



Department
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Development



Darwin Plus: Overseas Territories Environment and Climate Fund Final Report

*Important note To be completed with reference to the Reporting Guidance Notes for Project Leaders:
it is expected that this report will be a maximum of 20 pages in length, excluding annexes*

Darwin Project Information

Project Ref Number	DPLUS014
Project Title	Building capacity to develop and provide long term sustainability for St Helena's paper and card recycling unit.
Territory(ies)	St Helena Island
Contract Holder Institution	SHAPE
Partner Institutions	St Helena Government (SHG), Health & Social Welfare Directorate (H&SW), Environmental Management Directorate (EMD), Enterprise St Helena (ESH)
Grant Value	£99,200.00
Start/end date of project	July 2013 – July 2015
Project Leader	Martin Joshua and Tracey Stroud
Project website	
Report author and date	Tracey Stroud, Susan Henry, Martin Joshua

1 Project Overview

- St Helena is a remote island in the South Atlantic Ocean. All waste generated on island remains on the island and prior to this project was ending up in landfill. At current levels of waste being land filled the site will be at capacity within eight years and there is not another area on island available for waste management. Paper and cardboard make up a significant amount of the bulk waste entering landfill. In 2013 it was estimated that 12% of paper and card was going into the landfill.
- The project is aimed at increasing SHAPE's capability to process and reduce the amount of paper and card going into landfill, by developing a fully functional, economically sustainable paper recycling centre that uses mechanised machinery, renewable energy and an increase in manpower. This includes four full-time staff; employment opportunities for disabled adults; and a robust volunteer programme. The project will help create community awareness in recycling and also deliver product lines to increase revenue which will contribute to the financial sustainability of the centre. One member of staff has gone on overseas training in paper recycling to convey back to staff and trainees.

2 Project Achievements

2.1 Outcome

Implementation of project activities this year was as follows:

Output1: Purchased and installed equipment and machinery:

Sourced a supplier for solar panels but have decided to purchase a brick machine instead to help with the production of our pulp bricks. The machine has been purchased and in process of being installed but a slight delay due to having bad weather on island still. Installed water tanks to collect grey water for pulp production and improved disabled access through visual and physical aids including hand rails. We have started with further uses for pulp such as, paper-concrete blocks, outdoor garden pots, pulp inspiration letters/words and paper pulp furniture. The trialling of pulp insulation slabs to insulate the corrugated iron sections of the recycling centre has commenced, with small test samples being produced and sent to construction companies on island to do their various tests, and now larger moulds are being designed and made to produce a run of full size boards. We have also started making and storing insulation boards for housing (building industry) on the island.

Last financial year saw increase revenue through sale of paper products. As well as securing a contract with an overseas businessman to make paper pulp packaging (quantity of 4000 big boxes and 1000 small boxes) for his Napoleon brandy that is now on the market on island and off island.

As part of our marketing strategy, tourism workshops and a marketing plan has now gone through the planning phase. A meeting was held with local tourism director to formulate ideas, and a draft policy has been drawn up ready for consultation with the SHAPE board members and staff.

Output2. Capacity building: increasing manpower through the employment of an assistant trainer, recycling trainer and supervisor have been secured as well as securing two apprentices for a 6 month contract at SHAPE. This allowed an additional six placements for disabled trainees; two of which have gone on to full time employment with private businesses, and one has taken on the role of trainee trainer at SHAPE.

Two members of staff have undergone training by an overseas consultant regarding formulating volunteer protocols, and a draft policy was written and consulted by staff and finally the SHAPE Board for endorsement. Following the consultation process, the volunteering programme has now been started and we have secured volunteers to help with our production. We currently have 3 volunteers every Tuesday and Friday and on numerous occasions had up to 6 volunteers a day. The programme of marketing and advertising for new recruits on island is still active.

Output3: Capacity building: an overseas training exposure visit to pass on experience to staff at SHAPE has been fulfilled. One staff member has gone on overseas training after securing the training in Netherlands with designer Debbie Wiljskamp who works with paper pulp. She has returned on the 19th April 2015 and in the process of implementing all she has learned. The training was successful as we have been able to identify new products that will benefit SHAPE but also give the trainees new skills in making these new products. We have secured a supplier for Resin in Netherlands that have the specs we require for our insulation boards which will benefit the building industry on island. Building relationships with two individuals in Netherlands and Cape Town have also been successful as one expands small businesses internationally, which SHAPE would like to do in the near future, and the recycled Teabag Company in Cape Town are excited to work together and sell SHAPE products in their two stores in Hout Bay and the Waterfront which are two very popular tourist areas in the Western Cape.

