



## 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	DPLUS078
Project title	Montserrat Recycling and Waste Reduction Initiative
Territory(ies)	Montserrat
Lead organisation	Scuba Montserrat Inc.
Partner institution (s)	Island Solutions Inc.
Darwin Plus Grant value	£224,720
Start/end date of project	July 2018 – 31 March 2021
Project leader name	Andrew Myers
Project website/Twitter/blog etc.	<a href="http://www.ecomontserrat.org">www.ecomontserrat.org</a>
Report author(s) and date	Andrew Myers and Tracy Lewis

### 1 Project Summary

Montserrat is an Eastern Caribbean UK Overseas Territory with a current population of approximately 4,500 persons. Prior to this project:

- Montserrat did not have a recycling program. In fact, the only recycling attempts during the past 15 years the project implementation team leaders have resided on Montserrat were focused on supporting a single annual festival, a 3-5-day event.
- Information on the impacts of single use plastics on the environment had been introduced to the Montserrat public but access to solutions were not readily available.

Addressing these issues were stated in two reports on Montserrat’s solid waste management strategy prepared for the Government of Montserrat in 2008 and 2012; each report recognised the need for waste diversion and minimization (see Annexes 11 and 12 for the reports provided by the Department of Environmental Health).

The Montserrat Recycling and Waste Reduction Initiative (known as EcoMontserrat locally) focus has been to address these issues by creating the first nationwide recycling program for the island of Montserrat and reducing the consumption of single use plastics, in effect modernising the national waste management systems that consisted of a basic collection and placement of all waste in a landfill site previously. The project’s efforts have resulted in the following:

1. Reduced waste to the limited landfill – over 91 metric tons of glass waste were redirected from the landfill (this is collection weight less average residual waste weight),

2. Raised the level of responsible waste management to the standards of other developed nations – community and private businesses had access to and supported recycling,
3. Increased the level of cleanliness of the island in general – though subjective it is was expressed through discussions and feedback from both local and expat residents that beaches and roadsides are cleaner,
4. Reduced the breeding potential for vector borne illness carrying mosquitos through the redirection of improperly disposed of bottles which removes stagnant water potential,
5. Provided an extremely low carbon footprint building material (pulverised glass) on Montserrat,
6. Provided alternatives to single use plastics that are fully biodegradable or reusable,
7. Strengthened the capacity of the island's economy through the reduction of pollution stresses on fisheries, agriculture, ground water and the tourism sectors,
8. Protected biodiversity and health of terrestrial and marine habitats through reduced pollution impacts.

To achieve these results, glass collection was conducted at approximately 53 restaurants and bars (the number fluctuates with the openings and closings of businesses) and 7 community drop points. This created a recycling network with easy access for businesses and the residential communities to participate in the project. The project also lowered the impacts of single use plastics by distributing plastic alternatives, both reusable and compostable, to local businesses and the general public through a variety of community and outreach programmes.

The project has been a nationally beneficial initiative providing positive affects for both residents and visitors to the island.

## 2 Project Stakeholders/Partners

### PARTNERSHIPS

Throughout the project's life it has been supported and lead by a strong partnership between Scuba Montserrat (project lead) and Island Solutions (the only official project partner). There has been a great overlap between the 2 organisations - Island Solutions is the non-profit organisation founded by the owners of Scuba Montserrat. The owners and managers of the two organisations are shared.

Island Solutions (IS) has provided the following: Project support labour; operational funding when advance payments are not received; project assessment, guidance and development through project discussions with the IS board. Weekly team meetings started in late March of 2020 to increase focus on programs and provide ME information to IS board (see ANNEX 6); lead team meetings with all project staff, meeting on a quarterly basis to get operational inputs and participation/appreciation of broader project goals.

### STAKEHOLDERS

Throughout the three years of the project meetings, regular discussions and collaborations were held with governmental and public stakeholders, all driven by the efforts of EcoMontserrat team. These efforts greatly increased public awareness of the project as well as involvement and capacity.

#### GOVERNMENTAL

The project has continually engaged, interacted with and supported by the following Government of Montserrat Ministries/Departments. The details of the interactions and/or roles played have been broken down for each.

Please note emails from Government of Montserrat state *"This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed"* and therefore are not attached as annexes. Annex 7 contains a meeting record, minutes and agendas relevant to many of the below governmental interactions.

#### 1. **Ministry of Agriculture, Lands, Housing and Environment (MAHLE)**

During the project lifecycle there has been three different active Ministers which the project team worked together with on the following:

- Identifying, siting and approving land for the recycling centre site - 13 emails 3<sup>rd</sup> September to 25<sup>th</sup> November 2020, meetings, both formal and informal, on-site meetings with Land and Survey and the Minister(s) of MAHLE.
- Additional discussions on recycling site land provision via emails – February and March 2021.
- Providing a duty-free concession on single use plastic alternatives for the island's biggest annual event, St. Patricks Festival – emails and in person meetings with departmental and ministerial staff.
- Providing support for a legislative draft bill to reduce single use plastics – input conducted through emails.
- Meetings to introduce the project with each new Minister and Permanent Secretary (3 different ministers; 2 PS's) and subsequent update meetings throughout each year (Annex 7).

#### 1A. Department of Environment:

The project team worked with the Director of Environment Ernestine Corbett on the following:

- Provision of annual, half year and data focused quarterly reports detailing glass collection and processing and other progress for Government of Montserrat monitoring and evaluation purposes.
- Developed and implemented a single use plastic reduction collaboration partnership for the largest annual festival, St. Patricks Festival during February/March 2020 (12 emails exchanged during February and March 2020). The St Patrick's Festival 2020 was cancelled on 14 March 2020 due to COVID-19 restrictions being implemented.
- Worked together to secure duty-free concessions on the above program's items.
- To provide support for legislative draft bills reducing single use plastics (discussions were done during one on one meetings while discussing the "green festival" collaboration).
- Informal meeting with Director of Environment and staff in relation to joint collaboration with educational outreach programmes such as beach clean ups, on-line quizzes and competitions. (emails dated: 31<sup>st</sup> August and 3<sup>rd</sup> September 2020)
- Participation and support with a beach clean-up at Margarita Bay for the Departments of Environment's World Migratory Bird Week event in August 2020. The Eco Team collected 394.5lbs of garbage and shared the first prize with the Rotary team. The winnings went towards funding the project.

#### 1B. Department of Land and Surveys:

- Conducted site visits with the Minister David Osborne to outline land options for the recycling centre – August 2018, July 2019, August 2019.
- Provided guidance on operational needs and assisted with details on approved land to acting Minister Hogan.
- Exchanged correspondence/phone calls with regards to surveying the land including visits to offices to discuss timelines.
- Emails and subsequent informal meeting with Land Registrar with regards to the lease agreement (email - 12<sup>th</sup> June 2020 and subsequent office meeting)

#### 1C. Physical Planning Unit:

- Continued communication with Chief Planning Officer Jerome Meade in relation to planning documentation.
- Meetings with Chief Planning Officer on procedure, requirements and timelines for submission of planning application for recycle centre (November 2020 – January 2021)

## **2. Ministry of Health and Social Services (MHSS):**

- Continued communication with each Minister of MHSS (2 during the duration of the project) in relation to updating on project progress and assistance with eradication of vector borne disease.

### **2A. Environmental Health Department (EH):**

- Initial meetings supported by emails were conducted with Principal Environmental Health Officer Garrett Stanley which focused on how to facilitate the department's goals for responsible waste management. Project leaders and EH Department collaborated to undertake a community radio show.
- All reports produced by the project were provided via email to the EH director project updates and monitoring and evaluation purposes (Annex 17)
- Program promotions to reduce potential mosquito breeding sites continued, including discussions held on radio show Talking Health in April 2019.
- Site visit to the crushing plant to show process and products – April 2019
- Formal meeting with Garrett Stanley (Principal Environmental Health Officer) to discuss: project update, reports, public support, publicity, potential future of project, data collection of zoonotic info, next phase of Darwin grant, monitoring, etc. (meeting date 7<sup>th</sup> August 2020 - Annex 7)
- Facebook Live interview conducted with Garrett Stanley as part of project's outreach programme (FB post 5<sup>th</sup> September 2020 – See Annex 8 for Y3 social media record)

## **3. Ministry of Communications, Works, Energy and Labour (MCWEL)**

- Formal meeting was held with Minister Lewis and Permanent Secretary Mendes on 23 September 2019 covering: Update on project progress and overall plans; Opportunities to collaborate to support MCWEL green sustainability goals; Usage of glass cullet in government construction projects. No minutes were taken.

