





# Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

# Darwin Plus Project Information

Project reference	DPLUS073
Project title	Improving small island resilience and self-sufficiency in habitat monitoring and management
Territory(ies)	British Virgin Islands
Lead organisation	University of Roehampton (UoR)
Partner institutions	Jost Van Dykes Preservation Society (JVDPS), Royal Society for the Protection of Birds (RSPB)
Grant value	£119,283
Start/end date of project	April 2018-March 2019
Reporting period (e.g., Apr 2018-Mar 2019) and number (e.g., AR 1,2)	Apr 2018-Mar 2019/AR 1
Project leader name	Louise Soanes
Project website/blog/Twitter	N/A
Report author(s) and date	Louise Soanes and Susan Zaluski. 29/04/2019

# 1. Project overview

Following the devastating 2017 hurricane season, improving island resilience to extreme weather events is at the forefront of the BVIs community's mind. This project will promote the value of natural coastal and marine habitats in providing protection against future extreme weather. Focusing on the small inhabited island of Jost Van Dyke (JVD), this project will assess the resilience of key terrestrial and marine habitats, establish environmental baselines, produce long-term management plans, increase awareness of the value of key habitats and implement resilience recovery measures.



Location of Jost Van Dyke, British Virgin Islands

# 2. Project stakeholders/partners

Government representatives have been involved in stakeholder meetings and offered training opportunities throughout the project (*Annexe 2.1 training/workshop records*). Stakeholder consultation has also included meetings held between project leads and national agencies to discuss mangrove restoration (*Annexe 2.2 notes on national mangrove restoration*) and with the BVI Government's Reconstruction and Development Agency (RDA) to introduce this project's aims and how these may relate to the coastal restoration across the wider territory. On the 6th December 2018 project leads (Louise Soanes and Susan Zaluski) also presented and attended a workshop held under DPLUS081 where we took the opportunity to introduce our project to BVI stakeholders, which included representatives from the National Parks Trust of the Virgin Islands, BVI Conservation & Fisheries Department, the Ministry of Natural Resources and the BVI Department of Disaster Management. The meeting also included representatives from Environment Systems, JNCC and Turks and Caicos environmental agencies (*Annexe 2.3 workshop agenda and 2.4 powerpoint presentation*). Data sharing between the two concurrent Darwin projects was discussed, and possible coastal restoration activities that were specific to JVD but that could be expanded across the territory were raised.

Jost Van Dyke is a small island with less than 300 people most of whom reside and work in two small settlements on the island, the JVDPS office is centrally located and JVDPS staff are regularly seen within the community. Our local project lead engages on an almost daily basis with members of the community when conducting project activities. This informal almost one-one level of engagement and knowledge exchange works well in a small island community. In addition to face-to face discussions with people residing on JVD we have uploaded nine social media posts detailing the project activities on the JVDPS and JVD community board facebook pages – with positive feedback and a high level of engagement by JVD residents. We are also reaching the wider BVI community with facebook posts on the BVI Wildlife facebook page and through national newspaper articles (*Annexe 2.5 media posts*).

