



Department
for Environment
Food & Rural Affairs



Foreign &
Commonwealth
Office



Department
for International
Development



Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

Important note *To be completed with reference to the Reporting Guidance Notes for Project Leaders:
it is expected that this report will be about 10 pages in length, excluding annexes*

Submission Deadline: 30th April 2017

Darwin Plus Project Information

Project reference	DPLUS050
Project title	Waste to Warmth- cardboard into insulation boards and bricks
Territory(ies)	St Helena Island
Contract holder institution	SHAPE
Partner institutions	SHG, Safe Guarding, EMD, DALCO
Grant value	£99 650.00
Start/end date of project	April 2016 – March 2018
Reporting period (e.g., Apr 2016-Mar 2017) and number (e.g., AR 1,2)	April 2016 – March 2017
Project leader name	Tracey Stroud-Belgrove
Project website/blog/Twitter	
Report author(s) and date	31 st March 2017

1. Project overview

SHAPE has established a successful recycling facility and currently produces products from paper and cardboard. The aim of the project is to fulfil our obligation and make significant contribution to reduce paper and cardboard going into the landfill. This project will continue to contribute to the delivery of the 10 year Environmental Management Plan. Increasingly more homes are seeing the benefit of heating by using the paper fuel bricks rather than depleting the Forest. The project also supports the vision of a vibrant economy, providing opportunities for all, especially the disabled. It continues economic growth through it's production of locally produced niche products. SHAPE is the only organization on island providing social awareness and work for the disabled and vulnerable to enable them to lead independent lives. This project achieves technical experience through the use of efficient and appropriate technology, skilled staff and dedicated trainees. The outcomes of the project will benefit the livelihoods of the local people.

2. Project stakeholders/partners

St Helena Government provides core funding for SHAPE to operate as a Social Enterprise for us to employ disabled and vulnerable people. This funding creates employment for staff and fully supports work of SHAPE in operating St Helena's first paper and cardboard recycling Centre. SHG have assisted finally but also supplies us with shredded paper and purchases recycled bins for all their Directorates from SHAPE.

The Safe Guarding Directorate works in Partnership with through a Service Level Agreement to deliver a fully comprehensive support programme to meet the needs of the disabled and vulnerable members of the community. Safe Guarding are very supportive of the environmentally focused work being done at SHAPE.

ENRD/EMD provides advice and support for effective environmental monitoring purposes. We have a positive working relationship with all the divisions within the Directorate. EMD assists us with information regarding the landfill monitoring as well as shred all our cardboard in order for us to break down into pulp and make products. EMD and SHAPE also work very closely when there are community projects or presentations.

We have a few private construction companies like the Mantis Group, Dalco and Ambedale that use our insulation Boards for works done. This is not as frequent as we would like however, it is definitely a positive step towards bigger projects.

3. Project Progress

3.1 Progress in carrying out project Activities

This project has allowed SHAPE to reduce the amount of paper and card going into the landfill - it will also enable us to give work experience to more young adults with disabilities in the near future. 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.

Output1: 100% of the three largest merchant's waste cardboard diverted from the landfill site

SHAPE have been able to communicate with merchants on island as well as private household's to have their cardboard and paper delivered at the Recycling Centre storage unit or to have it collected by SHAPE. Thus far we do collection around the island twice a week and have individuals deliver throughout the week.

The Building works at the Recycling Centre has been completed by a local contractor and we now have a drying room, show room and a Storage Room.

We await our heaters, racks etc from the UK before we can install anything into the new areas. This should arrive on the ship by May 2017.

Output2. 100% of the St Helena's Government's Waste cardboard and paper diverted from the landfill site.

SHAPE has a formal agreement with EMD (SHG) that there is a recycled storage section at the landfill for paper and cardboard. The agreement includes that once a week the Landfill manager has the paper and cardboard shredded for SHAPE where we collect from site every Friday morning, ready for the hydropulp machine on Monday's. Thus far this has worked and in the coming months we are hoping to increase the collection to twice a week as we start to increase our pulp making from 1.5tonnes a week to 2 tonnes a week.

Output3: Employment Opportunities for 3 additional staff, thus creating placement for additional six disabled clients

We have secured place for 3 staff members at the Recycling Centre, they are all responsible for different facets on the business to maintain the smooth running of the centre as well as to increase revenue for SHAPE within the next few months. New products, sales of the fuel bricks and insulation boards all play a huge factor in this. In the new year we will be sitting with Safeguarding to identify 6 new trainees to work at SHAPE for work experience.

Output4. Produce Insulation boards from recycled cardboard

We continue to make the insulation boards from recycled paper and cardboard. We have a storage room currently, building up stock. We have witnessed an interest in our insulation boards when The Mantis group who are building the hotel in Jamestown came to purchase some and expressed an interest in more. We start with insulating part of the Recycling Centre in January after the rush of the festive season orders for products. This section will be part of our showcase room at the Centre.

