

Final Report

Title: Whitehouse & Negril Solid Waste Reduction Project, Jamaica
Project Co-Ordinator: Georgia Lumley, Environmental Coordinator, Sandals Foundation
Date: November 25, 2021

Summary:

The Whitehouse & Negril Solid Waste Reduction Project in Jamaica was aimed at reducing solid waste in the communities of Whitehouse and Negril through many project Activities to include the: reduction of Covid-19 litter, provision of reusable food containers to schools, removal of plastic bottles in Whitehouse to a recycling plant, administration of skills training about composting, and a public education component of the project. The Project sought to educate and provide residents along the south-western coast of Jamaica with a structure for better solid waste management.

The project was administered during the Covid-19 crisis, which resulted in a revision of the initial scope of work developed in July 2021. Though changes have been made, the overall goal of the dissemination of information and the administration of multiple activities among varied stakeholders with the main goal of solid waste reduction was successfully executed. Key of the changes was the complete removal of Activity 2- *Promoting sustainability in schools through the provision of reusable food containers to be utilised in 7 Negril schools*. This was the sole Activity to be administered in Negril, Jamaica. However due to the Government of Jamaica's Covid- 19 restriction of the closure of all public schools, this activity was cancelled and funds reassigned. Due to the presence of the Delta variant, restrictions in gatherings, and No- Movement days were also implemented to restrict the spread. These were adhered to and changes made in the implementation of project activities where necessary. Another major change was the addition of new public education activities. This was administered to increase the capacity of the residents of Whitehouse, while maintaining a safe distance and adhering to the multiple protocols. These additions also broadened the reach of the project, to include all 14 parishes across the Jamaica.

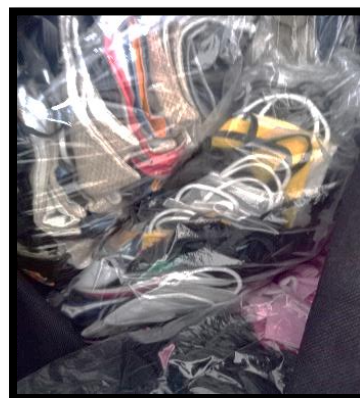
With all the changes, Whitehouse was the main target community under the project. According to the Social Development Commission, Jamaica's community development agency, the population of Whitehouse is 1,989, with an estimated number of households being 510. Activities administered aimed to reach as many community residents as possible. The project also extended its reach to the nearby communities of Bluefields and Negril.

Multiple activities have been completed over the life of the project to include the production and disbursement of 1,340 reusable masks, placement of 90 public posters, production of 2 videos, collection of 523lbs of plastic bottles for recycling, training of 26 farmers, administration of 42 surveys, broadcast of a project developed jingle 114 times and many other activities. All were implemented within budget and timeline.

Activity 1: Public education about Covid-19 Litter and its impacts, along with the administration of surveys

Over the life of the project, multiple activities have been administered to reduce Covid-19 litter in the target community of Whitehouse. These include the:

1. Administration of **42** Covid litter land and sea surveys and the associated report. The survey revealed the presence of Covid-19 litter along the streets of the town. 68 pieces of Covid-19 trash were collected during the administration of the surveys. These were all found on land. The surveys took place from August 15- September 23, 2021 across multiple land and sea locations in Whitehouse. In the surveys, Covid-19 litter was described as masks, gloves, hand sanitizer bottles, and personal protective equipment. All administrators of the survey used an identical tool developed under the project. On land, surveys were administered throughout the town of Whitehouse at various locations: Market Road, Main Street, Big Tree, and Market Street. For the sea surveys, multiple locations were surveyed: Sandals Reef, New Hope, Culloden, Old Bay, and Sandals. Single use masks were the most prevalent Covid-19 litter collected, then gloves, then hand sanitizer bottles. No personal protective equipment was found during the surveys. This survey gave proof of the presence of Covid-19 materials now being a part of solid waste management. The engagement of the community through multiple community walks, text messages, towncrier, the disbursement of masks, and public posters placement were all important under the project to help reduce this additional solid waste.
2. Production of **1,340** reusable masks by 4 local seamstresses. To reduce the use of single use masks in the community of Whitehouse, cloth masks were produced under the project. These were disbursed through the life of the project through community walks, where multiple persons were engaged. Masks were also shared outside of the community to Bluefields and Negril. These were well received by the communities, who explained that they are usually the more expensive alternative and so more difficult to acquire. Residents also stated they have seen masks on the ground due to Covid-19, and welcomed the initiative.



Reusable masks made by local seamstresses

3. Organisation of 7 community walks. These were administered through multiple areas in the town of Whitehouse to include: fishing beaches, the fishing village, the taxi stand, gas stations, the health centre, shops, plazas, hardware. Residents were given masks, encouraged to wear them instead of the single use alternative, and informed of the new recycling efforts. Many knew of the efforts under the 2019 initiative, and were pleased to learn of the continuation of the efforts through the project. Public posters were also placed in multiple areas throughout the town during community walks. Almost 500 community residents were engaged during community walks that were held with Sandals Foundation Team members and a representative from the National Solid Waste Management Authority western division.

4. An article was written and placed on the Sandals Foundation website. This received 400 views in its first month:

<https://sandalsfoundation.org/node/781>



Distribution of reusable masks at Community Walks by Sandals Foundation and NSWMA representatives.

