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Evolution of the Ivoirian police vehicle fleet and security management in Abidjan (Ivory Coast)

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Abstract

This study aims to analyze the impact of mobility resources allocated to the Ivorian police on security management in Abidjan. To achieve this objective, eighty-nine (89) people, including seventy-eight (78) civilians and eleven (11) police officers, were surveyed. This sample was constituted based on the purposive sampling technique. The mixed method, combining quantitative and qualitative analyses, was used to process the data obtained through documentation and surveys. This protocol allowed for results which indicate that the allocation of police vehicles and motorcycles has led to crime prevention through anticipation via patrols, the promptness of interventions, and the reduction of response times to requests to up to 30 minutes.

Keywords: Equipment; Ivorian police; Mobility; Performance; Policing

1. Introduction

Social dynamics have always incorporated innovations into the management of community affairs [1,2]. Similarly, organizations are constantly modernizing their practices to carry out their missions and effectively meet the expectations of those they serve. This dynamic has not escaped the police, who, in our societies, are equipping themselves to refine their practices [3]. Among these resources developed by the police are those related to their mobility, particularly transportation equipment, including motorized vehicles which, following the use of horses as police transport, have enabled increased mobility and unprecedented speed of intervention [4]. Police mobility is not always a matter of cars; it has been and continues to be diversified according to objectives and targets. In the mid-1970s, in the United States, the state of New Jersey announced the implementation of a program called "Safe and Clean Neighborhoods," which consisted, in part, of funding police foot patrols to reduce crime at the expense of motorized patrols, which were considered too comfortable and, at times, ineffective [5]. The results of this policy showed that these patrols had not reduced crime rates, although residents of the neighborhoods covered seemed to feel safer than those in other neighborhoods. This suggests that, whether on foot or motorized patrols, the public visibility of police patrols is an indisputable indicator of safety [6]. The importance of the police vehicle should not be viewed solely in terms of its impact on security management [7]. This importance is also evident in terms of its impact on the health of the officers who use it, considering the police vehicle as the primary workplace for patrol officers, which should be adapted for their operational comfort. This work, requiring the use of an increasing amount of technical equipment in ever-smaller vehicles, impacts the comfort and health of patrol officers. Lower back pain is a contributing factor in 18% of accidents within the police force, and 37% experience discomfort in the lower back, in addition to visual obstructions. Concerns about officers' health are linked to their physical fitness [8]. Indeed, the workload associated with a season of bicycle patrol contributes to improving several components of physical fitness, including cardiovascular capacity and power output while cycling. Improved sleep, reduced perceived stress, and increased leisure activity levels have also been observed. This suggests that bicycle patrol could be beneficial to the overall health of patrol officers. Since physical

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health and safety cannot be separated from the ultimate goal of officer safety, it is worth noting that the numerous improvements (such as the introduction of protective bars and obstacle detection technologies) made available to modern police vehicles contribute to protecting law enforcement officers [9]. Ensuring the health and safety of police officers is essential because, as long as they are not fully operational, the entire mission of protecting people, institutions, and property risks being compromised. Following this dynamic, the police car no longer appears solely as a tool for protecting the officers who drive it, but also as a means of public safety. This translates into the fact that the role of police cars in public safety is essential, not only in terms of transporting officers, but also, and above all, as crucial tools for protecting citizens through rapid intervention and significant deterrent actions against potential lawbreakers [10]. In France, police operations require the use of various types of police vehicles to carry out their missions. The first category includes patrol cars, essential for monitoring driver behavior on the roads and preventing crime by intervening quickly when necessary [11]. The presence of these vehicles often deters crime and strengthens the sense of security within communities. In addition to patrol cars, some units use unmarked vehicles, often without any distinctive markings, which are used for discreet surveillance missions, blending into the common traffic landscape to observe undetected. This is crucial for targeted investigations and allows officers to arrive quickly at the scene of an incident and intervene effectively.

It is a common thread in the research above that the car remains an essential piece of equipment for police mobility. However, without a suitable road network, the car would become an isolated object with objectives that are difficult, if not impossible, to achieve. In this context, equipment is identified as a step that is as important in the reform process in general as it is a key one within the specific framework of internal security planning [12]. Following this approach, with regard to the police, road infrastructure becomes a prerequisite for the effective execution of missions, given that certain structural factors, such as the absence and/or poor condition of access roads to disadvantaged neighborhoods, inadequate electrification, etc., hinder police intervention [13]. Alongside general urban mobility and incident prevention, the importance of means of transport for security actors, particularly the police, cannot be separated from the importance of improving road infrastructure [14,15].

