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Community-driven Waste Management Initiatives: Exploring Barangay Strategies for Cleaner and Greener Noveleta

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Abstract

This case study aims to encourage ecologically responsible garbage disposal practices and assess Noveleta, Province of Cavite's community waste management initiatives. A deliberate sample of 8 participants yielded three primary findings: the first theme, "Tech Challenges and Solutions," discusses the technological barriers to waste management and the best ways to get beyond them. In response to concerns raised by participants, such as the dearth of options for garbage disposal, they have created practical solutions, such as recycling and trash segregation. The second theme, "Infrastructure and Accessibility," addressed issues

regarding the availability and benefits of waste infrastructure. Participants acknowledged that it might be beneficial to build waste management facilities, but they expressed concerns about the lack of infrastructure. Lastly, "Cost-Effectiveness and Sustainability" presents sustainable waste management techniques as viable options for community development by emphasizing their financial benefits. This study for Noveleta highlights the environmental benefits of community involvement in trash management.

Keywords: Waste Management, Pollution, Noveleta

Introduction

Global municipal waste production causes multiple environmental impacts, including greenhouse gas emissions, ocean plastic accumulation, and nitrogen pollution. Estimates of both past and future waste and pollution development are scarce. In recent years, many papers have described waste management (Chen, 2020).

One of the prominent issues is ineffective waste management, as many residents are unaware of the consequences of their irresponsible actions, leading to an unhealthy community. Due to this concern, (Udanga, 2023) a number of international initiatives have been put into place with the goal of reducing waste generation, encouraging advocacy, recycling, and composting, improving waste collection and disposal, and increasing public awareness of the implications for both the environment and human health.

There is now a lot of evidence to support the hypothesis that improper waste disposal increases risk in a variety of ways. Solid waste management (SWM), is an important ecological problem that directly impacts the public's health as well as the environment. Effective disposal methods are made much more difficult by an increase in trash generation worldwide (Debrah, *et al.*, 2021). Moreover, the government is investigating Waste-to-energy (WTE) projects as an innovative way to reduce waste and increase energy output. Although the government and several commercial parties support (WTE) efforts through guidelines and tasks, local and global groups that promote sustainable waste management and climate change prevention have strongly warned against it (Baclig, 2024). It has also been extensively discussed in the literature and by experts on the subject. However, these bodies of literature are still fragmented and focus on specific issues, such as waste quantification and the causes of waste.

The researcher conducted this study to emphasize the importance of having a cleaner and greener community. In the Philippines, waste produced by various sources continues to cause significant environmental effects and health risks, including flooding, air pollution, surface and groundwater pollution, and the spread of illnesses. Over 10,000 tons of waste are generated daily in Metro Manila, and by the year 2030, the volume will likely double. A significant amount of garbage is disposed of in rivers, creeks, and Manila Bay, or burned outside, aggravating the air pollution in the city (Kangasmäki, 2024).

According to (Perkumienè, *et al.* 2023) every community should be sufficiently informed about trash management to keep their area tidy. Sustainable environmental practices and effective waste management have become increasingly important in recent years. Our environment has been greatly impacted by certain human activities. Moreover, very few studies have not emphasized the capability of their place to maintain cleanliness. The researcher found that not only the residential community is causing problems towards waste management, but also one of the problems is the lack of support of barangay facilities to provide programs that will help the community manage waste. Additionally, another residential area in the barangay already has an existing program, but they have failed to take consistent action. Personnel at waste facilities are crucial to waste management processes because they make the most decisions about how waste is collected. According to (Kangasmäki, 2024) the primary problems with managing solid waste in the nation are wrong disposal of trash, ineffective waste collection, and a lack of disposal facilities. Despite these early observations, the mechanism of the main reason, what is the primary reason or what is the deficiency faced by each community has remained unclear. Do other municipalities attain a cleaner and greener environment? According to (Lissah, *et al.*, 2020) By looking at and understanding the ways in which corporate, community, and policy implementation components impact solid waste management in urban municipalities.

This study aims to address the research gap that claims human behavior or activity is the only reason for an unhealthy community or inadequate waste management. It also examines the capacity of each barangay in the Noveleta province of Cavite to manage waste locally and looks for the root cause of the barangay's inability to achieve community cleanliness. By examining the strategies they employ, the steps they take to improve their circumstances, and the laws and guidelines they establish regarding this issue.

