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INTEGRATING PUBLIC AWARENESS CAMPAIGN AND SOCIAL ENTERPRISE MODELS FOR SUSTAINABLE PLASTIC WASTE MANAGEMENT: A CASE STUDY OF UNIVERSITY OF DELTA, AGBOR, NIGERIA

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ABSTRACT

Plastic pollution presents a significant global and local environmental challenge. With Nigeria's growing population, million metric tons of solid waste are generated annually, and only a fraction is collected. Hence, the need for effective waste management, particularly for plastics, is therefore critical. In Delta State, about two hundred tons of plastic wastes are generated daily, contributing to severe gutter and waterway blockages, leading to floods, property loss, and increased incidence of malaria and cholera. University communities, as miniature cities with diverse activities, are significant waste generators and ideal living laboratories for fostering sustainability. However, waste management systems in many Nigerian universities, including the University of Delta (UNIDEL), Agbor, are currently substandard. This study explores the interplay between public awareness campaigns and the emergence of social enterprises in addressing plastic waste menace in University of Delta, Agbor. This paper underscored the importance of a well-designed public awareness initiatives in bolstering community participation and changing behaviours which in turn provides an enabling environment for growth and impact of social enterprises focused on plastic waste collection, recycling and up-cycling. These campaigns involved a multi-phased approach: a digital launch, capacity building training, stakeholder advocacy visits to host communities, a "Pledge to Plastic Sustainability" for student volunteers, a content creation competition, and campus clean-up drives. Strategic communication tools, including promotional videos, jingles, and branded dresses, were employed to educate and engage the university community. An explanatory theoretical framework was adopted in the research with over 62% increase in plastic waste management awareness and the project achieving a behavioural shift in the university community. Over 80,000 engagements were generated across all the media platforms and 250 staff and student members trained. The project also emphasized the economic opportunities associated with plastic waste collection. It is therefore aimed to transform social attitudes towards plastic waste collection and management, paving the way for a cleaner and more sustainable environment within the university and its host communities.

KEYWORDS: *Plastic pollution, Public awareness, Social enterprise models, Plastic waste management*

INTRODUCTION

Plastic pollution is a global challenge. Studies have reported that about 400 million tons of plastic are being produced and used every year (Kibria *et al.,* 2023), and disposal methods such as incineration and landfilling have resulted in enormous environmental challenges (Celeste and Amélie, 2025). This pervasive issue of plastic pollution is exacerbated by increasing population densities and inadequate waste management infrastructure. It is estimated that Nigeria generates about 32 million metric tons of solid waste annually, and only 20-30% are collected (Federal Ministry of Environment, 2018). Therefore, the need for eco-entrepreneurs' involvement, innovative waste management and effective solutions is essential. Statistics released by Delta State Waste Management Department and other waste management bodies indicate that about 5000 tons of waste is generated daily in Delta state, out of which 205 tons are plastic related. In Delta State, drinking water and other beverage drinks comes in plastic packaging (bags and bottles). These bags now constitute a major proportion of the plastic waste generated throughout the State. Almost all the major gutters in Delta State are currently choked with plastic waste and this has resulted in blockage of gutters and waterways causing floods, loss of property, high rate of malaria and cholera. In the modern world, university communities are miniature cities with expansive geographic ranges and various human activities with varying environmental impacts (Yu and Fang, 2023; Kaplan *et al.*, 2024).

There are different types of waste generated by universities because they house a variety of facilities, including hospitals, restaurants, banks, offices, classrooms, and venues for events. These facilities generate waste related to construction and demolition, electronics, non-biodegradable plastics, office supplies, lamps, furniture, metal, and medical/health care, among other things (Quadri *et al.,* 2023; Freedman *et al*., 2024). Universities have been identified as potent systems/communities in fostering sustainable development (Adami and Schiavon 2021 ; Hoang *et al*., 2022). This is because of the potential of universities to contribute to the improvement of the larger society through teaching, research, and community development (the three core mandates of the University) makes the campus a living laboratory for the development of a sustainability culture. The Universities therefore are supposed to be the frontrunners in achieving a safe and sustainable environment. Unfortunately, the waste management systems in Nigerian universities are far below standards (Adeniran *et al*., 2017; Adewumi *et al*., 2017).