<i>Deliverables</i>	<i>Deadline</i>	<i>Update</i>
<i>Covid litter survey Report</i>	<i>October 8, 2021</i>	COMPLETED <i>(Annex 1)</i>
<i>4 Covid Litter Community Walks</i>	<i>November 19, 2021</i>	COMPLETED
<i>Production of 1000 Masks</i>	<i>October 22, 2021</i>	COMPLETED
<i>Progress Report based on community walks, and masks.</i>	<i>November 23, 2021</i>	COMPLETED <i>(Annex 2)</i>

Activity 3: Facilitating the livelihood development training of 10 farmers in Westmoreland in compost production.

50 participants were present across all 3 training workshops. 26 farmers from the Westmoreland Farmers Association, Belmont Farmers Association, and various other farming groups throughout the parish have been trained in compost production and its linkage to solid waste management. Training sessions occurred on October 12, 14, and 21, 2021 at the Beeston Spring Greenhouse. 15 farmers were given starter kits, a package consisting of a garden hose, gloves, shovel, and machete. Farmers were encouraged to separate the tools used in organic farming, from those used in conventional farming. Representatives from the National Environmental Planning Agency (NEPA) and the National Solid Waste Management Authority (NSWMA) made presentations to increase the capacity of the farmers present. The link between solid waste and composting was presented firstly by the NSWMA and the science of composting explained by NEPA. 2 local farmers led peer to peer practical training sessions alongside NEPA, which gave trainees the opportunity to administer composting as well. Trainees were taught how to layer each component of solid waste along with top soil, and instructed how to turn it, in the production of the compost. 8 team members from Sandals Resorts International were also present at the training sessions. In-kind contributions of lawn cuttings from the Landscaping Department and vegetable and fruit waste from the Food and Beverage Department were provided by Sandals South Coast. The hotel provided fresh organic matter for each training session.

The training sessions were covered by both print and broadcast media:

https://www.jamaicaobserver.com/news/food-security-push-sandals-foundation-encourages-farmers-to-explore-compost-production-for-personal-use-economic-gain-waste-reduction-and-environmental-protection_234464?profile=1373

https://jis.gov.jm/radio_programs/importance-of-composting-to-farmers/

<i>Deliverables</i>	<i>Deadline</i>	<i>Update</i>
<i>10 starter kits</i>	<i>October 1, 2021</i>	COMPLETED
<i>Press releases / written statements about the Compost Production workshop. This should include photos (accompanied by photo credits). GPML-Caribe should be acknowledged as a sponsor for all press coverage</i>	<i>October 22, 2021</i>	COMPLETED
<i>Artwork of promotional material (banners, posters, brochures) containing GPML-Caribe and Clean Seas logos. This should be sent in .pdf or .png format.</i>	<i>October 1, 2021</i>	COMPLETED (Annex 3)
<i>Training Report</i>	<i>October 29, 2021</i>	COMPLETED (Annex 4)

Activity 4: Facilitating the removal of plastic bottles from the Whitehouse community to a Recycling Plant in Negril

Recycling Partners of Jamaica partnered with the project to reduce plastic bottle solid waste in the community of Whitehouse. Multiple technical meetings have been held for the successful execution of the Activity. Through this partnership 1 recycling cage, 6 supersacks and 180 large trash bags have been donated to strengthen recycling efforts. Over the duration of the project a total of 523 lbs of bottles have been transported to the Negril Recycling Plant. Community members responded to the call for bottles by doing drop-offs at the Marine Sanctuary Office. Both the Consumer Supermarket and Mr. Wells Shop in Whitehouse, on hearing the message, decided to partner with the Sandals Foundation team to continue the work of collection even after the project ends. Churches in Whitehouse have also shared the message during Sunday services to encourage the separation of plastic bottles and their impact on the environment.



Supersack donation by Recycling Partners of Jamaica



Supersack being filled with bottles by a community member

Deliverables	Deadline	Update
<i>Press releases / written statements about the implementation of super sacks for storage and transportation of plastic bottles. This should include photos (accompanied by photo credits). GPML-Caribe should be acknowledged as a sponsor for all press coverage</i>	<i>September 17, 2021</i>	A press release has been prepared for the media, this will be made public over the coming days.
<i>Artwork of promotional material (banners, posters, brochures, social media content) containing GPML-Caribe and Clean Seas logos.</i>	<i>September 8, 2021</i>	COMPLETED (Annex 5)
<i>Progress Report on the volume of plastic bottles transported biweekly</i>	<i>November 29, 2021</i>	COMPLETED (Annex 6)

Activity 5: The production of public education initiatives via radio infomercials, videos, e-fliers and public posters

Due to the Covid-19 pandemic, and its ease in person to person transmission, funds have been shifted to this Activity, to increase the capacity of the population without direct interaction. Multiple public education activities were administered over the life of the project:

- 4 text messages were developed and shared with the community of Whitehouse **8** days during the life of the project:

Reusable Mask Message

- *Heading out today? You can save some money and the environment when you wash and wear your reusable mask to stay safe.*
- *A reusable mask a do it. It's better for your pocket and the environment as you head out and stay safe.*

Recycle Message

- *Drop off your plastic bottles at the Whitehouse Marine Sanctuary Office and together we will keep our community, streets and sea clean.*
 - *Plastic bottles at home? Bring them in to the Whitehouse Marine Sanctuary Office and help keep our community, streets and sea clean.*
- These messages were shared on Thursdays and Saturdays throughout the month of November. Local residents indicated that Thursdays, Fridays and Saturdays are very busy days for the community and those days were targeted. Text messages were dispatched alternately both mornings (9:00 a.m.) and afternoons (2:00 p.m.) every week for 4 weeks throughout the month of November. A total of **8** messages were dispatched. Each text blast engaged over 10,000 devices in a 5km radius around the town of Whitehouse. This broadened the engagement for not only Whitehouse residents but also those in and around the town. The activity was done by Trend Media, a local media company engaged under

the project. A total of **90,942** messages were dispatched at the time of the report with 2 messages left for the completion of the initiative.