Objectives of the study

The objective of this study is to improve community-driven waste management initiatives that refer to efforts that are led and implemented by local communities to address waste-related issues in their area. These initiatives aim to promote sustainable waste management practices, reduce waste generation, and encourage recycling and proper waste disposal. Additionally, we will explore the factors that influence the strategies of each in barangay and intend to identify the specific waste management challenges they face, including the types of waste prevalent in each community. Lastly, we will examine the consequences of improper waste disposal and address waste management.

Methods and Materials

Using qualitative research methods, the researcher evaluated the perceptions of residents and seeking for the barangay leaders and community organizations in Noveleta, Province of Cavite. Employing a qualitative, phenomenology-based design. According to (Alhazmi & Kaufmann, 2022)^[1] As it enables researchers to participate in adaptable activities that might characterize and assist in the understanding of complicated phenomena, such as many facets of the human social experience, the qualitative approach of phenomenology offers a theoretical instrument for educational research.

In addition, methodology will be used to access the phenomenology design particularly in the area of preposition of place, affects residents and barangay leaders and community organization outcomes in Noveleta. This will help the study to collect the necessary information required to address the research question. The primary concept underlying this approach is to review all of the data that was gathered at the beginning of the interview. Researchers use qualitative methodologies to demonstrate the data they acquired from interviews, strengthen the validity of their findings, and increase the amount of evidence they have. The researcher conducted a face-to-face interview while coding, utilizing a video recorder to capture every word spoken. Following the interview, the researcher will transcript and analyze responses collected. Methodologies to demonstrate the data they acquired from interviews, strengthen the validity of their findings, and increase the amount of evidence they have.

Purposive sampling will be used in this study. Purposive sampling is a non-probability technique where researchers select particular volunteers who can help the study in achieving its objectives by using their experience. The researchers must consider these participants' unique traits when assessing their research question. Stated differently, the subjects are chosen by the researchers "on purpose" (Frost, 2022)". And to understand the subject area well enough to know which subjects are vital to our study. This approach helps the researcher to focus on a narrowly defined subpopulation, critical people in a process, typical cases, or unusual cases. Purposive sampling is a technique used by researchers to intentionally select a small sample of the population in order to create a diverse and varied group of participants who have close contact with the same phenomenon. The researcher also chooses participants who have firsthand experience with the phenomenon or who are best qualified to address all research questions.

The study's population comprises barangays about the trash issue. The present study will encompass the policies and guidelines implemented to maintain waste management in the Noveleta Province of Cavite. The sample size for this research comprises (8) barangays, namely Magdiwang, Salcedo II, San Antonio II, San Jose II, San Juan II, San Rafael II, San Rafael IV, and San Rosa. Participants in the investigation include the (8) barangay leaders in waste management, community organizations. We selected this participant based on our topic since they are an expert or possess all the necessary knowledge to readily respond to a researcher's question in the following interview.

In this study thematic analysis, as used in this study, is the process of gathering data and looking for patterns in the meaning of the data to find the themes. It is a method of examining the information obtained from the interview. The researcher's own experience plays a critical role in the active, reflective process of making meaning of the data.

This analysis gives you a different perspective on qualitative data and is usually used to describe a group of texts, such an interview or a collection of transcripts. The researcher carefully investigates the information to find recurrent themes, topics, or expressions.

Results and Discussions

Theme 1: Technical Challenges and Solutions

This section aims to explore the prevalent challenges encountered by those barangay leaders and community

organizations regarding the waste problem, after identifying potential risks and challenges, it is essential to provide solutions regarding the. The central idea conveyed is that issue and problem arise, affecting not only the residents in their barangay but also those barangay leaders and community organizations who strive to provide adequate services to ensure the cleanliness and safety in their places.

Sustainable Waste Management: Having good waste management plays a crucial role in reducing the environmental impact of waste generation, promoting resource efficiency to managing waste materials for the benefit of the environment and society. According to Perkumienè, *et al.* (2023) every community should be sufficiently informed about trash management to keep their area tidy. Sustainable environmental practices and effective waste management have become increasingly important to solve the concerns regarding waste problems. These statements revealed that one of the primary concerns of those barangay leaders, and community organizations in managing waste, is the lack of cooperation and Participation of their residents to be part of their projects. Kagawad Roy state that,

“ayaw makipag cooperate, hindi naman lahat pero meron paden talaga na mahirap pakiusapan so sa pinapatupad naman tulad ng segregation hindi ganon Madali tapos hindi den sumasal sa mga pa program namin or kaya hindi sumusunod kaya parang walang kwenta lang, dahil wala din e hindi naman nasusunod ayaw pang makisama.”

