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Research Article

The Effect of Land Cover Protection on Preventing Crime: The Case Study of the State of New York, USA

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The settlements' traditional character and architectural texture will strengthen people's sense of belonging and prevent migration, while local urban identity will be the most significant impediment to crime. The study investigates the relationship between the environmental and criminal conditions in New York, the world's most diverse demographic. In New York, not every county has the same settlement or vegetation homogeneity level. To avoid the immigrant factor, the location where the offenders committed the crime was considered; crime data were statistically analyzed to assess the vegetation-crime relationship. With an interdisciplinary approach, the research also draws attention to the mean-world syndrome regarding crime and urbanization in the current cultural environment in the context of the media-violence relationship. Under the crime index category, the crimes committed were divided into major groups, and statistical analyses were performed on all the groups. The study also touches on proactive policing used in the United States. According to our findings, the keyword of sustainable development, equity, has been successfully realized in the United States. As a result, the classic scenario of income distribution disparities in the state driving citizens to crime does not apply to New York.

1. Introduction

As violence and crime are ingrained in the fusion of all civilizations, the necessity of public security and its associated topics as a police approach has a worldwide function for society. Timely and effective criminal justice programs are required. Hence, there is a steep increase in criminal studies. According to the bibliometric research undertaken by Basilio et al. [1], 3,361 writers generated 2,085 papers about crime between January 1, 1932, and September 3, 2020. Cunningham and Rochester [2] discussed the relevance of radio patrol in the police force in the city of New York in their first published research, which was published in 1933. When analyzing the police's approach to law enforcement circumstances, the second observed that various police agencies have varied policing ideologies and defined different styles of policing [3]. The milestone of 150 publications was attained in 2019, indicating that the academy is interested in the topic. Over time, crime publications increased at a 5.10 annual percentage rate [1]. The United States has the most contributions, with 888 published papers accounting for 42.58% of all articles published on the issue of police and related themes.

Regarding overall citations, papers generated by American scholars account for 55% of the total citations. There were 421 citations for the article "What can police do to reduce crime, disorder, and fear?" [4]. "The effects of hot spots policing on crime: an updated systematic review and meta-analysis" [5] and "Zero tolerance: a case study of police policies and practices in New York City" [6] are the two other most cited studies that deal with policing practices to reduce crime.

According to the United Nations Guidelines for the Prevention of Crime Resolution [7], crime prevention techniques and initiatives are classified into four broad categories [8]: first, social development and social crime prevention through social, economic, health, and educational initiatives; second, local crime prevention via communities and organizations; third, environmental design is used to prevent situational crime; and finally, there are reintegration programs for kids, inmates, and individuals who eventually return to the community.

Safe and secure urban architecture, institutional crime prevention (including local governments and police), alternative forms of justice, and a focus on social crime prevention are all examples of effective crime prevention [9]. According to the international research, good crime prevention projects can help communities create social cohesion and collaborate to enhance their quality of life [10]. Criminal justice cooperation, social considerations, preventive media assistance, landscaping initiatives, forestation and greening efforts, and some effective proactive police techniques, including community policing, should all be addressed.

Everyone should have a life with almost the same conditions due to equity, the most crucial element of sustainable development. Citizens ought not to be forced to live under various environmental conditions. People must belong to their living areas to form an urban identity. The way to do this is to create a whole soul with small pieces from each individual's identity. The unstable environment and unplanned cities negatively affecting human psychology have become the most significant problem. Unfortunately, people had to replace their living culture with the chaotic and depressive culture of the new urban types they settled in.

There is a prejudicial approach that exists in many countries in the world. Such as, the more pollution a country has, it is involved in more crime [11]. Anonymous architecture, lost green texture, dense population, and a sense of loneliness brought about by the apartment culture offer people a difficult life psychologically [12, 13]. New York State is the most cosmopolitan and densely populated region of the United States. Due to its appeal, New York is experiencing rapid population growth and housing deprivation. People have immigrated to the United States for the American Dream. Due to the diversity in its demographic structure, this study for New York is expected to represent the entirety of America. Population, crime, and spatial data for New York State were recruited from the Division of Criminal Justice Services [14].

In a previous study, the city's districts were dealt with for Istanbul, and no linear relationship between population density and crime was identified [15]. Likewise, there has been no significant relationship between population density and potential crime in other research studies in Berlin [16]. On the other hand, in this study on New York Counties, it was noticed that population density had a linear relationship with the number of crimes that occurred. City districts have become crime centers independent of the population. Considering New York's state, proactive policing is the proper methodology to reduce crime in dense settlements

that have already lost their urban identity [17, 18]. Proactive policing, a bias-based method [19], is an approach that protects innocent people trapped in cities with lost urban identity from the likelihood of being harmed. Protecting citizenship rights and ensuring their security should be the priority of local and central administrations; the silent majority prefers to live respectfully and follow the rules. A linear relationship between the population and crime proves that more accurate urban planning will dilute crime intensity. Troy et al. [20] examined the interaction between environmental patterns and criminal intent. Using statistical techniques, they discovered a connection between tree canopy, theft, and firearm violence in Baltimore, Maryland. Study results showed a clear inverse relationship between the frequency of particular forms of crime and the density of trees or canopies in the forest.

Wolfe and Mennis [21] presented research containing two different vegetation results regarding the crime rate in Philadelphia, USA. Possible security effects promoting or suppressing the crime rate due to vegetation were revealed. According to some studies in literature, green areas are desirable for crime [22–26]. The violence occurring in the forested areas of the university campuses was addressed by Nasar and Fisher [27]. Of course, it is wrong to have prejudices against this problem-based vegetation because statistics are more important than people think. For example, most people perceive the aircraft as unsafe and fear boarding it. However, the plane is statistically the most reliable means of transportation [28, 29]. So, while city plans are being made, the scientific approach should be kept in the foreground instead of stakeholders' prejudices.

