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Sustainability at a Local Level in Georgetown County and the Impacts of Reusable Bags

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Sustainable Development Goal 12 and Goal 14: Sustainability at a Local Level in Georgetown County and the Impacts of Reusable Bags

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OVERVIEW

My internship is based at Island Specialties, a local, woman-owned business in Pawleys Island, South Carolina. Island Specialties is owned and ran by Donna Anderson, a local resident of Pawleys Island. The store carries practical and functional gifts and apparel. On-site embroidery is also offered to customers.

Products carried in the store are sourced from sustainable companies that responsibly manufacture their products. A variety of products are centered around a switch to a more sustainable lifestyle, which other products in the store are made for "the lowcountry lifestyle;" this refers to sunscreen clothing, Pawleys Island merchandise, and other beach essentials.

Daily Tasks:

- Sourcing sustainable product/apparel brands
- Coordinating the reimplementation of the "Sea Worthy Reusable Bag Program"
- Managing the store's social media accounts
- Receiving and stocking inventory
- Cashier tasks

INTERNSHIP ROLE

THESIS: How does the implementation of reusable bag programs and educational events surrounding production and consumption lead to raised awareness and significance of sustainable development in a community, and how can this implementation lead to a county-wide policy against single-use plastic bags?

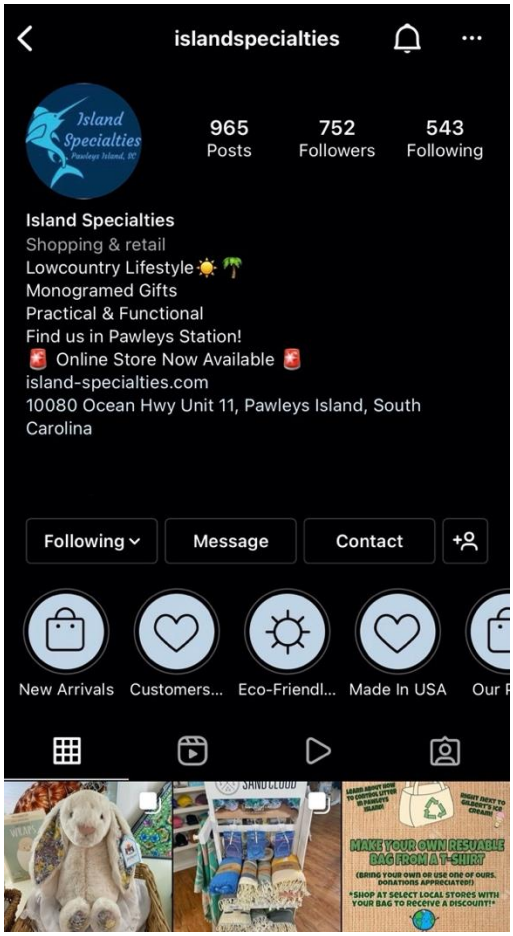
My Role in Sustainable Development:

An internship with Island Specialties through the United Nations Youth Corp allowed me to gain a first-hand view at how a locally owned, small business operates daily. I gained experience in sourcing sustainable products for the business and determining whether the product in question is responsibly manufactured and distributed. This integrates into Sustainable Development Goal #12, Sustainable Production and Consumption and Sustainable Development Goal #14, Life Below Water. The support of local businesses, especially those prioritizing sustainable inventory, are important for economic growth and stability in a community such as Georgetown.

Through my internship I have also worked on reimplementing the "Sea Worthy Reusable Bag Program." This program was first started by an intern during the summer of 2021. Local businesses partnered to make an incentive for customers to opt for reusable bags, instead of single-use bags. Maintaining the area's natural beauty and protecting the wildlife is important to stakeholders and community members. The focus on reusable bags relates to SDG #12 and SDG #14.

SOURCING SUSTAINABLE PRODUCTS

Sourcing sustainable materials means looking at a company's mission, how they produce their items, how they treat their workers, and what they do to lessen both their carbon and water footprints. Popular company products that Island Specialties sells include Sand Cloud, 4Ocean, Boody, Free Fly Apparel, IBKUL, and others. These brands all offset their carbon emissions, pay their workers fairly, and/or give back to the environment through profit donations.