## 3. Project Progress

### 3.1 **Progress in carrying out project Activities**

**Output 1.** Focuses on baseline data collection and the assessment of the status and resilience of key habitats in JVD and its offshore cays to future climate change. Activities related to his output that have been undertaken in year one of this project include a visit in 2018 by Dr Gregg Moore (tropical restoration specialist, University of New Hampshire) to assist in the assessment of the state of JVD's and the wider territories' mangrove ecosystems (Annexe 3.1 & 3.2 Mangrove assessment report and data), this initial visit was followed up visit in March 2019, when Dr Moore and Susan Zaluski drafted a resilience and recovery plan for JVD's mangroves, which is in the final stages of preparation. In May 2018 a 'train the trainers' workshop was held on JVD which focused on methods for assessing the resilience of key habitats and collecting baseline, this workshop was facilitated by Dr Kathleen Wood (SWA Ltd.) with representatives from JVDPS, the JVD community, NPT, University of Roehampton and ActionQuest youth sailing programme in attendance (Annexe 3.3 project workshop agenda). Following this workshop Susan Zaluski has provided training to an additional 10 members of the JVD community (including 7 youths), who then assisted with baseline data collection of mangroves, seagrass, and coastal habitats. In addition, this project supported a Stanford University MSc student Andrea Celeste in her work to develop a citizen science coral reef monitoring using photogrammetry to measure the rugosity, which can be used as an index of reef health and resilience. Ms. Celeste worked with two local field assistants to conduct initial assessments and will be returning during the summer of 2019 to survey more sites, train additional field staff in monitoring methods and the analysis of data (Annexe 3.4. training records/workshop attendance lists, Annexe 2.5 facebook post related to workshops and training activities and Annexe 3.5. example coral reef rugosity maps). Local partner organisation, JVDPS established an annual scholarship with a U.S. (Florida Keys) based Marine Lab run by Marine Resources Development Foundation (MRDF) for a BVI educator to attend a week-long course in coastal ecosystem monitoring. In summer 2018, the environmental studies instructor (Orville Phillip) from H.L.S. Community College on Tortola attended. For summer 2019, the environmental education officer (Argel Horton) for the BVI's Department of Conservation and Fisheries will attend the workshop and in summer 2020, an elementary school teacher from Jost Van Dyke (Jessica Callwood) will attend. Through these training exercises we have been able to produce monitoring manuals for seagrass, coral reefs, coastal vegetation and mangroves habitats (*Annexe 3.6 monitoring manuals*). We have been able to collect baseline data from 13 costal sites around JVD (*Annexe 3.7 map of areas surveyed*). The assessment of the resilience of JVD's coastal ecosystems is in progress and will be finalised once all key habitats have been surveyed.

Output 2 focuses on the development of conservation management actions to increase the resilience of key ecosystems to severe weather events. The activities related to this output are predominately scheduled to take place in year two of the project. However, we have already started discussions with representatives from Montpellier University regarding the installation of eco-moorings, formed working partnerships with the Anguilla National Trust to share ideas about the installation of reefballs and have engaged an architect to design a mangrove and coastal plant nursery in preparation for re-planting restoration activities (Annexe 3.8. mangrove nursery design). As part of this project we have also purchased Automatic Detection System (AIS) vessel location data which details the locations of vessels around JVD over the past three years (Annexe 3.9. example map of AIS data), with this data we will be able to plot the most heavily used channels and mooring areas for boats and overlap these with benthic habitat data collected during this project and DPLUS081, this will feed into the creation of a marine spatial plan for the waters surrounding JVD and the creation of a virtual buoy system in collaboration with Vesper Marine to create virtual automated boundaries to marine parks and other key identified marine habitats. This AIS data and marine plan will also play a part in oil spill recovery. We have also created, and circulated to stakeholders, a long-term management plan along with recommendations for the restoration of the classified World Monument of Sandy Spit (Annexe 3.10 Sandy Spit monitoring and restoration report). In addition, in December 2018, two JVDPS staff and three additional community members were trained in the use of skidskeer heavy machinery (that was donated to JVDPS following the hurricanes), which has now been used to clear hurricane debris from two of the largest and most biologically important coastal wetlands on the island (White Bay and East End), further sites for clearance will be identified in year two of the project.

**Output 3**. focuses on increasing the understanding of the important role that healthy terrestrial and marine ecosystems can play in improving small islands resilience to extreme weather events. To date, we have been very active in promoting this project on facebook, which is the most commonly used form of social media on JVD. We post regularly on the JVDPS facebook page and the JVDPS community page and have received a lot of interest and engagement with the posts (*Annexe 2.5*). We have involved 10 JVD community members (including 7 youths) in biological monitoring and/or restoration activities and incorporated project activities into the JVDPS summer camp (mangrove planting and vegetation mapping on Sandy Spit) (*Annexe 2.5*). We expect that the level of community engagement will increase further when we start to plan and implement restoration activities in year two of this project. We have also submitted an application to the Queens Commonwealth Canopy organisation to recognise the replanting, restoration and importance of mangrove forests in JVD, if successful this accreditation will also help to raise the value of mangrove forests to the local community and wider territory (*Annexe 3.11 and 3.12*).