Captain Milano, added that, there are instances when the non-compliance of the residents makes the efforts seem worthless. Their implemented plans and projects are ignored or thought to be useless, and he also discusses that residents don't participate or not be a part of their existing projects.

“Para sakin lang naman to, siguro yung mga taong nakapaligid kahit ano den kasing ipatupad mo kung hindi susunod wala din, dapat siguro kaylangan ng sapat na pag papaturo sakanila, hindi din kasi sila nasama sa mga projects kaya ayan walang cooperation, useless kase kapag hindi sila nagawa ano yon puro barangay nalang gagalaw kaylangan kase sama sama for development diba.”

These findings emphasized that communities become disorganized when residents are unable to obey the projects and programs that they implemented; as a result, plans that were previously organized become worthless, because residents don't pay attention to their plans. One of the main components of the community is the involvement and collaboration of the residents, which makes it easier for us to work together to accomplish our goals. According to Al-Amin & Akter, (2022) Working Together for Development is one of the best solutions for solving many issues that the society faces, and also working as one is the best way to resolve all the concerns and to easily achieve the goals we wanted.

Moreover, some barangay leaders find it difficult to encourage their residents because some of them are expected to receive benefits or payment for their hard work and or being a part of their projects and programs.

Consequently, some barangay leaders are not able to provide their workers with adequate payments or benefits for their hard work which makes the residents less interested in taking part in their initiatives. Captain Josen stated that,

“Laging naglilinis once a week every Saturday kaylangan mong gawin yon, eto satin satin nalang hindi lahat sumama pero nagagawa namang mag linis kaya lang nag sasawa yung iba kasi hindi sapat yung sweldo namin para mag linis ano бага nasama lang kapag may kapalit”

Captain Milano backs up Captain Josen's Statement as they both share similar experiences with their barangay residents. The primary obstacle of their barangay is to sustain the programs and projects that they implemented because of the lack of funds to support or to maintain.

“Sa barangay naman kulang ang taong nasama sa mga aktibidad, minsan kase ang gusto may kapalit na konting handog sa pag hihirap at dahil minsan kinakapos sa pera dahil syempre kaylangan mopa silang pakainin minsan wala na talaga nasama, kahit gustuhin kong bigyan lahat sila pero hindi talaga kaya eh kapos den sa pondo para panatilihin ang isang aktibidad e, syempre lahat naman tayo gusto ng kapalit sa pinag hihirapan naten diba, pero nga dahil don wala ng masyadong nasama”

This statement explained that one of the problems to sustain the programs and projects they implemented is a lack of funds, as a result of this their plans were forced not to be continued and stopped. Because their residents are asking or expecting payments for their hard work and for being to be part of the programs and projects. According to Dagohoy (2021), Explains that some barangays don't have enough funds to sustain their programs or to give adequate services for their residents. Residents should have an initiative to help their barangay without asking for payments, because their barangay needs them for change, and this won't be successful if only the leaders take action. Even in small ways, they can contribute by simply following the laws in their barangay Cap Milano stated that,

“Tulungan, participation ng bawat isang individual, kase hindi dapat barangay lang ang palaging gagawa dapat lahat tayo diba. yun po kung maari sana tumulong tayo sa lahat kahit maliit na bagay lang e makakatulong na tayo lalo na sa barangay kase para satin din naman lahat ng iyan., at syempre kaylangan din natin ng self-discipline kahit sa ganong bagay ay malaking tulong na yon samen. Ayun na nga maliit na nga ang pondo kaya kung sakali sa tamang pag ugali lang ay makakatulong na saamin yon, dapat rin may self-discipline tayo diba”

Discipline is essential to achieve personal and professional objectives, as it allows individuals to keep their focus and be motivated (Carmen, 2023). It'll help us gain a sense of responsibility and develop good habits that will lead to success. Captain Wilfredo stated that being a disciplined resident is a skill or a habit, and that there should be no constant reminder of what's right and what's wrong.