Effectively assessing the impact of police vehicles on security management raises questions about their various possible conditions (age, operability, availability, etc.). A report by the French National Assembly's Inquiry Commission [16] revealed that the age of the Gendarmerie's wheeled armored vehicles, which entered service in 1974, makes it difficult to maintain them in operational condition, resulting in high downtime for maintenance and an average availability rate. This necessitated continued government efforts to renew them, according to General Laurent Tavel, Director of Support and Finance for the National Gendarmerie, who recommended: "We believe that renewing the fleet by 3,000 vehicles allows us to maintain and lower the average age. We have seen the concrete effects of this since 2018. This effort must be maintained." If we were to fall below 2,000 vehicles, we would again see a reversal and an aging of the fleet" [16]. The report also revealed that the aging of the national police vehicle fleet continues despite a renewal effort undertaken with the allocation of 2,181 vehicles in 2013 and the renewal of 3,077 vehicles in 2018. This represents a budgetary support of 67 million euros. These audits of police vehicles were also undertaken in Côte d'Ivoire in the aftermath of the 2010-2011 post-election crisis within the national police force and revealed various dysfunctions, including the critical problem of rolling stock. Indeed, according to the diagnosis of the Ivorian Police [17], the institution's vehicle fleet had been vandalized, thus considerably reducing its mobility capacity. At the end of this crisis, the land equipment was sufficient in number; Support was provided solely by Abidjan's central garage, which was looted. As a result, it was impossible for the police to intervene quickly and fairly for the benefit of the population. To address this dysfunction, the audit findings led to recommendations, including equipping the police with 150 motorcycles and 366 vehicles, with a priority provisional budget of 8,741,000,000 CFA francs. This effort also involved the UNDP, which, through the Project to Support Reconciliation between the Population and the National Police (PARPP), implemented between July 2012 and October 2013 in the Abidjan district (Marcory, Treichville, and Yopougon), provided the police with vehicles, motorcycles, etc. [18]. The impact of these resources has been seen in terms of increased freedom and ease of access for police patrols to previously hostile areas (the Kouassi Lenoir neighborhood in Treichville and the Kouté neighborhood in Yopougon), a reduction in thefts and attacks in the project's target areas, and a reduction in officer response times from approximately one to two hours to five, or at most ten minutes. While this reduction in response time is commendable, the lack of an international standard for police response times leaves each country to define its own objectives [19]. Accordingly, average police response times in the United States, England, and India are 9.4 minutes, 5 minutes 20 seconds, and 12 minutes respectively in urban areas, and 25 to 30 minutes in rural areas. Regarding the impact of these resources on public safety, studies have revealed that donations to the police have led to a reduction in robberies in the Cocody district [20]. Furthermore, strengthening the Ivorian Customs' vehicle fleet in the fight against drug trafficking has resulted in a decrease in drug trafficking at Abidjan International Airport [21]. Similarly, the provision of 4x4 vehicles to the Criminal Investigation Department has strengthened the response capacity of intervention units, leading to a decrease in robberies in the Cocody district, from 120 robberies, 80 arrests, and 38 convictions in 2012 to 80 robberies, 70 arrests, and 70 convictions in 2013 [22]. Similar findings [23] indicate that the

allocation of 50 scooters and 20 motorcycles to the national police regulatory unit, at a cost of over 135 million CFA francs, as part of the Abidjan urban transport project, improved officers' mobility and responsiveness in the field, thus contributing to better traffic management and road safety.

From the above, it is clear that the Ivorian police force was strengthened with mobility resources to address operational and intervention difficulties stemming from the 2010-2011 post-election crisis. To date, what has been the actual impact of these allocations on the functioning of the Ivorian police and on overall security management?

This article aims to analyze the allocations of transportation resources granted to the police during and after the security sector reforms (SSR), as well as their impact on public safety. The central hypothesis argues that strengthening the Ivorian police's mobility resources has contributed to a multifaceted transformation of security management. Taylorism, as a theory, is adopted in this study. Its significance lies in the following formula: "The first response involves a naturalistic view of man: the worker has needs [...] related to his profession or work that should be skillfully met in order to improve his performance." [24]. Applied to the functioning of the police, the lack of operational resources hinders its capacity to produce security, hence the need to equip it [25]. Taylorism is thus important in that it identifies needs and restructures the conditions of police work.

2. Methodology

2.1. Site and Participants

2.1.1. Research Site

The study was conducted in the city of Abidjan, specifically in the municipalities of Abobo, Yopougon, Port-Bouët, Adjamé, and Koumassi, respectively at the police stations of the 15th, 16th, 24th, 27th, and 36th arrondissements. Beyond these stations, the municipalities themselves served as more open sites for investigation. These municipalities were chosen because their police stations have undergone multiple reinforcements as part of the security sector reform. These reinforcements, which include the rehabilitation and construction of police stations and the provision of vehicles, require evaluation. It is with this in mind that these municipalities were selected for this study.

2.1.2. Participants

As part of this study, eighty-nine (89) people, comprising 78 civilians and eleven (11) police officers, were interviewed. The selection of these two (2) categories of participants was deliberate, given that assessing the immediacy and evolution of response times is as much a matter for citizens as for the police officers themselves. Specifically, the selection criterion for civilians was based on the fact that each had, at least once, requested police services for external interventions. As for the police officers, their selection stemmed from their membership in public security institutions, which makes them particularly qualified to report on their actions. All respondents were grouped into two (2) distinct categories according to the two (2) time points of the survey: before 2015 and after 2017, the date of the reform.

This survey population was obtained on the basis of purposive sampling, a technique in which respondents (police officers and civilians) are chosen based on their typical characteristics enabling them to respond satisfactorily to the research [26].

