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Assessing Devolution and Environmental Quality from Residents' Perspectives: A Case of Suna East, Migori County, Kenya

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Abstract

This study examined the influence of Professional Learning Communities (PLCs) on school leaders' job performance in public secondary schools in Ruhango District, Rwanda. Using a descriptive correlational design, the research involved 153 participants, including students, teachers, head teachers, and deans of studies from five schools in Kabagali and Bweramana sectors. Data were collected through structured questionnaires and focus group discussions and analyzed using both quantitative and qualitative methods. The findings revealed strong positive correlations between key PLC components shared leadership, collaboration, and focus on student learning and leadership performance indicators such as efficiency, productivity, and effectiveness. For example, collaboration showed the strongest predictive relationship ($\beta = 0.478$, $p < 0.001$), followed by a focus on student learning and shared leadership. Overall, PLC components accounted for 96.3% of the variance in school leaders' job performance ($R^2 = 0.963$). The study concludes that PLCs significantly enhance school leadership performance. However, barriers such as limited time and inadequate professional development hinder their full implementation. It is recommended that education policymakers and school leaders invest in expanding PLC structures, provide sufficient time for collaboration, and strengthen professional development to maximize leadership effectiveness.

Keys words: *Professional Learning Communities, Shared Leadership, Collaboration, School Leadership, Job Performance*

1. Introduction

Devolution has emerged globally as a key governance reform aimed at improving service delivery, strengthening local democracy, and promoting sustainable development. By transferring political, fiscal, and administrative powers from central to subnational governments, it offers the promise of more responsive and context-specific solutions to development challenges. In environmental governance, devolution is expected to enhance locally attuned management of natural resources, infrastructure, and waste systems (Mwangi & Ochieng, 2023; UN-Habitat, 2022).

In Kenya, the 2010 Constitution institutionalized devolution by establishing 47 county governments responsible for promoting equitable development and public service delivery. Among the anticipated benefits was improved environmental governance through decentralized planning, citizen engagement, and local accountability (Karanja et al., 2021). Devolved units are expected to legislate bylaws, oversee waste management, enforce land-use regulations, and mobilize local actors. However, the realization of these goals has been uneven. While some counties have registered gains, others report persistent or worsening environmental degradation due to weak institutional capacity, inadequate enforcement, and limited funding (Kamau & Njoroge, 2022).

Environmental quality in this study refers to the condition and management of key systems: waste disposal, air and water quality, biodiversity, soil integrity, and green spaces. Though proximity-based governance was expected to improve outcomes in these areas, institutional fragmentation, under-resourcing, and uncoordinated planning have hindered progress in many counties.

Suna East Sub-County in Migori County exemplifies these challenges. As a peri-urban area straddling rural and urban zones, it has experienced rapid population growth, infrastructural development, and expanding commercial activity since 2013. These transformations have exerted pressure on ecosystems, leading to unregulated solid waste disposal, deforestation, water pollution, soil erosion, and unplanned settlements (Kiptoo & Korir, 2021). Despite greater local control, the county government has struggled with limited institutional and technical capacity, politicized land allocation, and inadequate community engagement in planning (Mwaura & Mutua, 2022).

The study was anchored in Institutional Theory and Political Ecology. Institutional Theory helps explain how governance structures, rules, and capacity influence policy outcomes, particularly regarding coordination and accountability (Mwangi & Kariuki, 2022). Political Ecology highlights how power relations, marginalization, and socio-political dynamics shape access to resources and exposure to environmental risks (Kiprono et al., 2021). These frameworks allow a multidimensional analysis of environmental governance under devolution.

Similar complexities have been observed in other African cities. In Nairobi and Kisumu, public participation improved, yet weak enforcement and institutional fragmentation limited progress in green and waste infrastructure (Ochieng & Wambua, 2023). Mugisha et al. (2020) reported similar issues in Kampala and Mombasa, where decentralization failed to

address settlement expansion and environmental service deficits.

This study assessed how devolution has influenced environmental quality in Suna East by examining residents' perceptions and tracking changes in waste, pollution, biodiversity, and land use since 2013. Understanding community views is vital because residents are both affected by and responsive to environmental change. Their perceptions offer grounded insights into governance effectiveness, yet remain underrepresented in research. This mixed-methods study integrates local experiences with empirical analysis to provide a comprehensive view of environmental governance under devolution.

