

Darwin Plus:

Overseas Territories Environment and Climate Fund

Final Report

*To be completed with reference to the “Writing a Darwin/IWT Report” Information Note: (<https://dplus.darwininitiative.org.uk/resources/reporting-forms-change-request-forms-and-terms-and-conditions/>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)*

Darwin Project Information

Project reference	DPLUS059
Project title	Establishment of the national framework for invasive plant management
Territory(ies)	St. Helena, South Atlantic Ocean
Contract holder institution	Environment and Natural Resources Directorate, St Helena Government
Partner institutions	St Helena National Trust
Grant value	£228,175
Start/end date of project	April 2017 to December 2019
Project leader name	Derek Henry
Project website/blog/Twitter	No Longer In Operation
Report author(s)	Darren Duncan

1 Project Summary

The project was undertaken on the Island of St Helena in the South Atlantic (see Figure 1 below).



Fig 1: Location of St Helena Island

The project sought to address the St Helena Island Government (SHG) priorities of invasive plant species management, adaptation to climate change, and building local capacity. Invasive plant species (*hereafter as IPS*) are one of the biggest challenges for the management of National Conservation Areas (NCAs) and the conservation of endemic species in St Helena. They affect

all sectors (including conservation, agriculture, forestry, water management and Government and private landowner amenity interests) and an overall lack of coordination of effort between sectors results in rapid reinvasion from untreated neighbouring areas, with further expenditure of limited resources.

These problems were identified by both SHG, NGO and sector related stakeholders during workshops on St Helena related to action planning for IPS management.

At the time of project submission it was concluded that climate change will exacerbate the problem, as new IPS establish, existing species change range, and new species initiate population explosions. The small scale of the island indicated that an innovative landscape scale management approach should form the basis of an IPS framework.

The project aimed to address these challenges by building local capacity among all stakeholders, filling knowledge gaps through adaptive IPS management trials, and engage the local community in order to develop and implement the framework. A national coordination framework with a local IPS management leadership position would be established as none had existed pre-project, and a long term monitoring programme initiated. Lessons learned would be shared regionally, as some of the priority species are problems in other South Atlantic UKOTS.

2 Project Stakeholders/Partners

Support was received from key project partner, the St Helena National Trust for the entire implementation of the project, through a project officer providing planning and management support to the Invasive Plant Specialist leading the project and a 3 man team undertaking a significant part of the fieldwork, which was formalised through a services contract arrangement within SHG, instead of establishing a small team of 3-4 staff within SHGs Agriculture and Natural Resources Division.

SHG's Agriculture and Natural Resources Division (ANR - agriculture, forestry and biosecurity) and the Environmental Management Division (EMD) were involved and engaged as follows:

- a. ANR – this Division was involved in the project through consultations and discussions on problem invasive plants, priority areas on SHG agricultural land for invasive plant control trials important to agricultural syndicates and tenants, particularly for testing control options for bull grass (*Juncus capillaceus*), results of trailed options, and also for possible agricultural restoration options for sites cleared of wild mango (*Schinus terebinthifolius*). The Division also assisted with setting up meetings with farmers to discuss key issues and find suitable field trial locations on their land.
- b. A collaborative working relationship existed between Biosecurity and the project. The project assisted in identification of potential new introductions. Once a plant species was identified as a risk, the project assisted develop appropriate control measures. Occurrence of any potential new incursions was shared between Biosecurity and the project. The project also participated in the workshops aimed at 'Improving biosecurity in the SAUKOTs through Pest Risk Assessments' in 2018.
- c. Consultations and site visits were undertaken with the Forestry Section to identify key problem invasive plant species and priority areas. The aim was to better understand the specific challenges Forestry sector faced regarding invasive plants and to gather information about past work, issues and lesson the Section had learnt that could be applied during the life of the project.
- d. Collaboration with EMD formed an important part of the project. This Division was involved in the testing of control options for the removal of the invasive pheasant tail fern (*Nephrolepis cordifolia*) and creeping fuchsia (*Fuchsia coccinea*), two species that are important to the environmental conservation sector. The Division also involved the project team in the 3-day RSPB hosted workshop towards developing the new St Helena Cloud Forest Management Plan.

The Environmental Risk Management Section was consulted on safe removal, transport and disposal of green waste which is crucial for effective invasive plant management. To better understand the current methods of green waste management, site visits were made with the Section to the landfill to discuss past, current and potential future challenges.

- e. Site visits and consultation were done with the Landscape and Ecological Mitigation Programme (LEMP) regarding key issues, species and priority areas, and the project assisted LEMP with the removal of non-native species at the airport and runway. When selecting locations to test control trials on fountain grass (one of their high risk species) LEMP was consulted on identifications of best/highest impact area to conduct trials.