# 3.2 Progress towards project Outputs

Prior to this project there was limited baseline data on the biodiversity of JVDs coastal habitats and no formal assessment of the resilience of coastal habitats to inform restoration activities. The local community had varying levels of understanding of the importance of healthy coastal ecosystems but have become more open to realising and supporting the protection and restoration or coastal ecosystems following the devastating 2017 hurricane season. Baseline data collection and the resilience assessment of key coastal habitats around JVD (Output 1) are well underway and are just awaiting further data that is being collected by a Stanford University Msc student in the summer of 2019 and students on board the ActionQuest sailing vessels in collaboration with JVDPS and local staff, volunteers and school children. Those habitats that have already been surveyed, such as all mangrove areas and several of the offshore cays already have draft action/recovery plans (*Annexe 3.9 and Annexe 3.10*). While the resilience building activities (Output 2) are not scheduled to begin until year two of the project, our stakeholder engagement

and baseline assessments have already highlighted key areas where restoration should occur allowing us to begin some activities sooner. For example, the re-planting of Sandy Spit, and the building of a mangrove and coastal vegetation nursery. From the onset of the project we have been working on raising awareness and promoting the value of coastal ecosystems not just in JVD but also across the wider territory (Annexe 2.5 social media posts) this publicity campaign and involvement of local staff and volunteers will continue into year to of the project. We are confident the outputs will be met by the end of the project. We also believe that the added value of collaborating with other ongoing projects within the BVI, will strengthen the overall achievements and impact that this project will have.

#### 3.3 Progress towards the project Outcome

This project's outcome 'Key habitats mitigating the effects of extreme weather events identified, assessed and actions taken to conserve and build their resilience in Jost Van Dyke and its offshore cays, using stakeholder input for guidance' is well underway, (see activities under 3.1). We are confident that the outcome will be achieved by the end of the project. Following guidance from Darwin plus reviewers on our original logframe we have amended the measurable indicators and means of verification (See logframe below). We believe that the revised indicators will be adequate for measuring achievement of the project outcomes.

#### 3.4 Monitoring of assumptions

One of the main assumptions of this project was that stakeholders are interested and willing to play a part in the project activities and aims. Since the 2017 hurricane season members of the community, civil societies and national agencies are all extremely supportive of initiatives that may reduce the future impact of storms and ground seas. As such, we have had very positive support for this project and its activities. This can be seen through the positive engagement with our facebook posts on the JVD community board's facebook page and the local community's general interest and engagement with our on-the ground activities. At a national level the BVIs RDA sought engagement with local project lead Susan Zaluski, as they had heard about this on-going work on JVD (in particular mangrove and reef restoration) and are interested in expanding such work across the territory. We have also formed strong links with the Road Town Rotary club who are interested in mangrove restoration work on Tortola and as part of this project we are planning to establish a mangrove nursery on JVD that should be able to supply seedlings to the wider territory.

The second main assumption of this project is that the three restoration actions stated in the application will be achieved in the time frame of the project. We are confident that this will be the case as we have already started working towards these activities (e.g removing debris from key wetlands, re-vegetation of Sandy Spit, and collating vessel mooring data to inform a marine spatial plan). We also anticipate being able to go above and beyond the originally proposed number of restoration activities by collaborating with other agencies and seeking funding from other sources to support restoration activities to increase the long-term impact and sustainability of this project.

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

This project was designed to deliver against the following strategic outcomes for the natural environment: (1) developing approaches to deal with the effects of climate change and (2) Improving marine and coastal conservation, protection, and management, including developing integrated management plans. The whole basis of our project so far has been to collect baseline data, to identify key habitats, and to discuss and plan restoration/resilience building activities that will support long-term outcomes for the natural environment. Our outreach activities will continue throughout the project highlighting simple, yet effective eco-engineering methods for protecting coastlines (e.g. planting natural vegetation, restoring dunes etc.), and in raising awareness of the importance of coastal habitats through the local community to ensure their protection and sustainable use in the future. All of the work conducted as part of this project has involved local field staff and is stakeholder led, thus ensuring capacity is built with both JVD and the wider territory to manage environmental assets into the future. Darwin Plus Annual Report Template 2019