Research Methodology

This study employed a convergent parallel mixed-methods design**,** enabling the simultaneous collection of quantitative and qualitative data, which were analyzed separately and later integrated. This design was suitable as it captured both statistical trends and context-specific community insights on the environmental impacts of devolution, ensuring a holistic understanding (Adom, Hussein, & Agyem, 2020). Integration occurred during interpretation, where themes from qualitative analysis were compared with quantitative patterns to explain or validate findings.

The study was conducted in Suna East Sub-County, Migori County, a devolved unit comprising rural and peri-urban zones, farmlands, wetlands, forests, and expanding urban centres. The area was selected for its ecological sensitivity and visible land use changes post-devolution. While devolution was formally implemented in 2013, the study covered the 2008–2018 period to allow for a comparative analysis of environmental conditions before and after devolution. The pre-2013 baseline was essential for identifying governance-related shifts.

The target population included approximately 122,674 adults—household members, county officials, environmental officers, and local leaders. Eligibility criteria required participants to be at least 18 years old, permanent residents of Suna East for five or more years, and able to articulate informed views on environmental changes. Transient residents and individuals unable to give consent were excluded to ensure reliability and ethical standards.

Using Taro Yamane's formula (95% confidence level, 5% margin of error), a sample of 400 respondents was selected and proportionally stratified across the four wards—Thimjope , Kakrao, Kwa, and Suna Central. Simple random sampling followed within each stratum. A high response rate of 98.75% yielded 395 valid responses.

Additionally, 15 key informants were purposively selected based on expertise in environmental governance and institutional roles. The number was guided by the principle of data saturation, whereby interviews were discontinued once no new insights emerged. Eight FGDs (two per ward) were also conducted, each with 6–10 participants, including women, youth, elders, traders, and farmers, to reflect diverse community perspectives.

Structured questionnaires were used to collect quantitative data on perceptions of land use change, environmental quality, and governance. Semi-structured interview and FGD guides

captured qualitative narratives on institutional performance and lived environmental experiences. Data collection tools were administered in English, Kiswahili, or Dholuo, based on respondent preference.

Quantitative data were analysed using SPSS v25. Descriptive statistics summarized frequencies and percentages, while Chi-square tests examined associations between demographics and environmental perceptions. Qualitative data were transcribed, translated, and thematically analysed using Braun and Clarke's (2006) six-phase method. Results from both strands were triangulated to enhance validity and generate a multi-layered understanding of environmental governance under devolution.

Ethical approval was obtained from the institutional review board and NACOSTI. Informed consent was obtained, confidentiality maintained, and research conducted in accordance with ethical standards for social science research in Kenya.

Results and Discussion

4.1. Demographic Information

Out of 400 questionnaires, 395 were completed (98.75% response rate). Respondents were 57% male, 43% female, mostly aged 26–45, with farming as the main occupation (42%). Nearly 46% had lived in Suna East for over 20 years. A chi-square test ($\chi^2 = 14.38$, $p = 0.006$) revealed that long-term residents were more likely to perceive environmental decline. The youth-dominated population reflects a shifting socio-economic landscape, making younger residents key in assessing post-devolution changes in infrastructure, environmental quality, and governance.

4.2 Perceptions of Devolution's Environmental Impact

A significant majority of respondents (85%) perceived a decline in environmental quality following the implementation of devolution (Table 1).

Table 1: Residents' Perception of Environmental Change after Devolution

S/No	Responses	Frequency	%
1	Environmental Quality Changes Noticed	336	85
2	Environmental Quality Changes not noticed	51	13
3	Those who are not sure	8	2
	Total	395	100

Source: Primary data, 2025

While 85% reported worsening conditions, 13% noted no change, and 2% were unsure—highlighting awareness gaps likely linked to education, settlement type, or occupation. Chi-square analysis revealed a significant association between education and environmental awareness ($\chi^2 = 16.72$, $p = 0.002$), with higher education levels correlating with stronger perceptions of environmental decline.

FGDs and KIIs reinforced these perceptions. While they acknowledged gains in local services and infrastructure, concerns were raised over deforestation, urban sprawl, and

rising waste. Though pre-2013 data were limited, satellite imagery and anecdotal recollections corroborated deterioration. Similar trends were reported in devolved counties like Kisumu and Kakamega, where weak oversight persists (Wekesa & Onyango, 2023).