### **3A. Public Works Department:**

- Informal meeting with Director of PWD to discuss possibilities of using glass cullet in government projects. Also discussed was a storage facility for extra cullet stock for their ease of use.
- PWD laboratory technicians under the direction of Rolando Kassie, lab manager, tested cullet for contamination and results received that it was appropriate to use as a medium to mix into concrete. (6 emails - 20 October to 16 November 2020 for both discussions).

## **4. Ministry of Finance & Economic Management:**

- The project engaged the Financial Secretary Colin Owens to secure duty-free concessions for the equipment and supplies used within the project. This process had to be repeated 3 times in order to increase the items that received concessions to an acceptable level (26 emails in thread – 26 OCT to 9 NOV 2018; 5 emails in the thread for the truck concession – 11-12 DEC 2018; 22 emails over 3 threads - 18-21 & 29-31 JAN 2019, 31 JAN to 5 FEB 2019, 7-8 FEB 2019; multiple WhatsApp messages, 3 meetings)
- The project worked directly with the Financial Secretary and the acting Head of Customs to finalise duty free concessions for plastic alternatives for the St. Patrick's Festival (Direct meeting with FS and 18 emails in February and March of 2020).

## **5. Office of the Premier:**

- Informal meeting with Head of Public Development (Charlesworth Philip) and Director of Tourism (Warren Solomon) to discuss the opportunities of using cullet in the beach redevelopment and improvement programme. (meeting November 2020). The agreement was made and the first use of glass cullet on a GOM lead project commenced in December 2020 (Ref: IS board meeting minutes 11/12/20).  
([www.facebook.com/ecomontserrat/photos/a.843568769309709/1353814628285118](https://www.facebook.com/ecomontserrat/photos/a.843568769309709/1353814628285118))

#### 5A. Montserrat Tourism Board:

- Meeting held with Rosetta West (Tourism Officer) and Warren Solomon (Director of Tourism) to discuss tourism supporting aspects of the project, supporting the “green” festivals concept, placement of recycling bins in high tourism traffic areas. (2019)
- The project team leaders continued to attend Tourism meetings throughout the Year 3 (February 2020 to March 2021) to determine the impact of restricted travel to and off the island, impact on businesses and to input into new tourism website to ensure all supporters of the project (rum shops, restaurants, bars, etc who recycled) were identified as ‘Green’ places.

#### 6. Montserrat Port Authority:

- Developed a collaborative plan to support “green” initiatives by the Port Authority through provision of sponsored reusable bags and recycling bins for visiting vessels (18 emails from August 2019 to March 2020).

#### 7. Montserrat Art Council (leads festival events):

- Collaborations were done on both main festivals during Year 2 of the project to reduce single use plastic consumption and provide glass bottle recycling coverage. These included:
  - Montserrat Carnival – EcoMontserrat worked with the MAC to promote a “Green” Festival. We provided all vendors on the festival grounds green alternatives for single use plastics and installed glass collection bins throughout the festival grounds. On December 13<sup>th</sup> 2019 we appeared on a live from the festival radio and video show with MAC staff.
  - St. Patrick’s Festival – The EcoMontserrat team appeared on the Festival Show with the head of the Festival Committee on February 11<sup>th</sup> 2020 to promote a “green” festival. An expanded program similar to the Carnival one provided plastic alternatives and glass collection bins at the events.

#### 8. Montserrat Governor’s Office:

The project supported green initiatives by the Governor’s Office including:

- The Queen’s Birthday Celebration – provided extensive glass collection capacity, June 5, 2019.
- Attending an open discussion at the Governor’s Residence as part of the Environmental Stakeholders meeting – July 22, 2019.
- Ongoing regular information meetings throughout duration of project, assisting with various logistics and support with the Head of the Governor’s Office David Arkley. Please note all interactions were done through one on one meetings and via WhatsApp messages.

### COMMUNITY STAKEHOLDERS

1. Restaurants/Bar owners – The project worked with local businesses on a variety programs including:
  - a. Installation of glass collection bins as a project driven program and upon request at restaurants and bars. Bin installations occurred throughout the duration of the three years. See Annex 9 for list of businesses and location. The project was active a minimum of 50% of licensed bars/restaurants (data provided by the police included retail, wholesale and quarterly licenses).
  - b. Provision of single use plastic alternatives including paper straws, reusable shopping bags, wooden cutlery, reusable vegetable bags and reusable upcycled glass bottle glasses, vases, planters. Several promotions occurred during Christmas 2019, March 2020, June/July 2020, September/October 2020, and March 2021.
  - c. Engagement of local community groups through educational programmes included: Grand View (support of quarantine efforts) – August 2020, Treasure Spot and Grandview (support of quarantine efforts) – September 2020, “Activo” Kids – 20<sup>th</sup> November 2020, Golden

Arrow - November 2020, Rotaract Club – 12<sup>th</sup> December 2020, Christmas Club – 17<sup>th</sup> December 2020, FB ‘Live’ “Thank you’s” – March 2021.

These programs and interactions with the local businesses are documented on Facebook and Instagram - see Annex 8 of social media coverage of the programs.

Though a majority of the businesses were provided bins through the initiative of EcoMontserrat as the program became more known additional businesses and public areas made requests to be part of the program.

## 2. Youth and community organisations

- a. The project supported a community clean up in Little Bay by the Girl Guides. Glass collection bags were provided to volunteers and the Eco Team collected and weighed the results; they collected 183 lbs. – June 8, 2019 - <https://www.alliouaganaexpressnews.com/montserrat-girl-guides-association-do-their-part-to-keep-montserrat-clean/?fbclid=IwAR1Fr2Da5b0ZppCJSzFVX8Vct3F0HPv3z2TwuHXsRZNYSljgk9mEyGg7P3g> .
  - b. The EcoMontserrat truck provided the transportation for the Rotary Club of Montserrat Christmas event on December 22, 2019 and December 20, 2020. The truck carried Santa across the island giving away gifts to kids - (<https://www.facebook.com/137538176331321/photos/a.735619069856559/2590198277731953/>).
  - c. Beach Clean Ups – the Eco Team organised and supported beach clean-up events on August 29 and December 12. The Bunkum Beach clean-up was supported by local residents who collectively removed 660lbs of garbage from the beach. A beach clean-up was also organised at Carrs Bay and Pipers Pond and was supported by the Rotaract Club which collected 485lbs of garbage. Free t-shirts and reusable water bottles were given out to this event. Both of these events are well documented on Facebook and Instagram.
- ## 3. Montserrat Homeowners Association
- a. Glass collection bags were offered on December 14, 2019 and provided to seasonal and full-time homeowners upon request to prevent glass being thrown away with regular waste.
  - b. An article was submitted to be included in the Homeowners Association newsletter advertising the project and promoting/sponsoring the reusable Eco shopping bags, use of glass cullet and general information about donating to project. (email sent: 3<sup>rd</sup> December 2020)
- ## 4. Villa rental property managers –
- Glass collection bags were offered to the four largest property management companies for use at rental properties on December 14, 2019 via email. Multiple bags were collected and distributed by those managers.

Please see ANNEX 8 for social media evidence of many of the above collaborations.