The SHAPE manager was able to receive an exposure visit in line with SHAPE's core activities in South Africa whilst attending private training through another organisation.

Unlike many organisations and the Saint Helena Government we do not rely on expatriate consultants and our entire workforce is local. We do, where possible, enlist the support of expatriates with recycling experience and they work closely with our staff to pass on knowledge and skills.

The change in our trainees, who are all vulnerable adults referred by Social Services, has been inspirational and one has progressed from being a trainee to a trainer. As well as two apprentices who have secured a 6 month contract at SHAPE.

Output4. Impact: Community participation of paper and card recycling. This is developing gradually as our only drop-off point for waste paper at this time is at the paper recycling centre. An efficient collection system has not yet been set due to our capacity to process the amount of card and paper we have in storage. EMD have secured recycling bins for the island which will benefit SHAPE as they have a paper section (as they do in the UK) and this will help us immensely. With the new outdoor furniture line and outdoor garden pots we are positive we will get through more of the paper pulp and be able to accept more paper and cardboard in our storage facility. With an agreement in place with EMD to shred all of our cardboard we find that we are able to process this more efficiently. However we do collect from government departments and a number of small businesses and there is a continual increase in awareness from the general public about the service we provide through word of mouth and public engagement.

We are known as the island's paper and cardboard recycling centre and we are not short of raw materials.

Output5. The amount of paper and card ending up in the landfill is reduced by 50% by the end of the project-

We continue to monitor progress of the project, and a total of 440KG of dry paper and card has been processed. (We weigh this by working out that each batch of pulp produced in the Hollander beater uses 2KG of paper which equates to a 45 litre bucket filled with paper.) St Helena Government's Environmental Management Directorate (EMD) waste monitoring programme stopped for part of the year due to staff restraints but they will be up and running again in mid July. The key players have gone on training and returned end of March 2015, we should be on track within the next few months. SHAPE was fortunate to join on the Solid Waste Management Training and now have a better idea of how we can join together to decrease waste in the landfill. We have the capacity to remove 50% of paper and card from the waste stream, with our industrial pulp, but we are limited by the market for our products, this is why we are exploring to expand sale of products internationally. We are exploring various high paper pulp volume items that are easy to manufacture and sell such as paper crete bricks and fuel briquettes, paper towels for Government as well as unique products sold on Etzy, Facebook, our website and weekly stalls in Town.

- **How has the project helped to deliver long-term strategic outcomes for the natural environment in the Overseas Territory(ies)?**

Our project's contribution to achieving strategic long term outcomes for St Helena's natural environment is in reducing the amount of paper and card going into the landfill through SHAPE's paper and card recycling unit. Our project will directly contribute to St Helena Government's 10 year Environmental Management Plan (EMP) and the Environmental Management Directorate (EMD) has a landfill monitoring system in place to determine the percentage of paper and card entering the landfill site through domestic waste streams. EMD set a baseline of 12% for landfill waste made up of paper and card, and our project aims to reduce that amount by 50%.

The first year of the project has seen less paper and card processed than we anticipated. This was due to problems arising from the installation of machinery which was often hindered by not being able to secure local contractors time, and the initial setting up phase which involved procurement challenges of equipment and materials that severely reduced production levels and targets. The second year we have seen an increase in paper and card processed and this has been due to an international contract for packaging, new products made and sold which has enabled us to process and make more pulp.

2.2 Outputs

All outputs have been achieved. However these are the outputs that actual changes have been achieved even though some problems have been encountered.

Output1: Purchased and installed equipment and machinery: This has been achieved. We encountered a few problems during this process. Purchasing a shredder that was not compatible for our tractor, we resolved this by having an agreement with EMD that all cardboard would be shredded at the Horse Point Landfill and SHAPE would collect for our products. We also found that it was not easy getting people with expertise to assist with machinery break downs as they would only be able to assist during their spare time and getting parts from South Africa or UK was always dependent on the RMS schedule. The brick machine has been purchased by Basil Read but with their deadlines for the airport and the weather still been unpredictable, it has taken some time to have this set up and production to start.

Output2. Capacity building has helped to accommodate more trainees with more severe disabilities to feel comfortable and safe at the Recycling Centre where they can move freely.

Output3: Overseas training has been a huge success which has helped us with different skills and ideas for more creative products to sell on island. There has been a huge increase in productivity and has generated more income since March 2015 to this present moment.

Output4: Impact: Community participation of paper and card recycling. With the segregation of waste now being separated on island we have businesses and the community dropping off cardboard and paper at the Recycling Centre as well as Horse Point Landfill. We are never short of raw materials in order to produce our products.