4.2.1 Waste Generation Patterns

Most respondents (78%) observed increased solid waste generation since devolution, attributed to population growth and infrastructure expansion (Table 2).

Table 2: Respondent Views on Changes in Waste Generation

S/No	Perception on Waste Generation	Frequency	Percentage (%)
1	Waste generation has increased	308	78
2	Waste generation has not increased	59	15
3	Not Sure	28	7
	T O T A L	395	100

Source: Primary data, 2025

Chi-square analysis showed a significant link between occupation and perception of waste increase ($\chi^2 = 12.61$, $p = 0.013$), with business owners more likely to observe the rise due to their proximity to markets.

4.2.2 Satisfaction with Waste Management Services

About 82% expressed dissatisfaction with county waste services due to irregular collection, limited coverage, and weak enforcement. FGDs attributed inefficiencies to inadequate budgets, political interference, and limited skilled personnel. Despite devolution's promise, implementation remains inconsistent—paralleling findings from Homa Bay (Otieno & Njeri, 2022).

4.2.3 Household Waste Disposal Practices

Most households dispose of waste informally. Open dumping dominates (63%), followed by rubbish pits (25%) and containers (12%) (Table 3). These practices reflect gaps in disposal infrastructure and civic education. In contrast, Nyeri has improved practices through civic engagement and public–private partnerships (Mwangi & Mutua, 2024).

Table 3: Household Waste Disposal Methods in Suna East

S/No	Methods of Waste Collection	Frequency	Percentage (%)
1	Open dumping	248	63
2	Rubbish pits	100	25
3	Waste containers	47	12
	T O T A L	395	100

Source: Primary data, 2025

4.2.4 Frequency of Waste Collection

Collection is infrequent and uneven. Only 10% reported weekly collection; 60% said monthly or less, and 30% said never (Table 4).

Table 4: Frequency of Waste Collection in Suna East

S/No	Frequency of Collection	Frequency	Percentage (%)
1	Frequent Collected (weekly)	40	10
2	Rarely Collected (More than 1 month)	237	60
3	Never Collected	118	30
	T OTAL	395	100

Source: Primary data, 2025

Chi-square tests revealed significant spatial disparities by ward ($\chi^2 = 19.33$, $p = 0.001$), echoing trends from Makueni (Kaluki & Wambua, 2023).

4.2.5 Methods of Final Waste Disposal

Final disposal is mostly informal. Landfills (60%) dominate, followed by burying/composting (20%), incineration (12%), and recycling (8%) (Table 5).

Table 5: Waste Disposal Methods Used by Residents

S/No	Method used	Frequency	Percentage (%)
1	Recycling	32	8
2	Burying/Compost	79	20
3	Incinerator	47	12
4	Landfills	237	60
	Total	**395**	**100**

Source: Primary data, 2025

FGDs blamed governance failures: underfunding, overlapping mandates, and poor monitoring, similar to Kisii (Anyango & Chege, 2023).

While devolution has expanded services in Suna East, it has intensified environmental challenges, especially in waste management. Informal disposal, service inequality, and low satisfaction persist. Effective governance requires decentralized ward-level waste committees, infrastructure investment, civic education, and strengthened enforcement. Integrating waste plans into county development frameworks can foster environmentally sustainable devolution.

4.3 Biodiversity Loss in Suna East

Biodiversity loss has emerged as a major environmental concern in Suna East, intensifying since devolution. Survey findings show that 68% of respondents noticed a decline in local flora and fauna. FGDs and KIIs linked this to land use and cover (LU/LC) changes driven by urban sprawl, population growth, and agricultural encroachment. A chi-square test revealed a statistically significant association between devolution and biodiversity loss ($\chi^2 = 17.83$, $p < 0.001$), confirming local observations.

Table 6 presents the primary drivers of biodiversity loss. Settlement expansion was cited most frequently (40%), followed by charcoal burning (20%), firewood collection (18%), timber harvesting (12%), and agricultural expansion (10%). Field visits confirmed extensive

vegetation clearance, particularly in riparian zones and peri-urban areas undergoing rapid development.