## 3 Project Achievements

### 3.1 Outputs

In Government of Montserrat initiated reports on the national waste management system from 2008 and 2012 two of the important issues to be addressed were waste diversion and reduction/minimization (see Annexes 11 and 12). Those issues were finally addressed through this project’s outputs when changes were developed and delivered for Montserrat’s national waste management systems and practices, progressing toward this project’s Impact goal of “Waste management and waste production in Montserrat utilize best practices to relieve environmental stresses and impacts.” Details on achievements and issues for each Output are below:

#### ***Output 1: Glass bottles (jars, and containers) are processed to reusable material.***

EcoMontserrat collected approximately 644,000 glass bottles/jars (140 metric tons) during the operational portion of the project (approximately 21 months were allowed over the 2 year

period). Data on the collection for Year 3 can be found in Annex 10. That collected glass was used to produce:

- Cullet in 2 grades – a sand consistency and a pea gravel.
- Bottles that were repurposed into drinkware, dining ware, and decorative items.

As per the collection records the collection capacity grew quickly from the start of that portion of the project in March of 2019 and maintained a consistent level of weekly collection, until the restrictions enacted in March of 2020 because of COVID restrictions. Glass collection was not conducted from April to June 15 (glass collected from the end of March was placed into storage and processed and tallied when operations resumed). See Annex 10 for collection data and Annex 8 for reuse and cullet posts.

Uses for the processed glass, whether cullet or cut bottles, was done both by the project for educational, demonstration and plastic reduction purposes and by the wider public. The reuse projects and programs which were done included:

1. Eco-Concrete – glass infused concrete. The EcoMontserrat team conducted a program that generated mixture formulas for both decorative and load bearing applications. These applications included paving stones, counter tops and planters. A formula sheet was provided online and in print, and direct meetings with local contractors were conducted where cullet and polished samples of the concrete mixture were provided. See Annex 13 for formula and Annex 8 for program promotion.
2. Cut bottle drinking glasses – The EcoMontserrat Team cut bottles of various volumes and designs as alternatives to manufactured and imported glassware. Through this program bars/restaurants that were recycling received an assortment of glasses free of charge to be used in replacement of the single use plastic cups that were the standard. The cups provided were designed specifically to cover normal usage by local businesses. This program was conducted 3 times (Please see Annex 8 for a record of posts on this program). Approximately 550 glasses were provided to businesses.

The cut glass bottles were also available for fundraising purposes at the project's office. These items were very popular during the holiday season. To further support this output records were maintained on sales of repurposed glass; please see Annex 14.

3. Specialty cut glass items – In year 3 of the project the team expanded cut glass offerings to bowls, planters, candle chimneys, lamp shades and vases. This program was further supported by requests from businesses. This program provided fundraising that supported the project post-grant.
4. Cullet ground cover – a popular use for the processed glass was for a decorative weed suppressing ground cover in planters.

Though the project has started the process of reuse locally the efforts are still continuing. At the end of the grant portion of the project an independent business that focused on glass reuse had yet to develop but discussions are being held to support grave stone, counter top and tables production (low carbon footprint alternatives to importing mined granite).

The project was not able to implement the exporting processed material. Unfortunately, an agreement with the shipping companies to waive or lower export shipping rates was not able to be achieved (please note shipping is by volume and therefore the volume of the empty containers being exported off Montserrat is the same as if they carried our material. That argument did not sway the shipping companies). The cost of exporting the material is approximately equal to the revenue that sales of that exporting material would have generated.

***Output 2: Use of reusable alternatives replaces use of single use waste items.***

During the duration of the project the change from single use plastics to reusable items has begun but is still on ongoing process. To support this transition EcoMontserrat purchased: 5000 reusable shopping bags, 100 bamboo travel cutlery sets, 1000 water bottles, 200 stainless steel straws, and 600 produce bags.



These items have been provided free of charge to both recycling supporting businesses and the general public through a variety of promotions, survey completion, and events. Again, please see the social media record for verification of these activities.

Educational and outreach programs were developed that focused on the impacts of pollution generated by single use plastics and the positive benefits of using reusable alternatives. These programs were slated for 2020/21 so were greatly impacted by COVID restrictions. Despite that challenge the Eco Team was still able to conduct the following programs:

1. Carrs Bay and Pipers Pond Beach Clean Up with Rotaract – All Rotaract participants were given reusable water bottles.
2. Reusable shopping bag giveaway – The Eco Team conducted in person surveys at 4 grocery stores and distributed reusable shopping bags.
3. Each of the online surveys and contests were conducted that had a focus component of reusable. Beyond developing the discussion and getting feedback on reusables in these surveys the winners/participants received reusable alternatives.
4. Surveys and educational program during the Blue Mermaid Swimming School – small gatherings were still acceptable forums to interact during the restrictions. Through one on one sessions students were able to participate in these educational programs and receive an assortment of reusables.
5. Kids days at the project headquarters – sessions were conducted for two children’s groups that covered eco-friendly alternatives and provided hand painted reusable shopping bags to each child.

Those surveys/competitions were supported by 226 participants and the results demonstrated local knowledge and use of reusable alternatives and interest and engagement with the project; This is a breakdown of responses: Name the Truck – 123 responses; February quizzes – 51; Quizzes and surveys – 52.

Please see Annex 20 for details on surveys and Annex 19 for outreach program details related to Output 1 and 2.

Adjustments required because of COVID in 2020/21 have had significant impacts to the goals within the project timeline.

1. School based education and interaction with students was greatly reduced during the final year of the project which did impact distribution of reusable alternative and educational programs.
2. The project had planned to engage with the local business community to have unprinted reusable shopping bags to be sponsored for printing with the project logo, Darwin information and the supporting business’s information. That program was slated for Q1 and Q2 of 2020. Because of reduced revenue that project was not able to be supported by local businesses. EcoMontserrat printed and provided 300 of those bags so far and the project continues its efforts to find additional sponsors. (Annex 18 sponsor program).

Though the project was not able to complete the distribution of the reusable alternatives during the defined project timeline EcoMontserrat has maintained these programs post-grant.

***Output 3: Use of compostable or “green” alternatives replace the use of plastic non-compostable items.***

Access to compostable items on Montserrat remained limited despite the formation of two companies at the start of the project. Most businesses did not use these “new” items as they were both unfamiliar with them and the cost is higher than single use plastic items. Our project decided that introducing the business community to these items would assist in businesses transitioning to these items that had less environmental impacts. Through project funding EcoMontserrat purchased these items to give away to local businesses:

- 2,100 compostable food containers,
- 27,500 paper straws,
- 25,000 wooden cutleries,



- 2,000 soup spoons,
- 14,000 paper cups.

A total of 70,600 single use plastic item replacements were allotted for this program. See Annex 16 on giveaway information on green alternative items. A minimum of 21 different entities were provided green alternatives.

To achieve this output programs were designed for social media, school education programs, giveaways, and event support. These programs were scheduled for year 3 of the project. Though we were able to maintain social media outreach COVID restrictions impacted the following:

1. St. Patrick's "Going Green" programs planned for 2020 (all events canceled from 14 March 2020) and 2021 (canceled),
2. Christmas Carnival 2020 – only virtual,
3. The support of smaller national events including Calabash Fest and Montserrat Idol (both events were canceled).

The program developed in partnership with the Department of Environment to greatly reduce the use of plastic straws and cups for Montserrat's largest annual festival, St. Patrick's Day Festival, through the provision on 14,000 cups and 20,000 straws still supplies smaller events. A stock of items remains to support the planned Christmas Carnival 2021 events.

The outreach that was possible was done at the same time as those conducted for Output 2. See above for details.

The project also conducted a petition from the public to call for the banning of single use plastics. That petition was supported and signed by 115 persons (see Annex 21 for petition – please note 1 page is missing) in March of 2021. This petition and the public support demonstrate the effectiveness of engaging the public.

When this project was designed the intention was to develop a store that had compostable and green alternatives which would provide revenue generation to assist in project sustainability. Before this project started two companies, Emerald Solar and Wind and Organic Lux, formed to provide these items. During the project EcoMontserrat sourced as many alternatives as possible from these companies. However, we have been made aware of many issues with those company maintaining supplies and accessing prices available to wholesale suppliers. EcoMontserrat's decision to not to compete has had a negative impact on local businesses ability to source the compostable/green items, however, the project managers feel that during the project it would be poor ethics to offer the same items and potentially damaging those other businesses. During the project giveaways the business information of both local suppliers was included with provided items and when contacted by persons those suppliers were suggested.