This study, centred on the University of Delta (UNIDEL) Agbor, a burgeoning community of over 15,000 students and staff, vividly demonstrates the importance of targeted public awareness campaigns (PACs) in addressing this crisis. The severe consequences of plastic waste, including the blockage of waterways, resulting in floods, property loss, and heightened risks of diseases like malaria and cholera, underscore the imperative for immediate and sustained action. It is expected that universities such as University of Delta (UNIDEL) adopt sustainable development policies in all their operations, to ensure the social and environmental well-being of their immediate and wider environments. In order to achieve sustainable development

in the University of Delta (UNIDEL) Agbor, it is crucial to engage the stakeholders such as staff and students in public awareness campaigns on sustainable plastic waste management practices within the environs. Public awareness campaigns is a vital intervention strategy which is essential for the promotion of environmental consciousness, encouragement of community participation, proper waste disposal, support recycling initiatives. It can influence consumer behaviour, and cause sustainable behavioural changes as well as support policy enforcement (Yasmeen *et al.,* 2023; Celeste and Amélie, 2025). It has also been reported that public awareness campaigns are effective in the promotion of discard practices and behaviour that are sustainable and enhances entrepreneurial activities (Etim 2024). The main campaign messages adopted by the research team of the University of Delta included "Stop Plastic Waste……. Go circular" and "Plastic-Free Campus" awareness initiatives. These campaigns were implemented at all three campuses; Alihame campus, Owa-Alero campus and Owa-Oyibu campus in the University of Delta, Agbor to raise awareness about plastic pollution among university students, staff, faculty, and the campus community. They were enlightened on the management strategy that has been adopted by the University of Delta research team in collaboration with the French Embassy Fund (FEF-209) which included plastic waste collection, bailing and recycling of the collected plastics. These campaigns helped to promote positive behavioural changes and reinforce social attitudes towards plastic waste collection and management. The study also adopted the Social Enterprise theory to manage the demand and processing of the plastic waste for sale (Akande, 2023). The effectiveness of the UNIDEL model lies in its ability to bridge the gap between environmental awareness and economic incentive.

STUDY AREA AND SCHEDULE

This study was hosted by the University of Delta, Agbor. University of Delta was established in February 2021. The Institution is a growing community made up of over 15,000 students and staff distributed within twelve (12) faculties. Its main campus known as Alihame campus is situated at Agbor metropolis in Ika South Local Government Area, and two other campuses at Owa-Oyibu and Owa-Alero in Ika North East Local Government Area respectively. Agbor is situated on Latitude 6° 15' 50.7312" N and longitude 6° 12' 6.7788" E. It is a semi-urban town and shares boundary with Edo State on the North. Agbor is one of the major towns in Delta State, with a population of over 480,000 people who are predominantly, civil servants, business men, artisans and farmers capable of generating about 250 tons of plastic waste in a month. Figure 1 below shows the map of the University campuses and the host communities.

The campaign awareness activities were carried out in three phases, firstly there was a flag off and project launching ceremony of the "Stop Plastic Waste…. Go Circular" and "Plastic-Free Campus" awareness initiatives in January 22nd and April 16th 2025, then a plastic awareness campaigns and capacity building training at the main campus, Owa-Alero campus and Owa-Oyibu campus in February 11th 2025 and lastly clean-up drive activities which involved volunteers and FEF project team members at all the campuses within April 16th and May 14th 2025.