“Magiging disiplinado ng mga residente kapag maganda kalooban po nang Isang tao yung character yun po ang pinaka mahalaga kung ang isang tao, at hindi na kaylangan turuan pa, malalaki na kasi tayo hindi na natin kaylangan sumaway pa”

On the other hand, Captain Josen finds it challenging to teach and educate his residents, despite constantly reminding them he stated that,

“Mahirap pag sabihan ang tao, pag aralan ang segregation yun ang lagi naming sinasabi sa mga tao dito yung iba galing sa trabaho magagawa pa yan ng marami yan at eto pa mga neng ha minsan yan nakikita nila nag lilinis nakikita ka nila tatago nila muna pero pag lampas mo saka sila mag tatapon nakikita naman sa cctv, sabe saakin nung kasama ko "tignan mo cap nunf anjan ka tinatabi nila, pero pag wala kana saka nila sinasamtala na mag tapon" e kita naman sila sa cctv diba yan yung malimit yang break water nayan yang side nayan anjan na lahat ng basura merong mga wala e gago talaga kahit anong sabihi mong batas tapon dito tapon doon wala e away lang eh Maraming Kuro kuro na madaming nag sasabe na dapat ganto dapat ganyan ito yung dapat na mangyare para mawala yan pero sa totoo lang sa sarili.”

Captain Tony and Wilfredo added that other violators came from other barangay, which also the reason of increasing waste in their place,

Cap tony: “meron naman dito dadaan sa lugar namen tapos mag hahagis ng kung ano ano, yan din ang isang problema yung mga hindi naman ka barangay e nag bibigay den ng problema samen.

Cap Wilfredo: “dito may dumadaan na mga nasasakyan tapos tapon nalang kung saan ganon sila kagaling meron kaming mga violators nahuhuli hindi lang dito sa barangay na kundi narin sa ibang barangay.”

Responsible residents are present, pollution and health risks associated with improper waste management practices may lead to a deterioration of the environment. This could make it more difficult for local resources and infrastructure, which will have to bear the costs of dealing with waste and cleaning up (Davasagayam, 2020). In order to deal with irresponsible residents who disrespect proper garbage disposal, educational programs must be launched to increase public knowledge of the issue. Strict fines for unlawful dumping and littering can act as a deterrent and promote responsible behavior.

Municipalities find it difficult to establish regular collection services and solid waste management due to other barangays not having enough trucks or occasionally their trucks have mechanical problems and Lack of Facilities. According to Giel & Dąbrowska, (2021) Issues with garbage trucks in a different municipality may cause waste collection services to be disrupted. Garbage pickup delays can be caused by problems including mechanical breakdowns, poor truck maintenance. The lack of facilities, According to Captain Tony, is one of the problems facing the barangays, and

sometimes mechanical problems with trucks make it difficult to collect waste on time,

“Bilang ngayun namumuno talagang na aano ko minsan problema kahit saan is basura halos buong pilipinas lalong lalo na dito saatin wala tayong malinaw na lugar na kailangang pag tambakan ng basura. Isa den halos lahat ng barangay nararansan to kase minsan hindi inaasahan na masira yung truck kaya di nakukuha sa tamang oras at panahon yung basura.”

Captain Wilfredo supports that Cap Tony states that one of the problems is lack of facilities to dispose of waste and the unexpected truck mechanical issue, because in their barangay they also experience this kind of problem.

“Dito sa barangay namen wala talagang tamang lugar, jan lang sa may tabing ilong kame nag iipon ng basura, hanggang sa dumating na yung truck ng basura, tapos minsan hindi maiiwasan nasisira ang truck, kaya ang nangyayare wala kaming maayos na lugar naiipon yan tumatambak tapos ang tapunan pa ay tabing ilog kaya pag dumami minsan yung ibang basura ay na huhulog na sa ilog.”

This statement explains that one problem they face is the lack of both garbage trucks or the unexpected mechanical issues of their trucks and garbage facilities to dump their waste. Barangay leaders should implement a Community Clean Up Initiatives and volunteer waste collection efforts can contribute to reducing the problem in situations where there is a lack of both garbage trucks and sufficient garbage infrastructure.