2.3 Sustainability and Legacy

SHAPE winning the 'St Helena green business award 2013' has promoted this project, along with presentations about paper recycling held at Prince Andrew Secondary School for 13 to 14 year old students. More extensive marketing on the project was launched with radio interviews, newspaper advertising on the Darwin project. SHAPE Recycling was also involved with the annual Careers Fair which is open to students and all of the public, as well as having training enrichment days for students from the various primary and high schools.

SHAPE has a very strong footprint on St Helena Island and a high quality brand that everyone is aware of. A number of steps have been taken to ensure sustainability once the project is over. One of which is securing annual grants through Service Level Agreements with SHG. We have set up storage of grey water for use in the recycling process, and increased the number of staff and trainees. Developing new product lines to increase revenue is significant in sustaining the project's objectives. Our product lines such as books, recycling paper, envelopes and packaging are becoming more popular. New revenue streams are opening up overseas through web based marketing such as facebook and our website.

We see opportunities to further develop volunteering. In the past we have benefited enormously from the work of volunteers either for specific activities or in helping out at events. We have formalized our volunteer programme in order to respond quickly to harness the enthusiasm and skills of people who want to work with us directly.

Strong links with the Arts and Crafts Association and the Tourist Office mean that we are well placed to take advantage of opportunities from post airport tourism. We have found a high supply and demand for our new line of products eg. Paper pulp words and outdoor pot plants

We have secured a working relationship with a vendor on island and will have our products sold at the airport (like we do on the RMS) once it is officially open.

Perhaps our greatest strength in achieving sustainability is the reputation that we have developed on island. We are held in high esteem by the local community and the government for both our work with vulnerable and disabled adults, as well as our pioneering efforts in mainstreaming recycling on the island. We remain the only social enterprise on St Helena and our high ethical and environmental standards that we set, means that we often lead the way in showing the rest of the island how the third sector can contribute to sustainable economic development

3 Project Stakeholders

EMD has played a key role in our planning and decision making this project. EMD holds regular recycling forum meetings to discuss, share ideas, and keep all relevant parties updated. These are regularly attended by the supervisor. The challenge we faced with EMD was that their waste management programme was at the stage where the segregated waste collection of paper and cardboard could not be launched within the island community until SHAPE had the capacity to use it. The relationship between SHAPE and EMD, we have agreed that EMD will shred all cardboard at Horse Point landfill and SHAPE will collect what they need. This has been working much better for both parties. EMD has helped secure additional avenues for paper pulp to be used, and these tie in with the development of our insulation boards to take on multiple applications in designing new product lines. EMD has also been on training with SHAPE accompanying them. We all now have a broader idea of how we can work together and reach our targets.

SHG has supported this project through funding one trainer and four trainees through the community work scheme.

Outside of government we are working closely with the National Trust and other conservation groups. We are also trialling a range of building products which use paper pulp as the main component and secured a link with a local construction company, interested in our insulation boards with the protective resin.

We have also been fortunate enough to work with Basil Read the contractor. We received the brick machine from them. They have been assisting with set up of the machine, but due to airport deadlines and bad weather on the island this has been slow.

Our recycled paper is also used in a number of craft projects and we work closely with the Arts and Crafts association in providing souvenirs for our fledgling tourist industry.

4 Lessons learned

SHAPE has established outstanding efforts in its procurement of machinery. The size of machinery being used at the Paper and Card Recycling Centre is relatively large with mechanical challenges that have involved a wider community effort in setting up. People outside of SHAPE with skills and expertise have given time to help with ensuring our equipment meets required functioning standards. This was at times challenging due to the fact the volunteered help of people with certain expertise could only assist when they had free time. The time frame that we envisioned was at times not realistic as we did not take into account that machines break and that getting the parts on island with the right people to assist with repairs, were not always on schedule or available. SHAPE has been able to accommodate more trainees due to the Recycling Centre having the right equipment and machinery as well as the centre being disabled friendly. This assists them in navigating and operating the equipment whilst making the paper pulp to produce products, but due to their disabilities they were not always able to achieve completion of products in a timely manner. SHAPE had to hire abled bodied people to assist with increasing our production line and this has cost a bit more money.

4.1 Monitoring and evaluation

Further methods employed to monitor and evaluate the project are, having regular meetings with staff to discuss activities for the week ahead and setting target deadlines. We discuss the trainees' progress and any difficulties that arise whilst implementing task. We constantly evaluate what trainees can do or do not feel confident to do. We place them in different areas within the centre where they feel more comfortable and confident in achieving production. We keep a spreadsheet of pulp and goods made within every week. EMD do quarterly evaluations at the landfill which assist us with the knowledge on how to reach our core objectives.