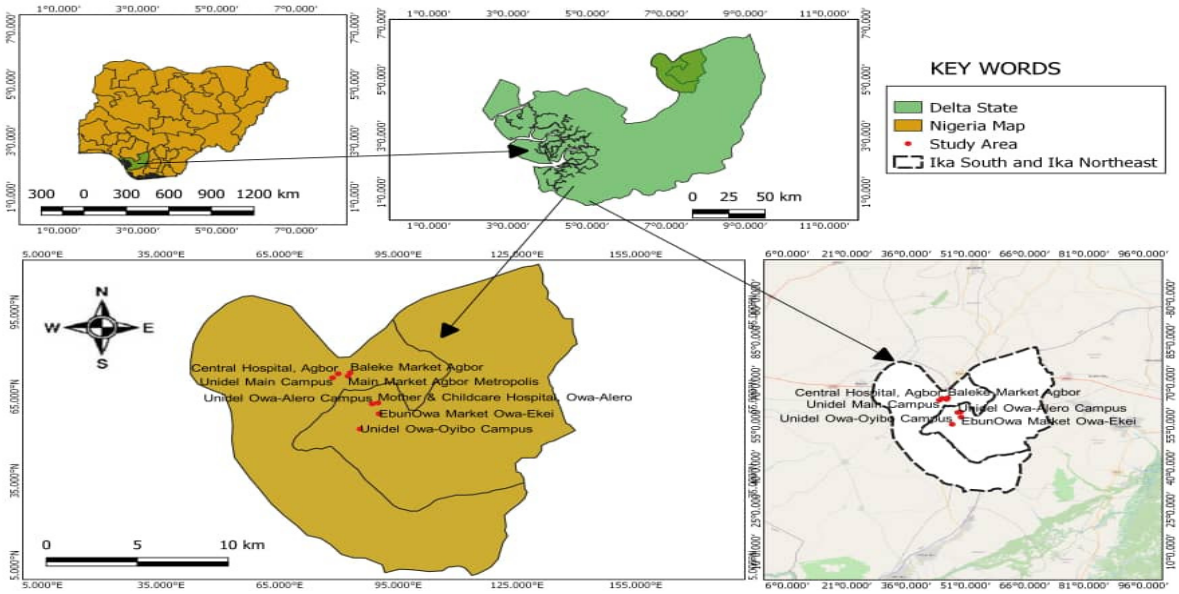

Fig. 1: Map of University of Delta Campuses and host communities

MATERIALS AND METHOD

Campaign Awareness Activities

Public awareness campaign was employed in this study because it represents an element of social marketing techniques (Bordarie, 2019) and it involves a set of different activities which are planned for a specific time, in order to address individuals, with an aim to increase knowledge about plastic waste management and lead to a change in thinking and behaviour (Etim, 2024) towards tackling plastic pollution problem in the University of Delta, Agbor environment.

The campaign comprised of an array of interrelated activities which were designed to engage and educate the University of Delta community on plastics waste management while fostering a hands-on approach to sustainable development. The activities included digital launch and flag off of the campaign, capacity building training, visit to host community stakeholders, pledge to plastic sustainability and volunteering, content creation competition and campus plastic clean-up drive. These programs were developed in order to enforce the behavioural changes required to achieve sustainable plastics waste management in the University of Delta. Studies have revealed that public awareness campaigns are effective in bringing about great results in achieving sustainable development as they have a wide reach and convey impactful messages (Borawska, 2017).

The campaign began with a flag off and launching events, held in January 22nd and April 16th 2025.These activities provided an avenue to introduce the University of Delta Plastic Waste Management Project and its planned activities to the university community. The launch which was conducted in collaboration with the French Embassy, served as part of the official unveiling of the campaign. During the event, the objectives of the campaign which included raising awareness about plastics pollution menace and how the university community can adopt sustainable innovative recycling practices, economic

opportunities such as sales of used plastics and incentivization were highlighted, to mitigate pollution and create value chain. Promote action which includes measures to deter littering of used plastics and encourage their proper disposal at designated fabricated metal and trash bins, which were designed with the logo of the University of Delta and French Embassy and inscribed "Feed me with your plastic waste". This inculcated a sense of consciousness and responsibility in the students and staff of UNIDEL to dispose plastic wastes properly in order to secure an eco-friendly environment. Banners were also placed at all the faculties, the waste bank site at Owa-Alero campus and collection sites, this further expanded the sensitization and advocacy about plastic waste management and sustainability within the university community.