Barangay leaders and community organizations implement strategies to reduce and reuse their waste. San Antonio came up with a brilliant concept for how to use its plastic bottles and other waste plastic; they use them as eco-bricks. According to Okafor (2023), Plastic bottles packed with clean plastic debris are called bottle bricks, or eco-bricks. Something similar to the traditional bricks we use in construction is produced by packing the plastic bottle with dried plastic trash. The final result can be utilized for a variety of projects, such as constructing walls, tables, seats, and more, San Antonio Captain Josen explained that,

“Eto ginawa ko ha at eto yung gusto kong ituro sakanila yung mag gugupit tayo ng mga plastic para pamalit ng mga bigas, dalawa nyan isang kilong bigas yan ang ginawa ko sinulong ko yang programang yan pero sa kalaunan wala e nasira pako jan, eto pa Kaya ito pinapamigay ko nalang din yan, yan maganda yan yung pinaka base nya ginagawa design maraming magagawa jan e. eto yung ilalagay sa bote yung mga basura tapos papatigasin at pupunin parang ginagawa jan nagiging simento yan, at dati den pag pasko gagawa kami ng mga parol gamit yung mga plastic bottle. Ginawa namen jan mga eco bricks kase mga bata talaga tumutulong para masulong yang proyekto an Maganda kase jan ay mapapakinabang pa sya”

On the other hand, Sta, Rosa II's strategy is also creative because it reduces the need for sacks and garbage bags. This

will allow us to keep more waste in each bag, slowing the rate at which they are filled. Physically chopping the waste into smaller pieces presents a challenge in order to reduce the amount of space within the garbage bags. This is what Captain Wilfredo stated,

“Pinaka maganda para maiwasan basura kailang patuyuin mo talaga kase kung ang isang mamaya talaga ay ano talaga para maiwasan ang pag dami ng mga basura. maganda ay yung puputulin sa maliliit na piraso ayun Maganda yon kasi ang Maganda don nakakatipid sa sako, at para hindi siksikan diba para den mas less yung gastos sa mga garbage bag at siguradong madami ka ng malalagay doon.”

Barangay have a unique strategy that they used, and it seems to be more useful than other strategies. Biodegradable waste in the soil may facilitate natural decomposition, enhance soils with nutrients and serve as an organic fertilizer (Tan, 2023). Cap tony, and Kagawad Honorio explained that all biodegradable waste is still collected because it can still be reused as compost to enrich the soil. It can also be buried in the ground to serve as fertilizer.

Cap tony: Yung mga nabubulok iipunin tapos nagiging pataba sya diba, kase Maganda yon e napapa kinabangan paden kahit papano nagagamit paden at the same time.

Kagawad Honorio: Segregation no collection tayo ng basura, kailangan lahat naka-segregate para makuha ng ayos yung basura. Yung mga nabubulok pwede naman ibaon yun sa lupa ginagawang fertilizer, syempre yung mga... ang mga hindi lang talaga pwedeng iano sa lupa, yung mga hazard na basura, hazardous waste”

The tactic of fining offenders is used by all barangays in this study because they believe it will help people to learn from their mistakes and discourage them from repeating the same offense. In order to effectively monitor these actions, they are using CCTV cameras to keep an eye on violators. This ensures that people are held accountable for their actions, atoning for past wrongs and establishing a standard of conduct in the future. Every village official has said the same thing every barangay official declared that,

Captain Tony: Para sakin mas Maganda siguro if bigyan ng parusa yung makukulit makikita naman yan dahil may mga cctv kame e.

Captain Josen: Mag patupad, at siguro bigyan ng kapalit yung mga sasaway para hindi na maulit

Kagawad Roy: Ang ginagawa namen ay pinag babayad talaga namen kahit sa ibang lugar pa yan, basta once na nahuli ka bayad ka kabayaran yon sa hindi mong Magandang Gawain diba, kase the more na hahayaan mo mas masasanay Yung isang technique ni kapitan Jan tyaka yung committee ng environment bawal na talaga mag tapon sa ilog Meron kaming cctv camera kita mo diyan kung sino mga nag tatapon diba kita mo ngayun yung mga hindi tumutupad pinupuntahan ni kap.”

Kagawad Honorio: “may cctv naman kaya makikita sino nalabag, kaya may parusa yan sila”

Captain Ricky: Pag nahuli ka o Nakita ka may multa dito pag sumaway o kaya Nakita ka mag babayad ka talaga o kaya naman mag c community service ka

Captain Wilfredo: Meron din kasing CCTV dito saamin kaya once na nahuli ka ayun may multa yun”

Captain Joseph:” Ayun halos lahat naman may cctv ganon, tapos pag nahuli matik multa ka or nasa barangay kung anong ipapagawa sayo mag tanda.”

Captain Milandro: “meron kaming na encounter galing sa ibang barangay dadaan jan tapos tatapon nalang tapos hindi man lang ma monitor 24/7, dadaan naka ebike naka motor tatapon at ihahagis tapos hahayaan nalang so hinri naman namen kayang bantayan yon so although meron kaming cctv ngayon nakapag pagawa nadin kame so malaking tulong narin samen yon kase meron kaming 16 cctv sa memo road para mamonitor kung sino yung violators para mapag multa naman.”

