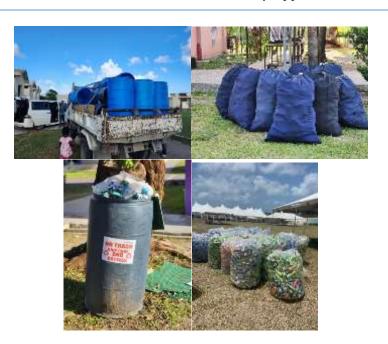


Transforming Waste Management in Antigua and Barbuda

An Island-Wide Circular Economy Approach



#### Rational

Antigua and Barbuda face significant challenges in managing waste, which has direct environmental, social, and economic impacts. Our vision is to transform waste management across the island through education and collaboration, engaging all sectors—schools, businesses, homes, events, and specialized training courses. By teaching best practices and actively involving these key areas, we aim to foster a sustainable circular economy that minimizes waste and maximizes resource use.

This document outlines a comprehensive approach to integrating waste management into everyday practices, focusing on promoting environmental sustainability and social inclusion. By breaking down the initiative into manageable phases and projects, we can ensure that the entire island benefits from this transformation.

To visualize how these sectors, work together in the circular economy, consider the following graph:



- 1. **Schools** Educating future generations on waste management through recycling programs, student projects, and community service initiatives.
- 2. **Businesses** Encouraging responsible consumption, waste separation, and recycling at the workplace, aligning with corporate social responsibility goals.
- 3. **Events** Managing waste during large-scale events by separating recyclables and compostable materials, and promoting eco-friendly practices.
- 4. **Homes** Implementing recycling and composting at the household level, encouraging community-wide participation in reducing waste sent to landfills.
- 5. **Waste Management Course** Offering specialized training to integrate waste management practices across different sectors, raising awareness of climate action and environmental conservation.

Our waste management initiative will transform how waste is handled across the island, ensuring that each sector plays a role in the circular economy. By involving various stakeholders, we will create a system where waste is seen not as a problem but as a resource that can be reused, recycled, or composted. Through awareness campaigns, hands-on workshops, and specialized courses, we aim to reduce waste significantly and promote sustainability. To ensure the successful transformation of waste management practices, the project will be broken down into several phases:

# Phase 1 – Awareness and Education:

Initial workshops, campaigns, and school programs to raise awareness about waste management and its environmental impact.

# **Phase 2 – Pilot Projects:**

Launching pilot projects in select schools, businesses, and communities to model waste separation, composting, and recycling.

# Phase 3 – Scaling Up:

Expanding the program to include more schools, businesses, and events, integrating waste management practices into their daily operations.

# **Phase 4 – Data-Driven Expansion:**

Collecting and analyzing data from the pilot projects to refine and optimize waste management strategies across the island.

# Phase 5 – Long-Term Sustainability:

Ensuring that waste management becomes an embedded part of the culture in Antigua and Barbuda, with ongoing education and monitoring to maintain progress.

A concept note has been created for each sector involved in the waste management transformation. These drafts serve as the foundation for addressing waste management in schools, businesses, homes, events, and through specialized training courses. Each sector-specific plan is designed as a starting point, outlining key activities and objectives necessary to build momentum for the island-wide circular economy initiative.

It is essential to understand that these drafts are precisely that—drafts. They represent initial ideas that will evolve and be refined as we gather more data and insights. We will continuously review and adjust the plans based on feedback and lessons learned from other regions that have successfully implemented similar waste management projects. The data collected during the pilot phases, coupled with the experiences from other islands and communities, will ensure that our approach remains flexible, scalable, and grounded in proven methods.

Ultimately, the final version of each sector's plan will reflect the unique needs of Antigua and Barbuda, as well as the innovative solutions that emerge throughout the implementation process. This adaptive strategy ensures that we remain committed to both environmental sustainability and social inclusion while creating a waste management system that is responsive to our island's specific challenges and opportunities.

# Review of Student Community Service Recycling Project: Comprehensive Report (September 2023 - July 2024)

**Project Overview:** The Student Community Service Recycling Project, managed by Good Humans 268 Inc., aimed to promote waste reduction, recycling, and environmental education across 82 schools in Antigua and Barbuda. The project spans three terms, focusing on recycling aluminum cans and plastic bottles, teaching circular economy concepts, and engaging students, teachers, and the broader community.

# **Project Goals:**

- 1. Divert 85,000 aluminum cans and 765,000 plastic bottles from landfills by implementing recycling in 82 schools.
- 2. Educate 25% of the local school population about the circular economy, conservation, and waste reduction.
- 3. Develop a sustainable livelihood program for 20 persons with disabilities by partnering with recycling projects in Antigua and Barbuda.

# Term 1 (September 2023 - December 2023):

#### **Key Activities & Achievements:**

- 192 recycling barrels placed in 82 schools.
- Recycling Data Collection: A total of 211,316 recyclable items were collected during this term.
- **Engagement:** 29 of 82 schools visited for recycling education sessions, engaging an estimated 8,055 students.
- Challenges: Some barrels were stolen, and issues with data collection occurred due to lack of internet access in certain schools. Delays were also caused by the closure of the Plastic Waste-Free Island initiative, which impacted sorting and processing.