Glistad-Hayden et al. [30], in New Haven, Connecticut, USA, prepared a report on the potential for crime reduction. The findings of this research also endorse the results of the studies in other United States cities, such as Baltimore, Chicago, New York, Philadelphia, and Portland [20, 21, 31–34]. For example, a 10% rise in the tree canopy in New Haven was estimated to lower the severe crime rate by 15% and property crime by 14%. Moreover, efficient and effective landscaping ensures further street eyes, providing more power over people who think wrongly and suspiciously.

The relationship between urban socio-vegetation and crime often depends on socioeconomic factors and life quality [15]. This situation is outside the principle of sustainable development. Therefore, it is to give priority to suburban areas considering environmental policies. According to Erjavec [35], factors that encourage more crimes daily include the unequal income distribution in today's society, the economic downturn, the encouraging effects of numerous media reports and broadcasts, and the traditional structure of honor killings. A commercial media system also feeds on violence, stereotyping, and the promotion of worry in the age of media convergence. Numerous studies have demonstrated that frequent exposure to violent media increases feelings of uneasiness. George Gerbner did the longest-running investigation of violence on television. His groundbreaking study indicates that people who watch much TV tend to interpret the world in ways congruent with

the visuals on TV [36]. As a result, viewers become increasingly nervous and afraid as their impressions of the earth match those on television. Gerbner called this the mean world syndrome.

Violence is a complex cultural and environmental impact that should not be ignored. Remember that a residential area's refined texture should have spacious vegetation and a planned residential system. In the studies, it has been revealed that in addition to intense urbanization with the weakness of vegetation, soulless buildings trigger a psychologically depressed city life. Moreover, these studies produced similar results regardless of the development level of the countries. Statistical research findings on a state-based basis show a negative correlation between vegetation and crime rate. Compared to previous studies cited in this study, new findings regarding the relationship between crime probability and population density exist. This situation increases the originality value of the study. Therefore, the state of New York is a convenient research area for this study (see Figure 1). The study results show that even if the proactive policy is biased, its implementation in America is a realistic and necessary security approach. Working in this way is expected to be an example of the studies for other cities worldwide.

2. Methodology

Green spaces form the basis of urban landscape planning, which includes the part of urban planning. In addition to the well-known benefits of green fields, positive effects on human psychology are a scientific fact emphasized in our century [37–39]. Recent research studies prove that people living in cities with dense green spaces tend to have less aggression and violent tendencies than in places with inadequate green spaces [40, 41]. This study used New York State's satellite image to determine the current green area status. Besides, each county's crime statistics 2018 was obtained from the New York State Division of Criminal Justice Services [14]. Crime statistics were compiled into two groups: violent and property crimes. These two types of felony crimes were altogether mentioned as Index crimes. Whether county land area, population, and population density positively or negatively affect crime rates was investigated. For this purpose, regression analysis was used, and a correlation matrix was created using population and crime variables. Population rates and crime statistics for 2018 were tabulated.

New York State has 62 Counties, and some are known to be safer [42]. Crime figures were analyzed statistically for each crime group and divided into three main groups: high, low, and moderate, between 25 and 75 quartile. A color index for each crime level is indicated in Table 1. Accordingly, high, moderate, and low crimes are highlighted in red, yellow, and blue. Counties marked with an asterisk (*) are counties in the New York City.

Figure 2 displays the satellite map showing the land covers of the New York State counties. In this satellite map, both green and barren areas can be seen. Areas of lost green texture are due to inadequate urban planning, loss of urban
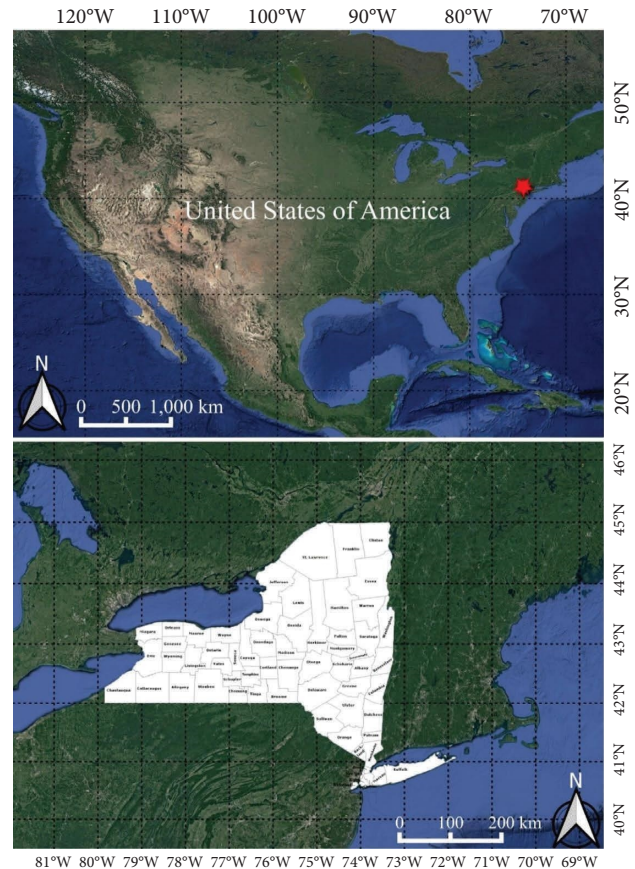

FIGURE 1: Geographical coordinates of the research area and counties of the New York State.

identity in terms of architecture, flawed and unsupervised policies on urbanization, and lack of environmental awareness. Figure 3 indicates each county of the New York State's population density distribution per kilometer square. When Figures 2 and 3 are considered together, it can be observed that population density and green area loss are directly proportional.