Please note: Output 2 and 3 were designed to support Government of Montserrat legislation. That legislation has yet to be implemented and is expected to be enacted in 2022.

### 3.2 Outcome

***The stated outcome: The Montserrat Recycling and Waste Reduction Initiative reduces the introduction of glass items to the landfill by 75% and non-compostable single use items to the landfill by 50% by 2021.***

The project has yet to fulfill this outcome on either focuses, however, both have been addressed and progress on both areas have been achieved. A discussion on each area is below:

#### **Glass collection of 75%**

Based on collection data the project was able to collect about 644,000 glass bottles/containers for the 21 months that operations were allowed, for a monthly average of 30,667. This equate to approximately 37% of imported glass bottles according to 2016 statistics. The ambitious goal of 75% was in line with long established recycling programs of the UK and EU. Assessing after the fact, it was an overly ambitious goal given the delivery timeline, regional recycling statistics,

and, of course the unforeseeable COVID restrictions. These are our assessments of our delivery and reasons for not being able to fully deliver on the stated outcome:

1. When the project was designed the glass collection program was expected to be fully operational for approximately 28 months. Government bureaucracy and banking issues reduced operations by 4 months impacting the growth of the program.
2. Within the region this program achieved the highest glass collection percentage of any Caribbean country; as per Annex 15, only 2.2% of Caribbean municipalities recycle and many of the nations did not report any recycling data. Montserrat's collection rate of 37% is higher than that of the United States at 31% - <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/glass-material-specific-data>. The goal of the project should have been aligned with regional countries.
3. COVID restrictions from March 2020 closed bars and restaurants, prevented tourism, reduced the resident population, reduced social interactions and prevented national events.

Our team acknowledges that reaching 75% would not have been achieved during the second year of operations, however, a greater percentage would have been achieved without these factors.

### **Reduction of 50% of non-compostable single use plastic items**

Our project team has learned from this project in many ways including assessing local engagement, governmental delivery expectations, and supporting defined delivery of the outputs and outcomes through multiple data sources. As an "on the ground" resident team we have seen vast positive changes but many of these are subjective observations and not data driven. These observations include:

- A noticeable increase in reusable water bottles,
- A 20% increase in reusable shopping bags,
- Four of the six main grocery stores (Aravins, Umpire, Victors, and Rams) starting the transition process from single use plastics by providing paper bags, compostable bags and/or reusable bags. Victors will stop importing single use plastics in 2022 and currently rewards customers for bring their own bags.

These are our assessments of our delivery and reasons for not being able to fully deliver on the stated outcome:

1. The Government of Montserrat (GoM) made the first step to reduce single use plastics in October 2018 by banning use in governmental buildings (<https://discovermni.com/2018/10/31/no-single-use-plastics-for-all-government-ministries-departments/>) with the plan to expand to the public sector. That follow up legislation has not been enacted. The expectation from our project team was that our programs would support the transition from non-compostable items.
2. The GoM did not reduce the duty on the eco-friendly alternatives to support businesses ability to afford these items until April 2021 tax increase on non-compostable items.
3. The project did not realize the attachment of many members of the public to plastic bags to use for home waste. Without a national ban, many Montserrat residents will not change their habits.
4. Support by local restaurants, bars and grocery stores comes down to basic economy; the compostable items are approximately 10x the cost of non-compostable items. Many businesses have a very low profit margin, and with the weakened economy in 2020/21 it was not financial possible for many businesses.

Progress is being made but the expectations that the delivery of 50% reduce in non-compostable items will not be achieved until 2023.

### **3.3 Monitoring of assumptions**

The project managers did refer back to and monitor the stated assumptions and risks from the original log-frame. Those assumptions were quite limited in scope. In the real-world practice of

the project the project management team addressed and adjusted the project as needed throughout the project:

1. Data collection was discussed and backed up a weekly basis, both for the collection and processing component and the plastic reduction aspects (see Annexes 9,10,16 and 19).
2. Public surveys were conducted two times during the projects duration to ensure increase public feedback (see Annex 18).
3. The project headquarters and processing centre were open to public interaction to increase the potential of feedback (see Annex 8 on social media to highlight open interaction with the public).
4. The management team expand interactions with the government and suppliers as required to support the delivery of project goals (see question 2 for stakeholder engagement and communications).
5. To maintain the project's public presence during COVID restrictions the outreach team increased public awareness by conducting weekly live shows highlighting the project and environmental awareness. (See Annex 8 for log of live social media events).

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

The EcoMontserrat project engaged and/or supported both international and national strategic outcomes:

1. Through the development of a national recycling program,
2. By collaterally reducing the potential of vector borne illnesses through the reduction of breeding habitat,
3. By reducing single use plastic usage and impacts through the provision of alternative compostable or reusable options,
4. Through educational programs on single use plastics and associated negative environmental impacts.

The above achievements correlate to the following:

#### **INTERNATIONAL/UK/MULTILATERAL SUPPORT**

Montserrat, being an UKOT, is not independently committed to these but are UK commitments:

- As promoted on the Convention on Biological Diversity (CBD), the 4 Rs which is part of the educational backbone of the project and supported our operational ideals, directly benefit biodiversity - <https://www.cbd.int/ibd/2008/youth/action/2.shtml>.
- The EcoMontserrat project supports the UK's commitment to the UN Cleans Seas Campaign - <https://www.cleansseas.org/heroes/cleansseas-countries>
- UN SDG #12 in support of UK goals - <https://sdg12hub.org/sdg-12-hub/see-progress-on-sdg-12-by-country>
- This project has also enhanced efforts, through the reduction of glass and plastic waste, to conserve critical habitats of species listed in CMS Appendix I: marine turtles and a variety of migratory sea birds - <https://www.cms.int/country/united-kingdom> .

#### **MONTSERRAT NATIONAL GOALS SUPPORT**

The Montserrat Recycling and Plastic Reduction Initiative has assisted the island's government to build on achieving several strategic objectives.

1. The project supports elements of both the Human Development strategic goal and Environmental Management and Disaster Mitigation strategic goal within Montserrat's Sustainable Development Plan (<https://www.gov.ms/wp-content/uploads/2020/08/Montserrat-SDP-2008-to-2020.pdf>). These elements and the links to the project's success are evidenced below:
  - a. Strategic Goal 2: Human Development - A healthy population with full access to required health care.

- i. Strategic focus within this element is the promotion of health, wellbeing and national identity.
  - ii. Through working closely with the Department of Environmental Health Department, the project's objectives have assisted the reduction of vector-borne diseases by reducing the favoured habitats for both rats and mosquitoes through the recycling of glass bottles and jars. Regular meetings were held with the Principal Environmental Health Officer and quarterly reports sent (Please see ANNEX 17).
- b. Strategic Goal 3: Environmental Management and Disaster Mitigation – Sustainable use and management of the environment and natural resources.
- i. Strategic focus within this element is the development and implementation of environmental health programmes (includes integrated waste management systems).
  - ii. Through the collecting of glass bottles and jars and reducing the quantity of trash taken to the landfill, the project has effectively reduced the impact of waste on ecosystems.
- iii. Promote public education and action
- a. Through social media and radio announcement, competitions, community engagement and outreach promotions, the project has successfully encouraged local communities, businesses and schools to participate in the recycling and plastic reduction initiative. See ANNEX 8.
  - b. Evidence of action taken by the public to willingly engage with the project is evidenced by the increased number of bars and restaurants who collect glass to recycle. See ANNEX 10.
2. The Montserrat Environmental Charter (<https://www.ukotcf.org.uk/wp-content/uploads/2020/05/montserrat.pdf>) has guiding principles which the project has promoted through achieving its outcomes. In particular, through its community and outreach programme, the project has spread public awareness of the special features in of the environment. Another example that the project promotes and supports the commitments made in the Charter is through assisting with ensuring the protection and restoration of key habitats and species and attempting to control and eradicate invasive species. In particular, the national designated Important Bird Areas identified in the Physical Development Plan (<http://www.gov.ms/wp-content/uploads/2018/11/Physical-Development-Plan.pdf>), Fig. 2.2, which have the de facto conservation status and essentially follows the course of the main ghauts, now have less trash and bottles accumulating within the area due to the collection of bottles and reduction in use of single use plastics. Other habitats which also have significance and have been supported through the outcomes achieved are the protected turtle beaches, important reef areas and sea grass beds and in general the high value marine and coastal habitat, all identified in Fig 2.2. Through the project's outreach education programme, several visits to schools and live radio interviews have been undertaken throughout the year. This clearly supports the government's commitment to encourage teaching within schools to promote the value of the island's environment.