The SHG Roads Section has an interest in managing alien and invasive vegetation along verges of many of the Island's roads and highways. We conducted site visits where we were shown what the challenges are when controlling invasive plants along roads and which methods are currently being used. Managers from roads sector were involved in developing guidelines for IPS control along road verges and discussions on green waste management from roadside.

The Farmers Association: Project information sessions were held at Farmers Association meetings, however the Association was closed after the first year of the project's lifetime.

Farmers: Farmers were contacted and consulted on key issues and past experience as well as selecting areas where control trials can be conducted without affecting their work. Deadwood Plain is one of the areas chosen to test control methods on bull grass. Local knowledge plays a crucial role in monitoring invasive plants, where they occur and how they have spread over time.

The Government was involved in the project through project introductory and update sessions provided by the Project Manager to the Government's Environment and Natural Resources and Economic Development Council Committees, and participating in the formal Legislative Council question time sessions where questions related to the project.

3 Project Achievements

3.1 Outputs

Although progress was made towards each of the outputs, the project did not achieve all of its intended outputs as laid out in the logical framework. The source of evidence for the change at project end is shown at Annex 6.

The following Outputs were set in the project application:

- Strategic leadership for invasive plant management is evident at the national level
- Community, industry, Government and land managers engaged in invasive plant management
- Strengthened local capacity to manage priority invasive plants
- Improved knowledge for invasive plant management strategies and tactics.
- Nationally significant invasive plant species under innovative and cost-effective management.

1. Strategic leadership for invasive plant management is evident at the national level (see section 1 of logframe):

Prior to project start there was no strategic leadership for invasive plant management within the St Helena Government, even though a number of Sections within the ENRP Directorate undertook activities towards management and control of invasive plants.

At the end of project, although an IPS management framework exists (see Outline framework at Annex 1) for progressing strategic co-ordination of invasive plant management, a specific Section with leadership and dedicated supporting resources does not exist within the SHG

Environment, Natural Resources Directorate to manage and implement IPS management activities as hoped for. Attempts have been made through an IPS business case submission to secure funds from the SHG recurrent budget to enable the proposed dedicated leadership and implementation function at project end, however with new pressures and priorities for funds from the annual SHG budget since project approval, it has not been possible to secure dedicated annual funds to achieve this output.

2. Community, industry, Government and land managers engaged in invasive plant management (see section 2 of logframe):

Engagement in invasive plant management across the Island's different sectors was not as frequent as could have been. During the project and its implementation this was made possible more frequently through project updates, cross-sector engagement in workshop activities and training (for example pesticides and their planning for use and application).

3. Strengthened local capacity to manage priority invasive plants (see section 3 of logframe):

An invasive plant trials exercise was undertaken to fill gaps for priority species with significant potential to transform Island habitats (see Annex 3 for Trials Report) such as bull grass, pheasant tail fern and fuchsia. Work on bull grass were conducted in areas where it is a serious problem to aid in restoring pasture land and help farmers effectively manage their pasture land. Control trials for pheasant tail fern were initiated in both forestry and terrestrial conservation areas and Fuchsia trials assisted the important invasive plant removal on the Peaks. The ENRP Directorate and invasive plant stakeholders has been equipped with this additional knowledge in the form of the additional trials information to assist them in their invasive plant management plans.

4. Improved knowledge for invasive plant management strategies and tactics (see section 4 of logframe):

In addition to the above documents, additional best practice guidelines for the cost-effective management of priority species (See Annex 4a) were developed and now exists to inform plant management actions and strategies, including the management of green waste including a protocol for the management of invasive plants along roadsides and their safe transport for disposal (see Annex 4a-d).

5. Nationally significant invasive plant species under innovative and cost-effective management (see Section 5 of logframe):

Although SHG Divisions have included IPS management strategy actions within their planning documents, there is no way of validating (other than the SHNT) that other stakeholders have this included in their plans.

The additional invasive plant trials report is available but as a result of not having a dedicated section providing leadership and co-ordination for IPS management, there has been no routine mapping of change for the 5 priority invasive plants under an anticipated monitoring programme.

3.2 Outcome

The project did not achieve its outcome as a result of the ENRP Directorate not being able to transition by end of project to a leadership function with appropriate resources and management and coordination responsibilities for IPS.

The reason for this was that the St Helena Government did not prioritise additional moderate resources for the ENRP Directorate (In addition to its normal recurrent budget) to provide the leadership and IPS activities needed post project. A key assumption in the logframe included: Government support for invasive plant management remains strong and impacts community support for the project. However, with other pressures on the SHG budget and priority actions and works of the Government, the IPS business case for funding was not prioritised.