2.2. Research protocol and materials

This study employed mixed methods, combining elements of qualitative and quantitative research to enrich the findings. These methods yielded a more comprehensive overview, integrating statistical and narrative data from respondents' answers. Data collection was achieved through documentary research and survey techniques, including questionnaires and semi-structured interviews. This data was then analyzed using quantitative and qualitative content analysis, which proved most appropriate for assessing public opinion, police information, and the content of reports consulted for the study.

3. Results and Discussions

The presentation of the study results is based on a binary plan: Police resources in terms of RSS-Police (1) and police performance resulting from resources in locomotion (2).

3.1. Police resources in terms of RSS-Police

As part of police reform, the Ivorian police force received various forms of support, including vehicles, operational equipment, and ICT tools. This initiative aimed to help the institution address shortcomings resulting from various crises. The objective was to enhance the operational capabilities of officers and strengthen the police force's security performance.

3.2. Provisions of means of transport

As a reminder, the Ivorian police vehicle fleet was vandalized during the 2010-2011 crisis, with vehicles either stolen or destroyed. Following this crisis, the police lacked adequate means of communication, which hampered their operations. This led to the inclusion of their vehicle allocation in the security sector reform. These allocations are part of a broader policy. The inventory of police vehicles prior to the reform in 2016 listed four hundred and fifty-four (454) operational vehicles for all forces within the institution. This number of vehicles covered all one hundred and sixteen (116) police stations across the country before the security sector reform, representing a ratio of four (4) vehicles per police station. This situation was further compounded by insufficient fuel supplies to sustain missions over time. In light of these shortcomings, the Law on the Programming of Internal Security Forces (LPFSI 2016-2020), in its new Article 5, stipulates that: "all imported equipment destined for the organizations covered by the law, belonging to the following categories, shall be exempt from customs duties for the duration of the law programming the Internal Security Forces: [...] tactical and utility vehicles, spare parts...". This measure aimed to facilitate imports for the Internal Security Forces (ISF), including the Police, and forms the basis of the police force's vehicle allocation. Translated into a policy for providing vehicles to the Police, the LPFSI (2016-2020) provided for the acquisition of seven hundred and eight (708) vehicles during its implementation period. This would have brought the police fleet to 1,162 vehicles if the previous fleet remained operational. This policy included budgeting for vehicle allocations to control costs and better monitor implementation.

Table 1 Status of budget execution of allocations for means of transport

			2016	2017	2018	2016-2018
Rolling stock	Forecast	(million)	4.564	4.604,12	4.494	13.662,12
	Available		1.184,35	2.425,88	3.343,08	6.953,31
	Completed		1.184,35	2.081,87	3.335,49	6.601,71
	Budgeting rate (%)		25.95	52.68	74.39	50,89
	Completion rate (%)		25.95	45.21	74.22	48.32

Source: Bureau d'Etudes, des Projets et du Suivi Evaluation (BEPSE) – NPCI, 2021.

From the outset of the police reform, the budget of the National Police of Côte d'Ivoire (NPCI) was allocated, thus translating this policy into concrete action. In the first year, the investment of 1,184,350,000 CFA francs was fully used for expenditures out of a total of 4,564,000,000 CFA francs. This represents a 25.95% budgeting and execution rate. In 2017, of the 4,604,120,000 CFA francs budgeted, only 2,425,880,000 CFA francs (52.68%) were disbursed, and 2,081,870,000 CFA francs (45.21%) were used for staffing expenditures. In the final year of the period, 2018, out of a planned 4,494,000,000 CFA francs, 3,343,080,000 CFA francs were mobilized, of which 3,335,490,000 CFA francs were actually spent.

In total, for the 2016-2018 period, the policy allocated 13,662,120,000 CFA francs as a budget to equip the NPCI with vehicles. Of this amount, slightly more than half of the budget, or 6,953,310,000 CFA francs (50.89%), was released. Of this operational budget, 6,601,710,000 CFA francs were actually spent on providing the National Police with means of transport (48.32%).

3.3. Nature of the allocations of means of transport and condition of the vehicle fleet of the Ivorian Police

Prior to the LPFSI (2016-2020), Côte d'Ivoire's international development partners mobilized to provide both financial and in-kind support to its institutions. Among these strategic actors is the UNDP, which, through national security support projects, assists the Ivorian government. In the aftermath of the 2010-2011 crisis, this international organization initiated the Project to Support Reconciliation between the Population and the National Police of Côte d'Ivoire (PARPP) for the period 2012-2013. Operating exclusively in western Côte d'Ivoire for this project, it provided the Ivorian Police with twenty-two (22) intervention vehicles and ten (10) motorcycles, in addition to numerous other types of equipment. These donations are part of the total fleet of four hundred and fifty-four (454) vehicles available to the police force in 2016, prior to the implementation of the new vehicle allocations. Later, during the police reform, the Ivorian state, now considered capable of self-sufficiency, began the process of equipping its police force with various other means of transportation.