#### Term 1 Data Breakdown (Recyclables Collected):

- **Plastic Bottles:** 115,533 (approx. 4,621.32 pounds)
- **Cans:** 53,472 (approx. 891.2 pounds)
- **Glass Bottles:** 42,311 (approx. 10,577.75 pounds)

# Term 2 (January 2024 - March 2024):

# **Key Activities & Achievements:**

- Recycling Data Collection: A total of 748,878 recyclable items were collected.
- **Engagement:** 40 schools visited, reaching an additional 7,500 students.
- Collaborations: Pop-up recycling stations were set up for Global Recycling Day, and partnerships with local organizations helped promote recycling activities.

• Challenges: Theft of barrels continued to be an issue, and logistical difficulties caused some delays in collecting recyclables weekly. There was also minimal response (10.08%) to the recycling pre-test distributed to students.

#### Term 2 Data Breakdown:

• **Plastic Bottles:** 502,066 (approx. 20,082.64 pounds)

• Glass Bottles: 113,006 (approx. 28,251.5 pounds)

• Cans: 133,806 (approx. 2,230.1 pounds)

# Term 3 (April 2024 - July 2024):

# **Key Activities & Achievements:**

- **Recycling Data Collection:** A total of **748,878 items** were collected from schools for the year, and an additional 60,000 recyclable items were collected through summer camps and eco-events.
- **Engagement:** 15,249 students, teachers, and staff participated in the project during Term 3, with 80 schools receiving certificates and two trees each as a thank-you gesture.
- **Disability Program:** 4 individuals with disabilities were employed as part of the recycling team, and contents from the bins were sent to the Antigua and Barbuda Waste Recycling Cooperation for processing.
- **Challenges:** Internal team conflicts and resistance from some schools hampered the program's progress.

#### Term 3 Data Breakdown:

• **Plastic Bottles:** 249,856 (approx.9,994.24 pounds)

• **Glass Bottles:** 88,270 (approx. 22,067.5 pounds)

• **Cans:** 88,239 (approx. 1,474.39 pounds)

# **Project Findings:**

- 1. There are thousands of recyclable materials that can be diverted from the landfill
- 2. There is a need for more engagement with the community to educate individuals about waste management
- 3. There is a need for an amendment to the environmental act to ensure business, households, events, schools and the wider population will change the way they dispose of their waste.
- 4. Collaborations with local organizations and businesses significantly boosted the project's visibility and engagement. Events such as Earth Day celebrations and eco-challenges encouraged public participation in recycling.
- 5. Increase Education & Awareness Campaigns: Introduce interactive content such as videos, infomercials, and dance challenges to increase student participation.
- 6. Focus on Innovation: Implement new recycling technologies to process collected materials more efficiently and explore additional revenue streams for future operations.

#### **Summer 2024 Breakdown of Items Collected:**

Total Items Collected: 60,000 recyclable items were collected across various summer camps and eco-events.

Literacy and Numeracy Summer Camp: 23 Kids Connection: 30 participants

participants

Shooting Stars: 35 participants Williams Tennis Summer Camp: 17

participants Blue Jeans Event (July 14)

National Library Summer Camp: 206 T-Shirt Mas Carnival (July 27)

participants

La Playa Privada (July 28) Smiles Summer Camp: 34 participants

Rise Event (August 2)

Shauna Child Care and Daycare: 16
participants
Carnival Dreams (August 3)

Hope Camp: 13 participants

Breakfast Fete (August 4)

AMP Camp: 35 participants Carnival Monday and Tuesday (August 5 &

6)

The Student Community Service Recycling Project has made significant progress in reducing waste, promoting recycling, and fostering environmental awareness. Despite challenges, the program is on track to meet its objectives, and with continued support, it will make a lasting impact on the sustainability of Antigua and Barbuda. The program would have open many doors and would showcased the need for more community involvement and education.

# Contents

Student Community Service Program	8
Eco –Communities	21
Eco – Business	31
Eco – Events	34
Waste Management Course Outline	37

# Geral Humans 268 Inc





# **Student Community Service**

TO PROMOTE YOUTH ENVIRONMENTAL STEWARDSHIP THROUGH RECYCLING, TREE PLANTING AND A VOLUNTEERING PROGRAM IN LOCAL SCHOOLS

September 2024 - June 2025

# Contents

Program overview	10
Recycling	10
Objectives:	10
Expected Results	10
Tree Planting	10
Objectives:	10
Expected Results.	10
<u>Volunteering</u>	11
Objectives:	11
Expected Results	11
Top Performing school from each group 2023/2024 school year	12
Groups	12
<u>Term 1</u>	13
<u>Term 2</u>	14
<u>Term 3</u>	15
Project Zones (SCHOOLS HAVE BEEN GROUPED BASED ON LOCATION)	16
Some of the Activities planned to upcoming school year	17
Expected Impacts	20

# Program overview

The program's primary objective is to foster a culture of environmental consciousness among young people through a comprehensive approach integrating recycling, tree planting, and volunteering. It is crucial to impart knowledge and engage with students to inspire them to become proactive stewards of the environment. The program is a multifaceted initiative that combines different aspects to create a holistic and highly beneficial approach to environmental conservation. It aligns with the United Nations' global sustainable development goals and has the potential to enhance the island's tourism industry, future human resources and disability awareness.

# Recycling

# Objectives:

- 1. Divert from the landfill and recycle 85 000 aluminum cans and 765 000 plastic bottles through a comprehensive recycling program in 81 public and private primary schools by the end of the project.
- 2. To indoctrinate and have 25% of the local school population actively involved in the circular economy, conservation, and waste reduction at the end of the project
- 3. To partner with three of the current recycling projects on the island and generate some revenue to give a stipend as support to 20 individuals with disabilities that will be assisting on the project.