***PLEASE NOTE: Montserrat does not have a national biodiversity strategy as incorrectly cited in last year's Darwin application evaluation.***

#### National Progress

The Government of Montserrat has continued to take steps toward green national policies including a forthcoming ban of single use plastics and green energy. There has been an alignment of the project goals and national policy during the project's duration. The project also addresses issues and recommendations from 2008 and 2012 evaluations of the waste management systems (Annex 11 and 12)

#### Other country support

This project was designed to be adapted to other UKOTs and small island communities that lack recycling programs.

## 5 OPTIONAL: Gender equality

The project maintained an equal opportunity employment policy for both gender and race, as well as, being open to work with any organizations without prejudice. The project's employee structure had balanced gender - 3 women and 3 men – during the final year. Proof of the balance can be seen in the staff records.

Delivery of gender and race equality and/or fair opportunities was not formally stated in the project log-frame but is an internal policy implemented and practiced by Island Solutions.

## 6 Sustainability and Legacy

Collection of glass has become a national habit as evidenced in the collection records that show business and community participation (See Annex 10 for collection records). Given that clear use of the recycling systems implemented during this project we believe that recycling will endure as long as the operation can continue.

Furthermore, the community has recognized the impacts associated with single use plastics and are actively trying to support the change away from single use plastics (see record of engagement with the compostable alternative giveaway program in Annex 16 and petition engagement in Annex 21).

We are proud to say the community has embraced both of the key goals of the project and all feedback received is that it has been an overwhelming positive change for the country.

Please see ANNEX 8 for social media evidence of sustainable efforts and legacy.

**Sustainability** – Despite the efforts to maintain the project through revenue generation, that aspect of the project, sales of biodegradable/compostable eco-friendly single use items (private companies started prior to the start of the project) and sales of the processed material, is still evolving. Given the very small economy of Montserrat it seems unlikely it will progress to self-generating sustaining funds as hoped. However, the project has remained operational via private donations and support of project partner and nonprofit Island Solutions for 5 months at the time of this report submission. Several long term fund solutions are being actively pursued including:

1. Additional grants and government funds to support current operations and expand responsible waste management practices,
2. Discussions with the local government to take over operations in the next 2-3 years,
3. Additional fundraising efforts including registering a US tax exempt nonprofit, Island Solutions International Inc, which has been verified as a PayPal Giving Fund charity and an Amazon Smile charity. Both of those programs have generated funds and donations.
4. The Montserrat Governor's Office, as well as persons from the FCDO, recognize that this project, like many other national infrastructure or operations projects, are fundamentally not self-sustainable and require funding as necessary national programs. Island Solutions is in discussions with the FCDO to provide both short and long term support of the project.
5. Project summary and future support video – this video was produced as part of the self-sustainability program -

Annex 14 provides information of financial support provided to persons on Montserrat.

## 7 Lessons learned

Though this project faced and was impacted by numerous challenges the project management team used those issues to improve off of and/or learn from. This is what was learned during this project, starting with what worked well:

1. Creating a comprehensive network of participating businesses – Being part of the recycling “family” quickly became the majority over the minority of the local businesses. By engaging and offering the collection service to many local businesses at the start those that were not part of that initial engagement or did not join at the start recognized the worth of supporting this program and directly requested the service in the first 6 months of operations.

2. Providing free access to items increased desire to continue to use – As stated earlier many businesses had not used, because of cost and/or access, green alternatives. Once the introduction was made most businesses recognized the value of using these items.
3. Our data collection system evolved to identify where collection adjustments need to be made for better project efficiency. By tracking collection on a per location basis needed expansions or reductions could be made quickly.
4. The project outreach and promo program worked with a broad cross section of the community by engaging children, youth, young adults, government bodies and community organisations. This created a comprehensive public engagement.

What needs/needed to be changed or adjusted:

1. Improve log-frame clarity – the log-frame concept is still a new system for the project team that operates in the private business world. Having a stronger initial log-frame makes the delivery of project reporting easier for assessment and helps guide the operations.
2. Align outcome and outputs to region standards – maintain realistic goals and expectations that are in line with other similar efforts conducted within the same national and cultural ideologies. Aim for the achievements of the UK or EU for a new concept was too ambitious.
3. Fully assess national interest in supporting projects – in this project our team was surprised and encouraged by the desire of local businesses to support recycling but also disheartened at times by the lack of willingness or interest to not use environmentally damaging items.
4. Confirm all governmental agreements and support through email or written letters – a reoccurring issue in this project was stated verbally or non-traditionally communicated (WhatsApp) provisions, support and agreements not being honoured, especially after a change in government.
5. Balancing the project deliveries with increased focus on report delivery. Our project focused on actions instead of reports, however the reports are required project aspects.

Recommendations for other projects:

1. Identify in each local community leaders that will inspire and lead greater engagement and potential change. This is especially important if the project has non-national implementation personnel.
2. When conducting a machinery driven project such as a recycling program with heavy use equipment expect and plan for significant maintenance costs. In this project expected operational lifetimes of some machine parts were significantly less. It is better to expect the worst and have the funds available to address issues; those funds can be returned if not needed.
3. Establishing a post graduate/graduate student position – a person actively engaged in current and evolving concepts may increase project potential. That person however should not reduce local workforce opportunities.

For Darwin:

4. All projects in the UKOTs should have a dedicated locally based FCDO person to regularly interact with. This would provide a valuable resource to the project management, LTS and the project assessors.
5. An official policy should be established between the FCDO and all UKOT local governments that all Darwin projects receive full duty free concessions without excessive bureaucratic impediments and delays. These projects are being implemented to be of a national benefit and should have effectiveness reduced by national taxes.

#### UKOT and international relevance

Our project team strongly believes that this project and its programs are easily adaptable and implementable in the other UKOTs, particularly smaller population countries such as Anguilla regionally.

## 7.1 Monitoring and evaluation

EcoMontserrat used both internal and external monitoring and evaluation to maintain and improve the project.

Internally:

1. Data is recorded by the collection and processing team on:
  - a. Bins and/or bags collected from drop points, bars, events and restaurants,
  - b. Weights were recorded for bins. Waste materials included general rubbish, bottle labels and caps, and un-processable material is recorded weekly.
  - c. Data is transcribed from hard copies to digital spreadsheets. That data transfer was done at the end of every collection session and the project manager discussed the daily results, issues and observations by the collection supervisor, Shane Caesar.
2. A sales record and a purchase order system was developed for the sales of any processed glass product. Delivery and/or pick up of glass cullet from the recycling centre required a purchase order receipt. Special order cut bottles required a purchase order receipt; sales of stock cut glass items were recorded project admin. Glass cutting equipment was stored at the project administrative office (project headquarters) to ensure those operations were overseen.
3. Regular discussions are held on glass processing and related equipment focused on maintenance, needed equipment, issues, and problem avoidance.
4. Weekly discussions are done on collection issues, expansion, and general operations.
5. The full EcoMontserrat team met a minimum of quarterly to discuss overall project achievements, issues, and general topics.
6. Island Solutions started conducting weekly meetings at the end of March 2020 detailing overall project operations and weekly expansion plans. The minutes are provided to the Island Solutions board for review. See Annex 6 for meeting minutes.
7. Reusable and green/compostable items provided to business and the public were recorded on hard copies and transferred to digital spreadsheets.