# 4. Monitoring and evaluation

A signed and agreed MOU between the partner organisations at the start of the project set out the obligations and roles of all parties in delivering the project objectives. Project Leader Dr Louise Soanes, leads on all administrative aspects, and is responsible for managing the project timeline, overseeing project outputs and coordinating the development of monitoring report, with the support of project partners. Louise Soanes is based on the nearby island of Anguilla, so has had flexibility in when she makes trips to JVD and has arranged her visits whenever her assistance will be of most value. During the first year of this project Louise visited JVD in May, August and December 2018 to assist with project activities and meet face to face with local stakeholders and the project manager. Project Manager, Susan Zaluski, who is based in JVD, has been responsible for the operational implementation of the project and in engaging stakeholders in project activities, Susan reports back on her activities on a weekly basis via a WhatsApp chat group or direct conversation with Louise Soanes. An additional project WhatsApp group has been established between the project lead, project manager and Lyndon John (RPSB), this group is used to share ideas and work plans, and is the format used to have direct conversations - Two project partner meetings have been held. Project partner Charlie Butt (RSPB Caribbean Overseas Manager), also visited Susan Zaluski for a site visits to discuss project activities and future plans in March 2019. All activities related to M&E for this project are detailed in our M&E plan (Annexe 4.1 Monitoring and evaluation plan)

### 5. Lessons learnt

While the focus of this project was to help build resilience to climate change one of the main challenges facing us at the project onset was trying to mobilise resources. The negative effects of the 2017 storm season lasted a lot longer than expected (for example intermittent electricity and internet has meant for at least the first part of the project communication was more difficult between project partners). We had also budgeted for a small survey vessel, which took longer than anticipated to find and purchase since 90% of the boats within the Virgin Islands had been destroyed in 2017 so demand for both new and used boats was high. These minor setbacks led us to take a more flexible approach to data collection, and to try to work and collaborate with other national and international organisations to help us complete our project activities in a timely fashion, which has worked well.

One of the positive impacts of this project is that it has allowed our local project partner JVDPS to source additional smaller funds that will be used to support further activities to complement the overall outcome of this project, for example, JVDPS secured \$10,000 in additional funds for mangrove restoration across the wider territory (from BirdsCaribbean and BVI Unite). Additional funds will also help transition some project activities into long-term programmes for JVDPS.

# 6. Actions taken in response to previous reviews (if applicable)

N/A

# 7. Other comments on progress not covered elsewhere

N/A

# 8. Sustainability and legacy

This project's activities are all involve local field staff, with training if required, this and the involvement of stakeholders to design and implement long-term management plans conservation management activities will ensure local buy-in to the overall outcome of the project.

# 9. Darwin identity

We report the Darwin funding source on every press release and social media posting that we issue and make the funding source known in any meeting we hold with any national or international organisation. (Appendix 2.4 and 2.5). In addition to the presentations and outreach already mentioned, project partners Susan Zaluski and Lyndon John presented on our work at the Caribbean Conservation Managers meeting in June 2018 (Annexe 9.1)

# 10. Project Expenditure

#### Table 1: Project expenditure <u>during the reporting period</u> (1 April 2018 – 31 March 2019)

Project spend (indicative) in this financial year	2018/19 D+ Grant (£)	2018/19 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (printed materials, ID guides)				
TOTAL				