It is important to a large number of customers in the community to support both a local business and a responsible company. Island Specialties tries to source a large percentage of their products from American companies; this cuts down on environmental costs for importation and supports the United States' economy. Once products are sourced, ordered, and put into inventory, I was responsible for posting on the social media these products in order to increase traffic into the store.

REUSABLE BAG PROGRAM

In Summer of 2021, Island Specialties paired with other local businesses in order to begin a reusable bag program called the “Sea Worthy Bag.” This was intended to reduce the amount of both single-use polyethylene plastic bags and paper bags. Around 300 cotton tote bags were imported and then screen-printed. They were then sold in participating stores and the customers, if they brought the bag in during their next purchases, could receive a small discount. The discount was used as incentive for consumers to remember their reusable bag when shopping throughout the community.

In January of 2022, at my internship’s beginning, I started the process of reimplementation of the reusable bag program. In the beginning, I began looking for a company to source the cotton bags from. I quickly realized there was issues with both the supply chain and the shipping system; most sources did not have enough bags, or it would take too long for them to come back into supply and ship in time.

On top of importation issues, I began looking deeper into the “reusable bag” reputation and their impact. I found that cotton bags cost more environmentally in their production than single-use plastic bags; however, if they are used as intended, their environmental impact in their entire life cycle does not pose as many risks. Therefore, we came up with a different plan for the reusable bag program -- reusing.

EMPIRICAL EVIDENCE

When beginning my work on the reimplementation of the previous Sea Worthy Reusable Bag Program, I began my search for sourcing a bag to screen-print onto. The initial plan was to source bags in bulk, and then get a business to screen-print this year's design, and the businesses participating in the program, onto the bag. However, it became clear that sourcing would be difficult due to delays in the supply chain and that the only available options would be imported overseas. Looking deeper into the issue, I learned about the environmental consequences of sourcing these bags. In order to buy bags that were within the price range and available, they would have to be cheaply manufactured; this means that the environmental cost of the bag is not considered into its cost, the laborers making the bag are most likely not paid fairly, and that overall, this would be the opposite of what we wanted the reusable bag program to promote.

The Dangers of Polyethylene Bags

As of 2020, the world produces plastic at rates higher than ever before and in 2017, the average American generated around 4.5 pounds of garbage per day. A large majority of the waste produced today stems from single-use containers and bags; these bags are made with a cheap, non-durable plastic named polyethylene. Plastic does not break down, but rather breaks up into smaller pieces which are then classified as "microplastics." Hard to detect and contain, microplastics harm wildlife, dirty the water supply, absorb into the ground, travel up the food chain, and become a health risk for both the natural and human population (Lindwall, 2020). During a litter-clean-up initiative hosted by the South Carolina Aquarium in Murrells Inlet, a city in Georgetown County, ninety-nine retail plastic bags, or parts of the bags, were collected within two hours. This clean-up initiative was along the Marsh Walk in Murrells Inlet and spanned less than a mile long (South Carolina Aquarium, 2022). This is only a small area of Georgetown

County that shows the impacts of polyethylene bags on the community and the level of pollution the community faces in relation to them; this clean-up was centered in just a small area but shows what the threat these bags are on the county scale.

Why Recycling Plastic Bags is not Effective

A plastic bag taken from the grocery store is used for an average of around twelve minutes. While some corporations such as Walmart have bins where people can drop off their used plastic bags, most recycling plants do not accept polyethylene plastic bags as a recyclable material; only around one to five percent of all plastic bags are recycled. The remaining plastic bags go to pollute the natural environment, clog storm drains, or fill the landfill. When these bags are thrown into the landfill, they often wrap around the equipment and cause both delays and machinery malfunctions. Horry County Solid Waste Authority estimates it costs them around $100,000 per year to repair sorting machinery that is damaged by the plastic bags (Coastal Conservation, 2022).

Plastic Bag Substitution and their Environmental Impact

The average American family uses around 1,500 plastic shopping bags a year, estimating that the average family brings in around sixty plastic bags every four trips to the grocery store. By substituting these bags for a reusable one, people can save over 22,000 plastic bags over the span of a reusable bag's lifetime (Pennsylvania State, 2022). As reusable bag production grows, and people receive these bags for free and grow an overabundance of them in their kitchen cabinet, it comes into question *their* environmental impact.