Table 6: Drivers of Biodiversity Loss in Suna East

S/No	Courses of Biodiversity Loss	Frequency	Percentage (%)
1	Settlement Expansion	158	40
2	Charcoal Burning	79	20
3	Fire wood Collection	71	18
4	Timber Harvesting	47	12
5	Agriculture expansion	40	10
6	Total	395	100

Source: Primary data, 2025

FGDs described the disappearance of medicinal plants, wild fruits, and birds. One elder stated, “As more land is cleared for houses and farms, the animals vanish and so do the trees that provided medicine.” KIIs attributed this trend to unregulated development, inadequate land-use planning, and political interference in land allocation.

Although devolution aimed to localize service delivery, it inadvertently intensified ecological degradation. County governments inherited environmental mandates without sufficient institutional capacity or technical know-how, marginalizing biodiversity concerns. This aligns with findings from Kisumu and Nakuru, where weak governance has accelerated habitat loss (Bokea et al., 2021; Mbatia & Njeru, 2023).

The socio-economic impacts are particularly acute for forest-dependent households. Women, in particular, now walk longer distances for firewood, increasing their labour burden and exposure to hazards. Agricultural officers noted declines in pollinators, negatively affecting food production and ecosystem stability.

This trend reflects a broader national pattern. In Narok, Kakamega, and Taita Taveta, similar biodiversity declines have followed devolved infrastructure projects that lacked ecological safeguards (Waweru & Otieno, 2022). These losses threaten ecosystem services vital to climate resilience, food security, and water regulation.

Policy responses must prioritize integration of biodiversity into county spatial plans. Environmental impact assessments should be rigorously enforced, and land-use zoning must reflect ecological sensitivity. Localized conservation efforts—such as regulated harvesting, community monitoring, and reforestation—should be scaled up. Capacity building for county environmental officers and collaboration with agencies like KWS and Kenya Forest Service are essential.

In sum, devolution in Suna East has exposed critical governance gaps in biodiversity protection. Without reform, ongoing ecological degradation will continue to undermine the region’s resilience and sustainability.

4.4 Air Pollution in Suna East

Air pollution has become an escalating environmental challenge in Suna East, particularly in

fast-growing urban centres such as Migori Town and its peri-urban environs. Survey data revealed that 74% of respondents observed a decline in air quality over the past decade. Inferential analysis through cross-tabulations established a statistically significant relationship between urban expansion and perceived deterioration of air quality ($\chi^2 = 13.61$, $p = 0.004$), suggesting that increased built-up areas correlate with higher exposure to air pollutants.

Qualitative data from focus group discussions (FGDs) reinforced these findings. Residents identified open burning of solid waste, traffic congestion, emissions from boda-bodas and matatus, and artisanal brick kilns as the dominant sources of air pollution. One FGD participant lamented: *"Smoke from burning garbage mixes with dust from motorcycles and lorries, especially during market days—breathing becomes a problem."* This experiential evidence highlights the daily health and environmental burden borne by communities due to poor air quality.

Despite the promise of devolution to enhance environmental responsiveness, the findings suggest weak enforcement of zoning regulations and emission controls under the current county planning framework. Key informants noted that devolved environmental governance remains poorly resourced, with limited technical capacity to implement air quality monitoring or enforce pollution standards. Inconsistent land use planning has further exacerbated the proximity of polluting activities to residential zones, intensifying exposure risks.

These trends are not isolated. A comparative study by Muthama et al. (2023) in Kisumu and Eldoret observed similar post-devolution air quality deterioration, linked to weak institutional coordination and rapid, unregulated urbanization. The parallels reinforce the need for systemic reforms across devolved units.

To mitigate worsening air pollution, the study recommends stricter zoning enforcement, integration of air quality monitoring in county spatial plans, and cross-agency collaboration with national environmental regulators.

4.5 Perceptions on Water Pollution and Availability

Table 7: Sources of Water Pollution in Suna East

S/No	Sources of Air Pollution	Frequency	Percentage (%)
1	Domestic sewage	170	43
2	Improperly disposed solid waste	87	22
3	Agricultural runoff	71	18
4	Industrial Wastes	40	10
5	Other Sources	27	7
	Total	395	100

Source: Primary data, 2025

Water pollution and availability have emerged as critical environmental concerns in Suna East. A majority (62%) of respondents perceived that water quality had declined significantly since the onset of devolution. Statistical analysis using the chi-square test revealed a significant relationship between ward of residence and perceived water quality deterioration

(χ^2 = 17.56, p = 0.001), suggesting spatial disparities in water pollution, with urban wards more affected.