Annex 1: Report of	f progress and achievement	s against Logical /	Framework for Finan	icial Year 2018-2019 -	- <u>if appropriate</u>
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Project summary	Project summary Measurable Indicators		Actions required/planned for next period
Impact Increased understanding of local communities and and protecting natural ecosystems to increase sma	national authorities of the importance of preserving all island resilience to extreme weather events.	We have been working directly with local communities, civil societies and government agencies to achieve the impact of this project. To date, we have engaged stakeholders in biological monitoring and held discussions on resilience building activities that will be undertaken during year two.	
<b>Outcome</b> Key habitats mitigating the effects of extreme weather identified, assessed and actions taken to conserve and build their resilience in Jost Van Dyke and its offshore cays, using stakeholder input for guidance.	<ul> <li>0.1 At least 3 habitat restoration activities implemented by the end of project</li> <li>0.2 JVD community awareness raised on the importance of coastal habitats in building resiliency</li> </ul>	The habitat restoration activities are due to take place in year two of the project, however we have already made progress towards these activities (see section 3.2). In addition, we have been raising awareness on project activities and outcomes since the beginning of the project and have undertaken training of local people (see section 2 & 3).	At least 3 habitat restoration activities will be implemented. These will likely include (1) pilot project establishing virtual boundaries for marine parks and key marine habitats, (2) establishment of a mangrove nursery and the re-planting of mangroves. (3) installations of reefballs/ eco-moorings and (4) re-planting of coastal vegetation Community awareness raising will continue into year two of the project. In addition, on-the ground restoration activities will employ local staff and encourage local civil societies and school children to volunteer on project.
Output 1. Baseline data	Report on baseline assessments and GIS maps	The collection of baseline data is still underway and	activities d will be completed by the end of Q2Y2.
collection and assessment of the produced and circulated to stakeholders status and resilience of key habitats in JVD and its offshore cays to future climate change		Spit (Annexe 3.10), and circulated this to stakehold mangrove restoration.	lers, we have also drafted a recovery plan for
Activity 1.1 BVI specific training manual produced		Completed for five key coastal habitats (Annexe 3.6)	Training in monitoring methods will continue to be provided to JVDPS staff, volunteers and civil societies on JVD and the wider territory
Activity 1.2 Training workshop in methods for asse baseline data attended by at least 10 local stakeho	ssing resilience of key habitats and collecting Iders	A 'Train the trainers' workshop was held in May 2018, and lessons learnt have been disseminated to 10 members of the JVD community	Training in monitoring methods provided to additional volunteers and civil societies on JVD and the wider territory
Activity 1.3 Resilience assessment of 11 mangrove	e areas	Preliminary report completed and second manuscript in preparation (Annexe 3.1)	Follow up monitoring of mangroves at key sites to monitor re-growth and success of restoration activates. Report produced by EOP

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
Activity 1.4 Resilience assessments of seagrass an	eas within the four marine parks	Four sites surveyed, further sites to be surveyed by ActionQuest and JVD students by the end of Q2Y2	All seagrass areas surveyed by Q2Y2
Activity 1.5 Resilience assessment of coral reefs in	the four marine parks	Four sites surveyed, further sites to be surveyed by Stanford University student at local staff by end of Q2Y"	All coral reef areas surveyed by Q2Y2
Activity 1.6 Resilience assessment of eight sand du	ine systems on JVD and its offshore cays	Four coastal sites on JVD mainland surveyed, and three sites on the offshore cays of restoration activates. Report pro- EOP	
Activity 1.7 Identification of key habitats that would	benefit from resilience building activities	Two sites have already been identified by stakeholder consultation; (1) the historic monument of Sandy Spit and (2) East end mangrove forest.	Further sites will be prioritised for restoration activities by the end of Q1Y2.
Activity 1.8 Produce report on resilience assessme	nts	Will be completed once all sites have been assessed	To be completed by Q2Y2
Activity 1.9 Baseline data collection – monthly mari Activity 1.10 Baseline data collection- monthly beau Activity 1.11 Baseline data collection – monthly mo	ne park surveys for 12 months ch profiling for 12 months nitoring of mangrove habitats/wetlands	Consultation with experts in various ecological fields (Dr Gregg Moore and Kathleen Woods) recommended that monthly data collection from coastal habitats on monthly basis is not necessary to detect change, as such we have instead re-focused our activities to increase the number of sites we can survey, and to increase	Repeat visits to key habitats will be undertaken in year two of the project to monitor sites, and has already been completed for mangroves habitats.
Activity 1.12 Analysis of data and production of rep	ort detailing base-line data	our monitoring activities across the wider territory           Will be produced once all data has been collected	Produce report by end of Q2Y2
Output 2. Development of Conservation management actions to increase the resilience of key ecosystems to severe weather events, incorporating stakeholder input.	<ul><li>0.1 Stakeholder informed recommendations made on key sites for habitat restoration</li><li>0.1 Habitat restoration of at least 3 sites in JVD</li></ul>	We are well on our way to implementing conservat partnerships with organisations to pilot reef balls, e JVDs coastlines. We have also designed a mangro 3.2 for more details)	l ion management actions, having already formed co-moorings and a virtual buoy system around ove nursery and started restoration (see section
Activity 2.1. Stakeholder workshop to discuss and i monitoring plans	nform conservation actions and long-term	Stakeholder involvement is key to our project objectives and is carried out in an informal manner on an almost daily basis by our local project partner. We also regularly post social media articles on the JVD community facebook page.	Continue to engage stakeholders, and encourage local community members and civil societies to volunteer with restoration activities as well as providing paid employment to local community members
Activity 2.2. Implementation of at least 3 stake-hold project	ler informed conservation actions by the end of the	This activity has been scheduled to take place in year two of the project, however we are already	Implement at least three conservation activities by the end of the project