The regression analysis demonstrates the relationship between a single dependent variable and one or more separate variables through a mathematical equation. For example, the dependent variable in this research is the crime rate. However, population, the area in kilometers square, and population density for each county are the independent variables. The determination coefficient indicates how strong the R^2 symbol suggests the relationship between dependent and independent variables. For example, if the determination coefficient is close to 1, a close relationship exists between dependent and independent variables.

Another key approach to minimizing crime is leveraging the media's direct influence and deploying proactive policing strategies. The media shape the public's perception of crime [45]. The "inner city" and city-perimeter settlements have become significant targets for media reporting on crime. According to Danilo Yanich [46], news media portrays an "urban-suburban dimension of crime" in which the metropolis is hazardous. The police officers' proactivity in

TABLE 1: New York State counties' population and crime data for 2018 [14].

County	2018 population	Total area (km²)	Population density (capita/km²)	Index crime count	Violent crime count	Property crime count
Albany	304,591	1,380	221	8,361	1,109	7,252
Allegany	45,732	2,678	17	457	75	382
Bronx*	1,454,179	149	9,760	35,355	12,514	22,841
Broome	189,067	1,852	102	5,137	603	4,534
Cattaraugus	73,692	3,393	22	1,087	122	965
Cayuga	75,834	2,238	34	1,236	196	1,040
Chautauqua	125,852	3,885	32	2,652	358	2,294
Chemung	83,485	1,064	78	1,438	134	1,304
Chenango	46,622	2,328	20	707	86	621
Clinton	79,308	2,896	27	1,159	174	985
Columbia	59,135	1,678	35	890	102	788
Cortland	46,686	1,300	36	775	58	717
Delaware	42,999	3,802	11	583	75	508
Dutchess	289,726	2,137	136	3,638	535	3,103
Erie	909,076	3,178	286	22,901	3,529	19,372
Essex	35,542	4,962	7	293	52	241
Franklin	50,085	4,395	11	518	71	447
Fulton	52,525	1,380	38	944	145	799
Genesee	56,476	1,282	44	944	128	816
Greene	46,351	1,704	27	606	114	492
Hamilton	4,352	4,683	1	46	3	43
Herkimer	60,769	3,776	16	643	72	571
Jefferson	111,731	4,810	23	2,003	254	1,749
Kings*	2,618,198	251	10,431	50,106	14,384	35,722
Lewis	25,983	3,341	8	207	32	175
Livingston	62,404	1,658	38	633	58	575
Madison	69,296	1,715	40	940	134	806
Monroe	734,020	3,538	207	16,874	2,270	14,604
Montgomery	48,191	1,062	45	716	79	637
Nassau	1,347,772	1,173	1,149	13,363	1,504	11,859
New York*	1,645,512	87	18,914	49,830	8,951	40,879
Niagara	206,655	2,953	70	4,261	603	3,658
Oneida	226,517	3,142	72	4,645	645	4,000
Onondaga	456,375	2,088	219	9,942	1,371	8,571
Ontario	108,085	1,715	63	1,459	130	1,329
Orange	376,306	2,173	173	5,928	787	5,141
Orleans	39,962	2,116	19	596	64	532
Oswego	115,754	3,398	34	2,031	188	1,843
Otsego	58,672	2,598	23	719	95	624
Putnam	97,414	637	153	502	54	448
Queens*	2,331,358	462	5,046	33,135	8,856	24,279
Rensselaer	156,780	1,722	91	3,093	388	2,705
Richmond*	473,924	265	1,788	5,738	1,408	4,330
Rockland	325,061	515	631	3,048	353	2,695
St Lawrence	107,265	7,306	15	1,398	151	1,247
Saratoga	226,965	2,186	104	2,607	232	2,375
Schenectady	152,748	544	281	4,611	715	3,896
Schoharie	30,657	1,621	19	320	27	293
Schuyler	17,619	886	20	60	15	45
Seneca	33,746	846	40	458	47	411
Steuben	94,101	3,636	26	1,040	159	881
Suffolk	1,464,741	6,146	238	18,945	1,510	17,435
Sullivan	73,794	2,582	29	1,198	195	1,003
Tioga	47,336	1,355	35	395	43	352
Tompkins	103,272	1,233	84	1,896	155	1,741
Ulster	175,637	3,007	58	2,258	283	1,975
Warren	63,165	2,253	28	952	96	856
Washington	60,229	2,191	27	426	73	353
Wayne	88,547	3,585	25	1,468	171	1,297

