



## Rethinking Coastal Waste: Integrating Green Criminology and Community Engagement for Sustainable Solutions

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### Abstract

Fisheries, tourism, and transportation depend on coastal habitats, which support diverse wildlife. Plastic garbage increasingly endangers these areas, which harms marine life and the ecology. This study examines how coastal garbage management affects legal knowledge, compliance behaviour, and community participation. The study uses green criminology to show how conventional legal systems prioritise direct crimes over environmental crimes, such as inappropriate plastic and waste disposal. The study found a large difference between coastal communities' environmental knowledge and compliance. Despite knowing the rules, many community members break them due to a lack of enforcement, infrastructure, or motivation. This circumstance emphasises the need for stronger laws, greater enforcement, and more inclusive community-based trash management. Sustainable coastal management requires community involvement and legal accountability to protect ecosystems and public health.

### I. Introduction

Coastal areas are appreciated not alone for their aesthetic appeal; the allure of the interface between land and sea imparts a distinctive charm to these locales. Coastal regions significantly contribute to the sustenance of life. The uniqueness of coastal areas, which are land that borders the sea, makes the coast rich in marine

biodiversity, fishery resources, and various other ecosystem functions that are greatly needed. The inherent potential can be leveraged to enhance multiple facets, including the economy, social cohesion, and environmental sustainability. For instance, fisheries, recreational zones, transportation, commerce, conservation, diverse species, and various human requirements can be met sustainably.

Indonesia comprises 17,001 islands and possesses an extensive coastline, which presents opportunities and considerable challenges in managing coastal regions and small islands. This circumstance includes 111 islands, both inhabited and uninhabited, located at the country's outermost boundaries, as reported by the Ministry of Marine Affairs and Fisheries ([Badan Pusat Statistik Republik Indonesia, 2024](#)). The economic potential of coastal areas can be realised by enhancing tourism opportunities, utilising biological resources and conservation initiatives. The projected economic worth of marine tourism in Indonesia is US\$ 54.3 billion annually ([Arianto, 2020](#)). This situation encompasses the economic potential of the tourism sector in coastal regions.

Coastal potential may be hindered under some conditions, obstructing its optimal utilisation. The conditions mentioned encompass damage to coastal regions resulting from natural phenomena, such as disasters. Moreover, there are situations resulting from human actions, such as waste. A significant concern in coastal management is garbage management. Waste adversely affects health, degrades environmental aesthetics, obstructs waterways, and more ([Rahmah et al., 2021](#)). This circumstance has a negative impact on environmental sustainability and can ultimately pose a threat to humanity.

Prior studies indicate that the COVID-19 pandemic has intensified apprehensions regarding environmental pollution, especially due to insufficient management of healthcare waste and single-use plastics, contaminating water, air, and agricultural lands, thereby threatening public health and ecosystems ([Behera et al., 2022](#)). Studies on coastal waste have uncovered diverse findings into the nature, origins, and effects of marine debris. Various studies indicate that the COVID-19 epidemic resulted in a substantial decline in marine debris on urban tourist beaches, evidenced by a 49% reduction in trash items during beach closures ([Souza Filho et al., 2023](#)).

Prior studies in Indonesia concerning coastal waste have underscored the critical problem of marine plastic pollution, revealing that 59% of marine debris in Jakarta's coastal regions is plastic (Prabawati et al., 2023; Wani et al., 2024). Studies on coastal waste in Indonesia reveal an urgent issue of plastic pollution in the region, impacting marine life and ecosystems due to inadequate waste management systems ([Ng et al., 2023](#)).

Coastal waste originates from multiple causes, primarily human activity, which may be deliberate or inadvertent, involving improper waste disposal in contravention of established regulations. The trash kind differs from the daily activities of local inhabitants, visitors, and vendors providing food for the community. This jeopardises the sustainability of coastal areas and the current ecosystems. Plastic pollution poses a significant threat to global marine and coastal ecosystems ([Chandra, 2020](#)).