Domestic sewage emerged as the dominant pollutant (43%), particularly in informal settlements without sewerage infrastructure. FGDs highlighted frequent contamination of rivers and shallow wells, especially during the rainy season, when poorly managed wastewater mixes with stormwater and floods residential areas. One participant explained, *"Whenever it rains, the sewage overflows into the river. Sometimes children play near it and get sick."*

Field observations along the Migori and Ongoche rivers confirmed the presence of visible pollutants such as faecal matter, plastics, and industrial runoff. In agricultural areas, pesticide and fertiliser runoff were observed flowing directly into water bodies. KIIs with local health officials reported rising cases of waterborne diseases such as cholera, typhoid, and diarrhoea, with the most affected being children under five.

This situation mirrors findings by Kimani-Murage et al. (2021), who noted increased child morbidity and poor water outcomes in devolved peri-urban settings due to inadequate environmental controls. The devolution of water governance in Kenya, though well-intentioned, has not been matched by investments in infrastructure or enforcement, particularly in rapidly urbanising zones like Suna East.

To address the growing water crisis in Suna East, a strategic framework for water quality and sanitation is essential. Key priorities include expanding sewerage networks, constructing treatment plants, and enforcing agrochemical regulations alongside riparian buffer zones. Public health campaigns on water safety and conservation are vital to increase awareness. Integrating environmental health officers into ward-level planning will help align water governance with local needs. While devolution allows for tailored responses, its success depends on coordinated planning, adequate investment, and robust enforcement.

4.6 Perceptions of Land Degradation

Table 8: Sources of Land Degradation in Suna East

S/No	Sources of Air Pollution	Frequency	Percentage (%)
1	Deforestation	126	32
2	Chemicals and Pesticides	111	28
3	Soil Erosion	79	20
4	Overgrazing	47	12
5	Others	32	8
	Total	395	100

Source: Primary data, 2025

Since the introduction of devolution, land degradation—primarily through deforestation, soil erosion, and chemical misuse—has become a major environmental issue in Suna East. Nearly half (48%) of respondents believed that devolution had intensified land degradation. This reflects concerns raised in broader literature, where Chhatre and Agrawal (2014) argue

that without strong institutional safeguards, decentralized governance can lead to unchecked resource exploitation.

Deforestation (32%) emerged as the most cited contributor to degradation, mainly due to land clearing for agriculture and settlement. FGDs confirmed this, with participants reporting visible forest loss and rising gully erosion. Chemical misuse (28%), particularly fertilizers and pesticides, followed closely. KIIs with agricultural officers confirmed nutrient depletion and declining soil quality. These findings are consistent with Sulaiman and Fikadu (2023), who warned that excessive agrochemical use undermines soil fertility and food security.

Soil erosion (20%) was linked to deforested areas lacking vegetative cover, while overgrazing (12%) in drier zones worsened the problem through compaction and ground cover loss. “Other” causes (8%)—including sand harvesting, brickmaking, and roadworks—highlighted the multifaceted nature of degradation, extending beyond formal land uses.

While causal links cannot be definitively drawn without baseline data, triangulated evidence suggests that devolution has structurally enabled land use change. Weak interdepartmental coordination, limited environmental enforcement, and political land allocations have undermined conservation. Similar trends have been reported in Kisii and Kakamega counties (Nyakundi & Churi, 2022).

To mitigate degradation, the study recommends integrated land management approaches that promote reforestation, agroecological methods, soil conservation, and community stewardship. Strengthening local institutions and enhancing environmental awareness are essential to sustaining ecosystem services and rural livelihoods.

4.7 Perceptions on Slum Development and Housing Challenges

The expansion of informal settlements in Suna East has intensified under devolution. Survey results indicate that 62% of respondents currently reside in informal settlements, with 74% attributing this to a lack of affordable housing. Focus group discussions linked this trend to rural-urban migration driven by expectations of improved economic and service opportunities through devolution.

However, many of these settlements face deteriorating infrastructure, insecure tenure, and inadequate services. Over half of surveyed households (58%) reported waterborne illnesses like cholera and dysentery, while others cited respiratory and skin conditions due to overcrowding and poor sanitation. These results mirror findings by Mwangangi and Kinyua (2022), who documented similar health and housing challenges in Nairobi’s informal settlements, citing weak regulation and underinvestment.