Externally:

1. Quarterly reports and collection data were provided to Departments of Environment and Environmental Health, See Annex 17 for data provided.
2. Informal discussions with government officials outlining project progress and issues – as mentioned earlier in this report being a small country, and often because it is easier to access certain persons, discussions are often held with government officials outside of offices. Meetings with the Ministers from MAHLE, MCWEL, MAC, MPA, the Governor's Office and DfID were held in this capacity.
3. Official presentations with government officials – Meetings on project progress, issues, collaboration potential, etc. were done around the half year mark with multiple ministries See Annex 7 for meeting agendas.
4. Requests for an official ME board were made to multiple governmental personnel without responses/engagement from those personnel. (email correspondence with G. Stanley – 1 APR 2019).
5. Project achievements and issues are posted on social media for feedback from the public at large. All comments are reviewed and responded to, if appropriate (Annex 8).
6. The public survey system generated assessment data from the public on areas that needed increased focus or expansion. Survey data was developed through the Google Forms which develops a spreadsheet of responses (Annex 20).

Overall, though maybe not as formal as other projects, the systems in place provide broad support to the project. Being a small island, the project is under constant critique; issues and sentiments are known of quickly and dealt with directly.



## Feedback and Changes:

1. Given Darwin Plus projects take place in Overseas Territories a member of the local FCDO would be very helpful to have as a dedicated UK ME person to have quarterly meetings with.
2. Though our project attempted to form an official Government of Montserrat ME board without success such a board, or individual, would be helpful.
3. Changes to personnel in the Governor's Office required an adaptation period for support but increased in active as the project progressed.
4. The use of weekly minuted meetings was very helpful for engaging outside inputs from board members and for internal project scheduling and planning.
5. Interaction with local government officials produced little feedback.

### **7.2 Actions taken in response to annual report reviews**

Annual report reviews were discussed internally within the project management staff of Island Solutions and Scuba Montserrat. These issues were raised and addressed:

1. Increased information about interactions with partner Island Solutions and all local stakeholders.
2. Requested changes in project timeline and fund disbursements from LTS team.
3. Held weekly meetings to discuss project progress and discuss issues and plans.
4. Provided quarterly reports to relevant GoM departments as well as had meetings with those stakeholders and had project discussions with the Head of the Governor's Office, David Arkley.
5. Generated a log of all social media posts that detail activity.
6. Expanded collection data spreadsheet to provide greater details on businesses and/or persons/events involved in the recycling program.
7. The project reached out to the local government to use more of the cullet and was able to achieve this on a tourism funded project.

Our team feels we addressed a vast majority of the aspects raised in ARR1 and ARR2. Documentation supporting this claim can be found in the project Annexes.

## **8 Darwin Identity**

From the very first announcement to the public about the project in May of 2018, the EcoMontserrat Team has acknowledged the support of the Darwin Plus program and the Darwin Initiative. This policy has continued throughout the project through use of the Darwin logo and/or name on all printed material, hash tagging Darwin in social media posts, and speaking of Darwin in both formal public announcements and side of the road discussions. Below is a list of where Darwin was recognized:

The Darwin logo, and often also the name, was used on:

- Over 1,000 shirts – People walking around island with the Darwin name across their chest or on their back,
- Over 3,000 reusable shopping bags,
- 12,000 stickers – both as general project promo bumper stickers and plastic reduction promotional programs where the 10,000 stickers were biodegradable.
- Posters and all printed material – Posters directing the public to the drop point, as well as, each year's thank you letters to supporters identified Darwin in print and/or logo,
- Operational vehicle signage – a rolling Darwin billboard!

In social media and regular media, the Eco Team made sure to acknowledge Darwin through:

- Hashtags – using both @ and # "DarwinInitiative" on all Facebook and Instagram posts,

- All interviews clearly stated how the project was funded,
- Promoted opportunity for others to develop and implement projects through Darwin on radio appearances and side of the road discussions.

Our social media posts on Facebook and Instagram over Year 3 had:

- A reach of 227,348,
- 10,200 reactions,
- 1,125 post shares.

Our knowledge of the Darwin Initiative, Defra, DfID and the FCO support in Montserrat was shared beyond the relevant local organizations and government departments that were already active in the programs. The extent of that acknowledgement by the local population is not specifically known, however, the Eco Team had to have discussions with the public regularly as most thought it was a business at first and did not understand it was a grant.

Please see ANNEX 8 for social media evidence of Darwin recognition.

## 9 Impact of COVID-19 on project delivery

As with a vast majority of the world COVID-19 significantly impacted our project. This is how the project was affected and adjusted:

1. Our glass collection and processing operations shut down completely for part of March, April and May 2020 and February 2021. This impacted our collection totals for the year. Note: there was a processing backlog from March 2020 to ensure safety of staff.
2. The volume of bottles available to be collected decreased significantly as visitor numbers and population on Montserrat decreased.
3. Production and delivery of replacement parts for the glass pulveriser delayed because of restrictions in the US. These delays required the construction of several large unprocessed glass holding bins, which resulted in unexpected expenses.
4. National festivals and events were banned, again reducing collection potential.
5. Public interaction programs were not allowed.
6. The program to work with local businesses to provide sponsored reusable bags was not possible given the decreased revenue for most, if not all, local businesses.
7. The US University student volunteer program had to be cancelled because access was not possible.

### PROJECT ADJUSTMENTS:

1. To ensure safety of our staff standard sanitation and COVID prevention practices were put in place. This required redirection of funds.
2. The administrative team increased the online public awareness and project promotion programs during restricted movement times (Please see ANNEX 8 for social media evidence of many of the above collaborations.)
3. Implemented pilot projects on glass reuse to provide work for staff.
4. Collected stock stored before processing until more information on COVID was determined.

## 10 Finance and administration

### 10.1 Project expenditure

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others/Audit				
<b>TOTAL</b>				

Staff employed (Name and position)	Cost (£)
Andrew Myers	
Emily Aston	
Tracy Lewis	
Shane Caesar	
Owen Layne	
Kathleen Retourne	
Social Security	
<b>TOTAL</b>	

Consultancy – description and breakdown of costs	Other items – cost (£)
N/A	0
<b>TOTAL</b>	0

Capital items – description	Capital items – cost (£)
N/A	
<b>TOTAL</b>	0

Other items – description	Other items – cost (£)
Operational team meetings	
M&E	
Audit/report	
<b>TOTAL</b>	

## 10.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)

Donations/Sales of glass goods	
In Kind MGT/OPS	
Reduced truck rental – below established UK monthly rental rates	
<b>TOTAL</b>	

<b>Source of funding for additional work after project lifetime</b>	<b>Total (£)</b>
Donations - fundraisers	
Program support funds – Island Solutions	
Reduced truck rental – below established UK monthly rental rates	
<b><i>This funding has kept the project going since April; long term funding is being arranged currently.</i></b>	
<b>TOTAL</b>	

### 10.3 Value for Money

This project provided value for money by both securing reduced rates/costs on items, by utilising local knowledge, personnel and contacts to maximise the project's delivery, and addressing issues that were identified through consultant reports.

This project's capacity was made financially viable to implement by reducing project costs in the below areas:

1. Sourced used equipment or found large volume discounts where available.
2. By doing volume purchases for single use plastic items wholesale prices were accessed.
3. Accessed below market costs for vehicle lease - [www.nationwidehireuk.co.uk/vans-for-hire/ford-transit-dropside/](http://www.nationwidehireuk.co.uk/vans-for-hire/ford-transit-dropside/) The project recognizes that rates do vary between the UK and Montserrat but the cost of a vehicle is more in Montserrat because of shipping and related charges, plus fully project funded maintenance without many of the maintenance costs - [https://www.autotrader.co.uk/van-details/202109247749429?sort=relevance&fuel-type=Diesel&radius=1501&body-type=Dropside&include-delivery-option=on&advertising-location=at\\_vans&postcode=n182hs&quantity-of-doors=4&onsearchad=New&onsearchad=Nearly%20New&onsearchad=Used&page=1](https://www.autotrader.co.uk/van-details/202109247749429?sort=relevance&fuel-type=Diesel&radius=1501&body-type=Dropside&include-delivery-option=on&advertising-location=at_vans&postcode=n182hs&quantity-of-doors=4&onsearchad=New&onsearchad=Nearly%20New&onsearchad=Used&page=1)
4. Project development and management provided at greatly reduced rates from quoted commercial project support – Both the Scuba Montserrat and Island Solutions outreach and management team day rates were reduced to % of cost that would be charged to support of private companies'/commercial contracts.