Gorontalo City is the predominant source of garbage in Gorontalo Province. Data

from the National Waste Management Information System indicates that waste output in Gorontalo City amounts to 140 tonnes daily (Sarjan Lahay, 2022). A total of 1,249 waste items were identified, weighing 2,603.3 grammes, comprising plastic, plastic foam, fabric, glass and ceramics, metal, paper and cardboard, rubber, and wood, with glass and ceramics predominating at 57.32% for macro-sized waste and 68.44% for meso-sized garbage ([Lahay, 2022](#)).

Coastal garbage constitutes a substantial environmental challenge, affecting marine ecosystems and coastal populations. From the perspective of green criminology, this matter might be classified as an environmental crime, underscoring the necessity for legal, social, and regulatory measures to tackle waste management and avert ecological damage. Green criminology examines offences and ecological harm affecting humans, animals, and ecosystems ([Brisman & South, 2019](#)). Green criminology aims to analyze environmental crimes, highlight victims and existing challenges, evaluate regulations, and adopt an interdisciplinary approach to protect ecosystems and biodiversity ([Brisman & South, 2023](#); [van Uhm, 2024](#)). Legal certainty, utility, and justice are the principles that underpin a fair and effective legal framework. These values govern how the law should be applied, and in the context of coastal waste management, they become an important foundation for creating sustainable solutions. Green criminology strives to achieve justice in the face of challenges posed by environmental crime ([Brisman & South, 2023](#)). This theory seeks to evaluate regulations, as well as adopt an interdisciplinary approach to protect ecosystems and biodiversity, while promoting justice for affected communities and ecosystems and ensuring accountability for environmental damage perpetrators ([van Uhm, 2024](#)).

Green criminology underscores the significance of comprehending environmental crime globally, as the interplay among ecological, social, and economic systems can result in localised environmental degradation with extensive repercussions ([Ruggiero & South, 2013](#)). The green criminology approach aims to comprehend and offer resolutions to this problem. This project will employ a green criminology framework to examine the factors contributing to unlawful garbage disposal, focussing on the interplay of legislation, environmental justice, and societal awareness. This paper presents two intriguing elements for analysis: (1) How do the participation, awareness, and legal compliance of coastal populations affect trash disposal methods in coastal regions? What is the perspective of green criminology about the involvement, awareness, and legal adherence of coastal communities in tackling coastal garbage problems?

## **II. Embracing Green Criminology as an Approach of Critical Analysis**

In Indonesia, the significance of green criminology is on the rise due to the significant environmental harm that human activities, including illegal logging, marine pollution, wildlife hunting, and illegal mining, have caused. The analysis of environmental crimes and ecological violations that are not always regarded as criminal acts in positive law is the primary focus of green criminology, a branch of critical criminology. This method contributes to a more comprehensive comprehension of crime from a human perspective and its influence on the ecosystem and the continuation of life

in the Indonesian context (Directorate General of Environmental and Forestry Law Enforcement, 2023).

Green criminology's significance is also derived from its ability to reveal the structural inequalities frequently arising in environmental law enforcement. Local or indigenous communities are frequently the victims of environmental degradation, which large corporations or state actors frequently perpetrate. Green criminology emphasises the power dynamics that underlie environmental offences and advocates for a more equitable and ecologically responsible approach (Wattimena, R. M, 2024). This situation notably affects Indonesia as the country has a high biodiversity but is under pressure from industrial expansion and extractive investment.

Indonesia can enhance environmental protection and promote social justice by incorporating green criminology perspectives into policy and law enforcement. This method promotes the development of regulations that are not only focused on the recovery of economic losses due to environmental harm but also on the restoration of the environment and the protection of the rights of Indigenous and local communities. Consequently, the strategic advancement of sustainable development in Indonesia is facilitated by the advancement of green criminology research and its implementation in public policy and the criminal justice system (WALHI, 2023).