Actions to recover from this situation has simply been to continue implementing IPS across the Directorate and sharing project deliverables to assist IPS stakeholders to implement their IPS actions.

4 Project support to environmental and/or climate outcomes in the UKOTs

The project has made a contribution to long-term strategic outcomes for the natural environment in St Helena. These are as follows:

- a. The project has highlighted the importance of urgent and considerable action requirements needed for managing IPS and the future challenges that the Island faces in adequately protecting its environment, production and biodiversity without a landscape approach to IPS management. Providing a dedicated resource for IPS can be established, the achievements that were able to be made through project implementation will provide a range of tools and management framework for IPS leadership and co-ordination.
- b. The project has helped to identify and focus attention on the key priority IPS where focus should be directed due to their current and future impacts on the natural environment. It has allowed St Helena Government to extend its implementation of trials to control key species and make recommendations for their future management.
- c. Heightened awareness of the importance of controlling IPS across stakeholders has been created as a result of the project.
- d. The project developed in collaboration with other OTs and organisations such as CABI, methods to identify IPS risks, current and potential, for new species to arrive on Island. Risk assessment procedure for IPS has been established and staff trained to implement the procedure.
- e. A sharing platform has been developed between other OTs where IPS threats and knowledge can be shared.
- f. IPS watch lists has been established and their importance as part of an IPS Management Framework have been promoted.
- g. The project has helped to inform project proposals for key sectors such as terrestrial conservation and climate monitoring and will help to embed IPS considerations in future forestry, agriculture and food security policy/strategy deliverables.

5 Sustainability and Legacy

The Project's IPS Management Framework will endure post project once an IPS champion is able to be engaged with ENRP. The Weed Manual and Species Trials Report will continuously be used as well as guidance documents will be updated and used. Risk assessment tools as well as the IPS monitoring for at the Airport will continue to be used and updated over time with use and feedback from the airport staff.

Post-project the IPS Specialist has left the Island as the post-holder was recruited from overseas. The local staff engaged by the SHNT in their service contract to the project remained in post for some time post-project.

6 Lessons learned

Key lessons learnt as a result of this project are as follows:

- Spend more time and resources on training and education.
- More practical monitoring and evaluation system
- Ensure that there is funding and trained staff to continue work after the project.

6.1 Monitoring and evaluation

No formal MoU existed between partners. However a service contract existed to manage and monitor services provided from the SHNT to the project.

During the project period, there has not been any external evaluation of the work undertaken by the project.

6.2 Actions taken in response to annual report reviews

Where the project received feedback from annual reports, the project officer has provided responses to issues raised. The author is not able to advise if there are any outstanding issues that remained at project end.

7 Darwin Identity

This Darwin project was largely recognised as a distinct project with its own identity but on occasions was also promoted as part of a 3 year Strategic Plan undertaken by the ENRP Directorate.

As a result of the implementation of the project, a greater awareness of the Darwin initiative has been created amongst the community and our politicians.

The project's social media account has been effective in helping to raise awareness of the project and create discussions around invasive plant management issues for the Island but is no longer used for current invasive plant management work.

Internal documentation and presentations carried the Darwin logo and logos of partner organisations. There were PPE clothing (caps, polo shirts and jackets) that were branded with project logos and brief to promote the project. When opportunities arose, the project has been promoted, including, local newspaper articles, radio segments, local presentations and two presentations given in South Africa referencing the Darwin Project and its aims for St Helena Island.

8 Impact of COVID-19 on project delivery

No impact as the project was completed prior to the COVID-19 pandemic.

9 Finance and administration

9.1 Project expenditure

Project spend (indicative) since last annual report	2017/18 Grant (£)		2019/20 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs					
Consultancy costs					
Overhead Costs					
Travel and subsistence					
Operating Costs					
Capital items					

Project spend (indicative) since last annual report	2017/18 Grant (£)		2019/20 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Others					
TOTAL					

Staff employed (Name and position)	Cost (£)
Project Lead – Invasive Plant Specialist	
TOTAL	

9.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
Approximate across SHG Divisions	
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
Recurrent - Across SHG Divisions there is less spend due to restricted recurrent budgets	
Project funds – Endemic cloud forest restoration through invasive plant management (Approx. IPS funds secured within the overall project each year indicated)	
TOTAL	

9.3 Value for Money

The project is considered to have provided value for money in part but not overall. The funding made available through the award was sufficient to deliver the project successfully and Darwin Plus has been accommodating and flexible with requests for change of budget (within overall project ceiling) and reallocating funds against those budgeted at project submission.

ENRP still does not have dedicated capacity and resources for IPS which is capable of delivering strategic leadership for IPS management at the national level. Whilst the outputs of the project contributes to IPS management and will continue to do so in future, the direct impact that could potentially be secured using these outputs together with a dedicated IPS resource would improve environmental protection deliverables (supporting our Greener goal) and local productivity (food security) from our land resources for the benefit of the community.

