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Difficulties in land regulation in Greater Lomé and Atakpamé. Contexts and explanatory factors

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Abstract: In Togo and particularly in greater Lomé and Atakpamé, we see that the State has difficulty regulating or controlling land. The objective of this article is to examine the factors that make land regulation difficult in Togo in general and in greater Lomé and Atakpamé in particular. To achieve this, the research used quantitative and qualitative approaches based respectively on questionnaire administration and individual interview techniques. For the quantitative survey, 208 landowners were interviewed in greater Lomé compared to 122 in Atakpamé. Concerning the qualitative approach, 24 resource people were interviewed in greater Lomé compared to 21 in Atakpamé. The results of the investigations showed that the non-registration of plots purchased in the cadastral service, the absence of land mapping, unconventional subdivisions, land speculation and the purchase of family land constitute factors which make regulation and management difficult. land security. To compensate for illegal urban practices and sustainably control land, it is necessary, in addition to existing measures, to adopt an inclusive and participatory approach which would bring populations, local elected officials and the state into a chain of collaboration.

Keywords: *Land register, Land regulation, land speculation, Sustainable city, Unconventional subdivision, greater Lomé, Atakpame.*

1. Introduction

Land management is one of the major concerns of urban governance. The future of cities is fraught with uncertainty in view of more dynamic demographic transitions and more constant land conflicts. The rapid expansion of urban space has made sustainable land regulation complex if not impossible [1]. Indeed, this complexity is explained by the fact that the growth of cities and their surroundings does not always occur in accordance with the conditions of the space which supports this growth [1]. Therefore, uncontrolled city expansion impinges on the fundamentals of sustainability and brings challenges of informality Muñiz and Dominguez [1]. For Gervais- Lambony [2] the unconstrained occupation of urban land gives an incomplete character to the urban landscape. According to Zhang, et al. [3] this unfinished architecture closely resembles rural settlements; which is not very favorable to the sustainable city approach.

Building a sustainable city implies, for Simmoneau [4] the capacity of States to resolve, in the long term, insecurities or to invent innovative approaches to deal with disruptions and urban crises. Naturally, land insecurities are the most pressing crises that African cities continue to experience. For

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Muñiz and Dominguez [1] the institutional level of land management determines whether a city can achieve sustainable development.

To ensure the sustainability of urban spaces, it is necessary to think about the regulation of land and its insecurities. "Land issues under control, in a balanced manner, favor in certain conditions for sustainable development" [5]. Territorial planning plays a crucial role in the search for a balance between improving the quality of life of populations and safeguarding the management of natural resources [6]. With this in mind, [7] point out that good land management promotes social and food security. Indeed, balancing land preservation and rapid urban growth is a significant challenge for policymakers around the world [7]. For Simancas and Peñarrubia [8] the analysis of spatial forms of occupation generated by the urban process through town planning and land use planning requires a particular and detailed analysis. Land management has never been so decisive in the development of urban societies.

Today, the covetousness that exists around urban space causes difficulties in sustainable land management. In Côte d'Ivoire and particularly in Abidjan, [9] demonstrate that, despite the efforts made by the public authorities in planning and urban management, land remains the incompatible element in all solution approaches. In Burkina Faso, [10] notes that among the most recurrent social conflicts, those linked to land take priority. For the author, the solutions provided so far have still not helped public authorities anticipate crises or resolve them. Rapid urbanization and urban sprawl have significantly changed spatial form [11]. This situation continually persists because the spatial expansion of cities comes up against a lack of urban planning in general and land planning in particular [7]. This observation is further supported by Simmoneau [4] when she reaffirms that the development of southern cities is hampered by zany and fumbling land management.

In Togo, the difficulties of land management are a clear observation. For Bilao [12] access to land remains the greatest rivalry between the Togolese. Unfortunately, its management never found the right formula. For Chen, et al. [13] the planning and management of urban spaces has become a difficult task in the field of urban planning.