#### **Expected Results**

- 85 000 aluminum waste diverted from the landfill.
- 765 000 plastic wastes diverted from the landfill.
- 10% of the total student population actively recycle.
- 20 individuals living with disabilities have gained a small stipend to assist in their livelihood from sorting plastic bottles and aluminum cans.

# **Tree Planting**

# Objectives:

- 1. To provide each student with two trees to plant by the end of the academic year
- 2. To partner with other projects that are currently working on removing the lemon grass and replacing them with trees.

# **Expected Results**

34 000 trees planted by June 2024

- 20 Individuals with disabilities given a stipend to assist in the nursey and planting trees.
- 75% of the student population have a better understanding how planting trees is good for the environment.

# **Volunteering**

# Objectives:

- 1. To partner with non-profit organizations, community groups, clubs and associations that are currently operating in Antigua and Barbuda
- 2. To engage primary schools' students in 5 hours of volunteering for hours throughout the school year
- 3. To engage secondary schools' students in 10 hours of volunteering for hours throughout the school year
- 4. To provide training opportunities in CPR, communication skills and team leadership for 20 individuals with disabilities in Antigua and Barbuda

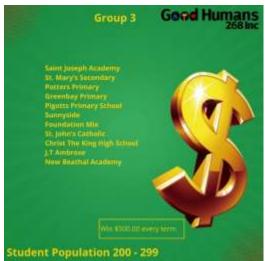
# **Expected Results**

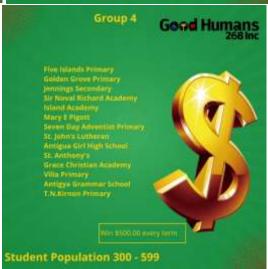
- Total hours 123,310
  - 9,388 primary school students \* 5 hours = 46 69 hours
  - 7,662, secondary school students \* 10 = 76 620 hours
- 20 individuals trained by the end of the project.
- Partnership with an estimated 1060 organizations, groups, projects, institutions formed.

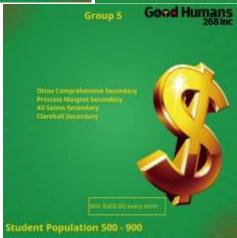
# Top Performing school from each group 2023/2024 school year Groups



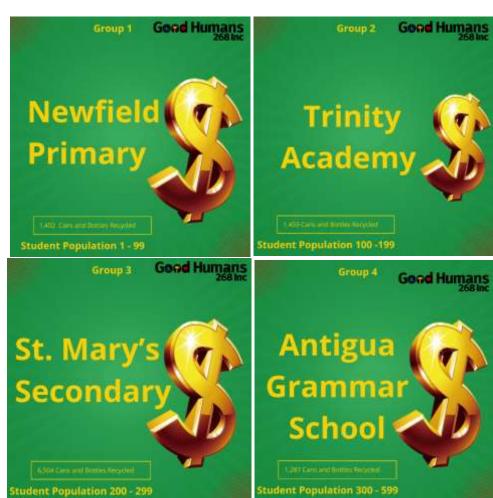


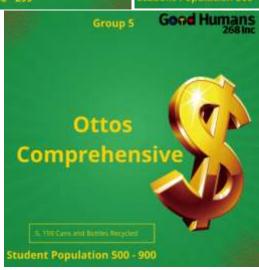






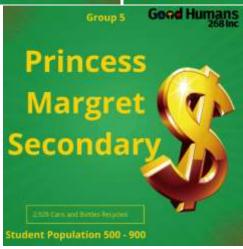
# Term 1





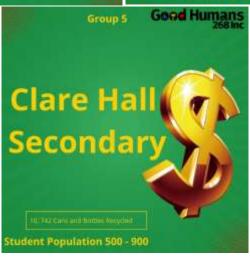
# Term 2





Term 3





# Project Zones (SCHOOLS HAVE BEEN GROUPED BASED ON LOCATION)

Zone 1			Zone 4		
- 1	Primary Public	Five Islands Primary	19	Primary Public	Freetown Primary
2	Primary Public	Greenbay Primary	20	Primary Public	Newfield Primary
	Primary Private	Temple Academy	21	Primary Public	Nelvie N Gore Primary
	Primary Public	Golden Grove Primary		Secondary Public	Glanvilles Secondary
5	Primary Public	Bendals Primary	23	Primary Public	Pares Primary
Zone 2			24	Secondary Public	Pares Secondary
	Secondary Public	Jennings Secondary			
	Primary Public	Jennings Primary	Zone 5		
10	Private Secondary	Tranity Academy	25	Primary Private	Kids Unlimited
13	Primary Public	St. Olivia David Primary		*	Seaview Academy
10	Secondary Public	St. Mary's Secondary	_	Primary Private	,
11	Primary Public	Urlings Primary	27	Secondary Public	SNRA
12	Primary Public	Old Road Primary	28	Primary Public	Potters Primary
			29	Primary Public	Seaview Farm Primary
Zone 3					
33	Primary Private	Rost Millermial Academy:	Zone 6		
:54	Primary Private	The NRS Academy			
#	Primary Private	Stays Clesent Primary	30	Primary Public	Parham
10	Pointary Pituute	St. Peters Academy	31	Primary Public	Pigotts
37	Primary Private	Sunnyctale Primary	32	Primary Private.	TOR Memorial
317	Printery Presents	Tabarnacke Academy	33	Primary Private	Sunnyside