Annex 1 Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: Invasive plant species are cost-effectively managed across the island with reduced threats to endemic flora and fauna, and other sectors. (Max 30 words)</p>			
<p>Outcome: Island capacity to manage invasive plants at the landscape level improved, enabling restoration of endemic habitats to safeguard the endemic wildlife of St Helena, and to support food security. (Max 30 words)</p>	<p>0.1 All major invasive plant stakeholders actively involved in planning for, monitoring and reviewing national invasive plant management initiatives by January 2019</p> <p>0.2 Monitoring programme database developed by February 2019.</p> <p>0.3 New staff capacity in place to implement the invasive plant management strategy by June 2018</p> <p>0.4 Experienced Conservation rangers in place with the SHNT by February 2019</p> <p>0.5 At least 5 problem invasive plant species being tackled through area-wide initiatives by December 2018.</p>	<p>0.1 SHG Natural Resources, Housing and Properties Planning, Waste Management, Biosecurity Annual Operational Plans via SHG website/ SHNT annual operational plans via SHNT website/ Graziers pasture management plans each year via ANRD page on the SHG website/ Landowners Operational Plans each year via ANRD.</p> <p>0.2 Invasive plant monitoring database</p> <p>0.3 ANRD recurrent budget and annual work plan</p> <p>0.4 SHNT Annual work plan</p> <p>0.5 Publications and other documents on the invasive plant webpage</p>	<p>Government support for invasive plant management remains strong and impacts community support for the project.</p> <p>Cooperation remains good within stakeholder sectors.</p> <p>Cost-effective methods are successfully developed for the management of problem species.</p>
<p>Outputs: 1. Strategic leadership for invasive plant management is evident at the national level</p>	<p>1.1. Dedicated invasive plant management team operational, and steering group appointed and operational, by June 2017</p> <p>1.2. Medium-long term national Invasive Plant Management Strategy implemented by April 2018</p> <p>1.3 National strategic invasive plant management function fully operational under SHG's ENRP structure by March 2019</p>	<p>1.1. Steering group meeting minutes</p> <p>1.2. Publications and other documents on the invasive plant webpage</p> <p>1.3. SHG Organogram via Government website</p>	<p>Suitable staff available for recruitment at the start of the project.</p> <p>Appropriate stakeholder representation on Project Steering Group.</p>

<p>2. Community, industry, Government and land managers engaged in invasive plant management</p>	<p>2.1. At least 50 people participate in training workshops over the 2 years.</p> <p>2.2. Increase in 10% of people holding a certificate in the safe use of pesticides over the baseline as at 2016</p> <p>2.3 Newspaper article on invasive plant management at least 4 times a year</p> <p>2.4 At least one invasive plant awareness week run by the end of December 2018</p>	<p>2.1 Training course attendance certificates</p> <p>2.2 ANRD list of certified sprayers</p> <p>2.3 On-line editions of the Independent and Sentinel newspapers</p> <p>2.4 Publications and other documents on the invasive plant webpage</p>	<p>Early engagement with key sector stakeholders demonstrates linkage with WAP and achieves buy-in for project.</p> <p>Interest in training workshops is high.</p>
<p>3. Strengthened local capacity to manage priority invasive plants</p>	<p>3.1 Cost effective methods for five problem invasive plants developed for environment, agriculture, forestry, roads and landowners by November 2018.</p>	<p>3.1 Report on trials on the invasive plant page on the SHG website</p>	<p>Early design plan established for chemical invasive plant trials inform required herbicides and quantities so that stocks are on Island prior to trials beginning.</p> <p>Invasive plant management teams on the island work cooperatively together.</p>
<p>4. Improved knowledge for invasive plant management strategies and tactics.</p>	<p>4.1 Invasive plant webpage in place with practical information by October 2017; all technical outputs of the project placed on the website within 1 month of finalisation</p> <p>4.2 At least 20 best-practice guidelines/procedures/standards/codes of practice for invasive plant management (10 in year 1 and 10 in year 2)</p> <p>4.3 Best practice guidelines for disposal of green waste by October 2018</p>	<p>4.1 Publications and other documents on the invasive plant webpage</p> <p>4.2 Publications and other documents on the invasive plant webpage</p> <p>4.3 Publications and other documents on the invasive plant webpage</p>	<p>Clear early messages disseminated on how project actions and results will be integrated into Government, industry and community activities during and post - project to demonstrate project benefits and legacy.</p> <p>Successful control methods developed by end of project for problem invasive plants.</p>
<p>5. Nationally significant invasive plant species under innovative and cost-effective management.</p>	<p>5.1 Relevant SHG Divisions, SHNT and key private sectors include Invasive Plant Management Strategy actions in their annual work/operational plans</p>	<p>5.1 SHG Natural Resources, Housing and Properties Planning, Waste Management, Biosecurity Annual Operational Plans via SHG</p>	<p>Government support for invasive plant management remains strong and impacts community support for the project.</p>