While paper and cotton bags decrease the number of single-use plastic bags consumed, their substitutes often have an even higher environmental impact when considering solely their production, and not their disposal or life cycle. A polyethylene plastic bag takes less water,

energy, and carbon emissions in its production in comparison to alternative bags. However, a polyethylene bag has more environmental impact in its disposal and overall life cycle. Therefore, a reusable cotton bag must be reused around one hundred thirty-one times in order for it to be environmentally sustainable and equal to or less than the impact of a plastic bag (Stanislaus, 2018) (Thompson, 2017).

Making the Reusable Bag Program Sustainable

Taking into consideration the amount of fossil fuels, water, land, and overall energy usage, I decided that we should take a different approach to the reusable bag program. Therefore, we opted to repurpose a household item into a reusable bag that would serve the same purpose. We planned a community event, in partnership with neighboring businesses, that would allow people to learn about plastic bag pollution, volunteer to help with future litter clean-ups, and make their own reusable bag out of a t-shirt that is no longer being used. This promotes education and community involvement in sustainable development.

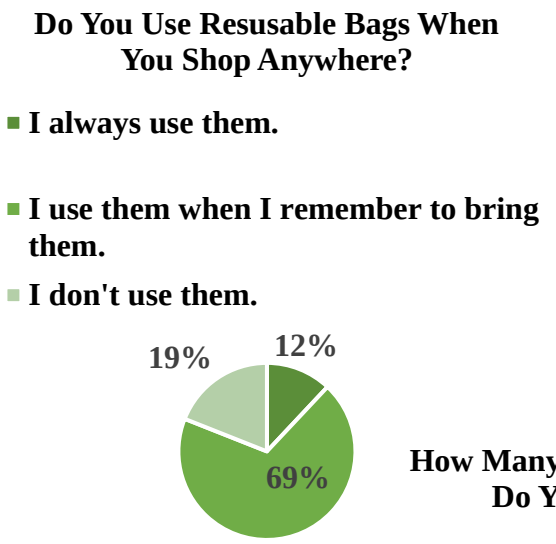
Using a T-Shirt as a Bag

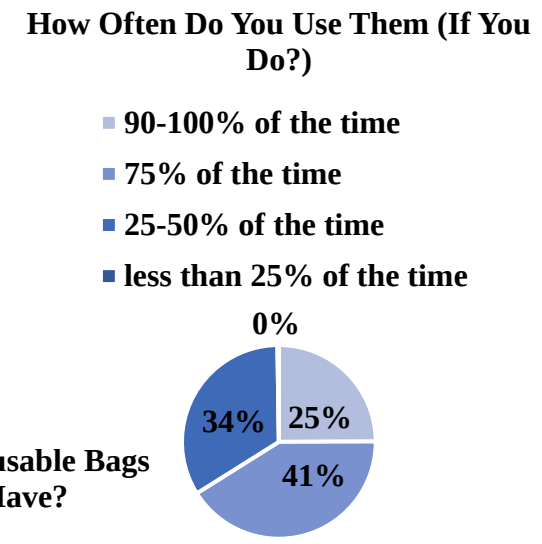
There is an estimated thirteen million tons of textiles produced each year, and an estimated eighty-five percent of textiles thrown away in the United States are dumped straight into landfills or burned, creating greenhouse gas emissions. A large amount of clothes manufactured today are made with polyethylene terephthalate (PET), commonly called polyester and nylon, which means they cannot decompose due to the plastic in their production. These plastics turn to microplastics and cause a breakdown of chemicals into the natural and human environment (Portela, 2021). Therefore, teaching and allowing people to reuse their old shirts into cute, eco-friendly alternatives is an effective way to keep these clothing articles from the landfill and eliminate the need to produce another reusable bag.

