Group B: Policies, Practices and Management- Core Darwin Plus Standard Indicators (select one)

| | |
|---|---|
| Checked | **DPLUS-B01: Number of new/improved habitat management plans available and endorsed.** |
| Unchecked | **DPLUS-B02: Number of new/improved species management plans available and endorsed.** |

| | |
|---|---|
| Unchecked | **DPLUS-B03: Number of new/improved community management plans available and endorsed.** |
| Unchecked | **DPLUS-B04: Number of new/improved sustainable enterprises/ community benefits management plans available and endorsed.** |
| Unchecked | **DPLUS-B05: Number of people with increased participation in local communities / local management organisations (i.e., participation in Governance/citizen engagement).** |
| Unchecked | **DPLUS-B06: Number of Local Stakeholders and Local Communities (people) with strengthened (recognised/clarified) tenure and/or rights.** |

# Group B Indicator Results

Whilst there is a published British Indian Ocean Territory Ecosystem Action Plan (EAP) for Native Woodland 2021, the project will enhance the management literature by producing a Reforestation Protocol. A user-friendly document for both BIOT Administration staff and US Volunteer Programme to achieve biodiversity and community outcomes.

## Group C: Evidence and Best Practices - Core Darwin Plus Standard Indicators (select one)

| | |
|---|---|
| Checked | **DPLUS-C01: Number of best practice guides and knowledge products published and endorsed.** |
| Unchecked | **DPLUS-C02: Number of new conservation or species stock assessments published.** |
| Unchecked | **DPLUS-C03: New assessments of habitat conservation action needs published.** |
| Unchecked | **DPLUS-C04: New assessments of community use of biodiversity resources published.** |
| Unchecked | **DPLUS-C05: Number of projects contributing data, insights, and case studies to national Multilateral Environmental Agreements (MEAs) related reporting processes and calls for evidence.** |

# Group C Indicator Results

The project will enhance the management literature by producing a Reforestation Protocol. A user-friendly document for both BIOT Administration staff and US Volunteer Programme to achieve biodiversity and community outcomes by applying learning from the project and best practise going forwards.

## Group D: Sustainable Benefits to People, Biodiversity and Climate - Core Darwin Plus Standard Indicators (select one)

| | |
|---|---|
| Checked | **DPLUS-D01 Hectares of habitat under sustainable management practices.** |

| | |
|---|---|
| Unchecked | **DPLUS-D02: Number of people whose disaster/climate resilience has been improved.** |
| Unchecked | **DPLUS-D03: Number of policies with biodiversity provisions that have been enacted or amended.** |

# Group D Indicator Results

Total of 2Ha: Full restoration, a 1Ha plot will clear-fell Coconuts, remove the sprouting coconuts and additional planting of native saplings and reseeding in the under storey. Assisted reforestation, a 1Ha plot will be clear-fell of Coconut with a return period to remove all sprouting coconut.

## Section 5 - Project Partnerships, Wider Impacts and Contributions

### Project Partnerships

N/A

### Wider Impacts and Decision Making

N/A

### Sustainability and Legacy

N/A

## Section 6 - Communications & Publicity

### Exceptional Outcomes and Achievements

At the beginning of January, 1 Ha of coconut chaos was successfully cleared. This would not have been possible without the support of BF BIOT, UK Forestry Commission, Chagos Conservation Trust and volunteers from US Navy.

With technical input and mentoring from the Forestry Commission, we have built BIOT's resilience and capacity for tropical restoration as a chainsaw qualified Royal Marine is now upskilled in working with coconut trees. The work party also focused on the source of the issue by uprooting of coconut sprouts, this is where the US Navy volunteers were exemplary in conducting the groundwork and achieving biodiversity outcomes. The felled coconuts were crosscut and the logs were used to build a woodland trail around the site. We wish to instil community value for the native woodland through the recreational trail. BIOT aspire to connect people with nature by including community engagement and raising awareness. The curation of the trail and lay out of the sapling replanting was led by an island restoration specialist with a long-standing connection with the natural history of the archipelago.

The project has received excellent feedback from both the US Commanding Officer of Navy Support Facility Diego Garcia and the British Forces Executive Officer. Both were so pleased with the volunteering effort it was requested I drafted an article to be published in Navy News. It is yet to be published with the full consent of people included in the supporting media.

To support the replanting of saplings we have established a plant nursery dedicated for biodiversity outcomes

that grows native species of trees. With the good will of the US SeaBee's, a construction batalllion, we aim to formalise the site to include a potting shed and shelter, until then, the nursery will build a stock of saplings with the purpose of being replanted on in former coconut chaos.