	<p>from 2018/2019 financial year onwards.</p> <p>5.2 Report of initial area-wide trial of invasive plant management,</p> <p>5.3 At least 5 priority invasive plant species being routinely mapped as part of the monitoring programme by February 2019.</p>	<p>website/ SHNT annual operational plans via SHNT website/ Graziers pasture management plans each year via ANRD page on the SHG website/ Landowners Operational Plans each year via ANRD.</p> <p>5.2 Publications and other documents on the invasive plant webpage</p> <p>5.3 Invasive plant monitoring database</p>	<p>Cooperation is good within stakeholder sectors.</p>
<p>Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <p>Activity 1.1: Recruit invasive plant management officers</p> <p>Activity 1.2: Recruit a Weed Busters team</p> <p>Activity 1.3: Establish multi-sector steering group for national invasive plant management oversight</p> <p>Activity 1.4: Hold a stakeholder workshop to develop the strategic invasive plant management framework</p> <p>Activity 1.5: Review existing invasive plant related legislation</p> <p>Activity 1.6: Undertake a global review of all aspects of invasive plant management for significant species</p> <p>Activity 1.7: Identify major pathways of spread of nationally significant invasive plant species and appropriate management actions for associated pathways</p> <p>Activity 1.8: Develop simple and practical survey protocols to monitor priority invasive plant species.</p> <p>Activity 1.9: Develop national Invasive Plant Management Strategy, based on the results of Activities 1.4 to 1.8.</p> <p>Activity 2.1: Design and implement a public awareness and education programme.</p> <p>Activity 2.2: Deliver invasive plant workshops on identification and area wide management for conservationists, land managers, farmers and forestry workers, and the general public.</p> <p>Activity 2.3: Deliver training courses on safe use of pesticides.</p> <p>Activity 2.4: Run invasive plant awareness week.</p> <p>Activity 3.1: Carry out trial area-wide annual whiteweed (<i>Austroeuatorium inulifolium</i>) control campaign, coordinated across all relevant sectors.</p> <p>Activity 3.2: Design and carry out trials for the cost-effective management of wild mango (<i>Schinus terebinthifolius</i>).</p> <p>Activity 3.3: Carry out targeted removal of African fountain grass (<i>Pennisetum setaceum</i>) in the upper Sandy Bay area.</p> <p>Activity 3.4: Design and carry out trials for the cost-effective management of pheasant tail fern (<i>Nephrolepis cordifolia</i>).</p> <p>Activity 3.5: Design and carry out trials for the cost-effective management of creeping fuchsia (<i>Fuchsia coccinea</i>).</p> <p>Activity 4.1: Review and refine the Weed Control Manual for managing nationally significant invasive plants</p> <p>Activity 4.2: Establish and implement best practice guidelines for minimising invasive plant spread including:</p> <ul style="list-style-type: none"> ▪ A model code of best practice ▪ Sector/industry-specific guidelines <p>Activity 4.3: Develop and implement best practice guidelines for the safe disposal and processing of invasive plants, contaminated material and green waste, through addressing requirements for:</p> <ul style="list-style-type: none"> ▪ Urban areas ▪ Agricultural areas ▪ Industry 			

- High-risk invasive plant species

Activity 4.4: Share lessons learned across other SA UKOTs and the wider invasive plant management community.

Activity 5.1: Design and cost restoration initiatives in appropriate areas where major invasive plant management intervention recommended

Activity 5.2: Mainstream invasive plant management actions into annual work plans.

Activity 5.3: Coordinate landowners to carry to a trial of area-wide control of priority invasive plant species, using methods developed in Output 4 where appropriate.

Activity 5.4: Long-term monitoring programme established for priority invasive plant species across key sectors, based on protocols developed in Activity 1.8.