For instance, the issue of land and water pollution in Indonesia is the sole issue that warrants examination through the lens of green criminology. The earthquakes that occur almost annually, particularly in Kalimantan and Sumatra, are frequently caused by the practices of land reclamation that large construction companies implement. Even though several perpetrators have been identified as administrative and criminal, numerous individuals have fled the legal system due to the severity of the violation and legitimate conflicts (Greenpeace Indonesia, 2020). This situation necessitates green criminology not only as a form of environmental law enforcement but also as an ecological response to the local community that urgently needs attention and protection (DPR RI Parliamentary Analysis Center, 2024).

Another illustration is the nickel mining operations in Sulawesi and Maluku, which, while they promote economic expansion, also result in environmental degradation, including water contamination, deforestation, and social conflicts with indigenous communities (Climate Rights International, 2024). In the green criminology approach, it is crucial to investigate the ways in which economic interests and lax regulations frequently compromise the rights of local communities and the preservation of nature ((Shidarta, M. H, 2024). This method promotes advocacy for the tightening of oversight of the extractive industry and the strengthening of the role of communities in the decision-making process regarding their living space.

Consequently, green criminology provides an academic analytical framework and serves as an instrument for critiquing exploitative development policies. This method can connect environmental protection and social equity, as evidenced by case studies such as nickel mining and forest fires. Its implementation has the potential to bolster the environmental law reform agenda in Indonesia and promote ecological responsibility in both the private sector and state governance.

### III. Waste Disposal Practices in Coastal Areas

Legal knowledge, compliance, and community engagement are interrelated components that profoundly affect the efficacy of the legal system and the empowerment of the community. These components are crucial in influencing the formulation, comprehension, and compliance with laws by the public. Disposing of waste in coastal regions has evolved into a multifaceted problem, affecting numerous facets of coastal community life. As an interface between land and sea, the coast functions as a site where refuse from both environments accumulates. Terrestrial sources encompass urban garbage transported by river currents, inadequate waste disposal, and tourism, whereas marine sources comprise shipping operations, fishing, offshore installations, and natural occurrences, including storms and floods ([Citrasari et al., 2012](#)). Local residents are the first to be affected when there is damage to the coastal ecosystem ([Susanti & Pradjoko, 2023](#)). Consequently, the role of the local populace is crucial in preserving the coastal habitat. The relationship between local inhabitants and the coastal ecosystem will be analysed through legal awareness, adherence, and community engagement. This study was performed in multiple coastal regions of Gorontalo Province. The findings were derived from the administration of questionnaires and the execution of interviews in four coastal regions of Gorontalo Province (Gorontalo City, North Gorontalo City, Boalemo City and Bone Bolango City).

#### A. Community Participation

Community participation in law enforcement is a multifaceted approach that involves the local community. Participatory research that engages the community has proven effective in developing crime prevention strategies tailored to the specific needs of the community ([Nubani et al., 2023](#)). Community participation is often enshrined in legal frameworks, aimed at ensuring that local communities have a voice in environmental decision-making processes. Public participation is an important element in environmental decision-making, as this involvement supports the government in addressing various environmental issues ([Akerboom & Craig, 2022](#)). Community participation in decision-making and regulation is manifested in the form of community representation in legislative members.

In addition to the process of forming legislation, public participation is also manifested in the implementation of regulations in everyday life. The right of community participation in environmental management is seen as an extension of the right to a good and healthy environment. Based on the results of discussions with local residents, that the community always participates in maintaining the cleanliness of coastal areas. The participation was carried out by consistently conducting beach clean-ups in the morning and/or evening. However, the waste cleaned up by the community ends up being piled up, thrown into the sea, or burned.