According to the Bureau of Studies, Projects, Statistics and Evaluation (BEPSE) of the National Police Directorate General (DGPN), the 2016-2020 National Police Finance Program (LPFSI) planned for the acquisition of 708 vehicles and 235 motorcycles. Of these projected numbers, in 2018, 98 vehicles and 59 motorcycles were actually delivered, and 94 other vehicles, all also acquired, were awaiting delivery. This means that up to 2018, a total of 194 vehicles and 59 motorcycles were allocated to the Ivorian Police for its operational revitalization, representing 27.40% and 25.10% of the target allocations for vehicles and motorcycles, respectively.

In parallel with the national process of providing the Police with vehicles, as part of its Project to Support the Strengthening of Socio-Security Dialogue (PARDS) for the period 2014-2017, the UNDP provided new means of transportation to the Ivorian Police [27]. These resources consisted of fifty-six (56) Toyota vehicles, including forty-two (42) double-cab 4x4 pickup trucks and twelve (12) Fortuner 4x4s, fourteen (14) Hyundai troop transport vehicles, and nineteen (19) motorcycles.

The process of equipping the Ivorian Police with vehicles continued, and in 2020, all the targets set out in the 2016-2020 National Police Finance Program (LPFSI) were met. All 708 vehicles and 235 motorcycles were fully delivered to the Police, thus increasing its national fleet to 1,230 vehicles and at least 254 motorcycles. Not all of this equipment is available due to breakdowns and/or obsolescence, rendering some vehicles unusable, and therefore insufficiently or completely inoperable.

If the objective behind these allocations was to strengthen the operational capabilities of the Police in order to boost its performance, what is the result in terms of outcomes? This is the question that the second part of the results of this study sets out to answer.

3.4. Police performance based on allocations of transportation resources

Since one cannot discuss lead-based funding without addressing the policy framework surrounding it, the first observable performance in light of all the above is its effective implementation. This is a performance resulting from the police institution: preventive actions and police interventions.

3.5. Police crime prevention through motorized patrols

The provision of vehicles to the police also has an impact on the fight against crime. Indeed, it allows for both troop mobility and regular police patrols, which, through public police visibility, contribute to crime prevention. This reality is evident in the concerns expressed by those surveyed. When asked about the frequency of police visibility and the potential decrease in crime that this might bring about, their responses are summarized in the table below.

Table 2 Frequency of police visibility and decrease in insecurity

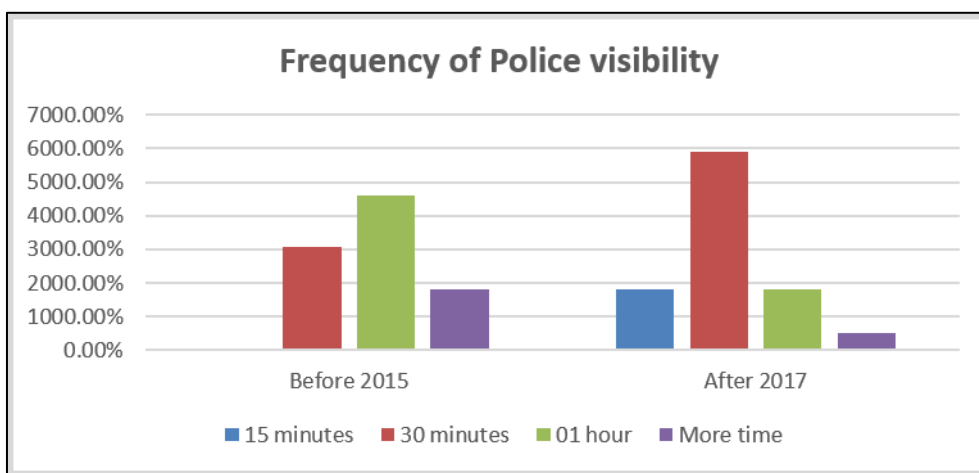
	Frequency of police visibility				Total
	Everyday	At least once a week	Rarely	Never seen	
Before 2015	23 (29.48%)	37 (47.43%)	18 (23.07%)	00	78 (100%)
After 2017	55 (70.51%)	23 (29.48%)	00	00	
	Decrease in insecurity				

Yes	60	72,28%	83 (100%)
No	23	27,71%	

Source: Field data, 2024.

Analysis of this table reveals that before 2015, citizens who only saw police presence (motorized or static patrols) at least once a week represented 47.43% of the total surveyed population. 29.48% of these citizens encountered these presences publicly every day, while 23.07% saw them only rarely. During this period, the police presence was not very high, which explains why the majority of citizens estimated their public visibility at a weekly frequency.

After 2017, 70.51% of citizens believe that the police, through their various deployments, are present in public spaces daily. Only 29.48% say they see them at least once a week. No respondent reported seeing them rarely or never having seen them publicly. This means that during this period, the majority, if not all, of citizens believe that the police have invested much more in public spaces than in the past.



Source: Field data, 2024

Figure 1 Diagrams representing the frequency of police visibility before 2015 and after 2017

Attempting to understand this evolution of the police presence, reflected in its regular public visibility, an interview was conducted with the head of operations at the 36th Police Precinct in Koumassi. During the interview, the police officer stated:

“Before the police reform, not only were our numbers smaller than they are today, but we also lacked the operational equipment we have now. We now have a significant number of crowd control tools, our numbers have increased since the construction and commissioning of the Korhogo Police Academy, and vehicles have been allocated to each police unit. All these contributions to the police force contribute to our operational effectiveness, allowing us to be regularly present in the field alongside the public. However, it is important to understand that none of this would be possible without the authorities' commitment to combating organized crime, general criminality, and insecurity, which is reaching alarming proportions.”