Macernacie Acadimiy		33 Primary Private Sur
Zone 7		
34	Primary Public	School for the deaf
35	Primary Public	T.N.Kirnon Primary
36	Secondary Public	AGS
37	Primary Private	St. John's Catholic
38	Private Secondary	CKHS
39	Primary Private	Victory Center
40	Private Secondary	SJA
Zone 8		
41	Primary Public	Cobbs Cross Primary
42	Primary Public	Liberta Primary
43	Primary Private	New Beathal Academy
44	Secondary Public	All Saints Secondary
45	Primary Public	J.T Ambrose
46	Primary Public	Freemans Village Primary
Zone 9		
47	Primary Public	Charlesworth T Samuel
48	Primary Public	Irene B Williams Secondary
49	Primary Public	Buckleys Primary
50	Primary Private	Island Academy
51	Private Secondary	Island Academy

Zone 10			Zone 13		
	Primary Private	Mirrosh Magnet Academy	69	Primary Public	New Winthorpes
	Primary Prhiate	St. sohms Lutheran	70	Secondary Public	CHSS
34	Private Secondary	Baptille Secondary	71	Primary Private	St. Michaels
55	Private primary	Baptise Primary		Primary Private	Foundations of Faith Tutorial
36	Secondary Rubbic				
- 97	Primary Public	Mary E Riggett	73	Primary Private	Christian Union School
Zone 11			Zone 14		
58	Secondary Private	SDA Secondary	74	Primary Public	Adele
59	Primary Private	SDA Primary			
60	Private Primary	Foundation Mix	75	Primary Private	Grace Christian Academy
61	Primary Private	Friends Development Center	76	Primary Private	Wesleyan Junior Academy
	Secondary Public	Children and the second	77	Primary Private	Better Chance
63	Primary Private	Divine Academy of Excellence	78	Primary Public	Villa Primary
Zone 12			79	Secondary Public	PMS
	Primary Public	Cedar Grove			
	Primary Private	St. Andrews School	Zone 15		
66	Primary Private	St. Nicholas		Datas and Datable	11-1
67	Private Secondary	St. Anthony's		Primary Public	Holy Trinity
68	Private Secondary	Divine Academy of Excellence	81	Secondary Public	SMCGS/Barbuda

# Some of the Activities planned to upcoming school year

- Partnership with WISH Foundation
- Workshop with Teachers
- Redistribution of Survey
- CIBC Breast Cancer Walk
- Clean ups
- Whistle while you recycle dance challenge

Students will be dancing to an edited version of the song "TK International-Whistle While You Work"

https://www.youtube.com/watch?v=f28197LOQBI

https://www.facebook.com/reel/720200469978324



• Booklets for primary school students - a raffle will be at the end for a winning child from each group



• Creating new Signs Challenge



Basketball rims will be placed on the recycling bins



• Getting students to sign names on bins within schools "Recycling Heroes"



# **Expected Impacts**

Following successful implementation of this project, and because of the strategic collaboration with

- West Indies Sail Heritage Foundation, the national "Plastic Waste Free Island Initiative" and Antigua Barbuda Waste Recycling Corporation we anticipate observing a behavioral shift resulting in litter, and plastic use reduction as well as a cleaner Antigua and Barbuda
- Reforestation projects we will remove a significant number of lemon grass and replace them with trees which will produce food in the future.
- Students will be exposed to different projects and gain some experience in volunteering. As a direct result of a cleaner country with more trees planted, we expect to witness healthier, cleaner ecosystems, for the benefit of people and wildlife.

While these actions take place across the school network, we expect there to be multiplier effects, extending to the families and friends of the students, having a huge local impact while also aligning with national (Plastic Waste Free Island Initiative) and international priorities (international Sustainable Development Goals).

The public will be exposed to firsthand knowledge about how the environment and individuals with disabilities are linked and how individuals with disabilities can assist with climate action.

Students and the wider population through our social media content will gain knowledge about how programs can be built to include individuals living with disabilities.

At the end of the project, the government will have access to data on the number of plastic and aluminum cans used by students. The number of trees planted, where the trees were planted, and type of tree planted. They will also have access to the locations, number or hours and the activities students were involved in while volunteering. This information can be utilized to pass legislation on single-use plastics.



# **First Draft Concept Note**

# **Eco-Communities**

A short, intimate session that will emphasize the importance of waste management to support various programs such as Student Community Service, Eco-Communities, Eco-Events, and Eco-Business, that will be engaging citizens in better waste management practices.

The Eco-Communities project aims to empower and educate homeowners and residents on the impact of small actions in combating climate change through effective waste management.

# Contents

Summary	23
Key information about the project	24
Launch	25
Pilot Communities	25
Bins	26
Data Collection	26
Pilot Cost	27
Income & Expenditure	28
Expected Outcomes	29
Expected Impact	29

# Summary

The project includes several key activities: engaging residents in workshops and training sessions, providing compost and recycling bins to 5% of households, and ensuring the weekly emptying of these bins, thereby creating employment opportunities for individuals with disabilities.

A Memorandum of Agreement (MOA) will be signed by the government and stakeholders to ensure smooth project implementation. Bins will be sourced through partnerships with international agencies, and each household will pay XCD 10.00 per month, added to their Antigua Public Utilities Water bill. Unique bar codes will be placed on each bin, matching the household's water bill number. The project cost will remain stable for ten years, with grant funding assisting with some costs.

The project will be launched with an extensive awareness campaign, including school tours, jingles, videos, pop-up stations, social media campaigns, flyers, posters, and billboards. The pilot phase will target three communities: Fitches Creek, English Harbor, and Villa. Data will be collected using various metrics, including the weight of different types of waste collected and the number of individuals with disabilities employed.