#### B. Legal Knowledge



Legal knowledge involves an understanding of laws, regulations, and legal principles that govern various aspects of society, business, and innovation processes ([Güneş-Peschke & Lutz-PESCHKE, 2020](#)). Legal knowledge is very important, especially in ensuring compliance with legal regulations ([Güneş-Peschke & Lutz-PESCHKE, 2020](#)). The increasing legal knowledge of the community regarding waste management is expected to enhance awareness and positive attitudes towards the cleanliness of coastal environments. Without adequate understanding of the legal and environmental impacts of their actions, many coastal communities are unaware of the long-term consequences of indiscriminate waste disposal practices. This is reflected in the low levels of legal knowledge, legal compliance, and legal participation among coastal communities ([Ndwiga et al., 2019](#)).

Legal knowledge is one of the important factors that can influence societal behavior ([Effendi & Ali, 2023](#)) in managing waste in their daily life. The importance of knowledge about existing regulations is expected to enhance awareness for waste management, as well as increase community involvement in waste management. With legal knowledge, it is hoped that community engagement in waste handling will be more feasible. The research results show that the majority of coastal residents are aware of regulations regarding waste. Furthermore, the residents are aware of what points are prohibited in relation to waste.

### C. Legal Compliance

Legal compliance means the actions of individuals or organizations that adhere to, understand, and follow the laws, regulations, and standards applicable to their operations and activities. Legal compliance is important because it relates to; preventing legal risks; enhancing trust and reputation; as well as reflecting commitment ([Widjaja, 2024](#)). The regulations governing issues related to waste are outlined in Law Number 18 of 2008 concerning Waste Management. This regulation addresses waste-related matters for the government, business actors, and the community. This law has classified types of waste: household waste, similar household waste, and specific waste. Waste management includes activities for waste reduction and waste handling, which consists of sorting, collecting, transporting, processing, and final disposal. In addition to regulating this matter, the law even imposes sanctions on violators who do not comply with these rules.

Residents typically comprehend the waste restrictions and concur with the bans. Nonetheless, the execution and supervision of these restrictions frequently remain inadequate, particularly in coastal regions. Despite their awareness of waste restrictions, certain community members persist in unlawful acts. Discarding refuse in the ocean and river estuaries and incinerating rubbish remains integral to the community's daily operations. Residents persist in non-compliant behaviours due to the challenges of accessing the necessary facilities to adhere to waste management legislation. Residents in coastal locations distant

from landfill sites experience irregular waste collection, and recycling services are absent. Consequently, the town confronts a stalemate, with no alternatives save to dispose of and incinerate rubbish in the sea.

Legal infrastructure, especially in areas with weak governance, can exacerbate compliance issues ([Carroll & Div, 2019](#)). The absence of infrastructure affects the community, which cannot adhere to current regulations. Consequently, the community is compelled to persist in behaviors that contravene legal statutes. According to waste management legislation, it is obligatory to dispose of waste at specified areas; yet, inhabitants encounter challenges accessing these sites, prompting many to dump rubbish into the sea or incinerate it. This condition has persisted for an extended period, leading to the habitual practice of incinerating or disposing of waste into the sea inside the neighbourhood..

The lack of oversight is also one of the reasons why waste management laws are not being followed. By burning and dumping waste into the sea, the community does not feel any sanctions against such actions. There is no perceived impact when violations occur, leading the community to continuously burn and dump waste into the sea. In order to enforce legal compliance regarding waste management, the Minister of Environment and Forestry Regulation Number P.56/MENLHK-SETJEN/2015 concerning the Procedures for Monitoring Waste Management has been established. This regulation is intended to govern the mechanisms of supervision and law enforcement. The goal is to ensure that the community adheres to the established regulations. Therefore, active community participation in the process of creating and implementing these regulations is essential to enhance compliance and the effectiveness of law enforcement ([Gusman & Syofyan, 2023](#)).