This declaration included all strategies and practices to reduce or minimize waste, as well as the reuse of any waste that they have collected. In order to help them reduce their own waste, further municipalities may use any of these methods. Overall, these discussions highlight the technical difficulties that community organizations and barangay leaders face in addressing the waste issue in their barangay and offering a potential solution as well as methods or approaches to support their community in maintaining the decency and cleanliness of their barangay.

Theme 2: Infrastructure and Accessibility

The purpose of this theme is to study and investigate the development and improvement or enhancement of physical structures and systems in every barangay which facilitates people’s and communities’ access to opportunities, resources and essential services. This includes transportation (transit, roads), facilities for healthcare, utilities (water and electricity supply, telecommunications), and educational establishments, accessibility includes people or individuals who have and can access to the infrastructural elements in a community.

Clean-up Drive Program: Useful and effective way to remove and reduce the growing or increasing waste from natural habitats and communities. In addition, witnessing others or the visual impact of seeing others cleaning up a particular area that is increasing waste can have a domino effect and force people to think about their actions. Banerjee (2023). This study claims that one of the strategies and practices that have been implemented in every barangay to avoid the increasing waste in their community is the Clean-up Drive Program. Milando claims that,

“Merong kaming re-cleaning drive clean up drive program.”

It indicates that there is a program that was implemented on their barangay that aimed at cleaning up their area. It also stated that it may be indicating that the areas are ongoing

maintenance. Kap tony implies that participation of barangay officials, SK kagawad and other volunteer organisations is needed for a clean community. He states,

“Meron din kami dito na ano weekly clean up para naglilinis kami ng mga kanal pinapatupad namin yan tulongan ng mga barangay official mga SK kagawad at ng ibang mga volunteer organizations dito katulad ng damayan meron kaming mga ganyan dito patungkol sa pag lilinis.”

This statement focuses on cleaning the canals and this program is implemented with the help and assistance of barangay officials, SK kagawad, and other volunteer organisations, such as Damayan. Ricky also stated that they are together in Saturday clean up in their barangay, He said that,

“Meron din kami dito na ano weekly clean up para naglilinis kami ng mga kanal pinapatupad namin yan tulongan ng mga barangay official mga SK kagawad at ng ibang mga volunteer organizations dito katulad ng damayan meron kaming mga ganyan dito patungkol sa pag lilinis.”

This statement indicates that everyone in their community actively participates and cooperates in the clean-up activity implemented every Saturday in their barangay. Additionally, Kagawad Roy stated that in their barangay they have also implemented the clean-up drive every Saturday in their barangay. He tells that,

“Meron kami diyan service yung mga kulong kulong yun nag hahakot na basura namin every tuesday and friday kaya tamang tama dumating na yung mga ano walis daspan mga sako para sa basura yung mga basura man na pinapatupad ni conse. Lagi rin nakatulong yan every Saturday tung kanyang clean up drive ayun tinutupad namin yun. Yun nga meron kaming taga linis tuwing umaga taga walis siya ng alas 6 kahit umaga nakikita moyan malinis nayan umaga.”

This statement indicates the garbage collection in their barangay is every Tuesday and Friday and every Saturday they have clean-up drive, and someone is responsible for cleaning every morning at 6 o'clock, ensuring cleanliness of their barangay. Moreover, Honorio also stated that they also have weekly clean-up drives.

“Meron tayong weekly clean-up-drive, pinapatupad natin yun lingo-lingo, may mga soak tayong nililinis para mapanatiling malinis yung lugar.”

This statement stated a regular clean-up drive implemented in their barangay. It emphasizes the commitment to maintain the cleanliness in their area. Furthermore, Wilfredo said that their barangay also has weekly cleaning program and seminar and participation with SK council members to clean their barangay, He states that,

“iniimplement namin yan yung linggo linggo meron po kami weekly cleaning program Meron din kaming mga seminar dito na talagang tinuturuan talaga

namin yung mga mamayanan dito sa lugar namin, meron den naman na sama samang nag lilinis kasama ang SK kaya mabilis kaming nakakagawa.”

These statements indicate a comprehensive approach to community improvement. It states that they have also implemented a weekly cleaning program which indicates maintaining cleanliness in their barangay with the participation of SK council members and residents. It also mentions that they have seminars to educate the residents about the issue.