| | | | | TABLE 1: Continued. | | |
County	2018 population	Total area (km²)	Population density (capita/km²)	Index crime count	Violent crime count	Property crime count
Westchester	966,057	1,295	746	9,849	1,689	8,160
Wyoming	39,510	1,544	26	333	63	270
Yates	24,430	974	25	245	17	228
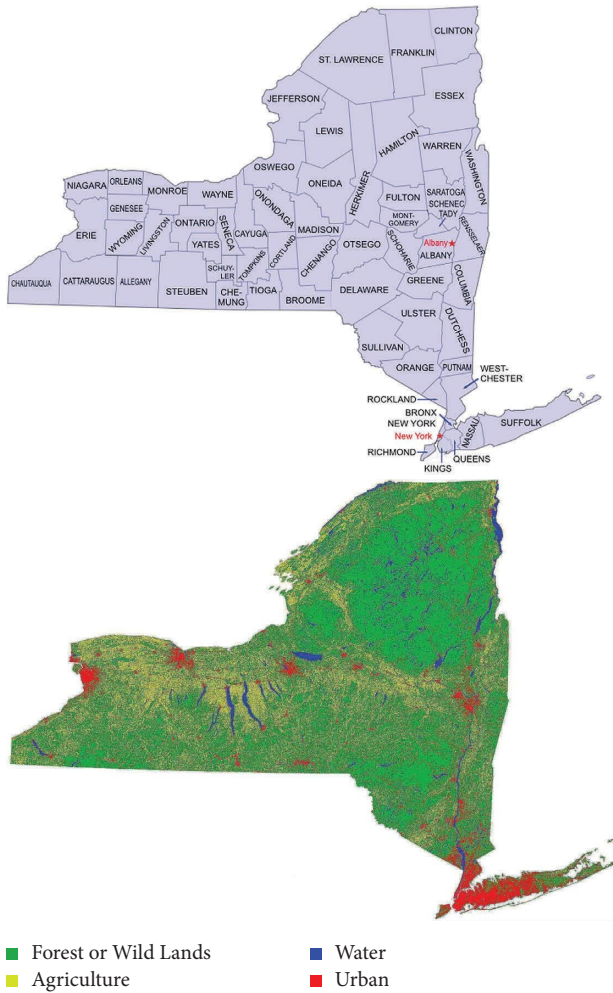
FIGURE 2: Land cover categories of the New York State counties in 2016 [43, 44].

- Forest or Wild Lands
- Agriculture
- Water
- Urban

Population Density (Capita/km2)

FIGURE 3: Population densities of the New York State counties in 2018.

their response to crime means not just responding to citizen calls. Instead, it means that the police decide to do something often about crime, trying to construct approaches to solve the crime or other related issues successfully [47, 48]. Figure 4 outlines the study technique in the form of a chart that clarifies the outcomes of the processes, including urban greening, media effect, and proactive policing.

3. Findings

The results derived through the regression analysis revealed a statistically significant and robust linear association between crime rate and population density.
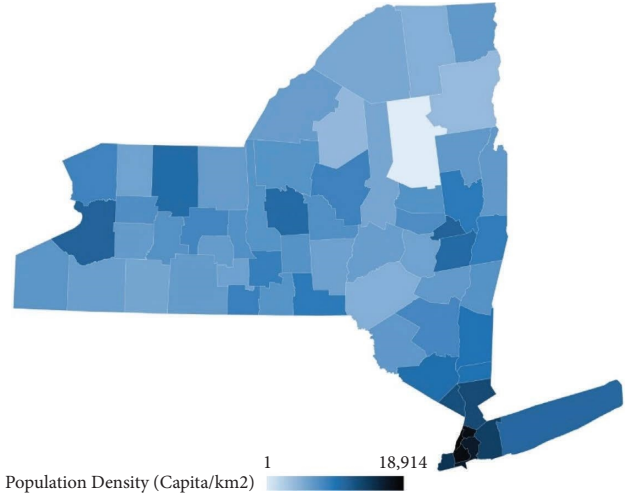
Evidence of this relationship is that the determination value coefficient is too high (see Figure 5). However, this study in the New York State, USA, revealed that, unlike previous studies in Istanbul and Berlin [15, 16], there was a strong relationship between crime rate and total population and residential area (see Figures 6 and 7). Table 2 shows that the crime intensity is higher in the New York City than in the New York State. This situation indicates that the total area of the counties is inversely proportional to the frequency of the crime that occurred in the New York State. Table 3 gives crime statistics about the five New York City counties, which are Bronx County (The Bronx), Kings County (Brooklyn), New York County (Manhattan), Queens County (Queens), and Richmond County (Staten Island).