In the course of the campaigns, promotional videos, UNIDEL plastic waste anthem/song, jingles and media advertisement composed in collaboration with performing arts department were utilized for enlightenment and also circulated on UNIDEL social media platforms. Signpost were also designed and constructed within the campuses (see plate 1a below). Media plays a vital role with regards to perception of the public and creates an avenue for a larger audience to be aware of the problem (Borawska, 2017). These social campaign tools contained detailed explanations of how the stakeholders of the University of Delta can participate in the plastic waste management and recycling project, such as being actively involved in waste collection, proper disposal of used plastics, students work study opportunities. Waste collection cards for plastic waste aggregators/collectors were given to over two hundred interested persons for the purpose of accountability. The cards were aimed at keeping track of inflow of plastic wastes from aggregators and ensuring that financial incentives were duly paid.

The slogans "Stop Plastic Waste, go circular" and "Plastic-Free Campus was chanted intermediately during the campaigns and the management and project team members adorned branded T-shirts and caps with inscription of the plastic waste management project as shown in plate 1b below. These measures were implemented because the success of such initiatives relies heavily on people, their personal approaches and opinions as well as their understanding of problems are crucial in introducing positive behavioural changes (Borawska, 2017).

Presentations on the menace caused by plastic wastes, the effective ways to mitigate it and means of collation of plastics wastes for recycling purpose was another aspect of the means of sensitization. There was display of different beautiful dresses made with plastics by performing arts department, this depicted that plastics had economically reuse value, the drama by the arts department also had messages that strongly kicked against indiscriminate dumping of used plastics and nylon and staff and students were encouraged to dispose plastics in designated bins provided by the project team.

Plate 1a: Sign post for awareness campaign within the campus

Plate 1b: Project team members on the branded project T-shirts and Caps

The Capacity Building Training

The capacity building training was held at the university's three campuses by research team members in February 2025. It was a knowledge packed training that involved the Vice-Chancellor, Deputy Vice Chancellor, management team, directors, deans and head of department. The students and staff were charged to key into collection of plastics for recycling in order to maintain a healthy and attract income to them. The project overview was given by team members who explained that the project was aimed at developing an innovative approach to a sustainable plastic waste management system through recycling to mitigate pollution and create value in the University of Delta and its environs. Participants during the training are shown in plate 2 below.

Plate 2: University community during capacity building

Advocacy in the University Host Community

Advocacy in the University community was an indispensable aspect of the project on plastic waste management. It took place on the 20th through 24th of January, 2025. The UNIDEL team members of the FEF-209 project visited prominent stakeholders in the community of Agbor. They visited the chairman, Ika

South and Ika North East Local Government Area of Delta state, (see plate 3a and 3b below), the Dein-Agbor, the Obi of Owa, the director for wastes management board, Ika South and Ika North East LGA. The visitation to the stakeholders focused on notifying and collaborating with them in the development of innovative approaches to a sustainable plastic waste management in University Campuses and in the community. The team members pointed out the need to mitigate the threat and harm caused by indiscriminate dumping of plastic waste resulting to pollution of the environment and the community. The stakeholders were also enlightened on the aim of prioritizing public awareness for behavioural changes and subsequently setting up infrastructural and capacity building of plastic waste plant that would serve also as a means of wealth creation.

Plate 3a: Advocacy at the Ika North East Local Government Area

Plate 3b: Advocacy at the Ika South Local Government Area

Pledge to Plastic Sustainability, Volunteering, and Clean-up drive

A call for student volunteers was launched in UNIDEL, they went through a critical selection process and the selected volunteers pledged their commitment to environmental responsibility and joined the campaign as volunteers after Health, Safety and Environment (HSE) training. Selected volunteers received branded FEF T-shirts, face caps and FEF Awareness digital badge for their commitment, which they shared on their social media with campaign hash tags. The next phase of the campaign activity was the clean-up drive held in April and May 2025 at Alihamie campus and Owa-Alero campus respectively and anchored by project team members. Extracts from the clean-up drive are represented in plate 4 below. Students of UNIDEL who were fully in participation included the FEF-209 UNIDEL Plastic Waste Management volunteers. They were coordinated by the liaison officer from UNIDEL research team and the other team members to spread awareness about plastic pollution and encourage students to get involved in hands-on efforts to pick up plastic from their environment.