Annex 2 Report of progress and achievements against final project logframe for the life of the project (if your project has a logframe)

Project summary	Measurable Indicators	Progress and Achievements for the Life of the Project
<p>Impact: Invasive plant species (IPS) are cost-effectively managed across the island with reduced threats to endemic flora and fauna, and other sectors.</p>		<p>Whilst the project has provided some of the tools to facilitate contributions towards the impact envisaged from the project, a lack of appropriate levels of funding across the sectors for IPS control during the project's lifetime to compliment project activities, was not available to conclude at project end that there is cost effective management across Island and there is reduced threats to endemic flora and fauna, and other sectors.</p>
<p>Outcome: Island capacity to manage invasive plants at the landscape level improved, enabling restoration of endemic habitats to safeguard the endemic wildlife of St Helena, and to support food security.</p>	<p>0.1 All major invasive plant stakeholders actively involved in planning for, monitoring and reviewing national invasive plant management initiatives by January 2019</p> <p>0.2 Monitoring programme database developed by February 2019.</p> <p>0.3 New staff capacity in place to implement the invasive plant management strategy by June 2018</p> <p>0.4 Experienced Conservation rangers in place with the SHNT by February 2019</p>	<p>Major stakeholders have been involved with development of the Outline Invasive Plant Management Framework.</p> <p>Standardized monitoring survey methods developed. Collaborative information sharing with ENRP and Darwin Plus 052 (Mapping St Helena's Biodiversity and Natural Environment) to utilise vegetation maps and remote sensing to monitor invasive plant occurrence, abundance and distribution. Monitoring guidance and database established but not utilised as could be due to a dedicated IPS resource or unit not established during or by project end to lead the Management Framework.</p> <p>No new staff capacity has been able to be placed within the Government at project end to lead and coordinate IPS management strategy, even though such resources has been requested through submission of a IPS Business Case by the ENR Directorate post- project.</p>

	0.5 At least 5 problem invasive plant species being tackled through area-wide initiatives by December 2018.	Two SHNT weed busters and one IPS Support Officer team created employed on the project and the team increased their IPS management capacity and abilities through experience of project activities and upskilling initiatives. IPS control trials undertaken across Island for key species to assist information gained from past IPS trials.
Output 1. Strategic leadership for invasive plant management is evident at the national level	1.1. Dedicated invasive plant management team operational, and steering group appointed and operational, by June 2017 1.2. Medium-long term national Invasive Plant Management Framework implemented by April 2018 1.3 National strategic invasive plant management function fully operational under SHG's ENRP structure by March 2019	Achieved. Part achieved. Whilst the outline framework was completed, it was not able to be implemented (see Annex 1). Not achieved as highlighted under the 'Outcome Section' above.
Activity 1.1: Recruit invasive plant management officers		Completed recruitment of one Invasive Plant Specialist as a directly employed ENRP staff member and one Support Management Officer through service contract with St Helena National Trust (SHNT).
Activity 1.2: Recruit a Weed Busters team		Completed recruitment of 2 Weed Busters through service contract with St Helena National Trust.
Activity 1.3: Establish multi-sector steering group for national invasive plant management oversight		Achieved.
Activity 1.4: Hold a stakeholder workshop to develop the strategic invasive plant management framework		Achieved.
Activity 1.5: Review existing invasive plant related legislation		Achieved and recommended not continuing with current limited legislation for IPS. However, project team contributed to legislation reform for IPS by ensuring IPS considered and incorporated in the draft Biosecurity Bill (see Annex 2).
Activity 1.6: Undertake a global review of all aspects of invasive plant management for significant species		Review of key IPS undertaken and fact sheet for key species developed and shared (see Annex 4d (1&2)).

Activity 1.7: Identify major pathways of spread of nationally significant invasive plant species and appropriate management actions for associated pathways	Achieved through project contributing to Pathways Analysis Report for St Helena by Dr Jill Key (see Annex 5).
Activity 1.8: Develop simple and practical survey protocols to monitor priority invasive plant species.	General survey forms developed and used in field work (see Annex X). An additional protocol developed for use for IPS surveys at the airport (see Annex 4c).
Activity 1.9: Develop national Invasive Plant Management Strategy, based on the results of Activities 1.4 to 1.8.	September 2019 a workshop held with 25 people across sectors was in attendance to provide input for and consult on the draft IPS Framework.
<p>Output 2. Community, industry, Government and land managers engaged in invasive plant management</p>	<p>2.3. At least 50 people participate in training workshops over the 2 years.</p> <p>2.4. Increase in 10% of people holding a certificate in the safe use of pesticides over the baseline as at 2016</p> <p>2.5 Newspaper article on invasive plant management at least 4 times a year At least one invasive plant awareness week run by the end of December 2018</p> <p>IPS Framework workshop held; pesticide options workshop held as part of pesticides training; project staff took part in Pest Risk Assessment (PRA) workshop held as part of SAUKOTS PRA/Horizon Scanning project and sector workshops (such as for Roads Section) for up to 20 persons held to develop sector guidelines for IPS management.</p> <p>Two persons from Ascension Island participating in Biosecurity exposure visits to ENRP Biosecurity Section were provided with IPS instruction through the project.</p> <p>Seventeen persons trained in safe use of pesticides, including 5 members to become trainers themselves.</p> <p>One IPS Support Officer trained in South Africa.</p> <p>Newspaper articles implemented and the project established and maintained a Facebook page to help promote the project and its activities.</p> <p>Two IP awareness weeks held during life of the project.</p>
Activity 2.1: Design and implement a public awareness and education programme.	The project team attended and presented at Careers Fair day. Contributed to awareness material for Biosecurity awareness week, create displays for farmers day, presented an introduction and overview of the project for St Helena Nature Conservation Group and Farmers Association, and Project updates provided for Chamber of Commerce and Elected Members meetings.
Activity 2.2: Deliver invasive plant workshops on identification and area wide management for conservationists, land managers, farmers and forestry workers, and the general public.	Workshops for roads and waste management sections were implemented arranged. As part of Weeds Awareness Week several workshops were held. Topics included: 'Safe removal, storage, transport