Table 4 shows the correlation matrix to identify the impacts within the population and crime statistics along with the spatial variables. Analysis result indicates that the people of the New York State have a mass settlement, as seen from the correlation between the 2018 population and the total area in km². The correlation between the crime counts and the county area indicates that the probability of crime is high in mass settlements. The correlation between violent and property crimes, as also the property crime rate and the population, gives a clue about the psychological behaviour of the criminals in the New York State. Criminals attempt property crimes in less settled, few neighbourhoods, such as quiet places [49, 50]. On the other hand, violent crimes mainly occur in mass settlements [51, 52].
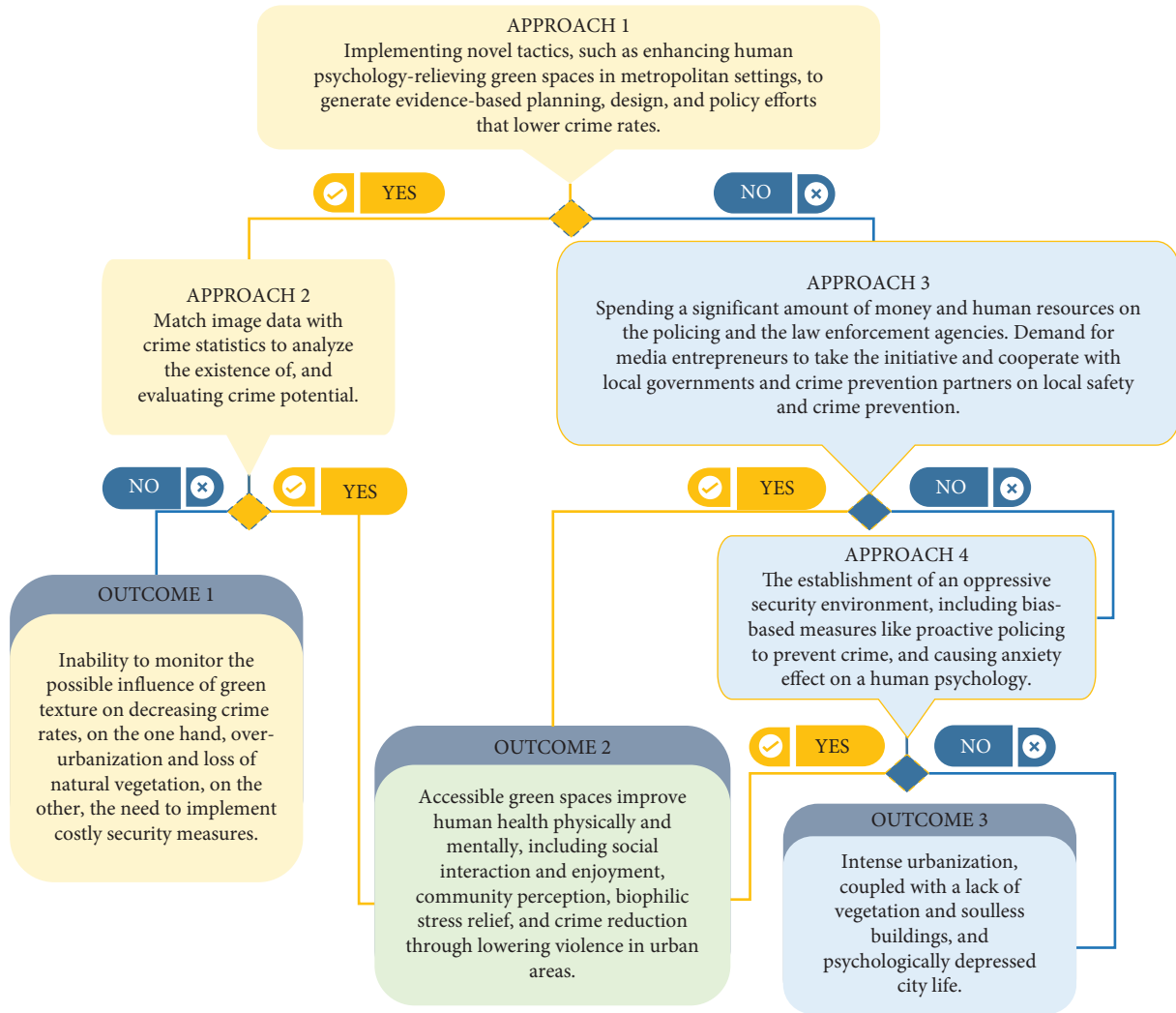
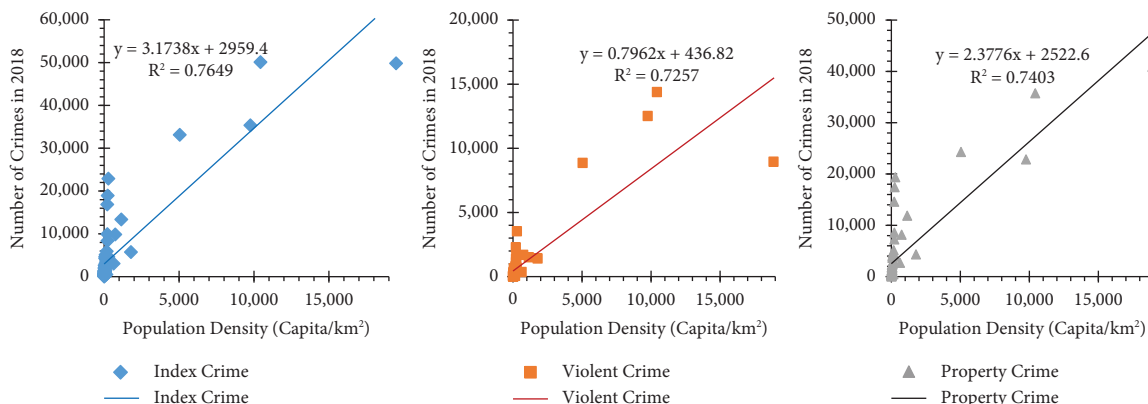FIGURE 4: A synopsis of the research methods.

FIGURE 5: Statistical relation between the population density of each county and three crime groups: index, violent, and property crimes.