The volunteers were provided with some personal protective items like gloves and masks. This was to observe safety measures and precautions while participating actively in the clean-up of plastic wastes littering the University campus (Kolstee, 2025). Music and jingles were played while the exercise was carried out and this was done to attract attention and reinforce positive changes of

the entire University community. The clean-up drive by the volunteers cuts across different location in the campus, hence awareness of plastic waste hazards and benefits via recycling was passed to a good number of the University community. Students were encouraged to share photos and videos using information props and campaign hash tags on UNIDEL and French Embassy social media platforms to further spread the word. The volunteers were awarded a Certificate of Participation for their community service by the French embassy.

Plate 4: Extract from the clean-up drive

Content Creation Competition

Content creation and display had significant impact on the behaviour change of the public which is critical to the aim of this project. The project therefore employed this strategy to strengthen the effect of the message to the university and host communities. A content creation competition was launched titled "Get Creative with Plastic". This competition in collaboration with the French embassy was announced at the national level of FEF-209 PET project and students were encouraged to submit their entries on creative plastic sustainable solutions. The program was titled plastic-free campus awareness initiative: FEF Plastic waste processing project in Nigerian Universities. The winners from University of Delta were hosted by the French embassy at Abuja, prizes were awarded as recognition for their creativity and certificates were also given to the volunteers. Winning entries were highlighted on UNIDEL and French Embassy social media platforms and during the closing webinar. A highlight of the contents created included dresses made from used plastics and nylons as shown in plate 5 below. There was display of different beautiful dresses made with plastics by performing arts department, this depicted that plastics had economically reuse value.

Plate 5: Dresses made from plastic waste for content display

Social Enterprise Theory

To integrate Social Enterprise Theory into the case study of the University of Delta (UNIDEL), we considered how the project moved beyond a government-funded awareness campaign. Social enterprise theory focuses on the triple bottom line social impact, environmental stewardship, and economic viability (Satar, 2022). In the research, the transition from a Public Awareness Campaign (PAC) to a Social Enterprise (SE) occurs when waste was no longer treated as trash but as a marketable commodity to support the management system itself. It indicates that PAC which involves awareness acts as the engine, while the Social Enterprise which involves management/sales acts as the fuel that keeps the project running without depending forever on one-time grants. In a Social Enterprise (SE) model, the goal is not just to clean up, but to create a self-sustaining system where the social mission of clean campus is funded by the commercial activity of selling/up-cycling plastic. In this study, the product is a cleaner environment, and the revenue is the value extracted from recycled plastic.

The study adopted a hybrid model. It used the Public Awareness Campaign to generate supply (behavioural change so people stop littering and start sorting) and used the Social Enterprise to manage the demand (processing the plastic for sale) (Akande, 2023). Details contained in the next section.

RESULTS AND DISCUSSION

Under Social Enterprise Theory, the UNIDEL project acted as a Value-Creation Hub. Traditional waste management relies on continuous external funding. By contrast, the UNIDEL model utilizes a circular economy approach where, the problem of plastic pollution (clogged gutters, malaria, floods) is resolved with an enterprise solution, which involves collection and bailing system that generates revenue through the sale of processed PET to industrial recyclers as shown in table 1, table 2 and figure 1. The social mission involves reinvesting that revenue into student work-study programs and sustainability of

the project (Akande, 2023). Plastics waste are baled and crushed and sold for further processing to finish product.