Garbage Vehicle Project for Community Service

Garbage truck route planning is a crucial process for waste collection companies at every station, but it only addresses the most fundamental concerns, like choosing the best routes, cutting costs, saving time, and lowering emissions of pollutants. Giel and Dąbrowska (2021). These findings support the claims of the statement that implying that the solution for the increasing waste problem is to make more garbage vehicles to help the community. Milando tells that,

“May mga lumang proseso din halos ganon din naman kaso ginawa kong solusyon kase kakaupo kolang bilang konsehal is nag propose ako ng garbage vehicle na kung yun ang solusyon so totally gawa na dalawang garbage vehicle so ayun matutulongan na namin ang munisipyo”

This statement emphasizes that having more garbage vehicles or garbage trucks in every community can solve the waste problem they faced. Barangay leaders can fund it to have enough trucks to collect a community's garbage so that it is not piled up in one place, thus making a barangay cleaner.

Lack of Financial Resources people living in poverty are unable to live with dignity because of these deprivations. These kinds of deprivations are also acknowledged in political discussions and in certain contemporary multidimensional indicators of poverty. Jeff (2021). This finding connects with the study that the lack of financial resources and lack of funds can lead to big impact to a community such as, the community will suffer and can't avoid the problem in the community especially in waste problem. Milando tells that,

“Minsan den kase mahirap sa pondo kase kaylangan den talaga non hindi naman mawawala yon, para mas mapatagal at mas mapatibay yung mga ganong programa. Siguro yung Sama samang pag lilinis, maganda kase yon lalo na kung may kapalit sa mga tutulong kaso nga minsan hindi kaya pondohan para mag patuloy yung ganon so wala, pero magandang paraan yon kase madami talagang tutulong at para din mabilis ang gawain kase madame kayo e.”

The statement indicates the challenges of funding certain programs in their community. It acknowledges that there are benefits of such programs such as the effectiveness in speeding up tasks and participating residents even more. Community programs and projects can't continue of the barangay leaders because of lack of funds, As Josen states,

“May mga paraan na mas short cut dati kase manual yung maka bago ngayon puro short cut nalang pero

maganda parin, tulad nyan gusto namin ituloy pero kulang na kulang talaga sa pondo para mapanatili yung isang programa pano ka makakagawa ng mga programa kung walang pondo.”

This statement emphasizes the challenges of community funds and they question how programs and projects can be developed or sustained without enough financial resources. Roy also tells and indicates the challenges in fund and lack of financial resources in their community.

“Para sakin lang naman to siguro sa pondo at partipasyon ng tao, kase kahit madaming Magandang plano ang isang barangay kung hindi naman kaya tong sustensahan wala din diba, pano mo mapapanatili ng matagal ang isang proyekto mo kung wala kang pondo, para sakin lang naman to at yun yung nakikita ko”

It also indicates the challenges in funds in their barangay and community involvement in sustaining projects and programs. They also questioned how projects and programs developed without enough financial resources. Additionally, Joseph stated that

“Mahirap talaga kapag wala kayong sapat na pondo, yung tipong Maganda na yung proyekto pero hindi mapanatili ng matagal dahil kulang sa budget”

The statement indicates that if a community does not have enough funds, the projects implemented cannot be maintained for a long time due to the lack of budget, resulting in the people not benefiting in the long term. As Honorio added that

“Siguro yung pag kapabaya at hindi pag sunod ng mga residente yun, at sa nakikita ko yung iba kulang din sa pondo hindi naman maiiwasan yon, kase pag kulang sa pondo hindi talaga nag tataagal yung mga programa so yun.”

As he added that when a barangay lacks funds, a program they implement does not last long and it cannot be avoided. Wilfredo also stated that

“Saming barangay may naka program na halimbawa mga gawain sa loob po yung bago kami mahulog ang isang budget inaaproban po namin yan mga project ng mga barangay nag implements po kami kase sa pag gawa ng budget halimbawa yung action niyo kailangan naka schedule lahat yan kailangan bago mag plano bago sustentohan kailangan naka plano napo iyan pupundohan po namin yan diyan po kami yung kuwan kailangan sa Isang barangay naka AIP”

These statements emphasize that a barangay really needs funds for prepared programs or projects to be implemented for the residents and the community. It is inevitable for a barangay to lack sufficient funds for the projects they want and need to implement for the benefit of those living in a community and for the community itself.