In the cities concerned by this research, particularly greater Lomé and Atakpamé, poorly controlled spatial dynamics reveal land issues that are difficult to regulate. The statement, "paying for land in Lomé is paying for a lawsuit", made by Dziwonou [14] in the early 2000s, remains relevant and shows the extent of a problem that resists time. In Atakpamé, Oladokoun [15] and Fatodji [16] note that the constant occupation of administrative reserves and public rights of way (roads, streets, blocks, etc.) show the emergence of uncontrolled land practices that are difficult to regulate by the State. Beyond the spatial scale of greater Lomé and Atakpamé, several scientific literatures confirm that in Togo, in general, land management and its crises are part of an impasse detrimental to the development of urban spaces.

By asking the question in a different style: how to stop the land hemorrhage? Klassou [17] and Konlani [18] share concerns about the persistence of land crises which have not yet found adequate and effective solutions. For Biakouye [19] land control remains, for the moment, hopeless because the solutions provided by public authorities are always outdated. The impasses observed in land management have led [20] to declare the failure of regulatory standards. He wrote to this effect: "logically, the measures of land regularization and social control would have made it possible to achieve the objective of the land management rules. However, the finding rather reveals a resurgence of land conflicts." This contrast shows, according to Gnonei [21] the limits of the State and its regulatory authorities. For Kodjokpoe [22] the State still finds itself powerless to plan and regulate a land system whose access methods are becoming more complex every day. This observation remains entirely shared by Chen, et al. [13]. According to these authors, the current forms of use and management of urban land demonstrate that the State has enormous difficulties in reestablishing normal order. Obviously, the occupation of state reserves and developed areas observed persistently confirms a weak presence of sovereign power [13].

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Addressing this problem, Boko [23] explains that the inadequacies observed in land regulation are not a new fact. According to the author, the imbroglios noted only confirm the fragilities of land governance. In an ironic approach, [24] explains that the Togolese land market operates without a father or guardian. This is why Attiogbevi-Somado [25] notes that everyone sells, buys and occupies land in total liberalism.

Indeed, these different positions expressed show difficult regulation of the land system. However, to achieve the visions of urban sustainability, which we are calling for, it is a non-negotiable imperative to control land and correct irregularities. Faced with this situation strewn with concerns, the following question arises: What explains the difficulties of land regulation in Greater Lomé and Atakpamé? In response to this question, this article postulates that the difficulties of land regulation observed in greater Lomé and Atakpamé can be explained by the predominance of land appropriation strategies which escape institutional control. The objective of this research is to examine the contexts and factors linked to the difficulties of land regulation in greater Lomé and Atakpamé.

2. Physical Setting of the Study

Greater Lomé: Located in the southwest of Togo, in the Maritime Region, Greater Lomé is located between 1°4'50' and 1° 20' 40' East longitude and between 6° 12' 20" and 6 ° 9' 40" north latitude. It is limited to the northeast by the lower Zio valley, to the west by the Togo-Ghana border and to the south by the Atlantic Ocean. As a beach town and border town, it runs along the coastline of the Gulf of Guinea and borders Ghana at Aflao. With the spatial dynamics, the city of Lomé has opened up to other areas to become "Grand Lomé". With the 2015 Urban Development Master Plan, greater Lomé is made up of the prefectures of Agoè-Nyivé and Gulf. The first is made up of 06 cantons while the second has 7. For this research, only the communes of Gulf 7 and Agoè-Nyivé 4 were favored due to the recurring land problems that these areas experience (Figure 1).