The revenue growth in crushed plastic production in November and December (Table 2) suggests a learning curve effect. SEs often faces initial operational bottlenecks, but as the work-study students gain technical proficiency, output scales exponentially. The project is economically viable and generating ₦9,723,000 in six months validates the theory that social problems (plastic pollution) can be converted into social capital. This revenue provides a buffer that reduces dependency on fluctuating university budgets or external grants. Recent studies by on waste management in Nigerian urban centers emphasize that for sustainability to work, the economic incentive must be local (Ebekozien *et al*., 2022). UNIDEL model aligns with this by providing direct revenue for work-study programs. The UNIDEL model serves as a scalable prototype. Moving up the value chain from baled (raw) to crushed (semi-processed) increased the unit value by 6% (from ₦500 to ₦530). This validates the Social Enterprise strategy of value addition to maximize the funds available for social reinvestment.

From table 1, a monthly increase in the quantity of baled plastics was recorded with a corresponding increase in revenue generated from the sales. For the period of six months, a total of 9,800kg of plastics were baled and sold for over four million, nine hundred naira at rate of 500 naira per kg. The amount of crushed plastics recorded also increased as shown in table 2 and gave a total of 9,100kg making sale of approximately four million eight hundred naira at a rate of 530 naira per kg. This is indicated in the key performance index. The shift from seeing plastic as trash to social capital is supported by Bourdieusian theory applied to environmentalism. By bailing and crushing PET, the project transforms physical waste into economic capital (revenue) and symbolic capital (environmental prestige for the university). Ogunmakinde *et al*. (2021) argue that circular economies in developing nations fail when they ignore the social pillar. UNIDEL's 420 beneficiaries represent the social equity component of the Triple Bottom Line (Profit, People, Planet). The effectiveness of the UNIDEL model lies in its ability to bridge the gap between environmental awareness and economic incentive. Without the PAC, there is no waste sorting; without the SE model, there is no place for the sorted waste to go, and no money to keep the staff employed.

Table 1: Quantity of baled and crushed (recycled) plastics and amount generated for 6months July - December 2025

Month	**Baled plastics (kg)**	**Revenue @500 naira per kg**
July	900	450,000
August	1150	450,000
September	1700	850,000
October	1800	900,000
November	2000	1,000,000
December	2000	1,000,000
Total	9,800	N4,900,000

Table 2: Quantity of crushed (recycled) plastics and amount generated for 6months July-December 2025

Month	Crushed plastics (kg)	Revenue @ 530 naira per kg
July	400	212,000
August	500	265,000
September	500	265,000
October	700	371,000
November	3,200	1,696,000
December	3,800	2,014,000
Total	9,100	4,823,000

Key Performance Indicators (KPIs)

The significance of the hybrid model adopted by this study is reflected on the key performance indicators. These indicators serve as a metric that summarizes the plant's overall technical, operational, and social performance using quantifiable social metrics as described earlier. The total plastics wastes collected and processed over this study period is represented in table 3 and Figure 1 below. It also showed the processing efficiency reflected in baled and crushed volumes, the production output yield, the number of beneficiaries served and the waste diversion from landfill. According to Table 3, the project facility processed 18,900 kg out of 21,000 kg collected. This represents a 90% processing efficiency. The data demonstrates a high recovery rate, which is a critical metric for Social Enterprises (SEs). In social enterprise literature, a residual waste rate of only 10% is considered world-class for community-based recovery facilities (MRFs) (Chandran *et al.,* 2018). These KPIs confirms that the plant achieved high material recovery efficiency, significant waste diversion, and strong social impact through consistent beneficiary engagement. Hence reflecting the objective of the social enterprise adopted.

Table 3: Key Performance Indicators (KPIs)- Overall Metrics (June–December)

Metric	Value (kg)
Total Plastic Collected	21,000
Total plastic baled	9,800
Total plastic crushed	9,100
Total processed	18,900
Total unprocessed	2,100
Total beneficiaries	**420**