Expected outcomes include increased environmental awareness, improved waste management practices, and enhanced community engagement. The project also aims to reduce landfill waste, support sustainable agriculture through backyard gardening, and provide data to inform future environmental policies. Additionally, the project will create economic opportunities for individuals with disabilities and contribute to several Sustainable Development Goals (SDGs).

Through these initiatives, the Eco-Communities project seeks to create a cleaner, healthier environment while fostering social and economic development within the community.

# Key information about the project

Eco communities are designed to empower and educate homeowners and residents about how small action can lead to global impact. The objective is to provide households with the necessary tools to combat climate change through proper waste management.

#### **Activity 1**

Engage homeowners and residents in workshops and training to educate them about how small actions multiplied can lead to global impact.

# **Activity 2**

Provide 5% of households with compost and recycling bins

#### **Activity 3**

Empty bins weekly, thereby creating employment opportunities for individuals with disabilities.

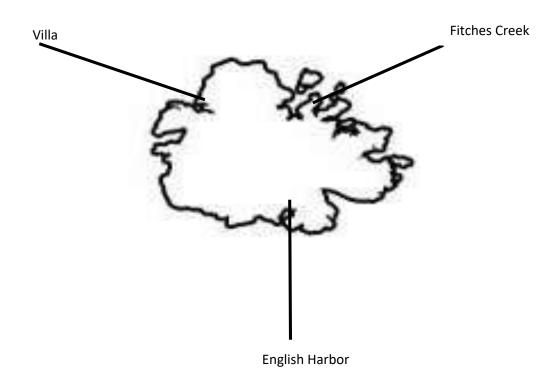
- The government and all stakeholders involved will sign an MOA about the project
- ➤ Bins will be sourced in partnership with international agencies
- ➤ Each household will make XCD 10.00 per month, which will be added to the Antigua Public Utilities Water bill (APUA)
- ➤ Unique bar codes will be placed on each bin These codes will match the household water bill number
- The cost of service will not increase for 10 years
- > Grant funding will be acquired to assist with bins and pilot cost
- ➤ 60% of the individuals employed in the program should be a member of the disability community
- ➤ Data collection, storage, and reporting must be done with due diligence
- ➤ Households will receive soil from compost to start their yard garden
- ➤ Each household will be given a backyard garden starter pack (pepper, Thyme, rosemary, Chives)

# Launch

Before the project's launch, there will be several sensation camps to educate citizens about the project's benefits.

- > School tour
- > Jingle
- > Videos
- > Pop-up stations about the project
- > Social media campaigns
- > Flyers
- > Posters
- ➤ Billboards
- ➤ Workshops

# **Pilot Communities**



# Bins



# **Data Collection**

- Number of households in each community engaged
- The weight of plastic collected weekly
- Weight of glass collected weekly
- Weight of cans collected weekly
- Weight from compost bins weekly
- Number of individuals with disabilities employed
- Number of households not complying with new policy
- Data from pre-survey
- Data from the survey 6 months into the project
- Data from the survey 1 year into the project
- Number of students in communities engaged
- Number of participating in workshops
- Data from pre and post-surveys at workshops

# **Pilot Cost**

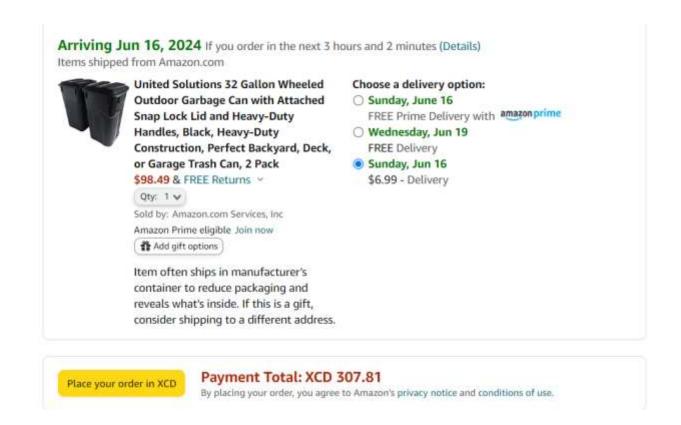
5% of 42,000 = 2,100 Homes/properties

# Cost to get bins and Transport to Homes

Item	Unit Cost	Total
Bins	307.08	644,868
Transportation Bins	30 each	63,000

# Monthly Cost

Item	Unit Cost	Total
Drivers	5 @ 136 Per Day	13,600
Divers	10 @ 120 per Day	24,000
Trucks	300 per day	42,000
Catalogers	12 @96 per day	23,040
Garbage Bags/Gloves		20,000
Cleaning Supplies		20,000
Fuel	500 per week per truck	10,000
Insurance/SS/MB/ Edu Levy		30,000
ABWRC		25,000
5 Administration Staff	20 per hour for 5 days	16,000
Marketing/Education		15,000
Miscellaneous		



# **Income & Expenditure**

# THE FIGUES IN THIS SECTION NEEDS TO BE LOOKED AT AGAIN

Population Size – 103,603

41, 441.20 rounded 42, 000 - Estimated 40% of the population to be homeowners/Rentals/Properties (This estimate does not include Restaurants and Bars – these establishments will fall under a different project)

Income XCD 10.00 per household = \$420, 000.00

- 1. 15% Antigua Public Utilities Authority \$63,000.00
- 2. 15% National Solid Waste Management \$63,000.00
- 3. 70% Good Humans 268 Inc \$294,000.00