Text messages deployed under the project

- On the request of multiple farmers across the three compost training sessions, and the desire to build the capacity of the farming community, composting videos were produced. 2 videos have been developed from the training sessions. One specifically defines composting and informs how to administer the activity over a few steps, while the other video shares the importance of composting, and showcases two local farmers who were present at the workshop. In-kind contribution from the Sandals Light and Film team produced the videos. These have placed on the Foundation's social media pages and shared via WhatsApp with trainees:
 - Instagram - https://www.instagram.com/tv/CV0QZiKAWXR/?utm_medium=copy_link
 - Youtube - <https://youtu.be/U0Z7eM5TyZ4>
 - Facebook pages- <https://www.facebook.com/257045284355/posts/10159463401589356/>
- To engage the community, a jingle on reusable mask wearing was produced and shared by a town crier. A production company developed a 30 seconds jingle in keeping with the theme of reusable masks. On Wednesdays, Thursdays, and Fridays the town crier traversed through the community over a 7-week period from October 13- November 26, 2021. The jingle was played through all the major towns in Whitehouse to engage the residents even while at home and not in the town square.

This was shared for approximately an hour to an hour and half in the morning, noon and evening periods of the day on each day.

- In broadening the reach of the project, the jingle was also shared by the town crier throughout the community of Bluefields. This was done Wednesdays, Thursdays and Fridays, morning, evenings and afternoons from November 10 to 26, 2021. Community residents confirmed hearing the jingle throughout the community.
- **90** Public posters have been designed and placed throughout the town square in bars, churches, shops, health centre, restaurant, and transportation concentrated spaces. This was done to increase the reach of the information shared. Two types public posters focused on the message of reusable masks were designed in-house by the Sandals Foundation Team and printed externally. These posters informed the reader that the alternative single use is harmful to the environment and has solid waste management implications. Readers were also encouraged to cut the end of single masks when disposing of them, since sadly, as the more cost effective alternative they may wear them occasionally. Another poster that was designed in-house and printed externally focused on recycling. Readers were encouraged to drop off all PET bottles at the Sandals Foundation Whitehouse Marine Sanctuary office. This was done as a shift in the last project’s efforts that had multiple drop off points. Some community members were still using that method, and so the need for this was important. Electronic versions of the posters were also shared through multiple networks to encourage the message.



Sandals Foundation Team Member placing posters in a community bar

Deliverables	Deadline	Update
<i>Town Crier personnel engaged</i>	<i>November 1, 2021</i>	COMPLETED
<i>Reusable Masks E Flier & Public poster</i>	<i>September 12, 2021</i>	COMPLETED
<i>Text Message Interim Report</i>	<i>November 20, 2021</i>	COMPLETED

Financial Report

Funds have been disbursed for multiple activities under the project. US\$10,000 have been paid to local seamstresses, hardware, trainers, and other goods and service providers. This is shown below and in Annex 7.

Proposed Item	Quantity	Unit Cost (USD)	Total (USD)	Total Spent
ACTIVITY 1				
Covid Litter Land and Sea Surveys	3	In Kind Contribution valued at \$200	N/A	
Covid Litter Community Walks	4	In Kind Contribution valued at \$400	N/A	
Reusable Masks	1000	\$2.50	\$2500	\$2,600.00
TOTAL (USD)			\$2,500	\$2600.00
ACTIVITY 3				
Local Trainers	3	\$100	\$300	\$266.67
Training Venue	3	In kind contribution valued at \$300	N/A	
Food and Beverage for Training	30	~\$15	\$400	\$293.00
Venue Décor & associated materials	3	~\$200	\$600	\$1,100.00
Project Management - research on product standards etc.	N/A	In kind contribution valued at \$1,000	N/A	-
Start Up Kits	10	\$200	\$2000	\$1,173.87
TOTAL (USD)			\$3,300	\$2,833.54
ACTIVITY 4				
Supersacks	6	In kind contribution valued at \$200	N/A	
Overseas Shipping (Sandals)	N/A	In kind contribution valued at \$100	N/A	
Duty & Handling	1	In kind contribution valued at \$200.00	N/A	
Labelling	10	In kind contribution valued at \$30.00	N/A	
Sack Maintenance	N/A	In kind contribution at \$300	N/A	

Project Management – sourcing, ordering, and transporting sacks	N/A	In kind contribution valued at \$200	N/A	
Transportation of plastic bottles to Negril Plant	6	In kind contribution valued at \$150	N/A	
Collection and organisation of plastic bottles throughout the community	12	In kind contribution valued at \$100	N/A	
Garbage bags	6	In kind contribution valued at \$20	N/A	
TOTAL (USD)			\$0	
ACTIVITY 5				
Town Crier Production	2	\$300	\$600	\$2,200.00
<i>Text messages*</i>	2	\$1,500	\$3000	\$1,600.00
Project Management	N/A	In kind contribution valued at \$400	N/A	
Printing of public posters	2	\$ 300	\$600	\$343.33
<i>Broadcast Messages*</i>				\$423.13
TOTAL (USD)			\$4,200.00	\$4,566.47
TOTAL (USD)			\$10,000	\$10,000.00

*New additions to the budget

Overall the project was executed to the highest standards reaching hundreds of persons to encourage the message of solid waste management. Through recycling, reduction of single use masks and compost production, individuals are able to play their part in making the environment free from trash. Persons were also informed of the link between individual behavior and marine litter, and that activities on land will impact the sea.