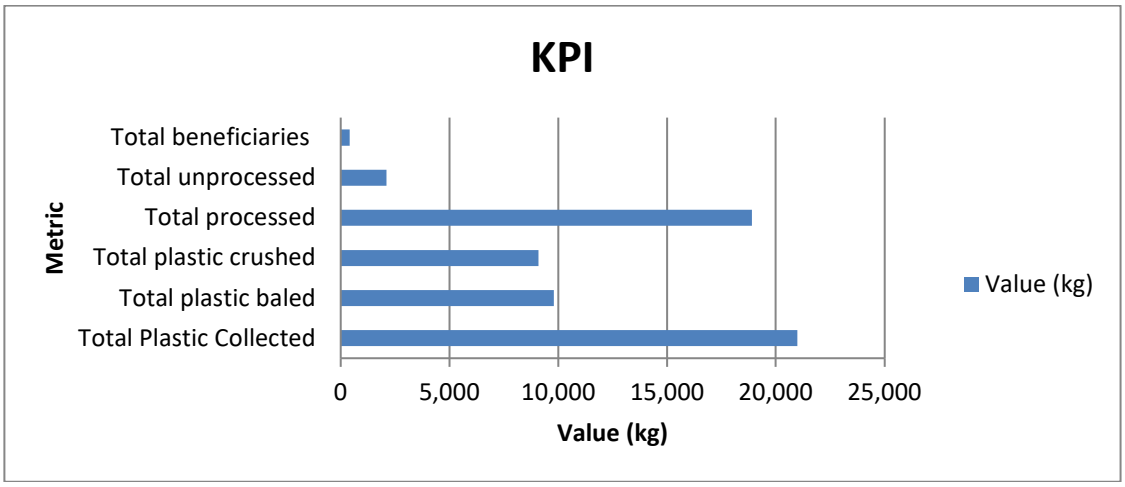

Fig. 1: Graphical representation of the key performance indicators

Table 4: Sales Volume as generated

Product Type	**Total Quantity Sold (kg)**	**Unit Selling Price (₦/kg)**	**Total Revenue (₦)**
Baled Plastics	9,800	500	4, 900,000
Crushed Plastics (Flakes)	9,100	530	4,823,000
Total Processed Plastic Waste	18,900		9,723,000

Traditional NGOs suffer from donor fatigue. Joy *et al*. (2024) suggest that social enterprises use Resource Dependency Theory to gain autonomy. By generating ₦9.7M, UNIDEL minimizes its dependency on external funders, ensuring that if a grant ends, the gutters stay clean and the staff stays paid.

The UNIDEL Social Enterprise Model

Based on operations, the model operates as a Circular Value Chain rather than a linear disposal system with the following phases.

- Phase A: Social Marketing (The PAC): Using the digital launch, jingles, and branded T-shirts to recruit the university community. In SE theory, this is Market Sensitization - changing the mindset from "waste is useless" to "waste is a resource."
- Phase B: Resource Collection (Supply): Implementing "Waste Collection Cards" and designated "Feed Me" bins. This ensured a steady supply of raw materials (PET bottles) for the enterprise.
- Phase C: Industrial Processing (The Venture): The bailing, size reduction, and bailing of plastics at the Owa-Alero campus waste bank. This is the commercial core that adds value to the raw waste.
- Phase D: Economic Reinvestment (The Impact): Revenue from sold bales or up-cycled products (like the plastic dresses/eco-bricks) is reinvested into student work-study programs and campus sustainability.

Table 5: The SE Model Framework Table for the UNIDEL project

SE Component	UNIDEL Project Application
Social Mission	Eradicating plastic-related health hazards (cholera/malaria) and flooding in Agbor. Training 250 staff/students and engaging local aggregators to create "green jobs" and improve public health (reducing malaria/cholera).
Target Stakeholders	15,000+ students/staff, local aggregators, and traditional rulers (Obi of Owa/Dein-Agbor).
Revenue Stream	Sale of bailed plastic to recyclers and potential sale of up-cycled "crafts."
Innovation Strategy	"Get Creative with Plastic" competition; transforming waste into fashion/theatre props and performing Arts dresses to rebrand waste as a resource.
Impact Metric	62% increase in awareness; 1 tonne of waste recovered; 250 individuals trained.
Financial Sustainability	The use of "Waste Collection Cards" and financial incentives for aggregators, ensuring the system can pay for itself through the value chain. By bailing and selling plastic, the project generates income to pay for financial incentives (Waste Collection Cards) and equipment maintenance.