If statistical information about the crimes committed in New York State counties is considered, it is possible to specify the intensity in the three groups. For this purpose, box-plot diagrams were used and defined as moderate for the 25th–75th quartile, high for the upper part, and low crime for the lower leg. This categorization process, applied numerically to compare counties regarding security, is entirely meaningful (see Figure 8); three groups of crime intensities for each county are depicted in Figure 9. Red color stands for high crime according to the potential of the crime. Yellow
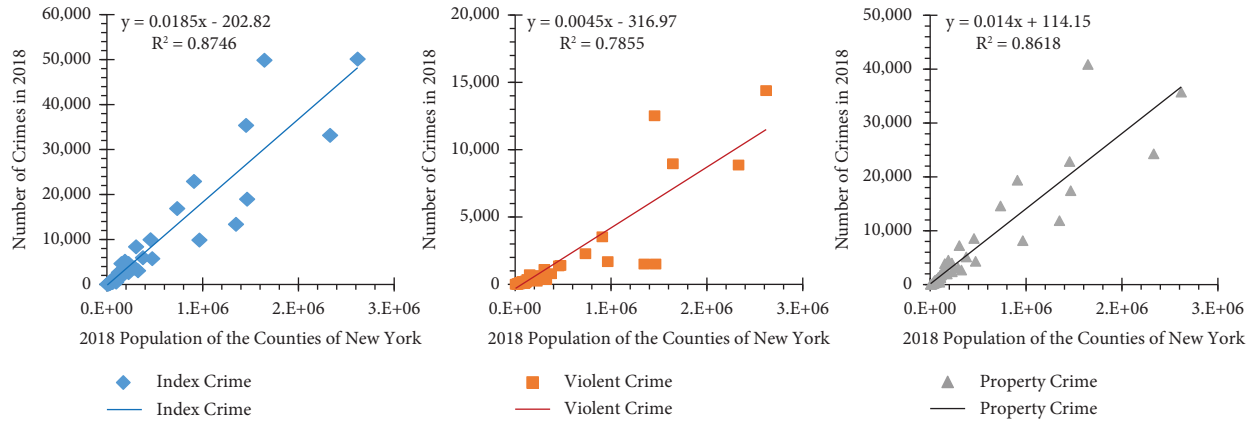
FIGURE 6: Statistical relation between each county's total population and three crime groups: index, violent, and property crimes.
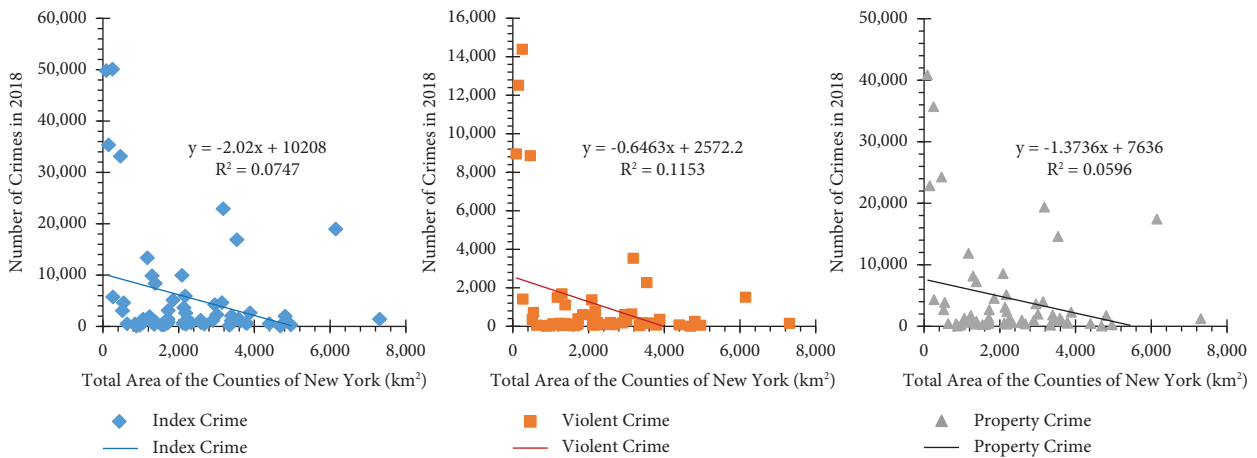

FIGURE 7: Statistical relation between each county's area and three crime groups: index, violent, and property crimes.

color stands for moderate crime, and blue color stands for the level of low crime.

The relationship between the green texture and the crime frequency shows that crime intensity is high in the counties where the land cover type turns intensely from the forest and wild areas to urban areas (see Figures 2 and 9). The study clarifies that living in lucky regions with woodland and green texture is safer.

4. Discussion and Recommendations

Global insecurity has increased due to urbanization, rising social inequality, and poverty. It has been suggested that the incidence of psychosis and depression is higher in urban areas where green spaces are scarce [54]. The study of how the environment affects criminal conduct is known as environmental criminology [55]. The impact of the environment on crime motivates collaborative prevention research and yields scientific answers that may be used in social sectors. The methods outlined in this paper serve as the scientific foundation for workable solutions, such as lowering crime by merely increasing the amount of vegetation cover. Using the media to point people in the proper direction and proactive policing were also recommended in

the context of providing quick assistance. These strategies highlight the notion of avoiding or lessening crime through environmental changes. Studies have demonstrated that some design modifications, which may even be done with little environmental adjustments, favour lowering crime rates.

When we look at the five counties in different parts of the New York State, where the population and population density are similar, an extraordinary situation is encountered in index crime. According to their crime intensity, these counties are Broome with high crime in the mid-south, Oneida with high crime in the mid, Putnam with low crime in the southeast, Rensselaer with moderate crime in the mideast, and finally Niagara with moderate rate of crime in the west.

According to New York State Office of Parks, Recreation, and Historic Preservation [56], Broome County has Chenango Valley State Park (450 hectare or ha) and Oquaga Creek State Park (560 ha); Oneida County has Delta Lake State Park (290 ha), Old Erie Canal State Historic Park (482 ha), Pixley Falls State Park (152 ha), and Verona Beach State Park (702 ha); Putnam County has Wonder Lake State Park (463 ha), Clarence Fahnestock State Park (5,819 ha), Donald J. Trump State Park (176 ha), Hudson Highlands

TABLE 2: Crime intensity in the New York City counties concerning the New York State.

Location	2018 population	Total area (km²)	Population density (capita/km²)	Index crime		Violent crime		Property crime	
				Count	Rate per 100,000 population	Count	Rate per 100,000 population	Count	Rate per 100,000 population
New York City*	8,523,171	1,214	45,939	174,164	2,043.4	46,113	541.0	128,051	1,502.4
Non-New York City	11,014,702	139,535	6,086	174,434	1,583.6	22,391	203.3	152,043	1,380.4
New York State	19,537,873	140,749	52,025	348,598	1,784.2	68,504	350.6	280,094	1,433.6
Mean value	315,127	2,270	839	5,623	1,503	1,105	212	4,518	1,291

TABLE 3: Crime statistics about the five New York City counties (Bronx, Kings, New York, Queens, and Richmond Counties).