The city of Atakpamé: On a national scale, Atakpamé is a secondary city located at the crossroads: on the national road No. 1 linking Lomé, the Togolese capital and the interior of the country towards the North. The city has a strategic position, because it is located halfway between Lomé the capital (160 km), Kpalimé (100 km) and Sokodé (190 km) which is one of the major centers of the hinterland. Spatially, Atakpamé is the largest region in Togo. It covers an area of 16,800 km 2, or 30% of the entire Togolese national territory. This region, which is the greenest in the country, extends from 6°32′ to 8°34′ of North Latitude and from 0°30′ to 1°38′ of East Longitude. Following the decentralization carried out in 2019, the Ogou prefecture is restructured into 4 communes including Ogou 1, Ogou 2, Ogou 3 and Ogou 4. For this research, the commune of Ogou 1 with Atakpamé as capital was privileged due to the recurring land problems facing this urban area (Figure 2)

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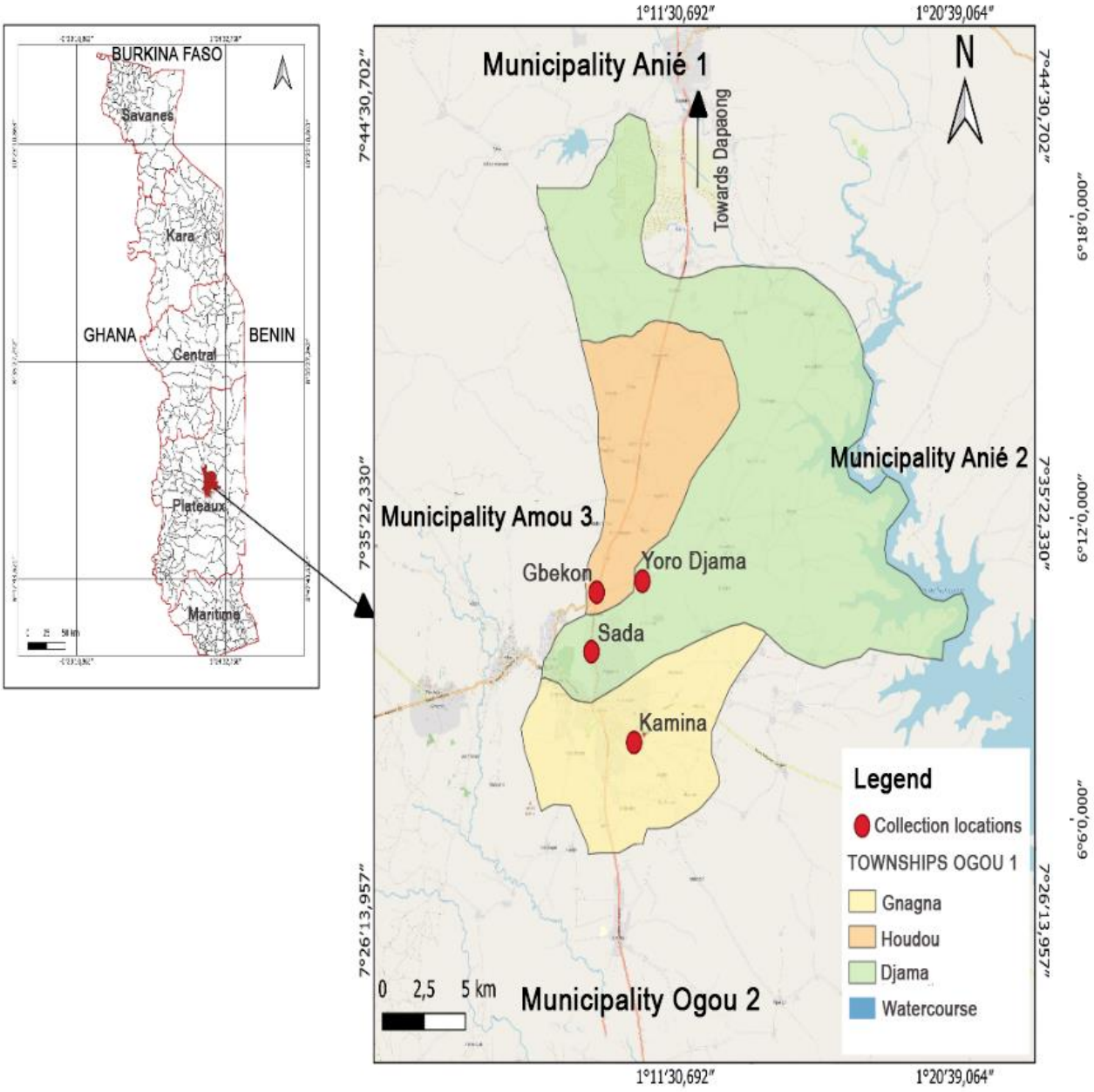

Figure 1.
Geographical location of greater Lomé and the study communes.
Source: Fieldwork, July 2023.