#### **IV. The Green Criminology Approach in Enhancing Awareness, Compliance, and Community Participation in Addressing Coastal Waste**

Criminology significantly advances the legal field by elucidating the profound effects of crime on criminal behaviour, particularly among white-collar offenders. ([Haugh, 2015](#)). Criminology is a field of study that encompasses the examination of crime, deviance, criminal behavior, and society's response to these phenomena, involving the exploration of various theories, criminal sanctions, and critiques of law enforcement ([Ascherio, 2022](#)). The transformation of criminology from a sub-discipline to an autonomous and modern field has yielded practical advancements across multiple societal sectors, including criminal justice policy, legislation, and the prediction of criminal behaviour through empirical metrics and scientific methods ([Hesselink & Herbig, 2009](#)). Criminology continues to evolve along with the passage of time. It has developed into a field that explores crime and deviant human behavior, combining psychoanalytic theory and moral development to understand criminal behavior ([Rani et al., 2022](#)). The next development is that the disciplines of Criminology and Criminal Justice have expanded their scope to encompass various issues related to crime ([Lucken, 2020](#)).

As time has progressed, one of the theories that has emerged in the development of

criminology is Green Criminology, developed by Michael J. Lynch in 1990, which focuses more on environmental harm and crime ([Laksono et al., 2021](#)). This theory introduces a new approach in the field of criminology, mainstream and criminal justice systems, where criminologists study how criminal justice institutions can be transformed to be more environmentally friendly (with a focus on green criminology). Additionally, this theory also encompasses the involvement of individuals in prison or on probation in efforts to support ecological justice ([Laksono et al., 2021](#)). Relevant to Lynch's perspective, White, a proponent of green criminology theory, explains that Green Criminology focuses on conceptualized destruction, namely the relationship between the environment, humans, and other living beings within an ecosystem ([David-Hardiago, 2021](#)). The perspective of green criminology not only reveals the extent of ecological damage but also encourages systemic changes in policy and law enforcement to better manage and reduce the effects that occur. This approach integrates an understanding of environmental justice with a criminological framework to propose more effective and sustainable solutions for addressing marine debris and protecting coastal environments ([Lynch, 2020](#)). Environmental crimes are often complex and diverse, involving various factors such as economic interests, political influence, and social dynamics. This complexity makes it difficult to analyze and address these issues effectively within the framework of criminology ([Sivadó, 2022](#)).

The intersection of legal knowledge, compliance, and participation from the perspective of green criminology involves understanding how legal frameworks and community engagement can promote environmental justice and adherence to environmental laws. Waste in coastal areas is a significant issue, especially for Indonesia, which is an archipelagic country. The accumulation of waste on the beaches not only affects the beauty and harms environmental health but also damages marine ecosystems and the well-being of the surrounding communities ([Goyes & South, 2017](#); [Westerhuis et al., 2013](#)). The perspective of Green Criminology seeks to examine environmental crimes from sociological and ecological viewpoints, highlighting that environmental crimes such as coastal waste dumping are often overlooked by traditional legal systems that focus more on common crimes ([Goyes & South, 2017](#); [Westerhuis et al., 2013](#)). This theory is fundamentally related to environmental justice, which seeks to address the injustices arising from environmental crimes, not only towards human victims but also recognizing non-human victims of environmental crimes ([Brisman & South, 2023](#)).

Green criminology, in its effort to achieve justice, focuses on the impact caused to the victims. Victims in green criminology encompass a wide spectrum of entities affected by environmental crime and harm, including victims. Green criminology acknowledges that biodiversity crimes harm non-human victims, such as animals, plants, and ecosystems, by disrupting ecological processes and services, leading to significant ecological consequences ([Salim et al., 2022](#); [van Uhm, 2024](#)). This approach emphasizes the need for the recognition of environmental rights as part of social justice, where the protection of biodiversity becomes the collective responsibility of the entire society. Thus, more just policies do not only consider the impact on humans but also on other living beings and the preservation of ecosystems.