County	2018 population	Total area (km²)	Population density (capita/km²)	Index crime		Violent crime		Property crime	
				Count	Rate per 100,000 population	Count	Rate per 100,000 population	Count	Rate per 100,000 population
Bronx	1,454,179	149	9,760	35,355	2,431.3	12,514	860.6	22,841	1,570.7
Kings	2,618,198	251	10,431	50,106	1,913.8	14,384	549.4	35,722	1,364.4
New York	1,645,512	87	18,914	49,830	3,028.2	8,951	544.0	40,879	2,484.3
Queens	2,331,358	462	5,046	33,135	1,421.3	8,856	379.9	24,279	1,041.4
Richmond	473,924	265	1,788	5,738	1,210.7	1,408	297.1	4,330	913.6

TABLE 4: Correlation matrix to identify relations within the variables belonging to the 62 counties of the New York State.

|	2018 Population	Total area (km²)	Population density (capita/km²)	Index crime count	Index crime rate per 100,000 population	Violent crime count	Violent crime rate per 100,000 population	Property crime count	Property crime rate per 100,000 population
2018 population	1								
Total area (km²)	−0.243836855	1							
Population density (capita/km²)	0.719409303	−0.365215431	1						
Index crime count	0.935217654	−0.273353926	0.874610885	1					
Index crime rate per 100,000 population	0.281984569	−0.122700779	0.387834247	0.465671295	1				
Violent crime count	0.886297973	−0.339604312	0.851876547	0.944340514	0.383766428	1			
Violent crime rate per 100,000 population	0.590773541	−0.303366198	0.682966708	0.741321657	0.745672296	0.792650385	1		
Property crime count	0.928350856	−0.244103711	0.860404973	0.993790958	0.481715325	0.901874806	0.705403076	1	
Property crime rate per 100,000 population	0.170720766	−0.061347361	0.271012678	0.347400729	0.982511616	0.235517222	0.608563372	0.376544861	1
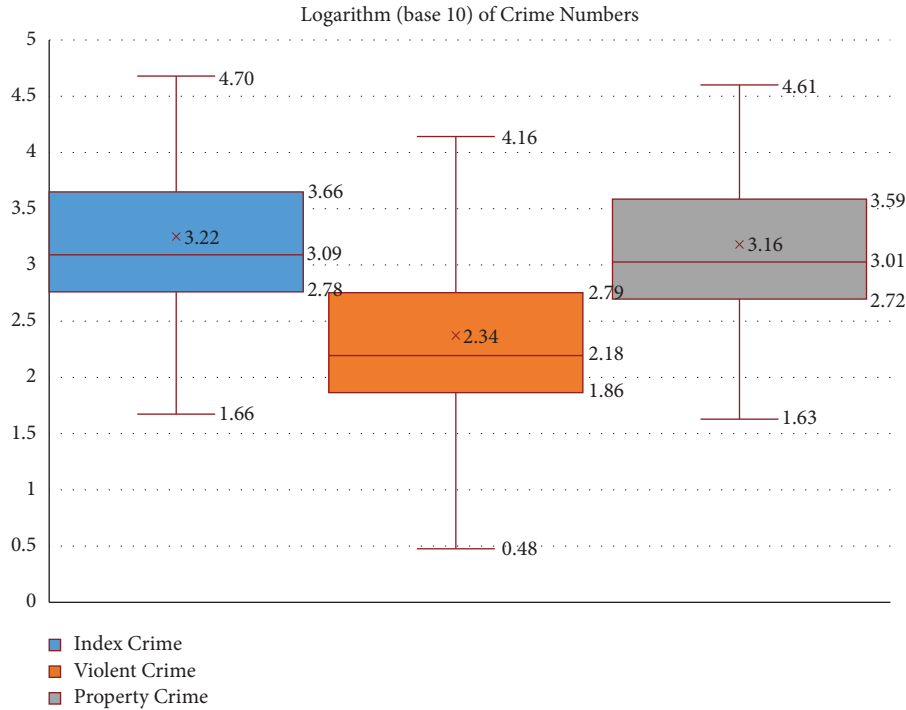
FIGURE 8: Box-plots of the New York State crime data for the three crime groups: index (covers violent and property crimes), violent, and property crimes.
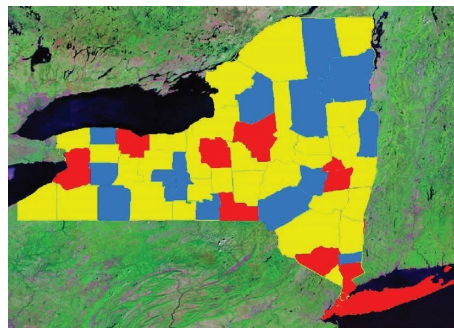

FIGURE 9: Depiction of index crime intensities for each county of the New York State, USA, where blue, yellow, and red stand for low, moderate, and high crime intensity, respectively [53].

State Park (3,060 ha), and Wonder Lake State Park (463 ha); Rensselaer County has Cherry Plain State Park (71 ha), Grafton Lakes State Park (1,030 ha), and Schodack Island State Park (430 ha); Niagara County has Whirlpool State Park (44 ha), Wilson-Tuscarora State Park (196 ha), De Veaux Woods State Park (21 ha), Devil's Hole State Park (17 ha), Fort Niagara State Park (204 ha), Four Mile Creek State Park (100 ha), Golden Hill State Park (210 ha), Joseph Davis State Park (157 ha), Niagara Falls State Park (89 ha), Reservoir State Park (53 ha), Whirlpool State Park (44 ha), and Wilson-Tuscarora State Park (196 ha). Consequently, this comparison validates the correctness of the study's results as shown in Table 5, summary of the research findings. Recommended green space strategy is used to create a barrier for protecting native species and habitats in protected areas so that they can survive in the long run [57].