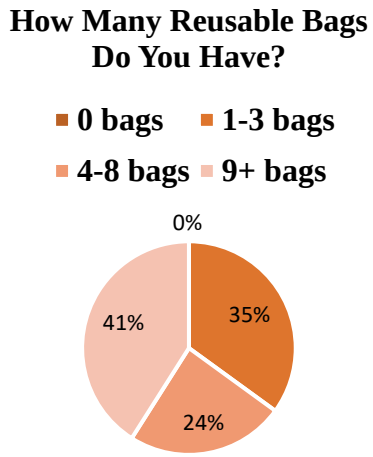
Store Statistics

Before this program takes place on April 22, 2022, I created a poll on Island Specialties' Instagram in order to learn more about our customers and their reusable bag habits. The results are shown in the graphs below. Seventeen people of the around seventy-eight people who viewed the story responded. These responses show that while at least half of them have at least nine reusable bags, only 12% always use them.

The lack of actual usage of reusable bags already owned by consumers show that there is not a need for a new reusable bag in families' homes; none of the people who answered did not own a reusable bag. Therefore, the bag program repurposing old clothing textiles will allow people to learn more about reusable bags and, if they ever need a new one, how to make one out of an old shirt lying in their drawer.







GOAL 12: RESPONSIBLE CONSUMPTION AND PRODUCTION

Target	
12.5	By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse
12.6	Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle
12.7	Promote public procurement practices that are sustainable, in accordance with national policies and priorities

Island Specialties models how to source sustainable products from a local store perspective and how to incorporate sustainability into the forefront of businessowners' priorities. The modeling of sustainable practices on a small scale helps to support growth from the bottom to the top of the regional scale. With local businesses being able to make profit through the selling of environmentally friendly and responsibly made products, it shows that this can also be done in other stores, bigger stores, and throughout the community. Sustainable development is connected to a scale of growth from the individual all the way to the international level. Georgetown County has a large variety of local stores and storeowners who care about the resilience and prosperity of both the economic and environmental sector of the community.

The reusable bag program is about not only allowing community members to make their own bag to receive a discount, but it is about educating the community on their impact and how they can make a difference as a consumer. By giving people the knowledge and allowing them to have the means to make this small change in their life, they can be saving up to 365 bags per year from littering their community or filling the landfills. The amount of plastic bag pollution overtaking the coastal community of Georgetown County is rapidly increasing, as evidence of local clean-ups and those put on by the South Carolina Aquarium. Within one specific clean-up on the Murrells Inlet Marsh walk, volunteers picked up ninety-nine plastic bags within the small

area in the span of almost two hours (South Carolina Aquarium, 2022). Providing this information to the public and to the people who care about the health of where they live, they can feel empowered to make small, positive changes in their lives.

GOAL 14: LIFE BELOW WATER

Target 14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution.

Reducing pollution from plastic bags means reducing the danger to wildlife and to the biodiversity of Georgetown County. Plastic bags, when entering the waterways, are ingested by birds and marine life that mistake the floating plastic as food. Once ingested, the bags cause extensive damage to their digestion track and eventually kill them. However, it is estimated that around 70% of all floating plastic objects eventually sink to the bottom of the ocean floor. Once on the ocean floor, they can prevent algae and helpful vegetation from receiving sunlight. They smother the seafloor sediment and damage the nutrient level in this sediment; this is especially dangerous to coral reefs and oyster beds (Torn, 2022).

Reducing plastic consumption in Georgetown County starts the process of eliminating these dangers to coastal ecosystems. It improves quality of life for both the wildlife, the residents living in the community, and tourists visiting the area.

CASE STUDIES

Charleston, South Carolina

In October of 2016, Folly Beach in South Carolina banned low-density polyethylene plastic bags from being given out in stores, businesses, and at restaurants. Before the ordinance was passed, a cleanup sweep of a portion of the beach collected an average of thirty-three bags. After the ordinance was passes, a cleanup sweep of the same portion of the beach collected an average of only seven bags. The ban resulted in an average of twenty-five fewer bags being found littering the beach and endangering the wildlife (Charleston, 2022).