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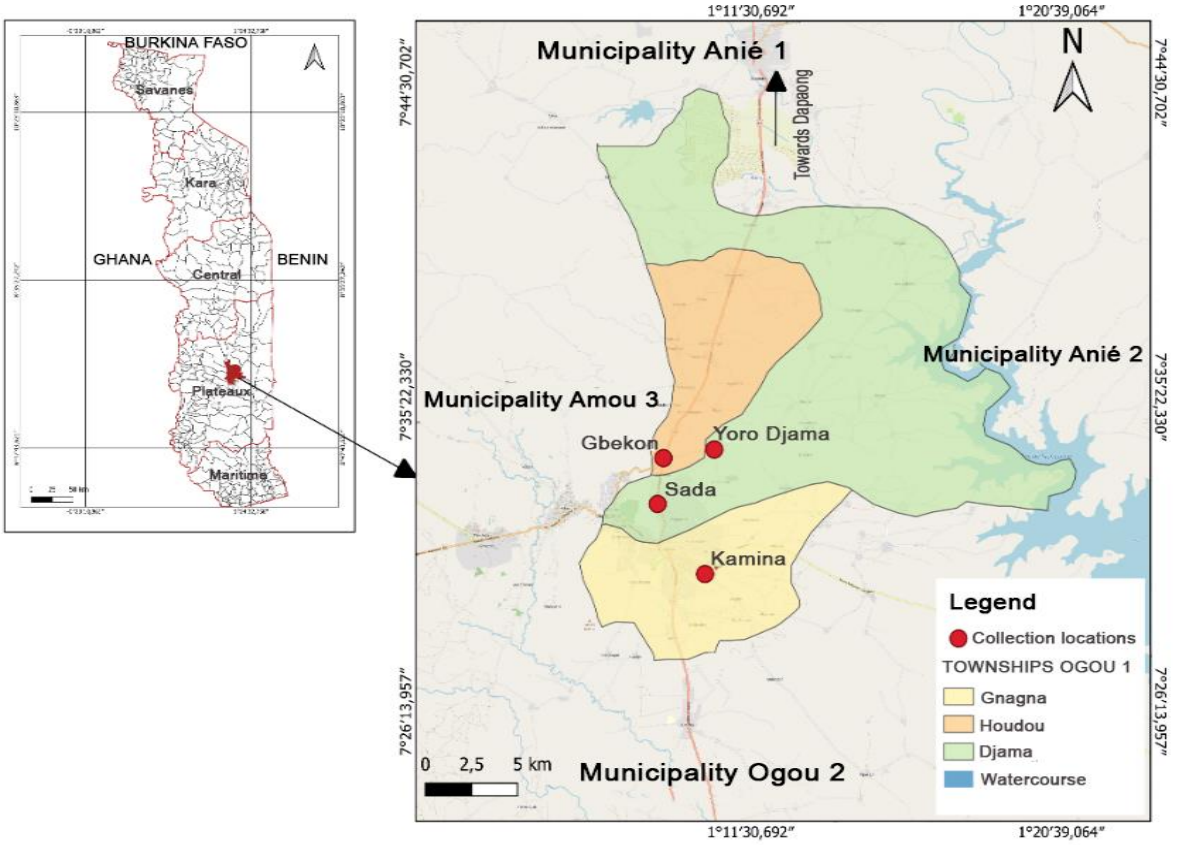

Figure 2.
Geographical location of collection points in Atakpamé in the commune of Ogou 1.
Source: Fieldwork, July 2023.