Annex 1

Covid-19 Litter Land & Sea Survey Report

The Covid-19 Litter Land & Sea Surveys were administered from August 15- September 23, 2021. Despite heavy rains during the period impacting the initial survey plan of biweekly surveys between August 15- September 18, the activity was completed. Rains from Tropical Storm Grace and Ida along with other smaller systems such as tropical waves, impacted the specified surveying periods. A total of 21 land surveys and 21 sea surveys as planned were administered under the project.



In the surveys, Covid-19 litter was described as masks, gloves, hand sanitizer bottles, and personal protective equipment. All administrators of the survey used an identical tool developed under the project. On land, surveys were administered throughout the town of Whitehouse at various locations: Market Road, Main Street, Big Tree, and Market Street. For the sea surveys, multiple locations were surveyed: Sandals Reef, New Hope, Culloden, Old Bay, and Sandals.

Single use masks were the most prevalent Covid-19 litter collected, then gloves, then hand sanitizer bottles. No personal protective equipment were found during the surveys. In total 68 pieces of Covid-19 litter pieces of trash were found during the survey period. Week 3 had the largest volume of Covid-19 materials. All Covid-19 litter found during the surveys were found on land. None were found during the sea survey collection periods.

Summary of survey findings of both land and sea surveys

MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT
48	14	6	0



Weekly Survey Reports

Week 1

LAND SURVEY	MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT	LOCATON
SUNDAY	4	1	0	0	MARKET ROAD
MONDAY	0	0	0	0	MAIN STREET
TUESDAY	2	3	0	0	BIG TREE
WEDNESDAY	5	4	0	0	MARKET ROAD
THURSDAY	0	0	0	0	MAIN STREET
FRIDAY	4	0	0	0	BIG TREE
SATURDAY	4	0	1	0	MARKET ROAD
TOTAL	19	8	1	0	

SEA SURVEY	MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT	LOCATION
SUNDAY	0	0	0	0	SANDALS REEF
MONDAY	0	0	0	0	NEW HOPE
TUESDAY	0	0	0	0	CULLODEN
WEDNESDAY	0	0	0	0	OLD BAY
THURSDAY	0	0	0	0	SANDALS
FRIDAY	0	0	0	0	NEW HOPE
SATURDAY	0	0	0	0	OLD BAY
TOTAL	0	0	0	0	

Week 2

LAND SURVEY	MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT	LOCATON
SUNDAY	0	0	0	0	MAIN STREET
MONDAY	2	0	1	0	MARKET STREET
TUESDAY	0	0	0	0	BIG TREE
WEDNESDAY	3	0	1	0	MARKET ROAD
THURSDAY	0	0	0	0	MAIN STREET
FRIDAY	0		0	0	BIG TREE
SATURDAY	0	0	1	0	MARKET ROAD
TOTAL	5	0	3	0	

SEA SURVEY	MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT	LOCATION
SUNDAY	0	0	0	0	SANDALS REEF
MONDAY	0	0	0	0	NEW HOPE
TUESDAY	0	0	0	0	CULLODEN
WEDNESDAY	0	0	0	0	OLD BAY
THURSDAY	0	0	0	0	SANDALS
FRIDAY	0	0	0	0	NEW HOPE
SATURDAY	0	0	0	0	OLD BAY
TOTAL	0	0	0	0	

Week 3

LAND SURVEY	MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT	LOCATON
SUNDAY	12	2	0	0	MARKET STREET
MONDAY	4	2	0	0	MAIN STREET
TUESDAY	4	1	0	0	MARKET STREET
WEDNESDAY	3	0	0	0	BIG TREE
THURSDAY	1	1	1	0	MAIN STREET
FRIDAY	0	0	0	0	BIG TREE
SATURDAY		0	1	0	MARKET ROAD
TOTAL	24	6	2	0	

SEA SURVEY	MASKS	GLOVES	HAND SANITIZER BOTTLES	PERSONAL PROTECTIVE EQUIPMENT	LOCATION
SUNDAY	0	0	0	0	SANDALS REEF
MONDAY	0	0	0	0	NEW HOPE
TUESDAY	0	0	0	0	CULLODEN
WEDNESDAY	0	0	0	0	OLD BAY
THURSDAY	0	0	0	0	SANDALS
FRIDAY	0	0	0	0	NEW HOPE
SATURDAY	0	0	0	0	OLD BAY
TOTAL	0	0	0	0	

SURVEY TOOL

Whitehouse and Negril Solid Waste Reduction Project Survey

Name:

Date:

Location:

Type of Survey: **Land** **Sea**

Time:

Identify all Covid- 19 Litter trash identified. This includes: single use masks, gloves, hand sanitizers, and personal protective equipment (face shields, goggles, gowns)

Items should be tallied and final number displayed in the box provided. Pencils should be used to administer the surveys for ease of correction where necessary.

TRASH	TALLY	TOTAL NUMBER
Single use masks		
Gloves		
Hand sanitizers		
Personal protective equipment		

Other remarks:

Annex 2

Community Walk Report

First Community Walk

Date: August 13, 2021

Location: Whitehouse Fishing Beach and Fishing Village

Four Sandals Foundation Team Members and the Community Relations Officer of the National Solid Waste Management Authority disbursed **250** reusable masks and shared information about solid waste management. The Team met and discussed the single message to be shared throughout the walk. The message shared was to inform each resident about the dangers of single use masks to the environment. Community members, fishers, farmers, shop owners, vendors were also informed of the financial wisdom of a reusable mask as they received them. The Team encouraged ‘wash and wear’ rather than multiple masks to discard after each use that increase solid waste and personal cost. Residents were told that that repeated single use masks, has globally shown to impact birds and animals as they end up in gullies and in the sea.