Charleston County's recycling program and plant does not accept plastic bags as an approved recyclable material. They were experiencing a problem with these bags wrapping around their equipment causing shutdowns and machinery malfunctions. Plastic bags were one of the top five types of plastic litter collected during beach cleanup sweeps in the county. In November of 2018, the city of Charleston signed a plastic ban into law that banned polystyrene takeout boxes, plastic straws, plastic cups, plastic stirrers, and plastic bags from being distributed by businesses and shops. Recyclable or compostable alternatives are required substitutes. This ban went into effect in January 2020; businesses violating the ban are at risk of being fined or having their business license suspended (Napurano, 2021).

While the city of Charleston has seen a decrease in the consumption of plastic bags and the pollution of them into the natural landscape, some larger businesses used "loopholes" in order to work around the ban. For example, corporations such as Walmart have not eliminated the plastic bag from being used at checkout, but instead branded a "reusable plastic bag" that has a thicker weight and more durable handles. More often than not, this bag still goes to either the landfill or pollutes the environment. These bags are still plastic and carry the same consequences

in their disposal; while they are helpful if families chose to reuse them, they will still eventually have to be thrown away and will not decompose. Therefore, it is important to strategize in the wording of laws such as these in order to ensure they are comprehensive and effective.

U.S. Cities Banning Plastic Bags

In October of 2019, New York City began their process to implement a ban on plastic bags throughout the store. The ban began on March 1, 2020, and prohibited businesses to give out plastic bags to their consumers. With this ban, they also implemented a 5-cent fee for each paper bag a consumer chooses to use. This was put in place to encourage customers to bring in their own bag, preferably reusable; this would decrease both the production and consumption of polyethylene plastic bags, therefore reducing the amount of plastic going into landfills and polluting the streets (Iacurci, 2020).

Like New York City, a ban was implemented in the city of Los Angeles, Nevada which banned plastic bags and imposed a 10-cent fee on paper bags. This policy resulted in a 94% reduction in single-use bag consumption. In Washington, D.C. a 5-cent fee on both paper and plastic bags resulted in a 50% reduction in single-use bag consumption (Iacurci, 2020). These are promising results from cities that have implemented policy to protect their communities.

Recommendations for the Future

In order to make large-scale impacts in the consumption of plastic bags in Georgetown County, there needs to be policy implementation on a community level. Individuals and sustainable local businesses can only help decrease the number of bags being used in their homes and stores and, while this does help the progress to sustainable consumption, it does not create a rule protecting natural wildlife from larger businesses and the tourism industry. Establishing a comprehensive county-wide ban on single-use polyethylene plastic bags would establish a standard for what businesses can or cannot give to customers. A ban of this measure would need to be comprehensive in what bags would be allowed to be given out from retailers; for example, all plastic bags of any durability should be banned and a small fee on paper bags should be paired with this ban. This encourages consumers to bring in their own bags or to use no bag at all.

The coupling of a plastic bag ban with a price on paper bags would mean the overall decrease in their consumption throughout Georgetown County; this is evident by this coupled policy in other cities and communities. Policy implementation is important in order to catalyze change on a scale larger than the individual, but on a governmental scale.

Conclusion

The participation and the implementation of reusable bag programs and educational events in the community of Georgetown will lead to raised awareness of the environmental damage done by single-use polyethylene bags and will also raise awareness of sustainable consumption. The environmental damage that single-use plastics of all kinds have on the environment are often unknown by individuals and consumers. Shoppers are not aware of the amount of water, amount

of energy, amount of carbon emissions, and the lack of pay that most workers who make their products receive.

Through education and community involvement, awareness can be raised on a local level, which carries up the scale and can cause changes at regional, state, and national levels. Informing consumers on the products they choose and what they use to carry those products out of a shop leads to smarter consumer choices. If shops and storeowners can begin the process of educating their customers and making responsible choices on the product lines that they carry on a local level, it causes changes in the supply and consumer system. Sustainable products, clothing brands, and other goods are important in a local setting, as is local stores in the community of Georgetown are important.

While educational and reusable bag programs are helpful in making the public aware of the issues with single-use polyethylene bags, this awareness must be carried up to a community-wide level in which the county of Georgetown implements a ban on single-use bags. In order to preserve the wildlife and natural aesthetic that Georgetown holds as a coastal community, policy changes will have to be made to ensure that single-use plastic danger is no longer an issue plaguing the wildlife.

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