Total

Item	Unit Cost	Total Cost
5 trucks	500 in Fuel per week	10,000
5 Drivers	\$17 per Hour 5 days a week	13,600
10 Divers	\$15 per Hour for 5 days per week	24,000
Trucks	300 Per day	30,000
Insurance/SS/MB/ Edu Levy		30,000
Glove/Garbage Bags		20,000
12 Plant Personnel	\$15 per hour for 5 days	28,800
ABWRC		40,000
Cleaning Items		10,000
5 Administration Staff	20 per hour for 5 days	16,000
Marketing/Education		15,000
Miscellaneous	20% of cost	49,000.00
Total		286,880.00

# THE FIGUES IN THIS SECTION NEEDS TO BE LOOKED AT AGAIN

# **Expected Outcomes**

# This section needs tangible and comparable markers for outcomes, for example, giving bins to 2100 homes.

- > 5% of households given bins
- > 5% of households engaged in workshops about project
- > 5% of households using bins provided
- > Students with households will take practices at home back to schools and encourage proper use of recycling bins in schools
- ➤ Citizens are sensitized about sustainable development goals
- > Citizens actively engaged in meeting sustainable development goals
- > Improved waste management practices
- > Reduction of waste sent to landfill
- > Data-driven environment decisions in the future
- Employment opportunities for individuals with disabilities
- ➤ The government should be able to produce documents with supporting data that can be shared across SIDS to get the population engaged in better waste management practices.

# **Expected Impact**

Employment for individuals with disabilities in waste management operations will promote social inclusion and economic empowerment. Approximately 60% of the project's workforce will be

from the disability community, creating job opportunities and fostering inclusivity. Households receiving compost soil and starter garden packs will be encouraged to practice backyard gardening, contributing to local food security and promoting sustainable agricultural practices. Students involved in the project will bring their learning home and to schools, fostering a culture of recycling and composting from a young age. This educational spillover can lead to long-term environmental benefits. Cleaner communities with proper waste management will experience fewer health issues related to pollution and waste, improving public health. Effective waste management and composting can significantly reduce methane emissions from landfills, contributing to the fight against climate change. Success in pilot communities (Fitches Creek, English Harbor, and Villa) can provide a model for replication across other communities in Antigua and Barbuda and potentially other Small Island Developing States (SIDS), amplifying the project's impact globally. By addressing waste management through a community-based approach, the Eco-Communities project aims to improve environmental conditions and foster social and economic development, creating a comprehensive impact on participating communities.



# TRANSFORMING WASTE MANAGEMENT IN ANTIGUA AND BARBUDA

Waste Management for Businesses

#### **ABSTRACT**

The good humans 268 inc. recyclables collection service promotes environmental sustainability and social inclusion by collecting plastic, glass, and aluminum recyclables from residential, commercial, and event clients. by tailoring collection schedules, the service reduces waste sent to landfills while offering employment opportunities for individuals with disabilities. aligned with the sustainable development goals (sdgs), it fosters responsible consumption (sdg 12), supports sustainable communities (sdg 11), and advances social equity and economic growth (sdgs 8 and 10). through data reporting, the program provides transparent insights into waste diversion efforts and environmental impact.

A short, intimate session that will emphasize the importance of waste management to support various programs such as Student Community Service, Eco-Communities, Eco-Events, and Eco-Business, that will be engaging citizens in better waste management practices.

# **Eco-Businesses**

# **Rationale**

The Recyclables Collection Service by Good Humans 268 Inc. is designed to support communities and businesses in Antigua and Barbuda by providing convenient and tailored collection services for recyclables, including plastic, glass, and cans. This initiative encourages responsible waste management while demonstrating a commitment to environmental sustainability. By incorporating this service, we aim to divert a significant amount of recyclable material from landfills, thus reducing environmental degradation and promoting a circular economy.

This program also supports social inclusion by offering sustainable employment opportunities for individuals with disabilities. Our goal is to make recycling accessible, efficient, and impactful by addressing both environmental and social challenges.

# **Objectives**

1. Collection of Recyclables:

To collect plastic, glass, and aluminum recyclables from residential, commercial, and event-based clients throughout Antigua and Barbuda.

2. Employment Opportunities for People with Disabilities:

To employ individuals with disabilities in roles related to sorting, processing, and handling recyclable materials, fostering inclusive economic opportunities.

#### 3. Customized Collection Solutions:

To work closely with clients to create customized recycling schedules based on their specific needs and frequency of waste generation.

4. Data Collection and Reporting:

To provide clients and stakeholders with detailed reports on the amount of material diverted from landfills, enabling better future planning and insights into waste reduction.

# **Activities**

#### • Setup and Collection:

Provide tailored recycling collection points for residential, commercial, and event clients. Establish weekly to bi-weekly collection schedules based on client needs, ensuring minimal disruption to regular operations.

# • Sorting and Processing:

Hire and train individuals with disabilities to sort and process recyclables for reuse or delivery to recycling facilities. This will empower marginalized groups by providing meaningful employment and skills training.

# **Environmental Data Monitoring:**

Measure the total amount of material diverted from the landfill by weight and type (plastic, glass, aluminum). Use this data to improve efficiency and client satisfaction while aligning with environmental goals.

# **Expected Outcomes:**

• Environmental Impact:

The service will divert a substantial amount of recyclable waste from landfills, contributing to cleaner cities and communities (aligned with SDG 11). This will reduce pollution and promote a more sustainable waste management culture across Antigua and Barbuda.