The response to the mask disbursement was excellent, with residents informing the Team that single use masks are usually preferred as they are the more economical option. Many recipients requested more than one mask so that it may be shared with their households. The team traversed the sea and the fishing village in Whitehouse and engaged over 80 persons.



NSWMA and Sandals Foundation representatives handing masks to vendors



Fisherman after receipt of his reusable mask

Second Community Walk

Date: September 21, 2021

Location: Whitehouse Health Centre, Taxi Stand, Lawrence Plaza

Five Sandals Foundation Team Members and the Community Relations Officer of the National Solid Waste Management Authority disbursed **250** reusable masks and shared information about solid waste management. The Team met and discussed the single message to be shared throughout the walk. The message shared was to inform each resident about the dangers of single use masks to the environment, and the importance of washing and reusing their masks. They were also encouraged to cut the strings on the single use masks if they happen to wear them, to reduce the choking hazard impact on marine and terrestrial organisms.

Taxi drivers, food, fruit and apparel vendors, restaurant workers, commuters, and health care workers were engaged in the second community walk. The response was well received, with many removing their single use mask to wear the reusable masks offered. Many also wore the mask provided, as many did not have a mask on hand. A fruit vendor who was wearing a reusable mask as the Team disbursed the project masks, encouraged the initiative. She also told those around her to wash and wear the mask, that she currently does it and loves washing and wearing her own masks.

On this Community Walk, many residents were seen in single use masks, and so team members spent more time engaging them to increase their understanding, as many had questions about the initiative. The community Health Centre was visited and masks disbursed to staff present and 30 issued to the Health Centre to give patients who enter without a mask. The team also traversed the Lawrence Plaza, and Whitehouse taxi stand, that had many residents present who could be engaged in small groups. Over 120 residents were engaged.



Distributing masks at the Whitehouse Health Centre

Third Community Walk

Date: October 13, 2021

Location: Whitehouse Fishing Village and Town Square

Four Sandals Foundation Team Members disbursed **50** reusable masks, shared information about solid waste management, placed multiple public posters throughout the Whitehouse Fishing Village and Town Square and shared information about recycling.

The Team informed the residents about the dangers of single use masks to the environment and the need for reduced solid waste by reusing a mask instead of discarding them after a single use. Community members, fishers, bar owners, vendors and children were also told about the recycling efforts under the project. Some knew of the 2019 initiative and spoke of the need for continued plastic bottle separation in the community. Residents were encouraged to take all the plastic bottles to the Marine Sanctuary office instead of the prior initiative that had multiple drop off points.

The response to the reusable mask disbursement and renewed recycling efforts were excellent. One resident passionately explained how he is disappointed that the Sandals Foundation Team are forced to do so much to tell persons to separate their garbage and not discard them on the ground and even wear masks. He encouraged persons around him to wear reusable masks, rather than the single use alternatives. The team traversed the fishing village, and placed the public posters in a bar, hardware on notice boards and in shops. Almost 30 persons were directly engaged.



Residents receiving reusable masks

Fourth Community Walk

Date: November 9, 2021

Location: Whitehouse Fishing Beach

Three Sandals Foundation Team members distributed **50** masks to fishermen, vendors and residents of Whitehouse along the Whitehouse Fishing Beach. The team encouraged everyone to wear masks, and choose the reusable option. Multiple public posters were also placed in nearby shops and bars to encourage the message of reusable mask wearing, its impact on solid waste and the marine environment. Thirty persons were engaged during this community walk.

With its close proximity to the Whitehouse Marine Sanctuary Office, those engaged were encouraged to drop their bottles at the office in the recycling cage. They were told to look out for the multiple posters across the town that encouraged both measures.



Sandals Foundation Team members on a community walk issuing masks

Fifth Community Walk

Date: November 11, 2021

Location: Old Bay Beach

One hundred and thirty persons were engaged in the fifth community walk. Four Sandals Foundation Team members distributed **250** masks at the Old Bay Beach. This beach had multiple fishermen, and were engaged in the morning as they were administering several fisher activities. Unfortunately, very few persons engaged were in any masks at all, and the few that were in masks wore single use masks. Many stated that they felt suffocated by the reusable masks and so they preferred the single use masks as they were thinner. Covid-19 apathy was present, however those given the masks immediately wore them and also requested a few more for family members.

Multiple shops and bars were also located on the beach and were engaged. Patrons at the bar were also told about the project along with those working at the various facilities.



Patrons at a bar wearing their reusable masks received by Sandals Foundation Team members



Fisherman posing in his newly received mask by his boat

Sixth Community Walk

Date: November 19, 2021

Location: Whitehouse Square

Three Sandals Foundation Team Members disbursed **50** reusable masks, shared information about solid waste management, placed multiple public posters throughout the town square of Whitehouse.

The Team informed the residents about the link between solid waste management, marine trash and single use masks. Community residents, shop owners, commuters, and children were also told about the recycling efforts under the project. The team traversed the town square, and placed the public posters in a gas station, community centre, pharmacy and shops. 22 persons were directly engaged.



Commuter posing in her newly received mask

Seventh Community Walk

Date: November 23, 2021

Location: Bridge

Three Sandals Foundation Team Members disbursed **90** reusable masks, shared information about solid waste management, placed multiple public posters throughout the community of Bridge in Whitehouse.

The Team informed the residents about the link between solid waste management, marine trash and single use masks. Community residents, shop owners, and children were also told about the recycling efforts under the project. The team traversed the community and made multiple stops at shops, bars, a mechanic, and homes. Covid apathy again was observed, with some community residents stating they only wear masks when mandated to enter public buildings. They were encouraged to use reusable masks, to help the environment, reduce solid waste, and to save funds overall as they would not need to purchase another after its single use. Almost 70 persons were directly engaged.