It is important to recognized this was the first ever national recycling program for Montserrat which addressed and implemented recommendations for waste management in 2008 and 2012 (Annexes 11 and 12). By addressing identified issues, the costs associated with those reports have validation.

Though un-documentable given they were side of the road conversations and yelled requests from persons the project inspired local bar owners to join the effort that were, to be honest, not expected to be interested in it. This project was able to successfully provide responsible waste management program which reached all members of the community and visitors to Montserrat.

Challenges: Though this project delivered on its stated goals and provided value for money it was not a simple process. Government bureaucracy and procedures are always a challenge:

1. Securing duty concessions – for a local and UK government supported grant project the effort to secure duty-free concessions was excessive. It took 3 revisions, and many emails, meetings and discussions, to get a majority project goods exempted. This process should be straightforward and it should have been comprehensive. Duty costs can easily increase project expenses for needed goods by over %.

2. Commitments that were provided by the GoM were not maintained. The dynamics of a small nation's elected officials can easily require repeating the same processes over and over again when personnel are replaced. These interactions take away from expected use of labour time.

Operationally, these were some of the challenges:

1. Costs associated with shipping – this cost is a fluctuating variable; it is hard to keep costs down.
2. Dealing with the belief that this was a profitable business – some persons viewed the efforts being done by the project as making money off the support of others, i.e. the bar owners and general public. The team spent many hours over the life of the project explaining what a grant is, how the goal was protecting and improving the nation's environment. How working with the project helps everyone, and how we were not “getting rich” off of that support. These interactions take away from expected use of labour time.

## **11 OPTIONAL: Outstanding achievements of your project during the (300-400 words maximum). This section may be used for publicity purposes**

***I agree for the Darwin Secretariat to publish the content of this section***

In mid-March 2019 recycling resumed in Montserrat for the first time in at least 20 years and with that the evolution of Montserrat waste management had begun!

The concept of addressing recycling and reducing waste wasn't an unrecognised issue, consultant reports from 2008 and 2012 highlighted the need, it just hadn't been addressed, and after discussing a project idea with the local government it was clear it wouldn't be addressed any time soon without non-government support. From those meetings the Montserrat Recycling and Waste Reduction Initiative, known locally as EcoMontserrat, was born. A project was designed which would focus on both recycling and reducing single use plastics and the impacts from each on the nation's environment, health and biodiversity.

In the 21 months the project could actually collect glass bottles and containers Montserrat became one of the most prolific glass recycling nations in the Caribbean! In fact, Montserrat was able to achieve a better glass collection rate than the United States. Approximately 644,000 glass items, over 140 metric tonnes, gathered weekly from over 60 businesses and community drops points, including all 10 businesses in the tourism zone, were redirected for repurposing into reusable material. Glass was transformed into cullet that could be used in construction and for decorative purposes and cut into glassware to reduce imports and replace plastic cups. Island-wide collection reduced landfill stresses and potential breeding areas for vector borne illness carrying mosquitos, while improving the waste management system and supporting a cleaner island with less potential impacts to the natural environment.

The project's second focus was to reduce single use plastics and their impacts to the island's ecosystems, especially the marine habitats and life. EcoMontserrat blended community outreach, education programs and provided access to both reusable and compostable replacements to single use plastics to bring in change. Local businesses and organisation were provided over 70,000 compostable replacements for plastic straws, cutlery, cups and takeaway food containers. To further reduce single use plastics several thousand reusable replacements became available to residents in the form of reusable shopping bags, repurposed cut bottle glasses, reusable water bottles, reusable produce bags and reusable utensils. The nation's transition away from single use plastics made substantial progress during the life of the project.

Through the efforts of Scuba Montserrat, Island Solutions and the people of Montserrat, backed by the support of the Darwin Initiative, the Emerald Isle of the Caribbean is going green!

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

Please insert your project's logframe (if your project has a logframe), including indicators, means of verification and assumptions. 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@ltsi.co.uk](mailto:Darwin-Projects@ltsi.co.uk) if you have any questions regarding this.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<b>Impact:</b> Waste management and waste production in Montserrat utilize best practices to relieve environmental stresses and impacts.			
<b>Outcome:</b> The Montserrat Recycling and Waste Reduction Initiative reduces the introduction of glass items to the landfill by 75% and non-compostable single use items to the landfill by 50% by 2021.	<p>0.1 750,000 of 1,000,000 annually imported glass bottles (2016 statistics) are processed recyclable material.</p> <p>0.2 Weekly usage of single use plastic bags is reduced from 3,000 to 1,500 at largest grocery store.</p> <p>0.3 Compostable non-plastic alternatives are used by 50% of restaurants in Montserrat.</p>	<p>0.1 Recycling centre processing records</p> <p>0.2 Purchase records of single use bags by largest store decrease by 50%</p> <p>0.3 Sales records at Island Solutions store have sales to half of the registered restaurants in Montserrat</p>	<p>Records from recycling centre are accurate. Information provided by the grocery store are accurate. Sales records from EcoMontserrat shop are accurate.</p> <p>List of open restaurants is correct.</p>
<b>Outputs:</b> 1. Glass bottles are processed to reusable material.	<p>1.1 Processed glass material exported to a recycling center.</p> <p>1.2 Processed glass material purchased locally for construction and/or decorative projects</p> <p>1.3 Repurposed glass items such as wine bottle glasses are purchased from project store.</p>	<p>1.1 Export records from Montserrat and/or payment records from recycling processing centre.</p> <p>1.2 Purchase records from Montserrat recycle centre.</p> <p>1.3 Purchase records from project store.</p>	Records of sales of glass materials are accurate and correct.
2. Use of reusable alternatives replaces use of single use waste items.	<p>2.1 Residents use reusable bags when shopping.</p> <p>2.2 Residents use reusable cups,</p>	2.1 Use of reusable bags observed at stores.	Information given in surveys is true and accurate.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	containers and cutlery when getting take away.	2.2 Use of reusable items observed at restaurants. 2.3 Surveys conducted on use of reusable items.	
3. Use of compostable or “green” alternatives replace the use of plastic non-compostable items	3.1 Restaurants, bars and food vendors use green alternative items.  3.2 Sales of green alternatives increase at store front and other outlets.	3.1 Takeaway meals and/or leftovers from restaurant, bars, and takeaways provided in green alternatives.  3.2 Surveys conducted on use of green alternatives.	Information given in surveys is true and accurate.
<p><b>Activities</b></p> <p>1.1 Education program conducted on importance of recycling waste.</p> <p>1.2 Promotion of recycling through multiple public forums.</p> <p>1.3 Construction of a recycling centre for processing</p> <p>1.4 Installation of community recycling stations.</p> <p>1.5 Provision of recycling bins to restaurants, bars and individuals. 1.6 Regular collection of glass bottles and processing at center</p> <p>2.1 Education program conducted on importance of the reduction waste production and use of alternative reusable items.</p> <p>2.2 Promotion of use of reusable items through multiple public forums.</p> <p>2.3 Providing residents of Montserrat with reusable alternatives, including free reusable shopping bags.</p> <p>3.1 Education program conducted on importance of the reduction waste production and use of alternative green items.</p> <p>3.2 Promotion of use of alternative green items through multiple public forums.</p> <p>3.3 Providing residents of Montserrat with green alternatives, including free compostable plastic alternative cups, containers, and cutlery.</p> <p>3.4 Creation of a wholesale supplier for purchase of green alternatives.</p>			