• Economic Empowerment for Individuals with Disabilities:

At least 20 individuals with disabilities will be employed through this initiative, helping to reduce inequalities (SDG 10) and promote decent work and economic growth (SDG 8).

• Client Satisfaction and Engagement:

Tailored services will provide convenience to clients while demonstrating their commitment to sustainability (SDG 12). Detailed data reports will enhance client engagement and accountability.

# **Impact:**

Through this initiative, Good Humans 268 Inc. aims to make a significant contribution to the following Sustainable Development Goals (SDGs):

SDG 8 - Decent Work and Economic Growth: By providing employment opportunities to individuals with disabilities, we promote inclusive economic growth and reduce unemployment among vulnerable populations.

SDG 10 - Reduced Inequalities: We prioritize hiring individuals with disabilities, providing equitable employment opportunities and reducing social inequalities.

SDG 11 - Sustainable Cities and Communities: By providing collection services for recyclables, we help create cleaner, more sustainable communities.

SDG 12 - Responsible Consumption and Production: By promoting recycling and reducing waste, we support sustainable consumption patterns and minimize environmental impact.

Through ongoing partnerships and collaboration, Good Humans 268 Inc. will continue to expand the scope of its services to include more communities and businesses, demonstrating a commitment to both environmental sustainability and social inclusion.

# Transforming Waste Management in Antigua and Barbuda



# Rationale

The Good Humans 268 Inc. Waste Management for Events program is designed to address the environmental impacts of waste generated at public and private events. Events often contribute significantly to landfill waste, with items such as plastic bottles, aluminum cans, and other recyclable materials ending up in the environment. The program aims to mitigate this through a comprehensive waste management system, which includes waste separation, recycling, and employment opportunities for individuals with disabilities.

This initiative aligns with key Sustainable Development Goals (SDGs), specifically:

SDG 12: Responsible Consumption and Production

SDG 8: Decent Work and Economic Growth

SDG 13: Climate Action

SDG 10: Reduced Inequalities

By providing eco-friendly branding and reducing the carbon footprint of events, the program offers a sustainable solution for event organizers seeking to enhance their environmental responsibility.

# **Objectives**

Implement Waste Separation Systems:

Provide four waste bin options for event organizers, enabling separation of plastic, glass, metal, and organic waste.

Increase Recycling Rates at Events:

Collect data on the total waste diverted from landfills (in terms of pounds and number of bottles, cans, and glass items) to demonstrate the positive environmental impact of the program.

• Create Employment Opportunities for Individuals with Disabilities:

Hire individuals with disabilities for sorting and managing recyclables during and after events, promoting social inclusion.

Raise Awareness of Eco-Friendly Event Practices:

Brand the events as environmentally responsible by showcasing the Eco-Friendly Event label and sustainability efforts.

# **Impact**

- Reduction of Event Waste: By implementing the waste management program, we estimate
  diverting thousands of cans, bottles, and other recyclables from landfills. This will significantly
  lower the environmental impact of large-scale events, contributing to the circular economy.
- Employment for Individuals with Disabilities: The program creates sustainable livelihood
  opportunities by employing individuals with disabilities in various roles, including waste sorting,
  recycling facility assistance, and data collection. This contributes to social equity and inclusive
  economic growth.
- Event Branding and Corporate Responsibility: Events that implement this program can market themselves as eco-friendly, attracting environmentally conscious attendees and sponsors. This also aligns with corporate social responsibility (CSR) values.

# **Expected Outcomes**

- Data Collection and Reporting: At the conclusion of each event, a report detailing the amount of waste diverted from landfills, broken down by material type (plastic, glass, aluminum), will be produced. This data will be used to enhance future waste management practices at events.
- Increased Awareness of Recycling Practices: Through the visible presence of waste separation bins and signage, attendees will become more conscious of the importance of recycling, which can lead to better waste practices beyond the event.
- Economic Empowerment: The individuals employed in waste management roles will gain valuable skills and experience, contributing to their economic self-sufficiency. A total of 20 individuals with disabilities will be employed over the course of the event season.
- Environmental Conservation: By reducing the volume of waste sent to landfills, the program will contribute to a reduction in greenhouse gas emissions and other environmental pollutants. This supports the national agenda for climate change mitigation.

# **Alignment with Sustainable Development Goals (SDGs)**

SDG 12: Responsible Consumption and Production – Promotes efficient management of resources through recycling and waste diversion.

SDG 8: Decent Work and Economic Growth – Provides employment opportunities for individuals with disabilities.

SDG 10: Reduced Inequalities – Fosters social inclusion by creating jobs for marginalized groups.

SDG 13: Climate Action – Reduces event-related waste and carbon footprints, contributing to national and global efforts to combat climate change.





# **Transforming Waste Management** in Antigua and Barbuda

#### First Draft

A short, intimate session that will emphasize the importance of waste management to support various programs such as Student Community Service, Eco-Communities, Eco-Events, and Eco-Business, that will be engaging citizens in better waste management practices.