Team Members placing posters in the community of Bridge, Whitehouse

Widening Community Engagement

To broaden the reach of the project, stakeholders in Bluefields and Negril were engaged. Bluefields received **250** reusable masks produced under the project. This was disbursed to almost 200 persons, who loved the message. Many fishermen and residents were engaged. Few stated that they felt suffocated by the reusable masks and so they preferred the single use masks as they were thinner. However, as the message of solid waste reduction and marine conservation was shared, many agreed that in truth, masks are now being seen all over on the ground, and were in agreement. This initiative was also coupled with a town crier with the project produced reusable mask jingle being shared throughout this community. Also, public posters were posted in bars and shops throughout the Bluefields community to strengthen the message of reusable mask wearing.

Negril received **100** reusable masks. These will be shared among children for upcoming Christmas treats to encourage reusable mask wearing while staying safe and protecting the environment.



Masks being given to Bluefields stakeholders for sharing throughout the community

Two self-adhesive public posters were designed in-house and distributed throughout Whitehouse and Bluefields in multiple locations: bars, shops, hardware, cook shops, churches, health centre, fishing village, and many other public spaces. 90 were printed under the project, and they were shared through electronic networks to stakeholders. These are below:



Annex 3

This e-flier was developed with in-kind contribution to the project and shared with our partners, the Westmoreland Farmers Association and Sandals South Coast Team members for the 3 workshops held in October 2021.

JOIN OUR COMPOST TRAINING FOR FARMERS WORKSHOP



TUESDAY,
OCTOBER 12, 2021
BEESTON SPRING
GREENHOUSE
10:00 A.M.



Learn how to **compost** with us.
Spend less on **fertilizers**, earn more on **produce**.



Annex 4

Compost Training Report

Background & Preparation

A total of 50 persons were in attendance at the Whitehouse and Negril Solid Waste Reduction Project Compost training sessions. Three trainings were held on October 12, 14, and 21, 2021 so that there would be an observance of the Government of Jamaica's Covid-19 protocols. All sessions were held at the Beeston Spring Greenhouse in Westmoreland. 26 farmers, and 8 Sandals Resorts International team members were present across all sessions, along with 16 persons planning/or presenting at the session. A training e-flier and training agenda, were created and shared for the sessions. Local community suppliers were engaged for the provision of meals, portable toilets, tents, starter kits and chairs for the training. Other preparatory activities included the provision of garden cuttings by the Landscaping Department and vegetable and fruit organic matter from the Food and Beverage Division of the Sandals South Coast. These were transported to the venue a day prior to the training for the practical component of the day.



To best equip each farmer present, 15 local farmers were gifted with Starter Kits. A shovel, gloves, machetes, and garden hose were disbursed to the farmers. This was done to encourage exclusive use of organic farming tools, along with the encouragement of administering composting for the best outcome of the soil and produce, along with a better environment. Trainees were also informed of the link between solid waste reduction and composting as materials used for the production of compost are many times tossed out with trash.

Farmers from the Westmoreland Farmer's Association were asked to invite interested farmers to the workshop. While 10 was the initial number of farmers to be engaged, numbers grew over time increasing to 15, and then to the 26 farmers attended.



Presentations

- *Welcome and Introductions*

Training began at 10:00 a.m. each day, with *Welcome and Introductions* by Georgia Lumley of Sandals Foundation. The Whitehouse and Negril Solid Waste Project was explained in detail, including the multiple Activities, donors and partners. All related training documents: e-flier, registration form, and agenda bore all the related logos to the project. During this section of the training all the related donors and partners were explained with reference to their logos on the documents. Each participant introduced themselves, their connection to farming, and experience in composting. Representatives from the Jamaica Organic Farmers Association were in attendance at 2 of the 3 workshops. They explained that this Body certifies organic farmers in Jamaica and that groups are across the island to encourage organic farming in

Jamaica. Across all three workshops, there was a combination of trainees with little to no background in composting. Many explained their current knowledge of the activity and the scale of which it is administered. The day's agenda was shared and questions were encouraged throughout the day.

Queries were raised about the availability of a video of the training, and other project activities including the renewed recycling efforts.

- *Solid Waste Management & Composting*

Sharon Williams of the western regional office of the National Solid Waste Management Authority made the first presentation, which was on the linkages between composting and solid waste management. This presentation was repeated at all three workshops. Trainees were told of the burden of the solid waste management system in Jamaica with the excess discarding of organic materials that may be used to make a valuable product such as compost. The presentation explained that while the process is usually seen as smelly, technical and difficult, with some guidance everyone can compost. The benefits of composting were explained to include: reduced solid waste, better soils, better produce, and that it may become an income earner. She explained that there is a great market for compost with many persons leaning towards a holistic healthier lifestyle. Ms. Williams also advised that it lessens the cost of farming as the compost created is a cost free alternative to expensive conventional fertilizers. The final product was showcased and it was explained that while the product begins as garbage, it is recycled to a new clean pleasant smelling product, that may be touched and used. The process of composting sanitizes the solid waste making it a suitable end product.



Solid waste in the western end of the island is transported to the Retirement Landfill, St. James which is outside of parish of Westmoreland. This and other landfills in the island has frequent fires. Ms. Williams explained that outside of arson, many fires are caused by spontaneous combustion, which is due to the increased methane production at the landfills due to large volumes of organic matter present. She encouraged participants to reduce the organic materials sent to landfills, as fires at landfills result in a multiplier effect of air pollution, poor visibility, and health issues in communities surrounding the dump site.