Theme 3: Cost-Effectiveness and Sustainability

The purpose of this theme is to investigate the ways of every

barangay to maintain their previous activities. The way that even if there is a barangay that has a low budget and lack of support, it can maintain and keep their barangay clean. They have equipment that is low-cost that they can use in cleaning their place. The way that even if they lack support, they can manage it well (Salazar, 2023).

Efficiency and Consistency: The term efficiency can be defined as the ability to achieve an end goal with little to no waste, effort, or energy. Being efficient means you can achieve your results by putting the resources you have in the best way possible (Banton, 2023). Consistency is carrying out something the same way, or something staying the same as it's achieved in a particular way. An example of this could be when we're painting a wall to achieve the same color and look overall. Consistency is all about reputation or doing the same task daily (Shahzaib, 2023). This study states that efficiency is doing the task without wasting time, while consistency is the task that we always do repeatedly. In the Municipality of Noveleta a lot of barangays there experiencing efficiency and consistency Milano said,

“Oo naman, kayang kaya kase before pa naman ganito na Gawain naman and I can really say na kayang kaya ko pa mas paayusin to, or mas ma improved yung lugar naman diba. Naging successful naman.”

However, even if Kap Milano says that efficiency and consistency are suitable for their barangay, Kap Jose is different because one barangay cannot achieve their goal or maintain their work because of a lack of support.

“Para sakin siguro yung mga basic na gawain nalang, kase may ibang programa na hindi na talaga kaya ipag patuloy tulad nga ng sinabi ko mahirap na maging consistent ang isang bagay kapag wala itong maintenance”.

Those are the big differences. The differences are big because not all barangays can be efficient or consistent. A barangay can maintain its efficiency and consistency if it is full of support (Salazar, 2023). Kap Milano states that they are efficient and consistent, and they are still able to continue their previous activities. Maybe it is because they have enough support, like a budget, that they will use in their barangay. On the other hand, Kap Jose stated that they cannot continue their activities before they lack support when he says that they won't be consistent because of insufficient maintenance, which was probably budget or support of the government. But still, even if some barangays are falling behind, the important thing is that they can make their barangay clean and have some equipment at low cost that will help to lessen the garbage issues that we are facing right now (Dagohoy, 2021).

Overall, maintaining barangay activities and cleanliness requires finding a balance between efficiency and consistency. While some barangays, like Noveleta, struggle due to a lack of resources, others succeed as a result of long-standing traditions and assistance. The key takeaway is that, with the right resources and support, even economically disadvantaged barangays can work to keep their communities clean. No matter how much personal space each person has, communities must come together to address waste issues and keep the environment cleaner for

everyone.

Conclusions

In conclusion, the study conducted in Noveleta, Cavite, examined the different prospects and difficulties linked to promoting effective waste management practices at the barangay level. It revealed several obstacles, from the lack of funds preventing the implementation of sustainable projects to the unwillingness of the locals to actively participate in waste management programs. Furthermore, the study explained the significance of residents' self-discipline and accountability alongside tackling technical obstacles such as insufficient waste disposal facilities and mechanical issues with garbage trucks. However, these challenges of barangay leaders demonstrated amazing perseverance by setting the standard for several solutions, including waste segregation initiatives and neighborhood cleanup drives. The findings highlighted how crucial it is to encourage sustainable waste management practices in Noveleta by providing more resident involvement, adequate funding, discipline, and improved infrastructure. The study also emphasized the crucial role that socioeconomic and cultural factors play in determining local participation in waste management initiatives, highlighting the necessity of consistent effort and efficient resource utilization. While some barangay leaders showed remarkable effectiveness and consistency in handling waste, others had trouble receiving enough support, particularly when it came to budgeting and upkeep. Yet, due to their innovative thinking, certain barangays, despite their limited resources, demonstrated the possibility of maintaining sanitation and promoting environmental conservation through innovative yet cost-effective approaches. The study emphasizes the importance of collaboration among residents, barangay officials, and other stakeholders in overcoming challenges and capitalizing on opportunities to advance sustainable waste management practices. This will promote a healthier environment and improve the quality of life in the Noveleta, Cavite community.

References

1. Alhazmi AA, Kaufmann A. Phenomenological qualitative methods applied to the analysis across-cultural experience in novel educational social contexts. *Frontiers in Psychology*. 2022; 13. Doi: <https://doi.org/10.3389/fpsyg.2022.785134>