This information leads us to understand that the increased visibility of police action is partly due to the provision of transportation for the police, which allows for the rapid and easy deployment of officers in public spaces. This was not the case before the police reform, when the institution lacked sufficient resources. This statement is corroborated by another operations chief who, before 2016, was only a unit commander in the Abobo district. According to him:

“The regular police presence in public that we are talking about today is thanks to the authorities' desire to professionalize the Ivorian police. Indeed, police officers, like any employee of any other public or private organization, cannot work without resources. We faced this reality even before the end of the crisis in 2012. We had neither sufficient weapons nor protective equipment nor a sufficient number of intervention vehicles for our operations. Despite this, we were called upon from all sides to intervene.” Under these conditions, how can one be effective without resources? But since we still had to intervene, we waited until a vehicle was available. This sometimes forced us to send an officer in plainclothes who would take a taxi to inform us of the situation while we arrived. And once there, we sometimes successfully carried out our interventions. There were also times when officers refused to go, pretending to respond to

requests, and went out for a stroll. In reality, this attitude is understandable because we are all human; without resources, how can we protect ourselves before thinking about protecting the public? The lack of resources led some police officers to protect themselves by boycotting or botching police work through their non-intervention...”.

These remarks suggest that the police force sometimes did not respond to requests due to insufficient preventative resources. This suggests that the provision of vehicles to the police under the RSS-Police program has contributed to police operations. This type of provision encourages proactive policing, galvanizing officers who now operate with greater ease by regularly engaging in public spaces. What, then, is the impact of this provision on the evolution of insecurity?

To answer this question, eighty-three respondents, including various operational commanders, were interviewed, and their responses are shown in the preceding table. Based on the analysis of the collected responses, sixty respondents (72.28%) felt that insecurity had decreased due to the increased regularity of police action resulting from the provision of vehicles. For the remaining twenty-three respondents (28.20%), insecurity had not decreased. Both groups provided arguments to support their positions. In this regard, Mr. Q.I., 33 years old, a pharmacy clerk in the Yopougon district, states:

“The intersections near the Institute for the Blind and Sable were notorious for assaults. In 2013, when I worked at the Sable pharmacy, we saw people being attacked at these intersections late at night and very early in the morning. These attacks have stopped since the police units began patrolling these areas recently.”

These remarks suggest that the police forces sometimes failed to respond to requests due to insufficient preventative resources. This leads to the conclusion that the allocation of vehicles to the police under the RSS-Police program has contributed to police operations. Consequently, this type of allocation encourages proactive policing, galvanizing officers who now operate with greater ease by regularly engaging in public spaces. What is the impact of these allocations on the evolution of insecurity?

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These remarks echo those of the head of operations at the 15th Precinct Police Station in Abobo. The police officer justified his opinions as follows:

“When I arrived at this station, people couldn’t leave their homes late at night or early in the morning because of the ‘microbes’ phenomenon.” These populations were terrified and didn't dare risk their lives. But since 2018, with the allocation of transportation resources, we have significantly increased our patrols and interventions, and people can now go out as early as 3:00 a.m. to go about their business and return late at night without fear. In short, insecurity has considerably decreased within our area of responsibility, which covers the S.O.S, Habitat, Mponon, Agbekoi, Sogefiha, Plaque 1 and 2, Colombie, Ouor, and Botou neighborhoods.”

When confronted with the opinions of three respondents from the Mponon, Sogefiha, and Ouor neighborhoods, this statement by the police officer was confirmed. Indeed, these neighborhoods fall within the jurisdiction shared by the 15th Police Precinct with the 32nd, 13th, and 14th Police Precincts of Abobo. Based on this, those surveyed believe that the various police stations conduct regular motorized patrols. This has had the benefit of reducing the feeling of insecurity.

In short, considering the above, it can be concluded that the allocation of vehicles to the police, within the framework of police reform, has positively impacted police operations. This is reflected in the increased use of motorized police patrols, which leads to regular public visibility of the institution. This visibility is a means of proactively preventing potential offenders from committing crimes and explains the decrease in insecurity.

3.6. Promptness of police interventions

The promptness of police interventions refers, on the one hand, to the immediate or instantaneous effective police responses to external public requests, and on the other hand, to the reduction of response times. According to the various heads of operations at the police stations in the neighborhoods covered by this study, each of their departments had an average of three (3) intervention vehicles. Therefore, the aim was to interview the citizens surveyed to gather information on police action, specifically to determine whether officers mobilized immediately to respond to their requests and to establish the average response time. These respondents were divided into two (2) groups: those who contacted the police before 2015 and those who did so after 2017. This classification was also applied to the responding officers.