The authors also have supporting recommendations for reducing the crime rate. At the point of increasing green areas, environmentalists, architects who will design correct urban planning, communication scientists who will contribute to shaping the human perception of the media correctly, and security forces with proactive policing practices can provide the desired security environment.

Urban transformation is the environmental project practice where urban development is reconsidered socially, economically, spatially, demolished, revitalized, consolidated, or restructured to make the city's problem areas livable. Undoubtedly, every change and transformation process is painful and troublesome. The deterioration of the social fabric in the spaces has created an uncertain and dangerous environment over time. Nowadays, cities, especially urban centers used by society, are increasingly known

TABLE 5: Summary table for the research findings.

County	Index crime number	Index crime level	Area (km^2)	Total recreational park area (km^2)*	Percent occupation of the recreational park area (%)	Population density	The recreational park area per capita (km^2)
Broome	5,137	High	1,852	10.10	0.54	102	0.0000535
Oneida	4,645	High	3,142	16.26	0.52	72	0.0000718
Niagara	4,261	Moderate	2,953	13,31	0.45	70	0.0000644
Rensselaer	3,093	Moderate	1,722	15.31	0.89	91	0.0000977
Putnam	502	Low	637	99.81	15.67	153	0.00102

Note: * New York State office of parks, recreation, and historic preservation [56]. State Parks: https://parks.ny.gov/parks/.

for the concepts of "crime" or "insecurity." Eliminating spatial inequalities and creating a structured environment with a high quality of life by creating safe urban spaces can be achieved by correctly handling the crime phenomenon in urban planning. Factors such as the width of roads, trees' location, other landscape elements, and urban furniture area are essential in ensuring visibility. Apart from these, it is revealed that lighting is significantly sufficient, access to security forces, and a well-maintained urban environment that increase the sense of security [58]. In today's urbanization, blind-deaf fronts and dark, desolate, and quiet places seem to encourage crime more by giving people the impression of an insecure environment. Treating the city as a livable place in every sense is necessary.

Media representatives should collaborate with the local government and partners in crime prevention on local safety and crime prevention initiatives. Education in media literacy may also enlighten how future generations must engage with the media to reduce crime and promote urban safety [59].

Law enforcement agencies have developed police tactics as they have evolved to combat crime. Community policing, problem-oriented policing, targeted policing approach, and predictive policing, where the police work proactively, are the four methods law enforcement organizations utilize in various circumstances. Proactive policing experts emphasize that crime is densely clustered in particular city areas [60]. Evidence shows that about 5% of the streets in larger cities produce 50 percent of the crime. About 1% of the streets were responsible for 25 percent of the crime. Hence, as a favorable action, the police concentrate resources in those places [61, 62]. Determine how they create a possibility of solving the underlying problems rather than just responding to particular incidents for the people [63]. About 6% of a birth cohort commits about 50% of the crime [64]. That birth cohort and those types of findings developed in criminology lead to optimizing our crime control approaches by focusing on that relatively small number of people in the population that commit a substantial proportion of the crime.

5. Conclusions

This research used official authorities' records to examine the relationship between land type and crime in the New York counties, the United States' most cosmopolitan state. Satellite images have been used to determine the kind of land use. Socioeconomic factors such as the level of income associated with crime, education, and population density are known to be essential. However, in a state with a demographic structure such as New York that can be considered a summary of the world, it is thought that the abovementioned socioeconomic factors will not make a remarkable difference between the counties but are similarly effective. Therefore, another concrete factor that may change the perception of security in living spaces must be revealed. This phenomenon is considered green areas and has been proposed as a hypothesis in this study. This research showed

that the land structure in forest and wild types is one of the most critical factors behind low crime rates, especially in the Index crime point, including violent and property types in New York. Besides, this study supports the idea that tree canopies or woodlands are inversely proportional to severe crime rates. The two studies that the authors previously conducted on Europe and Asia show that this is a proven situation on a global scale.

The study's conclusions have implications for establishing evidence-based planning, design, and policy initiatives to make cities more livable and deter crime by increasing the number of green spaces. This study's findings, which attracted attention to promoting urban forestry and management beyond the concerns of recreation while also considering its role in crime prevention, are likely to serve as a reference for future researchers. It will be recognized, particularly by governors in charge of security, that including public safety considerations in the order in which tree planting sites are prioritized may have certain advantages. According to this study, crime rates and vegetated regions in New York State have a significant negative correlation. To naturally lower crime rates without expending a considerable amount of money and human resources on policing, thorough research on this issue is suggested by this finding. It is advised that joint research be conducted concurrently in healthy and developing countries to determine whether the crime is an intuitive psychological issue independent of education, money, social status, other comfortable matters, and legal circumstances.

Data Availability

The data used in this study are available from the authors.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Authors' Contributions

M.E.A. and N.A. conceptualized the study; M.E.A., N.A., and I.A. proposed the methodology; M.E.A. and N.A. provided the software; M.E.A., N.A., and I.A. validated the study; M.E.A., N.A., and I.A. performed formal analysis; M.E.A., N.A., and I.A. investigated the study; M.E.A., N.A., and I.A. provided the resources; M.E.A., N.A., and I.A. performed data curation; M.E.A., N.A., and I.A. wrote the original draft; M.E.A., N.A., and I.A. reviewed and edited the article; M.E.A., N.A., and I.A. visualized the study; M.E.A. and N.A supervised the study. All authors have read and agreed to the published version of the manuscript.

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