Output5. Increase production of fuel bricks

We continue to do the fire bricks manually due to the fact that we have had numerous issues with the brick machine purchased, we had assistance from Basil Read construction company to help but unfortunately the individual went off island. We have contacted another engineer on island to assist but have to wait for him to allow some time to assist. In the meantime we are still using the hand press so that we continue to increase our stock.

Output6. Increase amounts of paper and cardboard pulped

We continue to monitor progress of the project, and a total of 1.5tonnes of dry paper and card has been processed per week thus far. We are hoping to increase this to 2 tonnes in the near future once we have sorted out the brick machine .(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.)

Output7. A marketing campaign to promote new product lines

We have a basic Marketing Plan thus far (attached) and are looking forward to working on it more so that as we learn and grow we are able to see areas that we can expand on.

3.2 Progress towards project Outputs

Output 1 : Three of the largest merchants waste cardboard diverted from the Landfill site: The fact of having an increase in the amount of waste paper and cardboard being able to be processed means more pulp can be made and then placed into the community as reusable products. It also reduces the need for the EN&RD service to collect this to then be transported to the landfill site cutting down on their expenses as well. This also raises awareness within the business community of sorting waste as the cardboard would normally have been disposed of with normal waste however by sorting to give to SHAPE this process has to be done. The cardboard is then transported by SHAPE to the landfill to be processed for production, enhancing the working relationship between EN&RD , SHAPE and the business/local community and initiating a waste sorting process. All paper and cardboard waste would go to the landfill site before this process was initiated.

Output 2: The new works at SHAPE being completed resulting in a drying room, a show room as well as a storage room will mean that employees and trainees can now make and store products safely and effectively in the space provided. Previously the recycling centre space could only safely and effectively house large equipment and work areas. The additional space now allows more storage of products as production and demand increases. The drying room will allow quicker and effective drying area for the products which is needed as this will result in less time accumulated for drying products, meaning more products being produced, dried and then moved to storage.

Output3: Employment opportunities for additional staff, thus creating space for 6 additional disabled clients: The additional staff means that with increased production within the recycling centre, this can now be done so at a more effective rate as everyone has a role within the different processes, as well as having responsibilities for trainees that are tasked and

designated within those processes as well. The plans for additional trainees constitutes the principle of SHAPE and enabling more disabled persons to come and learn new skills and to be in a functioning workplace that is adapted to their needs. This helps both Safe Guarding in meeting their targets and SHAPE meets this with increased production and service provided to disabled persons.

Output 4 : Produce insulation boards from recycled cardboard: With the production of the recycled boards that were trialled by various construction businesses on island, we have continued research into these products and the developing construction methods on island. St Helena construction businesses and SHG are looking toward more greener and sustainable building materials instead of the normal mortar and block, along with alternative methods could come the need for insulation, which when developed to meet the building standards SHAPES insulation boards could be marketed and sold on a wider scale.

Output 5: Increase production of fuel bricks: With the unexpected delay in the setup of the hydraulic brick machine, we have still maintained a weekly production of fuel bricks. Due to the dry/hot weather before the construction of the drying room, the production rate was increased to maximise the stock as the drying time was limited, this has resulted in a good stock for the winter season which will be marketed in the local outlets. The increased production and increased number of trainees means that the system in place for brick production will now continue annually with the added drying room decreasing the need to be weather dependent (and once the brick machine is repaired this will increase further.

Output 6: Increase amounts of paper and cardboard pulped: The amount of paper and cardboard that has been pulped has been increased due to the increased human resources and increased production of fuel bricks, with the ongoing marketing strategy to develop SHAPE recycled products this will mean a need for even more pulp to be processed. The next product line is furniture made from large paper pulp board, each piece of furniture could use between four to five boards. The paper pulp boards use a large amount of paper pulp therefore an increase in the amount of pulp produced each week will have to be significant to cater for at least 6 boards per week to be made as well as the other products to continue increased production.

Output 7 A marketing campaign to promote new product lines:

Within the current marketing plan it outlines having the marketing be catered for the products as they are made and having identified the market for them. This will continue as new products are being made and production increases as well as expanding the outlets for overall products. Social media is also a way we plan to increase our use of for immediate marketing and customer and base.

3.3 Progress towards the project Outcome

One of the project outcomes is reducing paper and cardboard waste being taken to the landfill this is being met however the outcome of this being an increased production of fire bricks and insulation boards. The production rate has been increased to that of previous years but has not yet met the targeted rate for the project goals. This was due to unforeseen circumstances with machinery failure and the ability to repair this within times given, however during this time production has continued and not as a decreased but one that matches the requirements. The production of other recycled products as a result of this is a positive outcome as this generates constant income. It is likely that the outcomes for bricks and insulation boards will be met.