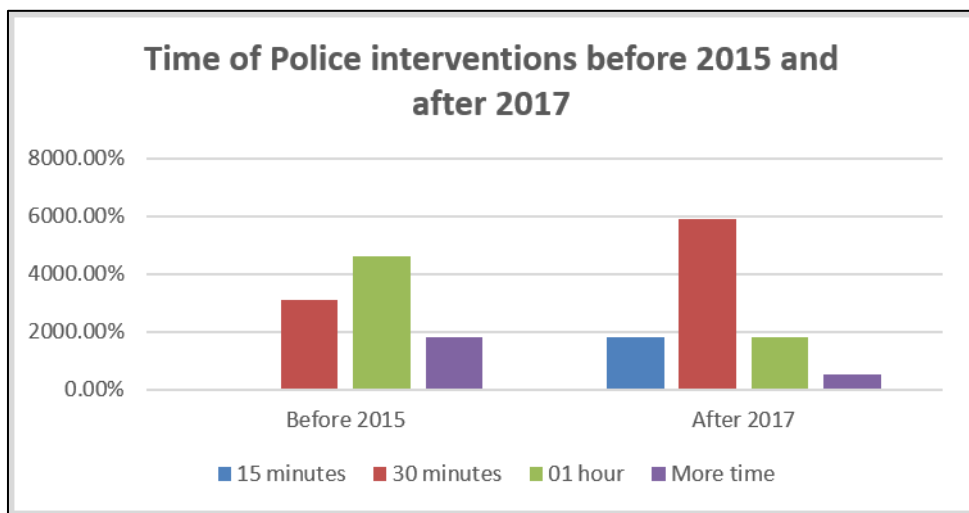
The results of the exercise are presented in the following table.

Table 3 Police Response Times Before 2015 and After the RSS-Police

		Time of interventions				Total
		15 minutes	30 minutes	01 hour	More time	
Periods	Before 2015	02 (5.12%)	12 (30.76%)	18 (46.15%)	07 (17.94%)	78 (100%)
	After 2017	07 (17.94%)	23 (58.97%)	07 (17.94%)	02 (5.12%)	

Source: Field data, 2024.

The information in the table above shows that before the police reform related to vehicle allocation, police response times ranged from 30 minutes to one hour on average, depending on the location of the call. Analysis of Table 2 shows that of the 39 citizens surveyed who had contacted the police before 2015, 18 (46.15%) estimated that the police arrived one hour after being contacted. Twelve of these citizens (30.76%) reported that police officers arrived at the location 30 minutes later. Seven of the nine other citizens (9) estimated that the police took more than an hour to arrive at the location from which they were contacted. Before 2015, the average police response time was one hour. After 2017, 23 respondents from the other segment of the sample reported seeing the police at the location where they were called only 30 minutes after being contacted, representing 58.97%. Seven respondents stated that they received police assistance within 15 minutes of being contacted, and seven others reported that the police response time reached one hour, representing a rate of 17.94%. During the period of implementation of the police reform and the provision of vehicles to the institution, the average response time was 30 minutes.



Source: Field data, 2024

Figure 2 Time of police interventions before 2015 and after 2017

Comparing the information in the table above, we observe that from the period prior to the RSS-Police (Regional Security and Policing Strategy) to that of the police reform, police services reduced their average response time by half, from one hour before 2015 to just 30 minutes since 2017.

Attempting to understand the situations in which the police do not respond to certain requests from citizens, a situation they criticize, interviews were conducted with police stations. In this regard, the head of operations at the 15th arrondissement police station in the Abobo district reported the following:

"We always respond when called upon. The only time we don't respond is when we haven't been contacted. There is indeed a number to reach the police station, but within the framework of community policing, the public communicates with officers, including the Chief of Service, who then relays the information to their team, which includes us. However, some people feel entitled to demand that the police come to them. But no! We determine whether or not to act based on the specific circumstances of the call. As for responding to requests from the public, that's what we're here for. Our station has three patrol vehicles, two of which were received in 2018 and the last one in 2020. These vehicles are sufficient for our operations, and we have ample fuel." We obtain them twice a week, from the EPA and the CRS 4. With all these resources at our disposal to assist the population, why not assist them?

Upon reading this statement, one concludes that the police always intervene when called upon, provided that the request serves a purpose genuinely requiring an immediate police response. This raises the question of information processing before force deployment, which could contribute to delays in police interventions. In this regard, another Chief of Operations stated that:

"Police intervention shouldn't be viewed like what happens in police dramas where, as soon as the phone is hung up, the officers are already on the scene [laughs]. Let's not be mistaken! Response times depend on the location from which we are called and the condition of the road. The road might be congested, in poor condition and therefore difficult to navigate, or the intervention site might be completely inaccessible. There are neighborhoods where problematic urban planning forces officers to get out of their vehicles and continue on foot. Neighborhoods like Gonzague and Adjouffou, here in Port-Bouët, are difficult to access. For these neighborhoods, for example, where our usual interventions last no more than 30 minutes, going there risks losing a lot of our time. However, we don't just stand idly by when we are called, because regardless of the time or how long it takes, we have a duty to go."

These various accounts confirm, on the one hand, the reduction in police response times, and on the other hand, the fact that the police always respond when called upon. The efficiency achieved through the allocation of financial and material resources to the police, and reflected in their actions, constitutes a performance indicator linked to the vehicles provided to them. In other words, the policy of equipping the institution with vehicles is, therefore, a driver of performance in public safety management.