#### **Waste Management Course Outline**

# (Possible Time -1 Hour and 30 minutes for quiz)

#### Introduction (5 minutes)

- Welcome and brief introduction
- Overview of the course objectives and agenda

# Recycling (10 minutes)

- Explanation of recycling and its benefits
- Different materials that can be recycled (paper, glass, metals)
- Focus on different types of plastic:
- Identification of plastic types (PET, HDPE, PVC, LDPE, PP, PS, and others)
- Recycling symbols and codes
- Proper disposal and recycling methods

# Composting (10 minutes)

- Definition and benefits of composting
- Materials suitable for composting (organic waste, food scraps, yard waste)
- Basic steps to start a compost bin at home or community level
- Importance of compost in waste reduction and soil health

# Importance of Waste Separation (10 minutes)

- Why separating waste is crucial
- Methods for effective waste separation at home, school, or workplace
- Examples of waste categories (recyclables, organic waste, hazardous waste, general waste)

# Effects of No Waste Separation (10 minutes)

- Consequences of improper waste management
- Environmental impact (landfill overflow, pollution)
- Health and safety risks
- Economic implications

# Climate Action in Small Ways (10 minutes)

- Small, everyday actions to reduce waste and carbon footprint
- Examples: reusable bags, reducing single-use plastics, mindful consumption
- Encouraging community participation and awareness

#### Environmental Impact (5 minutes)

- Broader environmental effects of waste management practices
- The role of individuals in contributing to a healthier planet

• Call to action: Steps to take after the course

Q&A and Conclusion (10 minutes)

- Open floor for questions and discussion
- Recap of key points
- Provide additional resources and contact information for further learning

# Waste Management Course Quiz for Food Handlers Certificate Program

Waste Management Course Quit	Tot I out I united Service I regium
1. What is the main benefit of recycling?	
<ul><li>a) Increases landfill space</li><li>b) Conserves natural resources</li></ul>	<ul><li>c) Increases energy consumption</li><li>d) Produces more waste</li></ul>
2. Which plastic type is represented by the	e recycling code "1"?
a) HDPE b) PVC	c) PET d) LDPE
3. What materials are suitable for compos	ting?
<ul><li>a) Glass and metals</li><li>b) Fruit and vegetable scraps</li></ul>	c) Plastic bags d) Aluminum cans
4. Which of the following is a carbon-rich	material suitable for composting?
<ul><li>a) Vegetable scraps</li><li>b) Coffee grounds</li></ul>	c) Newspaper d) Meat
5. Why is waste separation important in th	ne food industry?
<ul><li>a) It increases waste disposal costs</li><li>b) It prevents contamination of recyclables</li><li>6. What happens when waste is not proper</li></ul>	<ul><li>c) It reduces hygiene in food establishments</li><li>d) It decreases recycling efficiency</li><li>rly separated?</li></ul>
<ul><li>a) It enhances recycling processes</li><li>b) It reduces landfill overflow</li></ul>	<ul><li>c) It leads to environmental pollution</li><li>d) It conserves natural resources</li></ul>
7. Which of the following items should be	placed in a recycling bin?
<ul><li>a) Food scraps</li><li>b) Plastic bottles</li></ul>	<ul><li>c) Used napkins</li><li>d) Batteries</li></ul>
8. What is one of the benefits of composting	ng in the food industry?
<ul><li>a) Increases landfill waste</li><li>b) Produces nutrient-rich fertilizer</li></ul>	<ul><li>c) Increases methane emissions</li><li>d) Contaminates soil</li></ul>

9. Which type of waste should be disposed of in a hazardous waste bin?

a) Paper and cardboard	c) Cleaning chemicals
b) Fruit peels	d) Plastic containers
10. How can food handlers contribute to redu	icing single-use plastics?
<ul><li>a) Using disposable utensils</li><li>b) Encouraging customers to bring reusable containers</li><li>11. What is the recycling code for High-Densi</li></ul>	c) Increasing packaging d) Discarding plastic waste ity Polyethylene (HDPE)?
a) 1 b) 2	c) 3 d) 4
12. Which action helps reduce waste in food e	establishments?
<ul><li>a) Using single-use packaging</li><li>b) Throwing away leftovers</li><li>c) Implementing a zero-waste approach</li><li>13. What is one economic benefit of effective</li></ul>	d) Disposing of all food waste in general waste bins  waste separation?
<ul><li>a) Increased waste disposal costs</li><li>b) Creation of jobs in recycling industries</li></ul>	<ul><li>c) Reduced efficiency in waste management</li><li>d) Increased pollution</li></ul>
14. How can food handlers ensure proper con	nposting practices?
<ul><li>a) Mixing in plastic waste with compost</li><li>b) Turning the compost regularly</li></ul>	<ul><li>c) Adding only brown materials</li><li>d) Keeping compost bins dry</li></ul>
15. What is a small action for climate action i	n the food industry?
<ul><li>a) Using single-use plastic bags</li><li>b) Encouraging reusable bags</li></ul>	<ul><li>c) Increasing food packaging</li><li>d) Ignoring waste separation guidelines</li></ul>
16. What is a consequence of improper waste	management?
<ul><li>a) Reduced environmental pollution</li><li>b) Increased natural resource conservation</li></ul>	<ul><li>c) Health hazards and pests</li><li>d) Increased recycling rates</li></ul>
17. Why is it important to clean recyclables b	efore disposal?
<ul><li>a) To increase waste volume</li><li>b) To prevent contamination</li></ul>	<ul><li>c) To reduce landfill space</li><li>d) To conserve natural resources</li></ul>
18. What type of waste should be placed in th	e compost bin?
<ul><li>a) Glass bottles</li><li>b) Metal cans</li></ul>	<ul><li>c) Eggshells</li><li>d) Plastic containers</li></ul>
19. Which of the following is a nitrogen-rich i	material suitable for composting?

a) Dry leaves

c) Cardboard

b) Coffee grounds

d) Sawdust

# 20. What role do food handlers play in waste management?

a) Increasing waste production

c) Ensuring waste is managed correctly

b) Ignoring waste separation

d) Discouraging recycling practices