## 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><b>Impact:</b></p> <p>Waste management and waste production in Montserrat utilize best practices to relieve environmental stresses and impacts.</p>		<p>The project has created a network of community and private business located collection points for glass (approximately 60 locations around island).</p> <p>Opportunities to reuse waste items have been promoted and supported both through the project and by local entrepreneurs.</p> <p>Promotions which highlight reduced consumption of single use plastics were done during the busiest events on Montserrat.</p>
<p><b>Outcome</b></p> <p>The Montserrat Recycling and Waste Reduction Initiative reduces the introduction of glass items to the landfill by 75% and non-compostable single use items to the landfill by 50% by 2021.</p>	<p>0.1 750,000 of 1,000,000 annually imported glass bottles (2016 statistics) are processed recyclable material.</p> <p>0.2 Weekly usage of single use plastic bags is reduced from 3,000 to 1,500 at largest grocery store.</p> <p>0.3 Compostable non-plastic alternatives are used by 50% of restaurants in Montserrat.</p>	<p>0.1 During Year 2 (the project's first full year of collection) collection points expanded nationally to total approximately 60 businesses and community collection.</p> <p>0.2 Collection and processing data (attached) calculated an approximated total of 381,00 bottles in the first year and over 260,000 in the final year (please note that all major festival events were canceled starting in March 2020 and continued through April 2021 due to COVID thus reducing collection expectations).</p> <p>0.3 Plastic alternatives were introduced and provided to businesses during peak tourism times on island. Businesses that participated in our program were highlighted.</p> <p>0.4 Programs provided several thousand compostable plastic alternatives and reusable plastic alternatives of restaurants and bars. Local providers were highlighted.</p>
<p><b>Output 1</b> Glass bottles are processed to reusable material.</p>	<p>1.1 Export records from Montserrat and/or payment records from recycling processing centre</p> <p>1.2 Purchase records from Montserrat recycle centre</p>	<p>Glass collected and processed throughout year. Evidence provided in Section 9 and Annex 10.</p>

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
	1.3 Purchase records from project store.	
Activity 1.1 Education program conducted on importance of recycling waste.		Throughout Year 2, social media, direct interaction with multitudes of stakeholders, posters and community radio announcements were undertaken. This included a presentation at St Augustine's Primary School and undertaking a children's education program through Blue Mermaid swim school. See ANNEX 8 for details.
Activity 1.2. Promotion of recycling through multiple public forums		Regular promotions on all aspects of the project have been posted on EcoMontserrat's Facebook and Instagram pages. In addition, interviews on national radio have also taken place throughout the year. Engagement and participation with MAC and other local festivals/events. See ANNEX 8 for details.
Activity 1.3 Construction of recycling centre for processing		Through meetings, site visits and communications with GOM officials, the land was agreed, and a tyre revetment wall was constructed and water supply installed.
Activity 1.4 Installation of community recycling stations		A total of 7 community recycling station drop points have been installed. See ANNEX 9 and 10 for details.
Activity 1.5 Provision of recycling bins to restaurants/bars, individuals and events.		<p>The total number of businesses participating in the collection programme have increased to 60. In addition, residences and rental properties have also increased.</p> <p>The project also provided additional collection bins to 6 events during the year.</p> <p>See ANNEX 9 and 10 for details.</p>
Activity 1.6 Regular collection of glass bottles and processing at centre		<p>Collection and processing were conducted on a weekly basis until COVID shutdown in March 2020, and resumed in mid-June.</p> <p>See ANNEX 10 for details.</p>

Project summary	Measurable Indicators	Progress and Achievements for the life of the project
<p><b>Output 2.</b> Use of reusable alternatives replaces single use waste items.</p>	<p>2.1 Residents use reusable bags when shopping</p> <p>2.2 Residents use reusable cups, containers and cutlery when getting take away.</p>	<p>Several promotional programmes and educational programmes were undertaken during the year. This included distributing 300 upcycled beer bottle glasses and reusable shopping bags to supporting bars and restaurants.</p>
<p>Activity 2.1. Education program conducted on importance of the reduction waste production and use of alternative reusable items</p>		<p>Education programmes conducted overlap with activity 1.1</p>
<p>Activity 2.2. Promotion of use of reusable items through multiple public forums</p>		<p>Please see Activity 1.2 for details</p>
<p>Activity 2.3 Providing residents of Montserrat with reusable alternatives, including free reusable shopping bags and reusable glasses the size used at bars</p>		<p>A total of 300 reusable cut beer bottle glasses and 50 canvas shopping bags which included bamboo cutlery, a sticker, two t-shirts and paper straws were provided to bars and restaurants in the March 2021 giveaway.</p>
<p><b>Output 3.</b> Use of compostable or “green” alternatives replaces the use of plastic non-compostable items.</p>	<p>3.1 Restaurants, bars and food vendors use green alternative items.</p> <p>3.2 Sales of green alternatives increase at store front and other outlets</p>	<p>The programme to provide gift bags to vendors was cancelled due to the shutdown of the St Patricks festival, however the project was able to distribute a ‘One Year Anniversary’ Thank You gift bag to all the bars, restaurants and snackettes who supported the project since the start of the collection and recycling of glass in 2019.</p>
<p>Activity 3.1. Education program conducted on importance of the reduction waste production and use of alternative green items</p>		<p>Please see 1.1 for details</p>
<p>Activity 3.2. Promotion of use of alternative green items through multiple public forums</p>		<p>Please see 1.2 for details</p>
<p>Activity 3.3. Providing residents of Montserrat with green alternatives, including free compostable plastic alternative cups, containers, and cutlery</p>		<p>Supplied approximately 70,500 plastic alternatives to restaurants, bars, and the public.</p>
<p>Activity 3.4 Creation of a wholesale supplier for purchase of green alternatives</p>		<p>Two local companies currently provide a service to other businesses on island to purchase green alternative products which we also supported and promoted during social events and project promotions.</p>

## Annex 3 Standard Measures

Code	Description	Totals (plus additional detail as required)
<b>Training Measures</b>		
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)	0
2	Number of (i) people in UKOTs; and (ii) other people receiving other forms of long-term (>1yr) training not leading to formal qualification	8 – directly employed within the duration of the project
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)	100 minimum – those who joined the green efforts of the project.
3b	Number of training weeks (i) in UKOTs; (ii) outside UKOTs not leading to formal qualification	0
4	Number of types of training materials produced. Were these materials made available for use by UKOTs?	0
5	Number of UKOT citizens who have increased capacity to manage natural resources as a result of the project	4000
<b>Research Measures</b>		
9	Number of species/habitat management plans/ strategies (or action plans) produced for/by Governments, public authorities or other implementing agencies in the UKOTs	0
10	Number of formal documents produced to assist work in UKOTs related to species identification, classification and recording.	0
11a	Number of papers published or accepted for publication in peer reviewed journals written by (i) UKOT authors; and (ii) other authors	0
11b	Number of papers published or accepted for publication elsewhere written by (i) UKOT authors; and (ii) other authors	0
12b	Number of computer-based databases enhanced (containing species/genetic information). Were these databases made available for use by UKOTs?	0
13a	Number of species reference collections established. Were these collections handed over to UKOTs?	0

<b>Code</b>	<b>Description</b>	<b>Totals (plus additional detail as required)</b>
13b	Number of species reference collections enhanced. Were these collections handed over to UKOTs?	0
<b>Dissemination Measures</b>		
14a	Number of conferences/seminars/workshops/stakeholder meetings organised to present/disseminate findings from UKOT's Darwin project work	Minimum of 25 – meeting were conducted with GoM and FCO officially, and side of the road
14b	Number of conferences/seminars/workshops/stakeholder meetings attended at which findings from the Darwin Plus project work will be presented/ disseminated	0
<b>Physical Measures</b>		
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	1
22	Number of permanent field plots established in UKOTs	n/a
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

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

## Annex 5 Darwin Contacts

<b>Ref No</b>	DPLUS078
<b>Project Title</b>	Montserrat Recycling and Waste Reduction Initiative
<b>Project Leader Details</b>	
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Skype	
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<b>Partner 1</b>	
Name	Emmy Aston
Organisation	Island Solutions
Role within Darwin Project	Social outreach and programs manager
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Skype	
Email	
<b>Partner 2 etc.</b>	
Name	
Organisation	
Role within Darwin Project	
Address	
Skype	
Email	



## Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> putting the project number in the Subject line.	YES
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@ltsi.co.uk">Darwin-Projects@ltsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	Support documents in a Google drive folder linked above.
<b>If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 11)?</b>	Yes
<b>Have you included means of verification?</b> You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	YES
<b>Do you have hard copies of material you need 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.	