Integration of Social Capital

A unique part of the model is the use of Institutional Social Capital. By partnering with the French Embassy Fund (FEF-209) and the University Management, the enterprise gains credibility with high engagement and involvement from the Vice-Chancellor, Directors and Deans. In terms of infrastructure, the project utilized campus land for waste banks and collection sites and lastly for workforce and labour, a motivated, trained student volunteer base (HSE-trained) were employed in addition to project team members and other staff of the university

OUTCOME/RESULTS

The awareness programme involved various activities including campaigns, capacity building and training, clean-up drive, content creation and others. These activities yielded significantly good results in line with the project objectives with the 11 faculties in the university showing full compliance in plastic waste management. One of the key achievements of the campaign has been the heightened level of awareness among the university and host community residents regarding the environmental and health hazards of plastic pollution. The programme launching, seminars and social media campaigns, helped in moving the awareness to diverse demographics, prompting behavioural shifts such as reduced use of single-use plastics and increased interest in sustainable alternatives. Survey data within 48 programmes in the university and from randomly selected residents in Alihiame, Owa-Alero and Owa-Oyibo, the participating communities showed about 62% increase in awareness levels.

From the workshops and training sessions, the programme equipped many especially local waste aggregators, school cleaners, and also students with practical skills for recycling, up-cycling, and community-based plastic collection. Over 250 individuals including students and staff were trained on turning plastic bottles into usable crafts and eco-bricks. Members of the research team and

volunteers were also trained on plastic bottle size reduction through bailing for easy transportation for recycling.

The Clean-up drives served as both symbolic and practical tools for engagement. Participants included 10 selected volunteers and over 50 other students' volunteer, community aggregators, and research team members. In addition to immediate waste removal, these drives generated media attention and strengthened community pride. Over 1 tonne of plastic waste were recovered from drainages, beaches, and roadsides within the month of clean up drive

The student volunteers developed digital content, infographics, short videos, testimonials, photo stories, and plastic made dresses highlighting programme success stories and educating the public on sustainable practices. These were disseminated through Facebook, WhatsApp groups, pages, and school clubs. The FEF-209 social media platforms were also tagged. The digital content achieved approximately 80,000 engagements across social platforms, keeping the conversation active and beyond physical interventions. The UNIDEL project serves as a living laboratory for social enterprise with a generation of a revenue of over a million naira through the sale of baled plastics. It proves that when university communities treat plastic waste as a business opportunity rather than a burden, they achieve two things simultaneously; environmental remediation and poverty alleviation.

CONCLUSION

The "Stop Plastic Waste... Go Circular" and "Plastic-Free Campus" initiatives at UNIDEL, supported by the French Embassy Fund (FEF-209), exemplified a comprehensive, multi-faceted approach to fostering sustainable plastic waste management. By engaging diverse stakeholders - from university staff and students to local community leaders - through project launches, capacity building training, advocacy visits, volunteer programs, creative competitions, and campus clean-up drives, the campaign effectively raised awareness about the environmental hazards of plastic waste, such as contributing to severe gutter and waterway blockages, leading to floods, property loss, and increased incidence of malaria and cholera. This paper reinforces the understanding that public awareness extends far beyond mere knowledge dissemination; it acts as a fundamental form of infrastructure for behavioural change and the promotion of sustainable development. The success of these initiatives was hinged on active community participation and a shift in social attitudes towards waste management. The "Pledge to Plastic Sustainability" and the enthusiastic involvement of student volunteers in clean-up drives underscore the power of direct engagement in building community responsibility. Additionally, it also highlighted the significant social and economic benefits of responsible disposal and recycling practices, including opportunities for wealth creation through the sale of used plastics. By turning plastic waste into opportunity, the campaign showed that plastic waste is not just a problem but a resource with real economic value. Through activities like the content creation competition and the showcase of recycled products, students and community members were inspired to see recycling as both a way to protect the environment and to build livelihoods. In

this way, the initiative worked like as a social enterprise blending social responsibility with entrepreneurship, encouraging people to act sustainably while also opening doors for creativity, innovation, job creations and hence income generation.

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