4.2 Actions taken in response to annual report reviews

- Update on % of disabled people – St Helena has 58 registered disabled people on island. SHAPE currently has 34 trainees and 8 high dependant trainees. We feel that we have accomplished our target of increasing work experience for the disabled to over 61%.
- Our sales targets have increased exponentially with new product line sales and international packaging contracts. In April 2014 – March 2015 we generated sales of £1752.16. From March 2015 to October 2015 we have generated sales of £9053.40 at the Recycling Centre. In the last 6 months we have increased our sales by 5 times from the previous period.
- We have attached better quality photos of the work happening at the Recycling Centre.

5 Darwin Identity

- The Darwin logo is present on our Facebook page for various items made at the Recycling Centre. Darwin Plus has been mentioned with all presentations and on the Power Point presentation shown at various venues. Darwin has been visual on newspaper articles and advertisements, the volunteer programme as well as live radio interviews. As well as a Darwin (letters) been made out of paper pulp outside the centre.

6 Finance and administration

6.1 Project expenditure

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others				
TOTAL				

Staff employed (Name and position)	Cost (£)
Tracey Stroud (Recycling Supervisor)	
Trevor Henry (Recycling Assistant)	
Julie George (recycling Trainer)	
Martin Joshua (SHAPE Manager)(Part Salary)	
TOTAL	

Consultancy – description of breakdown of costs	Other items – cost (£)
TOTAL	

Capital items – description	Capital items – cost (£)
TOTAL	

Other items – description	Other items – cost (£)
TOTAL	

6.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
TOTAL	

6.3 Value for Money

This project has allowed SHAPE to reduce the amount of paper and card going into the landfill, it has also enabled us to give work experience to more young adults with disabilities. With the financial aid of getting equipment we have been able to produce a number of different products that will assist with SHAPE being sustainable as we have a very strong brand on St Helena Island and supported by the community. We have invested in good quality machinery but have experienced some set back's with getting skilled individuals to assist with the set up at times. However, SHAPE Recycling Centre is running smoothly and now focusing on new creative and unique products to make with paper pulp.

Annex 1 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)	A diploma has been identified for Social Work and Counselling that one person is to start in March 2016
2	Number of (i) people in UKOTs; and (ii) other people receiving other forms of long-term (>1yr) training not leading to formal qualification	1 person went on UK training for Solid Waste Management Training with CWIM
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)	Volunteers receive training from trainers at SHAPE
3b	Number of training weeks (i) in UKOTs; (ii) outside UKOTs not leading to formal qualification	2 weeks
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	45 people (Trainees, Trainers and Volunteers)
Research Measures		
6	Number of species/habitat management plans/ strategies (or action plans) produced for/by Governments, public authorities or other implementing agencies in the UKOTs	
7	Number of formal documents produced to assist work in UKOTs related to species identification, classification and recording.	
8a	Number of papers published or accepted for publication in peer reviewed journals written by (i) UKOT authors; and (ii) other authors	
8b	Number of papers published or accepted for publication elsewhere written by (i) UKOT authors; and (ii) other authors	
9b	Number of computer-based databases enhanced (containing species/genetic information). Were these databases made available for use by UKOTs?	
9a	Number of species reference collections established. Were these collections handed over to UKOTs?	
9b	Number of species reference collections enhanced. Were these collections handed over to UKOTs?	

Code	Description	Totals (plus additional detail as required)
Dissemination Measures		
14a	Number of conferences/seminars/workshops/stakeholder meetings organised to present/disseminate findings from UKOT's Darwin project work	2 – Quarterly with EMD and once a month with SHAPE
14b	Number of conferences/seminars/workshops/stakeholder meetings attended at which findings from the Darwin Plus project work will be presented/ disseminated	6 presentations presented to SHAPE Board, ESH, Public and schools. Also a brief tour and article to a UK Journalist.
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 2 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 *	Detail	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers	Available from
(e.g. journals, manual, CDs)	(title, author, year)	author	of lead author	author	(name, city)	(e.g. contact address, website)

Annex 3 Darwin Contacts

To assist us with future evaluation work and feedback on your report, please provide details for the main project contacts below. Please add new sections to the table if you are able to provide contact information for more people than there are sections below.

Ref No	DPLUS014
Project Title	Building capacity to develop and provide long term sustainability for St Helena's paper and card recycling unit.
Project Leader Details	
Name	Martin Joshua / Tracey Stroud
Role within Darwin Project	Project Manager / Project Assistant
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