Ms. Williams explained though solid waste is to be used in compost production, not all materials are suitable. Materials discussed to be used in compost include: manure of cows, horses, goats; fruits and vegetable waste; leaves and grass cuttings. Human waste, plastics, meat and other materials were discouraged from being used. She explained that many times while executing composting activities, the heap may be found to have several problems that are fixable by slight tweaks. If it is too smelly, it is too wet; if it has mold, it is too dry; warm

in the middle but dry everywhere else, it requires more materials. Being aware of the heap throughout the process will increase its success.

Multiple questions were asked and discussions held about other possible materials to be used in composting, and the country's lack of public education on this important activity. She ended the presentation with an encouragement to all participants to apply what they have learnt, and encourage their neighbours and farm stakeholders to reduce solid waste by composting.

- *The Science of Composting*

Mr. Barrington Taylor, of the NEPA, presented on the science of composting. How it works, why it works and the technical processes involved were discussed. A successful compost he explained, would result in a 50% reduction in the solid waste materials that are used. This makes it an excellent activity for the reduction of solid waste by farmers and everyone. Mr. Taylor explained that composting is an aerobic thermal process involving two key elements: Carbon and Nitrogen. The materials used in composting are the sources of Carbon and Nitrogen, with the brown elements: top soil, manure being Nitrogen rich, and the green ingredients: lawn cuttings/leaves and fruits and vegetables being the Carbon rich. These elements have to remain in balance throughout the 4 step composting process for a successful end product.



The solid waste items are to suitably evenly stacked to 4 inches. The layering process was explained as: lawn cuttings, manure, kitchen waste (vegetables and fruits) and then top soil. This process is to be repeated depending on the amount of materials the farmers have access without being taller and wider than they can manage. For the most successful process, participants were encouraged to chop the items into small pieces. This layering process should be repeated and damped in between, and mixed using a shovel. To best manage the composting process, participants were advised to administer the activity under a tree or shaded area. Without a cover, the process will be impacted by heavy rain. While water is required in the process, it should be added in

a controlled way and mixed in so that multiple processes may occur in the ideal environment. With each layering, mixing was advised, as composting is an aerobic process, and oxygen must be allowed to circulate for the successful execution of the activity. Micro-organisms are at work during composting that require oxygen to administer the work required.



Mr. Taylor explained that there are various types of composting, however the one being demonstrated is an aerobic thermal process which takes a month to be completed. The process has 4 stages:

1. Mesophilic Stage

- a. This is the first stage which begins after layering is complete. No new material can be added, after this stage, or the heap will revert to it lengthening the composting process. Periodic damping and turning of the compost heap is mandatory throughout all stage. The heap should not be more than 12 feet wide and higher than 5ft so that it remains manageable. The temperature at this stage will go up to 40° C. Farmers were encouraged to use the machete as a heat guide in the absence of a farmer's thermometer.

2. Thermophilic Stage

- a. This is the second stage of the process where the heap gets to its highest temperatures. Here temperatures get as high as 70°C. This is caused by the multiple activities of the micro-organisms in the compost heap.

3. Second Mesophilic Stage

- a. At this stage, the heap has a drop in temperature as it cools. Mixing and periodic damping continues.

4. Maturation Stage

- a. This is the final stage of the composting process. Here the end product is cool and completely sanitized.



- *Disbursement of Starter Kits*

Unknown to the farmers, a gift was presented to the first 15 that indicated their interest in the training. Procured from a local hardware on the advice of the compost trainers, tools were bought that are necessary in the production of compost. A shovel for mixing, machete to use as a heat tester and to chop large pieces of organic matter, a garden hose to periodically wet the compost heap, and gloves were gifted. Farmers expressed their gratitude on receipt of the gifts with the understanding that items are to be restricted in the production of compost.



- *Practical Composting*

To reinforce the theoretical component of the training, the day ended with a practical training session.



This was led by two local farmers, Kirk Clarke and Barbara Stewart, and Mr. Taylor from the NEPA. The farmers showcased the multiple solid waste items being used and how to best create each the layer. Grass cuttings, manure, kitchen waste, and top soil, was the layering order given for the process. Trainees were encouraged to cut items into smaller pieces, add the multiple layers, and the suitable way that the heap should be aerated by mixing. Multiple questions were answered during this session. One such question was the wisdom of doing the process in a hole in the ground. This was discouraged as leaching occurs and

reduces the efficacy of the composting process. Both farmers, and Sandals South Coast Team members participated in the practical session. As tools from the Starter kits were used, the trainers explained the best way to use them for a successful compost.



Closing Remarks

The training days ended with multiple participants indicating what they learnt and would apply immediately. A request for a video of the workshop was requested and multiple expressions of gratitude for the starter kits were shared.

Annex 5

This Recycling e-flier and public poster has been shared throughout the community of Whitehouse and Bluefields to encourage the waste separation and drop off at the Whitehouse Marine Sanctuary, as well as indicating its harm to the environment. This was also designed via project in-kind contribution.

GIVE US YOUR PLASTICS



PLASTICS ARE HARMFUL TO THE ENVIRONMENT

THEY BLOCK DRAINS AND CAUSE FLOODING

IT TAKES 450 TO 1000 YEARS FOR PLASTICS TO BREAK DOWN

KEEP THE COMMUNITY CLEAN

DROP OFF YOUR PLASTIC BOTTLES AT THE WHITEHOUSE MARINE SANCTUARY COLLECTION FACILITY



Annex 6

Recycling Report

The Recycling Partners of Jamaica (RPJ) partnered with the Sandals Foundation for the implementation of the Whitehouse & Negril Solid Waste Reduction Project to reduce plastic bottle solid waste in the community of Whitehouse. Multiple technical meetings were held for the successful execution of the Activity. The partnership resulted in the delivery of 1 recycling cage, 6 supersacks and 180 large trash bags. Due to multiple Covid-19 restrictions of No Movement Days, curfews and delayed resumption of face to face classes, collection has slowed. This altered the collection from bi-weekly, to monthly. The collection though slow, continued. A total of **523lbs** of bottles have been collected under the project.