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

SHAPE's contribution to the environmental outcome for ST Helena is that of decreasing the amount of paper and cardboard that goes into the landfill. Until 2016, SHAPE collected approx 8 % of a combination of SHG and private sector businesses paper waste, because of awareness created through marketing, product sales and the partnership with EN&RD, this in turn has resulted in an increase to approx 20% of SHG and private sector. The increased paper has resulted in the increased paper pulp production and products, one of which being the fuel bricks, sales of fuel bricks from April 2016 – April 17 has also increased with the wider distribution via shops and media such as Facebook etc. The increase in sales of fuel bricks also contributes to another environmental issues such as decreasing the use of fossil fuels like charcoal for cooking or heating or destroying the islands diminishing supply of trees for wood. This has been found through customers reviews, that the bricks are being used as a cost effective way to provide heat within households whether for cooking or heating purposes. With the increasing cost of living on St Helena the demand for alternative fuel sources are expected to increase therefore we are anticipating an increase in our marketing, sales and distribution of fuel bricks.

3.5 Monitoring of assumptions

The assumptions outlined at the beginning of the project could remain however the predicted likelihood has proven well evaluated at the beginning and this is continuously approached or evaluated on a daily basis.

4. Monitoring and evaluation

Monitoring the progress and production of the project has always been monitored by recording the amounts of paper pulp produced on a weekly basis, recording of production of products and sales. These are kept on file for quarterly reports and for reference to check sales patterns or distinguishing customer base.

Project targets are always within these records to measure and compare on a weekly/monthly basis the amounts expected.

Larger scale measurements i.e. reduction paper waste into the landfill are measured by ENRD,SHG and as a stakeholder within their immediate goal terms they also inform us on request or interim reports on their progress in their projected goals as well.

5. Lessons learnt

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 is at times challenging due to the fact the volunteered help of people with certain expertise could only assist when they have 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 able bodied people to assist with increasing our production line and this has cost a bit more money.

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

The Darwin Project Manager submits quarterly reports.

7. Other comments on progress not covered elsewhere

In terms of the projects progress it has maintained and covered the targets set within the initial project start up. With regards to an exit strategy this has yet to be analyzed as SHAPE would like to become a sustainable recycling centre to continue the project through to the post Darwin funded phase. It is likely that plans would incorporate working partnerships with Safe Guarding and SHG departments to ensure a continued workforce and placement of disabled persons for the continuation of the recycling project.

8. Sustainability and legacy

The recycling project has been working towards raising awareness of recycling materials on island and within the communities. The aim of building a legacy to ensure that this is continued and spread throughout the islands community has been by a range of activities such as accepting school groups into the centre for hands on experience of making products, or helping in the processes this having been after being exposed to a tour of the premises and being told the aim of recycling and the benefits etc. This is also reinforced through the geography lessons on global warming effects that are being taught as a part of the education curriculum, and from their visits encouraged teachers to now introduce recycling initiatives within the schools by way of art projects and paper recycling. Once again the partnership with SHG has enabled SHAPE to participate in a few global events such as World thinking day celebrating by the guiding association on island, this enabled SHAPE to showcase their project aims and products to the islands guiding association, this was covered by local Television media and publicised which in turn resulted in orders for products and visits as well as creating an even wider awareness of the project aims amongst locals.

9. Darwin identity

SHAPE is a locally known organisation which currently does a lot of media interviews, advertising through local and social media's during which time a brief breakdown of the recycling centres background of Darwin funding is always given. In all situations of advertising and pricing ads hardcopy or digital the Darwin logo is always present. The most recent being a commonwealth day event where the islands Government environmental group was present along with visitors being shown the relation between Darwin and SHAPES more greener and environmentally friendly initiative.

The Darwin Project funding is also explained to school groups and visitors when at SHAPES recycling centre. The school groups have also incorporated the recycling initiative within the schools projects as a result of this enabling more and younger persons and their families to become more environmentally aware.

10. Project Expenditure

Table 1: Project expenditure during the reporting period (1 April 2016 – 31 March 2017)

Project spend (indicative) in this financial year	2016/17 D+ Grant (£)	2016/17 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs			47%	Additional staff required for project to continue effectively
Consultancy costs				
Overhead Costs			-15%	Savings in utilities etc used

				toward staff costs
Travel and subsistence			-47%	Under spend used toward staff costs
Operating Costs				
Capital items			-15%	More capital items to be purchased in new FY. Under spend used toward staff costs
Others (Please specify)			-67%	Savings made in sundry purchases. Under spend used toward staff costs
TOTAL				No overall variance, where there was shortfalls in spending funding was used in other areas to benefit the project

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2016-2017 – if appropriate

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
<i>Impact</i>			
<i>Outcome</i>			
Output 1.			
Activity 1.1			
Activity 1.2,			
Output 2.			
Activity 2.1.			
Activity 2.2.			
Output 3.			

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

N.B. if your application’s logframe is presented in a different format in your application, please transpose into the below template. Please feel free to contact Darwin-Projects@tsi.co.uk if you have any questions regarding this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: .			
Outcome:			
Output 1 <i>Add more outputs as necessary</i>	1.1 1.2 1.3. etc.	1.1 1.2 1.3. etc.	
Output 2	2.1 2.2	2.1 2.2	
Output 3	3.1	3.1	
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)			

Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

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