We acknowledge we cannot convert coconut chaos into native woodland within one year, therefore we propose the project findings inform a Reforestation Guidance document for use in perpetuity. By engaging with the goodwill on island, we hope this is the start of cultivating environmental values that inspire volunteers in future reforestation opportunities.

## Photo, video or graphic to be used for publicity and communications.

**Please upload at least one relevant and engaging image, video or graphic that you consent to be used alongside the above text in Defra, JNCC or NIRAS communications material.**

8. DPLR3_1062 - BIOT Environment Officer collecting data in Assisted Reforestation site - British Indian Ocean Territory -
01/05/2025
15:40:18
jpg 7.12 MB

9. DPLR3_1062 - US Navy Volunteers conducting groundwork at Site 2 - British Indian Ocean Territory - US NSF Public Affairs
01/05/2025
15:40:10
png 1.76 MB

7. DPLR3_1062 - BIOT Environment Officer and Pete Carr of Chagos Conservation Trust collecting saplings - British Indian Oce
01/05/2025
15:39:46
jpg 5.6 MB

6. DPLR3_1062 - Assisted Reforestation in action - British Indian Ocean Territory - Caroline Gittins
01/05/2025
15:39:20
jpg 4.77 MB

5. DPLR3_1062 - Fish-Poison Tree (Barringtonia asiatica) sapling being propogated in the Assisted Reforestation site - Brit
01/05/2025
15:38:55
jpg 4 MB

3. DPLR3_1062 - Royal Marine being trained in tropical forestry skills - British Indian Ocean Territory - Caroline Gittins
01/05/2025
15:35:03
jpg 7.36 MB

4. DPLR3_1062 - Recreational trail in the Assisted Reforestation site - British Indian Ocean Territory - Caroline Gittins
01/05/2025
15:34:11
jpg 5.14 MB

1. DPLR3_1062 -Work party with BF BIOT, Forestry Commission, Chagos Conservation Trust and US Navy voluneers - British India
01/05/2025
15:33:37
jpg 5.58 MB

2. DPLR3_1062 - Technical specialists in forestry working at the Assisted Reforestation site - British Indian Ocean Territo
01/05/2025
15:32:38
jpg 4.31 MB

## Photo, video, and/or graphic captions and credits.

DPLR3_1062 - Work party with BF BIOT, Forestry Commission, Chagos Conservation Trust and US Navy volunteers - British Indian Ocean Territory - Caroline Gittins

DPLR3_1062 - Technical specialists in forestry working at the Assisted Reforestation site - British Indian Ocean Territory – Caroline Gittins

DPLR3_1062 - Royal Marine being trained in tropical forestry skills - British Indian Ocean Territory - Caroline Gittins

DPLR3_1062 - Recreational trail in the Assisted Reforestation site - British Indian Ocean Territory – Caroline Gittins

DPLR3_1062 - Fish-Poison Tree (Barringtonia asiatica) sapling being propagated in the Assisted Reforestation site - British Indian Ocean Territory - Caroline Gittins

DPLR3_1062 - Assisted Reforestation in action - British Indian Ocean Territory - Caroline Gittins

DPLR3_1062 - BIOT Environment Officer and Pete Carr of Chagos Conservation Trust collecting saplings - British Indian Ocean Territory - Dan Webber

DPLR3_1062 - BIOT Environment Officer collecting data in Assisted Reforestation site - British Indian Ocean Territory - Caroline Gittins

DPLR3_1062 - US Navy Volunteers conducting groundwork at Site 2 - British Indian Ocean Territory - US NSF Public Affairs Office

I agree for the Biodiversity Challenge Funds Secretariat, Administrator, and/or JNCC to publish the content of this section.

⦿ Yes, I agree for the BCFs Secretariat and/or JNCC to publish the content of this section.

Please list any accounts that you would like tagged in online posts here. This can include project pages, partners' pages or individuals' accounts for any of the following platforms: LinkedIn, Facebook, Twitter, or Instagram.

N/A

## Section 7 - Darwin Plus Contacts

**Please tick here to confirm that you have read and acknowledge the BCF's Privacy Notice on how contact details will be used and stored and that you have sought agreement from anyone that you are sharing personal details with us on their behalf.**

⦿ I confirm I have read the Privacy Notice and have consent to share the following contact details

## Project Contact Details

| | |
|---|---|
| **Project Contact Name** | Caroline Gittins |
| **Role within Darwin Plus Project** | Project Lead |
| **Email** | [redacted] |
| **Phone** | |
| **Do you need further sections to provide additional contact details?** | ⦿ No |