4. Conclusion

Following this research, the analysis of the relationship between police vehicle allocations and public safety management highlights that the donations of vehicles and motorcycles allocated to the police stations of the 15th, 16th, 24th, 27th, and 36th arrondissements, located respectively in the municipalities of Abobo, Yopougon, Port-Bouët, Adjamé, and Koumassi, have significantly contributed to increased security. In fact, these impacts are evident in the speed of police interventions, with response times reduced from an hour or more before the implementation of the RSS-Police reform to a maximum of 30 minutes during and after the reform. Our conclusions are validated in that the trial with foot patrols does not provide the same level of security as motorized patrols [5].

Furthermore, another consequence of these resources concerns prevention and a reduction in the feeling of insecurity. Indeed, this mobile equipment has allowed for an increase in police patrols and their public awareness since the implementation of the reform, whereas previously, the police were not as regularly present in public spaces, according to those surveyed. This has had the advantage of anticipating the actions of potential lawbreakers. This conclusion is shared by some authors [17, 19, 20, 21] in that the police resources have allowed for the restoration of trust in police-citizen relations, the reduction of crime, and the decrease in response times for officers from approximately one to two hours to five, or at most ten minutes, as well as a reduction in drug trafficking at Abidjan International Airport and robberies in the Cocody district.

The results of this study also reveal that providing the police with vehicles has led to a considerable reduction in their response time, by up to 30 minutes. This conclusion is echoed in another work [18] which compares this response time to that of the police in India when responding to calls in rural areas. In this analysis, a 30-minute police response time to emergency calls in Abidjan seems excessive, given the generally good road infrastructure, compared to rural areas that are often difficult to access due to either the distances involved or the poor condition of the roads themselves. Providing vehicles not only contributes to the effectiveness of public safety but also offers a guarantee of protection for officers. Indeed, the presence of police officers inside the vehicles protects them from the risks associated with potential

physical assaults. This latter conclusion is validated by the work of some researchers [7,8] who found that police vehicles also impact the health, physical condition, and physical performance of officers.

It should be noted that this study involved 89 individuals surveyed in five of the ten municipalities of Abidjan. While this sample size is not large enough to be considered representative of the overall population, it remains significant because it provides a more or less accurate description of the phenomenon under study, based on the participants' experience with police security operations.

Overall, the conclusions of the literature reviewed on this topic generally confirm the hypothesis of this study: that police vehicle allocations impact security management in Abidjan. From this starting point, the objective of this research – to analyze the link between police resources and security management – has been achieved.

However, despite the security improvements resulting from the equipment provided to police services, as discussed in this paper, law enforcement agencies continue to face various challenges related to resource management and technological upgrades. In this regard, there is, on the one hand, a need for ongoing training in the technological equipment of police vehicles and for officers to adapt to new threats (such as cybercrime). On the other hand, the institution, with the support of the government, local political authorities, and development partners from the private sector and international organizations, must continue to renew its police vehicle fleet. To this end, while new resources are the most likely solution, it remains true that impounded vehicles (in the case of vehicles held in pound lots) whose owners are either untraceable or unwilling to reclaim them within a certain penalty period can be used for public purposes by legally regulating their use for police operations. Thus, while the police force can be pleased to have reduced its response time to thirty (30) minutes, further efforts are needed to significantly shorten this timeframe to ensure the rapid and effective handling of users.

Compliance with ethical standards

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Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of Ethical Approval

All participants provided free and informed consent.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

References

- [1] Scaillerez, A., Joncoux, S. & Guimont, D. (2022). "Living Labs: An Approach Facilitating Social Innovation and Territorial and Community Development," **Revue Interventions économiques** [Online], 68 | 2022, published online November 29, 2022, accessed November 1, 2025. DOI: <https://doi.org/10.4000/interventionseconomiques.19682>
- [2] Clément-Fontaine, M., Gidrol-Mistral, G., Navarro-Ug e, G., Lefeuvre, M.-P., De Clippele, Farget, D., Joye, J.-F., Hulin, A.-S., Vern, F., Jullien, N. et al. (2025). **L'Encyclop die des communaut s et pratiques communautaires** [Encyclopedia of Communities and Community Practices]. Universit  Paris-Saclay.
- [3] ZAKPA, F. G. (2025). The Doctrine of Community Policing in the Fight Against Illicit Cannabis Trafficking in Assinie (C te d'Ivoire). **RETFE - Revue de la Soci t  Ivoirienne de Transhumanisme**, Varia issue, pp. 140-156.
- [4] <https://vehiculesinfo.fr/levolution-de-voitures-de-police-au-fil-des-siecles.php> Accessed on October 25, 2025.