The perspective of Green Criminology will certainly address the issue of coastal



waste through a holistic approach that integrates into social and ecological systems, emphasizing the interconnection between environmental hazards and human activities ([Tourangeau, 2022](#)). From a legal perspective, coastal waste management faces many issues, such as a lack of clear regulations and weak law enforcement ([Goyes & South, 2017](#); [Westerhuis et al., 2013](#)). One of the issues in managing coastal waste is the condition of the community, which is remote and has not yet met legal access. The low level of education and awareness among coastal residents can lead to environmental damage and non-compliance with conservation regulations ([Imadoeddin et al., 2022](#); [Yulianti & Goenadhi, 2016](#)). Added to the poverty and lack of access to resources, fishing communities often engage in informal economic activities and experience weak institutional support, which further exacerbates the conditions of legal non-compliance in coastal areas ([Imadoeddin et al., 2022](#); [Yulianti & Goenadhi, 2016](#)). Green criminology provides an important analytical framework for understanding the interaction between legal knowledge, legal compliance, and community participation in coastal areas, as well as its impact on waste disposal practices.

### **A. Community Participation**

The widespread use of plastic garbage in coastal areas has emerged as a critical global issue due to its substantial effects on ecosystems and public health. Green criminology provides a significant perspective for examining how community engagement can mitigate detrimental waste disposal methods. Community engagement in plastic trash management enhances environmental awareness and fosters collaboration among diverse stakeholders. Community-based initiatives can deliver sustainable and innovative solutions to mitigate plastic waste challenges in coastal regions by securing support from the local population.

Community participation is important for effective waste management; however, public awareness and compliance remain low, with many people still disposing of waste improperly, contributing to environmental issues ([Azhar et al., 2020](#)). Integrating coastal zone stakeholders into the decision-making process through multi-criteria decision analysis to select coastal defense measures tailored to socio-ecological systems ([Sauvé et al., 2022](#)). Generally, coastal areas do not have specific policies regarding waste management, for example in Tanjung Jabung Timur Regency, which results in challenges in implementation due to geographical obstacles and a hierarchical regulatory structure ([Sagala, 2024](#)).

Community involvement and legal awareness among coastal residents are crucial to ensure effective environmental management and reduce the practice of illegal waste disposal that harms coastal ecosystems ([Mardin et al., 2020](#)). Based on the results of observations and in-depth discussions with coastal communities in three districts, the coastal residents manage waste based on their habits. The habit practiced is collecting trash and then burning it. Another common practice is gathering waste (especially household waste) in plastic bags and disposing of it in the sea or river estuaries that lead to the ocean. Based on the discussion results, the community engages in the habits of burning and dumping waste into the sea with the aim of cleaning the beach. Visually, the coastal areas do appear

clean, but they are polluting the ocean with waste from the land ([Widayawati, 2011](#)).

## **B. Legal Knowledge**

The community fundamentally recognises that trash and permitting their surroundings to remain unclean is detrimental, which is why the coastal regions are consistently maintained in pristine condition. As previously described, the community's waste management techniques culminate in the incineration or marine disposal of waste, posing a risk of oceanic pollution. Coastal communities are anticipated to possess a restricted comprehension of the consequences of incinerating and disposing of waste in the ocean. This ignorance consequently results in the perpetuation of unlawful practices ([Craig & Thompson, 2020](#)). Understanding the community's relevant waste legislation is an anticipated solution. The green criminology perspective provides strategies to enhance public understanding. Educating the population through aid and legal counsel is crucial to mitigate the risk of waste in coastal regions. This outreach is crucial for all stakeholders, including the locals surrounding the beach, small vendors, and tourists to the coastal tourism hotspot. Furthermore, it is imperative to educate all coastal user stakeholders that a healthy environment is a fundamental right for all, as enshrined in the constitution. Access to justice for securing a sound and healthy environment is a fundamental right of every individual.