Recycling cage donation

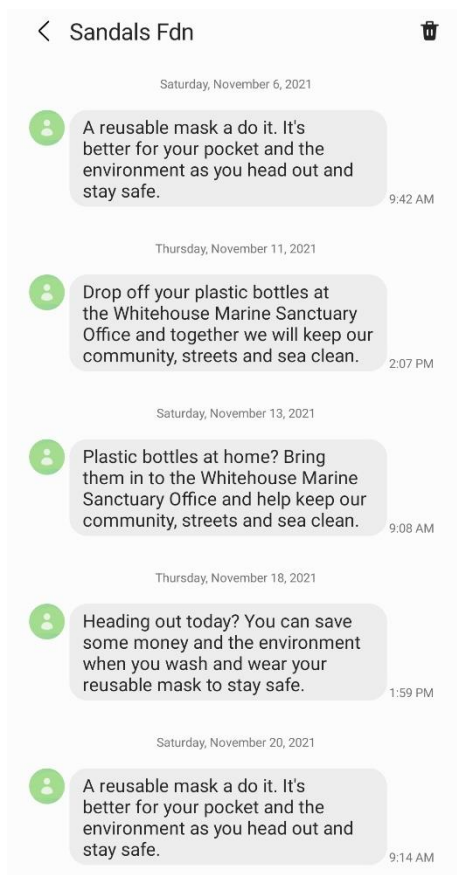
To increase recycling efforts, 30 public posters were placed throughout Whitehouse at multiple locations. These included bars, supermarkets, shops, fishing village, notice boards the health centre and other main areas. This was done to encourage recycling efforts in a new way, dropping off at the Whitehouse Marine Sanctuary Office. The Consumer Supermarket and Mr. Wells Shop in Whitehouse, expressed keen interest in the project, and have stated that they will partner with the Sanctuary office, even after the project to have bottle collection on their premises, for later drop off at the office.

Posters were also shared as an e-flier via WhatsApp to multiple community residents. Similar posters were also shared with Bluefields. Stakeholders indicated that several bottles are present in the community, and may be easily dropped in Whitehouse. These were placed in public spaces to increase awareness.



Sandals Foundation Team member placing a Recycling poster at the Whitehouse Health Centre

To encourage the efforts, text messages were also shared. These were deployed by Trend Media, a company engaged under the project to share text messages to increase awareness of project activities. Four messages were shared over the month of November to end on November 26, 2021



Text Messages dispatched under the project

Few community members still continued dropping bottles at collection spaces used in the last project. These were transported to the Marine Office, and they were encouraged to use the new venue instead.

Annex 7

Invoice & Financial Report

In keeping with the Grant Agreement, all invoices received for goods and services under the project have been submitted in this report (attached by PDF). Invoices were received from local suppliers of reusable mask production, portable toilets, food, tents, public posters, tools and many others. While many invoices reflect General Consumption Tax (GCT), none have been paid from the Grant funds provided under the project. Also of note, the broadcast messages payment was split between grant funding and Sandals Foundation funding for the project.

All activities were completed within timeline and budget. While some individual Activities exceeded their budget, the shortfall of others were used to supplement them.

The completed budget of activities is as follows:

Proposed Item	Quantity	Unit Cost (USD)	Total (USD)	Total Spent
ACTIVITY 1				
Covid-19 Litter Land and Sea Surveys	3	In Kind Contribution valued at \$200	N/A	-
Covid Litter Community Walks	4	In Kind Contribution valued at \$400	N/A	-
Reusable Masks	1000	\$2.50	\$2500	\$2,600.00
TOTAL (USD)			\$2,500	\$2600.00
ACTIVITY 3				
Local Trainers	3	\$100	\$300	\$266.67
Training Venue	3	In kind contribution valued at \$300	N/A	-
Food and Beverage for Training	30	~\$15	\$400	\$293.00
Venue Décor & associated materials	3	~\$200	\$600	\$1,100.00

Project Management - research on product standards etc.	N/A	In kind contribution valued at \$1,000	N/A	-
Start Up Kits	10	\$200	\$2000	\$1,173.87
TOTAL (USD)			\$3,300	\$2,833.54
ACTIVITY 4				
Supersacks	6	In kind contribution valued at \$200	N/A	
Overseas Shipping (Sandals)	N/A	In kind contribution valued at \$100	N/A	
Duty & Handling	1	In kind contribution valued at \$200.00	N/A	
Labelling	10	In kind contribution valued at \$30.00	N/A	
Sack Maintenance	N/A	In kind contribution at \$300	N/A	
Project Management – sourcing, ordering, and transporting sacks	N/A	In kind contribution valued at \$200	N/A	
Transportation of plastic bottles to Negril Plant	6	In kind contribution valued at \$150	N/A	
Collection and organisation of plastic bottles throughout the community	12	In kind contribution valued at \$100	N/A	
Garbage bags	6	In kind contribution valued at \$20	N/A	
TOTAL (USD)			\$0	
ACTIVITY 5				
Town Crier Production	2	\$300	\$600	\$2,200.00
Text messages	2	\$1,500	\$3000	\$1,600.00

Project Management	N/A	In kind contribution valued at \$400	N/A	
Printing of public posters	2	\$ 300	\$600	\$343.33
Broadcast Messages				\$423.13
TOTAL (USD)			\$4,200.00	\$4,566.47
TOTAL (USD)			\$10,000	\$10,000.00