		and disposal of green waste', 'Plant me instead', 'utilising invasive plants' and 'How can you help'.
Activity 2.3: Deliver training courses on safe use of pesticides.		Achieved. Invasive plant trainer Dr Harding visited from South Africa and trained 17 people over a 7 day period in pesticides use.
Activity 2.4: Run invasive plant awareness week.		Achieved. Two events held - in May 2018 and May 2019.
Output 3. Strengthened local capacity to manage priority invasive plants	3.2 Cost effective methods for five problem invasive plants developed for environment, agriculture, forestry, roads and landowners by November 2018.	Trials for pheasant tail fern, creeping fuschia, wild mango, bull grass and white weed undertaken to close current gaps of control options for these important species, and stakeholders made aware of results. Report available to inform IPS management plans across sectors (see Annex 3).
Activity 3.1: Carry out trial area-wide annual whiteweed (<i>Austro eupatorium inulifolium</i>) control campaign, coordinated across all relevant sectors.		Achieved.
Activity 3.2: Design and carry out trials for the cost-effective management of wild mango (<i>Schinus terebinthifolius</i>).		Achieved.
Activity 3.3: Carry out targeted removal of African fountain grass (<i>Pennisetum setaceum</i>) in the upper Sandy Bay area.		Achieved.
Activity 3.4: Design and carry out trials for the cost-effective management of pheasant tail fern (<i>Nephrolepis cordifolia</i>).		Achieved.
Activity 3.5: Design and carry out trials for the cost-effective management of creeping fuchsia (<i>Fuchsia coccinea</i>).		Achieved.
Output 4. Improved knowledge for invasive plant management strategies and tactics.	4.4 Invasive plant webpage in place with practical information by October 2017; all technical outputs of the project placed on the website within 1 month of finalisation 4.5 At least 20 best-practice guidelines/procedures/standards/codes of practice for invasive plant management (10 in year 1 and 10 in year 2)	Project webpage established within first year of project. Guidelines established for Airport site monitoring for IPS and management of IPS along Roadside Verges (see Annex 4c). This indicator was too ambitious during project design and not achievable.

	4.6 Best practice guidelines for disposal of green waste by October 2018	Although discussion held and verbal procedures established, no written guidelines were established.
Activity 4.1: Review and refine the Weed Control Manual for managing nationally significant invasive plants		Achieved through use of additional information achieved through IPS control trials (See Annex 3).
Activity 4.2: Establish and implement best practice guidelines for minimising invasive plant spread including: <ul style="list-style-type: none"> ▪ A model code of best practice ▪ Sector/industry-specific guidelines 		Guideline achieved for reducing the spread of IPS along road verges and their disposal (see Annex 4c).
Activity 4.3: Develop and implement best practice guidelines for the safe disposal and processing of invasive plants, contaminated material and green waste, through addressing requirements for: <ul style="list-style-type: none"> ▪ Urban areas ▪ Agricultural areas ▪ Industry High-risk invasive plant species		See above.
Activity 4.4: Share lessons learned across other SA UKOTs and the wider invasive plant management community.		Project shared progress on activities with Ascension Island conservation team and visiting international teams from RSPB, CABI, CEH, Falklands and other participants visiting St Helena as part of PRA and Horizon Scanning Projects.
Output 5. Nationally significant invasive plant species under innovative and cost-effective management.	5.4 Relevant SHG Divisions, SHNT and key private sectors include Invasive Plant Management Strategy actions in their annual work/operational plans from 2018/2019 financial year onwards. 5.5 Report of initial area-wide trial of invasive plant management, 5.6 At least 5 priority invasive plant species being routinely mapped as part of the monitoring programme by February 2019.	Government support for invasive plant management has reduced and this has impacted community involvement and support for the project. Cooperation has remained relatively good within stakeholder sectors, however this could be improved with dedicated IPS leadership and sustainable annual funding support to co-ordinate IPS management.