Project summary Measurable Indicators		Progress and Achievements April 2018 - March 2019	Actions required/planned for next period		
		well on our way to achieving this objective (see section 3)			
Activity 2.3 Production of long-term monitoring and	management plans	This activity is scheduled to take place in year two of the project	Produce long term monitoring and management plans		
Output 3. Increasing understanding of the important role that healthy terrestrial and marine ecosystems can play in improving small islands resilience to extreme weather events	At least 50% of the JVD public's awareness raised on the importance of coastal habitats in building resiliency	We began our public awareness campaign at the start of the project (see annexe 2.4) and monitor the number of engagements made by the local community on the JVD community facebook page as a measure of community engagement in the project.			
Activity 3.1 Stakeholder meeting to introduce the p	roject	Training workshop was held in May 2018. In addition, we have introduced the project to various stakeholders throughout year one of the project (see section 2)	Continued stakeholder engagement on project planning and restoration activities		
Activity 3.2 Engage at least 30 members of the loca the project	al community in training opportunities throughout	This is an on-going activity. To date 10 local community members have been trained in biological monitoring techniques and coastal habitat resilience assessments	Continue to train local community on monitoring and restoration techniques and expand our reach to the wider territory.		
Activity 3.3 At least ten press and social media pos	ts throughout the project	Eight project media posts/press releases	At least two more press releases and five more social media postings by the end of the project		
Activity 3.4 Project manager gives lecture at Comm	unity College by the end of the project	Scheduled to take place in year two	Give lecture at community college		
Activity 3.5 Project activities incorporated into JVD	kids summer camp	Activities were incorporated into the 2018 summer camp	Further activities will be incorporated into the 2019 summer camp		
Activity 3.6 End of project stakeholder meeting		Scheduled to take place in year two	End of project meeting held during Q4Y2		

# Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed) - if appropriate

Below is our original project logframe with revised measurable indicators and means of verification (in red) following advice from reviewers on our original application.

Project summary Measurable Indicators		Revised	Means of verification	Revised	Important Assumptions
Impact: island re	Increased understanding of local com esilience to extreme weather events (M	munities and national authoritie lax 30 words)	s of the importance of preser	ving and protecting natural ecos	ystems to increase small
Outcome: Key habitats mitigating the effects of extreme weather events identified, assessed and actions taken to conserve and build their resilience in Jost Van Dyke and its offshore cays, using stakeholder input for guidance. (Max 30 words)	<ul> <li>0.1 Quantitative baseline assessment of condition of key habitats and quantification and GIS mapping of natural resilience of coral reefs, sea grass, mangroves and beaches in JVD and its offshore cays</li> <li>0.2 Stakeholder workshops to share results and discuss long-term management and monitoring</li> <li>0.3 Finalisation of long-term management and monitoring plans, incorporating stakeholder input.</li> </ul>	<ul> <li>0.1 At least 3 habitat restoration activities implemented by the end of project</li> <li>0.2 JVD community awareness raised on the importance of coastal habitats in building resiliency</li> </ul>	<ul> <li>0.1 Quantitative data from surveys of the condition of key habitats GIS maps of resilience of habitats</li> <li>0.2 Report detailing the comprehensive baseline data that will be collected from key habitats throughout the project</li> <li>0.3 Stakeholder meeting reports and attendance records and reports on conservation actions implemented</li> </ul>	<ul> <li>0.1 Reports, press releases, social media postings detailing restoration measures</li> <li>0.2 Facebook and other social media postings related to the project monitored for community response/feedback</li> </ul>	Project progresses as outlined on project timetables Stakeholders are willing to play a part in the process
1. Baseline assessment and GIS mapping of the status and resilience of key habitats in JVD and its offshore cays to future climate change	<ol> <li>1.1 Training workshops in methods for quantitative assessment of ecological baselines and GIS mapping of resilience of key habitats, attended by at least 10 local stakeholders</li> <li>1.2 BVI-specific assessment methods and training manual produced</li> <li>1.3 Resilience assessment of key mangrove areas</li> <li>1.4 Resilience assessment of seagrass areas within the four marine parks</li> <li>1.5 Resilience assessment of coral reefs in the four marine parks</li> </ol>	1.1 Report on baseline assessments and GIS mapping produced and circulated to stakeholders	<ul> <li>1.1 Workshop attendance list and copies of training materials</li> <li>1.2 Training manual</li> <li>1,3 survey data sheets</li> <li>1.4 survey data sheets</li> <li>1.5 survey data sheets</li> <li>1.6 survey data sheets</li> <li>1.6 survey data sheets</li> <li>1.7 GIS map layers</li> <li>1.8 GIS map layers</li> <li>1.9 results published in open access journal</li> <li>1.10 survey data sheets</li> <li>1.11 survey data sheets</li> </ul>	<ul> <li>1.1 Report detailing results</li> <li>1.2 Stakeholder feedback reports/testimonies</li> <li>1.3 Press release/ social media postings</li> </ul>	We have access to all the key survey sites We are able to find project staff available to be trained to conduct surveys