Despite increased fiscal decentralization, informal settlements remain under-prioritized. Onyango et al. (2021) noted that political influence and limited planning capacity undermine housing equity, even where devolution boosts local resource flows. In Suna East, KIIs with planners revealed that road and market infrastructure often receive priority over inclusive housing. This marginalization perpetuates slum growth at the urban fringes. Interestingly, 9% of respondents believed slum growth had minimal health impact—suggesting gaps in

health risk awareness and environmental education.

Addressing informal settlement challenges requires shifting from slum clearance to inclusive, community-driven urban development. County authorities should invest in basic infrastructure—especially water, sanitation, and solid waste systems—within existing settlements. Public-private partnerships and community-led planning initiatives can enhance the supply of affordable, climate-resilient housing. Additionally, participatory planning frameworks are essential to ensure that the urban poor are not just beneficiaries but active agents in shaping their neighbourhoods. This integrated approach will better align devolved governance with social equity and sustainable urbanization goals.

4.8 Perceptions on Urban Heat Island Effect in Suna East

Survey results revealed that 69% of respondents had noticed increased evening temperatures in Suna East, attributed to the Urban Heat Island (UHI) effect. This trend, especially in Migori town, was linked by FGDs and KIIs to rapid conversion of green spaces into buildings and paved surfaces. Although the County Integrated Development Plan includes green infrastructure, weak implementation due to financial and institutional limitations has hindered impact.

The consequences of UHI extend beyond heat. About 42% of households reported health issues like dehydration, fatigue, and respiratory complications. Energy demand has increased as more residents turn to fans and air conditioning, contributing to further emissions. These burdens fall disproportionately on the elderly, children, and poorer households who have fewer coping resources.

These findings align with Matsuoka and Kaplan (2021), who stress the role of urban greenery in reducing urban temperatures, and Robinson and Bell (2023), who argue that poorly regulated urban expansion in developing countries worsens vulnerability to climate extremes.

Interestingly, 12% of respondents did not perceive significant temperature changes, suggesting variations in environmental awareness or differing adaptation thresholds. This points to the need for enhanced community climate education.

To address the UHI effect, Suna East should adopt climate-sensitive urban planning. Green infrastructure—such as public parks, green roofs, and vertical gardens—must be prioritized in policy and practice. Building regulations should mandate the use of heat-reflective and permeable materials. The county's Environment Department must be strengthened to monitor microclimatic changes and enforce zoning codes. Priority should be given to highly exposed areas through community-informed heat mapping.

While devolution has accelerated urban growth, it has also revealed governance gaps. Stronger planning, institutional support, and citizen participation are essential to foster climate-resilient urban systems.

5. Conclusion & Recommendations

5.1 Conclusion

This study assessed the environmental implications of devolution in Suna East, revealing that increased local engagement has not translated into improved environmental quality. It confirms that devolution alone does not lead to better environmental outcomes, as evidenced by persistent challenges in waste management, pollution, and biodiversity loss. Statistical analyses demonstrated significant associations between governance practices and environmental conditions, highlighting the impact of weak institutional capacity, fragmented coordination, and unchecked urban growth. A key contribution of this study is its context-specific examination of how proximity to decision-making power can reinforce, rather than remedy, structural inefficiencies when institutions are underdeveloped. These findings offer new empirical insights into the conditions under which decentralized governance may fall short, and underscore the need for robust institutional frameworks and integrated approaches to achieve meaningful environmental improvements in devolved contexts.

5.2 Recommendations

Strengthening institutional capacity at county and ward levels is essential for enhancing environmental outcomes under devolution. This requires targeted investment in skilled personnel, regulatory enforcement mechanisms, and adequate financing. Waste management should be modernized using community-based collection systems, recycling incentives, and enforceable bylaws aligned with urban realities. Land use planning must adopt risk-informed, data-driven strategies that integrate environmental safeguards. Inclusive participation should be formalized through structured engagement with civil society and digital reporting platforms. These recommendations are grounded in the study's findings and provide actionable pathways for improving environmental quality in devolved settings, particularly those facing rapid urbanization and governance constraints.

5.3 Implications of the Study

The study highlights that decentralization, without corresponding investment in capacity and coordination, risks replicating central-level inefficiencies at the local level. It demonstrates that institutional strength, inclusive governance, and spatially integrated planning are critical for translating devolved authority into positive environmental outcomes. The findings provide a basis for comparative analyses across counties and support policy refinement at national level to align devolved mandates with implementation capabilities.

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