## **C. Community Participation**

Legal compliance can occur through various mechanisms, including instrumental (prudential) compliance, normative compliance, situational compliance, and compliance based on habits or routines ([Bottoms, 2019](#)). Based on the results of the observation, coastal communities tend to adhere more to laws based on customs. As time goes by, adherence to laws that align with customs can become a routine, where individuals tend to follow these laws automatically, especially if the customs have been long established and are deeply integrated into societal practices ([Bottoms, 2019](#)). Habits such as burning and/or throwing them into the sea have long been practiced, becoming a routine followed by the community. Habits are often ingrained behaviors that have been reinforced over time, making them an automatic response to certain cues or situations, which makes them difficult to change ([Bottoms, 2019](#)). People tend to find comfort in routines, making it somewhat difficult to change the habit of burning and dumping waste into the sea.

Following a focus group discussion, it was determined that the community's propensity to incinerate or dispose of waste in the sea is primarily due to its convenience. Disposing of rubbish in landfills results in accumulation due to the infrequent collection by garbage vans. Scavengers will not retrieve the accumulated refuse, as none are nearby. The location is remote from trash banks, landfills, and recycling facilities, rendering it economically unfeasible. Consequently, incineration and marine waste disposal have emerged as the

preferred solutions for coastal areas. Facilities impact legal adherence. The efficacy of environmental law is significantly affected by the institutional framework and governance attributes, wherein robust institutional support and resources are essential for enforcing rules and fostering environmental accountability ([Xin & Senin, 2022](#)). The facilities also need to comply with existing environmental laws ([Bingül & Altikat, 2020](#)). Developing countries face significant challenges in implementing environmental laws due to limited economic resources and governance structures ([Kalala, 2020](#)).

Efforts to reduce plastic waste in the seas of Indonesia require a combination of educational campaigns, economic incentives, strict regulations, and effective law enforcement mechanisms ([Hermawan, 2018](#)). Although there are comprehensive environmental laws, their implementation often fails ([Simmonds et al., 2020](#)). While environmental laws are crucial for protecting ecosystems, their success heavily relies on support from facilities and institutions. Based on the results of the research conducted, legal awareness can differ from compliance with the law. The community is aware that maintaining cleanliness is important, yet what is practiced can pollute the oceans.

Fundamental values, particularly justice, must be incorporated into legal decision-making regarding coastal refuse management. The law must safeguard the rights of coastal communities, which frequently become the victims of environmental contamination, to uphold the principle of justice. Not only coastal communities but the environment itself, which has been harmed due to human actions, must be treated with justice ([Wood-Donnelly, 2023](#)). The study indicates that societal behaviour is one of the primary concerns, as there is a distinction between legal awareness and legal compliance. Society is cognisant of the significance of complying with environmental regulations; however, their conduct does not necessarily correspond to actions that benefit the environment. This behaviour results from a lifelong process of adaptation to the current circumstances. The behaviour is influenced by a lack of information, a thorough understanding, and limited access to waste management facilities. Providing facilities and access is frequently how justice is achieved, as these components guarantee all individuals have equal opportunities and rights ([Genn & Moss, 2022](#)).

## V. Conclusion

Coastal regions are essential for sustaining communities and ecosystems; nevertheless, their viability is jeopardised by pollution, especially plastic garbage generated by human activity. This study demonstrates that legal awareness, adherence to regulations, and community engagement are critical elements in trash management within coastal regions. Coastal communities recognise the significance of cleanliness; nonetheless, illicit waste disposal methods, including incineration and marine dumping, persist due to insufficient infrastructure and limited access to proper waste management facilities. The green criminology method provides a pertinent perspective for

comprehending and tackling this issue, highlighting the significance of community engagement and cooperation among diverse stakeholders to improve knowledge and law adherence. Consequently, it is imperative to implement strategic measures encompassing education, stringent laws, and proactive community involvement in environmental management to guarantee the sustainability of coastal ecosystems and the community's quality of life.

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