	<ul> <li>1.6 Resilience assessments of beaches/dunes</li> <li>1.7 GIS mapping of baseline ecosystem service values and resilience</li> <li>1.8 GIS mapping of ecosystems where resilience building will be most beneficial to human and natural communities</li> <li>1.9 Report on resilience assessments</li> <li>1.10 Monthly marine park snorkel/dive surveys undertaken once a month for 12 months of the project</li> <li>1.11 Monthly beach profiling of beaches/sand dunes once a month for 12 months</li> <li>1.12 Monthly monitoring of mangrove habitats/wetlands once a month for 12 months</li> <li>1.13 Analysis of data and production of report on baseline data</li> </ul>		<ul><li>1.12 survey data sheets</li><li>1.13 Report published in open access journal</li></ul>		
2. Development of conservation management actions to increase the resilience of key ecosystems to severe weather events, incorporating stakeholder input.	<ul> <li>2.1 Stakeholder workshop to present results of output 1 and to discuss the implementation of small-scale JVD focused measures for increasing resilience to extreme weather</li> <li>2.2 Implementation of at least 3 stake-holder informed conservation actions by the end of the project</li> <li>2.3 Production of long- term monitoring management plans</li> </ul>	<ul> <li>2.1 Stakeholder informed recommendations made on key sites for habitat restoration</li> <li>2.2. Habitat restoration of at least 3 sites in JVD</li> </ul>	<ul> <li>3.1 Meeting attendance record</li> <li>3.2 Implementation of conservation action reported on social media, local newspapers and magazines</li> </ul>	<ul> <li>3.1 Stakeholder meeting attendance record</li> <li>3.2 Report on recommendations for habitat restoration made publicly available</li> <li>3.2 Implementation of conservation action reported in social media, local newspapers and magazines</li> </ul>	Stakeholders are interested in being involved in the project Stakeholder informed conservation actions are with the budget of this project Stakeholder informed conservation actions are able to be performed within the time-frame of this project

3.	Increasing understanding of the important role that healthy terrestrial and marine ecosystems can play in improving small islands resilience to extreme weather events	3.1 3.2 3.3 3.4 3.5 3.6	Stakeholder meeting to introduce the project At least 30 members of local community attends training sessions throughout the project At least ten press and social media posts throughout the project Project manager gives lecture at Community College by the end of the project Project activities incorporated into JVD kids summer camp End of project stakeholder meeting	3.1	At least 50% of the JVD public's awareness raised on the importance of coastal habitats in building resiliency	<ul> <li>3.1 Meeting attendance list</li> <li>3.2 Training attendance lists and training materials</li> <li>3.3 copies of press and social media outputs</li> <li>3.4 Copies of lecture materials</li> <li>3.5 Photographs and social media posts</li> <li>3.6 Meeting and attendance list</li> </ul>	<ul> <li>3.1 Monitoring of social media posts</li> <li>3.2 Reports on stakeholder interviews at the start and end of the project</li> </ul>	Stakeholders are interested in being involved in the project
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#### Annexes

### **Checklist for submission**

	Check
Is the report less than 10MB? If so, please email to <u>Darwin-Projects@ltsi.co.uk</u> putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with <u>Darwin-</u> <u>Projects@ltsi.co.uk</u> about the best way to deliver the report, putting the project number in the Subject line.	
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	No
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	