- [5] Wilson, J. Q. & Kelling, G. L. (2015). Broken Windows: Police and Community Safety. **Revue française de criminologie et de droit pénal**, Vol. 2, No. 5, pp. 15-32. Éditions Institut pour la Justice.
- [6] ZAKPA, F. G. (2024). "Police performance in the context of Security Sector Reform (SSR) in Côte d'Ivoire from 2016 to 2020." Doctoral thesis in Criminology, Félix Houphouët-Boigny University (Abidjan-Cocody).
- [7] DUFORD, M.-C. (2010). "Patrol vehicle interior layout: Ergonomic analysis and development of tools and recommendations to prevent musculoskeletal disorders and improve the comfort and efficiency of patrol officers." Master's thesis in Biology. Université du Québec à Montréal.
- [8] Lehouillier, Frédérique. (2023). "The impact of a bicycle patrol season on the health and physical fitness of police officers." Master's thesis, Université du Québec à Chicoutimi, 65 pp.
- [9] <https://vehiculesinfo.fr/levolution-de-voitures-de-police-au-fil-des-siecles.php> (Accessed on May 26, 2017, at 1:44 PM)
- [10] <https://www.permigo.com/3373-pourquoi-les-voitures-de-police-sont-elles-si-importantes.html> (Accessed on October 29, 2025, at 11:17 PM)
- [11] Fassin, D. (2021). **La force de l'ordre. Une anthropologie de la police des quartiers**. Éditions Seuil.
- [12] Foaleng, Mpako & Ousmane, Amadou Mahamane (2015). "La programmation de la réforme du secteur de la sécurité" [Programming Security Sector Reform], in Ornella Moderan (ed.), **Boîte à Outils pour la réforme et la gouvernance du secteur de la sécurité en Afrique de l'Ouest** [Toolkit for Security Sector Reform and Governance in West Africa] (Geneva: DCAF, 2015).
- [13] Zakpa, F. G. (2016). "Les entraves aux actions de Police dans les quartiers précaires de la commune de Yopougon : cas de Gbinta et Niangon continu" [Obstacles to police operations in the informal settlements of Yopougon municipality: the cases of Gbinta and Niangon Continu]. Master 1 Thesis, UFR of Criminology, Félix Houphouët-Boigny University (Abidjan-Cocody).
- [14] Echui Aka Désiré (2012). "Le transport urbain à Abidjan face aux défis du développement durable" [Urban transport in Abidjan facing sustainable development challenges]. **Revue de Géographie Tropicale et d'Environnement**, No. 12.
- [15] N'Zi Kouamé Ferdinand (2024). "Construction d'ouvrages routiers dans le grand Abidjan : Quelle contribution à la mobilité urbaine abidjanaise ?" [Road infrastructure construction in Greater Abidjan: What contribution to urban mobility in Abidjan?]. **Revue EVALU'A – Experts et Évaluateurs d'Afrique**, No. 1.
- [16] French National Assembly (2019). "Rapport de la Commission d'enquête sur la situation, les missions et les moyens des forces de sécurité, qu'il s'agisse de la police nationale, de la gendarmerie ou de la police municipale" [Report of the Commission of Inquiry into the situation, missions, and resources of security forces—National Police, Gendarmerie, and Municipal Police]. 544 pp.
- [17] MEMI-GT-RSS (2012). "Document de Politique Sectorielle du Ministère d'État, Ministère de l'Intérieur de Côte d'Ivoire – Document d'orientation" [Sectoral Policy Document of the Ministry of State, Ministry of the Interior of Côte d'Ivoire – Policy Framework]. April–May 2012. Unpublished.
- [18] UNDP (2013). "Project to Support Reconciliation between the Population and the National Police of Côte d'Ivoire – PARPP." Final descriptive report.
- [19] Andersen, S. (2026). Emergency response speed varies widely, and faster dispatch can dramatically improve survival and outcomes. Emergency Response Time Statistics. Worldmetrics, Public Safety Crime Report.
- [20] Akadjé, A. M. (1995). "Study of obstacles to police intervention in the fight against crime in Abidjan." Master's thesis, Institute of Criminology, Abidjan..
- [21] LOGBO, L. E. (2014). "Ivorian Customs' actions in combating illicit drug trafficking at AERIA." UFR Criminology, Master 1 Thesis.
- [22] IBO, S. G. (2014). "Criminal Police actions in combating VAMA [Violent Attacks Against Persons and Property] in Abidjan: The case of the Cocody commune." UFR Criminology, Master 1 Thesis.
- [23] BAMBA Aboubakar (2020). "Abidjan Urban Transport Project: Police Traffic Regulation Unit's transport resources bolstered." In FratMat.Info. <https://www.fratmat.info/article/208369.economie/projet-de-transport-urbain-dabidjan-les-moeyens-de-locomotion-de-lunite-de-regulation-de-la-police-renforces> Accessed on October 27, 2025, at 6:26 PM.

- [24] https://fr.wikipedia.org/w/index.php?title=Theories_des_besoins_et_des_motivations&oldid=168135818
(Accessed on June 7, 2026, at 2:56 AM)
- [25] MEIER, O. (2017). "Frederic Winslow Taylor – Scientific management of enterprises." In *Les Grands Auteurs en Management* [Great Authors in Management], pp. 67-79.
- [26] N'DA, P. (2015). "Research and methodology in social and human sciences: Successfully completing your thesis, master's or professional dissertation, and article." Paris: L'Harmattan.
- [27] UNDP (2017). "Project to support the strengthening of socio-security dialogue – PARDS." Final report.