<p>Activity 5.1: Design and cost restoration initiatives in appropriate areas where major invasive plant management intervention recommended</p>	<p>Endemic restoration initiative utilising dryland endemics species established to be used to restore land cleared of wild mango at Cooks Bridge. Alternative grass rehabilitation initiative recommended for pasture land where Bull Grass intervention is necessary over large areas.</p>
<p>Activity 5.2: Mainstream invasive plant management actions into annual work plans.</p>	<p>IPS management included within ENRP Strategy and Delivery Plan through recurrent and project programmes and within some land owner annual work plans.</p>
<p>Activity 5.3: Coordinate landowners to carry to a trial of area-wide control of priority invasive plant species, using methods developed in Output 4 where appropriate.</p>	<p>Not able to be achieved with the limited funding that was available through the project to incentivise this activity. Some land owners using the trials information to assist their own IPS plans, particularly a few of the private land owners with pastures.</p>
<p>Activity 5.4: Long-term monitoring programme (LTMP) established for priority invasive plant species across key sectors, based on protocols developed in Activity 1.8.</p>	<p>Not achieved. Work was undertaken under this activity in the form of a system for mapping changes in IPS (current vs post project, with control and any new spread) but no LTMP was established at project end.</p>

Annex 3 Standard Measures

Code	Description	Totals (plus additional detail as required)
Training Measures		
1	Number of (i) students from the UKOTs; and (ii) other students to receive training (including PhD, masters and other training and receiving a qualification or certificate)	1 male receiving weed control certificate from training in South Africa
2	Number of (i) people in UKOTs; and (ii) other people receiving other forms of long-term (>1yr) training not leading to formal qualification	
3a	Number of (i) people in UKOTs; and (ii) other people receiving other forms of short-term education/training (i.e. not categories 1-5 above)	
3b	Number of training weeks (i) in UKOTs; (ii) outside UKOTs not leading to formal qualification	
4	Number of types of training materials produced. Were these materials made available for use by UKOTs?	
5	Number of UKOT citizens who have increased capacity to manage natural resources as a result of the project	Up to 30 persons within the Government, St Helena National Trust and Landowners
Research Measures		
9	Number of species/habitat management plans/ strategies (or action plans) produced for/by Governments, public authorities or other implementing agencies in the UKOTs	1 IPS control options Trials Report produced
10	Number of formal documents produced to assist work in UKOTs related to species identification, classification and recording.	2 IPS documents produced – Key species fact sheets and Airport protocol.
11a	Number of papers published or accepted for publication in peer reviewed journals written by (i) UKOT authors; and (ii) other authors	
11b	Number of papers published or accepted for publication elsewhere written by (i) UKOT authors; and (ii) other authors	
12b	Number of computer-based databases enhanced (containing species/genetic information). Were these databases made available for use by UKOTs?	1 database for St Helena.
13a	Number of species reference collections established. Were these collections handed over to UKOTs?	

Code	Description	Totals (plus additional detail as required)
13b	Number of species reference collections enhanced. Were these collections handed over to UKOTs?	
Dissemination Measures		
14a	Number of conferences/seminars/workshops/stakeholder meetings organised to present/disseminate findings from UKOT's Darwin project work	Up to 5 workshop/meeting events held to discuss project's species trials findings Up to 10 stakeholders meetings organised during project
14b	Number of conferences/seminars/workshops/stakeholder meetings attended at which findings from the Darwin Plus project work will be presented/ disseminated	
Physical Measures		
20	Estimated value (£s) of physical assets handed over to UKOT(s)	
21	Number of permanent educational/training/research facilities or organisation established in UKOTs	
22	Number of permanent field plots established in UKOTs	
23	Value of resources raised from other sources (e.g., in addition to Darwin funding) for project work	

Annex 4 Publications

Provide full details of all publications and material that can be publicly accessed, e.g. title, name of publisher, contact details. Mark (*) all publications and other material that you have included with this report

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. weblink, contact address, annex etc)

Annex 5 Darwin Contacts

Ref No	
Project Title	
Project Leader Details	
Name	Darren Duncan
Role within Darwin Project	Support for project reporting for the Project after Project Manager left before project end and project lead moved to a new role at project end.
Address	
Phone	
Skype	
Email	
Partner 1	
Name	Directors – both Directors who were involved with the project have left their post as Director.
Organisation	St Helena National Trust
Role within Darwin Project	Lead officer for SHNT partnership
Address	
Skype	
Email	
Partner 2 etc.	
Name	
Organisation	
Role within Darwin Project	
Address	
Skype	
Email	

Annex 6 Supplementary material (optional but encouraged as evidence of project achievement)