3. Materials and Methods

3.1. Materials

3.1.1. Study population

This research, which deals with the difficulties of land regulation, involves, in the broad sense, several actors. However, for this work, the populations targeted or concerned by the quantitative survey are the landowners of the communes of Gulf 7 and Agoè-Nyivé 4 (greater Lomé) and Ogou 1 in Atakpamé. For the qualitative survey, the following resource people were targeted:

- The head of the land security department of the Cadastre, Land Conservation and Registration Department;
- The president of the order of surveyors of Togo,
- Town planners and judges;
- The Deputy Secretary of the Ministry of Urban Planning.

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Table 1.
Summary of the sample size according to the types of survey.

Type of survey	Survey cities		
	Greater Lomé	Atakpame	Total
Qualitative	24	21	**45**
Quantitative	208	122	**330**

Source: Field survey, July 2023.

Table 1 presents, according to the methodological approaches, the total number of people surveyed in greater Lomé and Atakpamé. For the quantitative survey, 208 landowners were interviewed in greater Lomé compared to 122 in Atakpamé. Concerning the qualitative approach, 24 resource people were interviewed in greater Lomé compared to 21 in Atakpamé.

3.1.2. Collection Techniques and Tools

In accordance with the methodological approaches chosen, the information collection techniques and associated tools are presented in the following table:

Table 2.
Summary table of data collection methods, techniques and tools.

Methods	Collection techniques	Data collection tools
Qualitative	Literature search	Documentary content analysis grid
	Individual interview	Interview guide
Quantitative	Questionnaire administration	Quiz

Table 2 outlines the data collection methods, techniques and tools. Regarding the qualitative method, documentary research and individual interviews were the preferred collection technique. For the quantitative method, questionnaire administration was the technique adopted to collect the data.

Speaking of tools, reading Table 2 shows that the documentary content analysis grid and the interview guide are the tools chosen to collect qualitative information. On the other hand, to obtain quantitative data, the quiz was used as a collection tool.

In detail, the documentary research consisted of collecting written data related to the study problem. These include: scientific articles, books, doctoral theses, master's theses, etc. For this work, the journals of MDPI (Multidisciplinary Digital Publishing Institute) and Elsevier indexed in the Scopus database were consulted. Specifically, the documentary research focused on the following themes:

- Spatial dynamics;
- Urban planning;
- Sustainable urban development;
- Land fragility;
- Land insecurity;
- Urban management.

This inventory made it possible to build a solid documentary base on the different dimensions of research. The exploration of these writings informed the development of the conceptual, theoretical and methodological frameworks of the research.

Regarding the questionnaire, it is made up of closed questions whose answers are pre-coded in order to facilitate the processing of information. The questionnaire was administered indirectly to the respondents in order to avoid possible errors. It is subdivided into four sections namely:

- Profiles of respondents;
- Land consumption and its implications;

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- Difficulties in sustainable land regulation in Greater Lomé and Atakpamé;
- Perspectives for sustainable management of urban land.

The administration of the questionnaire made it possible to have numerical trends. This facilitated statistical analyzes of the results obtained in the field.

Finally, the individual interviews helped to collect the opinions of certain resource people (previously mentioned) on the difficulties of sustainable land regulation in Greater Lomé and Atakpamé.

3.2. Methodological Approaches

For the methodological approach, the collection of information was based on quantitative and qualitative approaches.

Whatever the methodological approach considered (quantitative and qualitative), this research favored the non-probabilistic sampling technique, that is to say a technique based on the reasoned choice of the actors to be interviewed. It's about a non-probability sampling method which is determined by the respondents.In the absence of a database providing information on landowners in the two cities, this technique consisted of gradually building a sample using references obtained from first respondents. On each field, the number zero (0) designates the resource person and n represents the saturation of the sample. This probing technique determined by respondents or respondent-driven sampling (RDS) was used by Wilhelm [26] for studies concerning so-called hard-to-reach populations.

3.2.1. Data Processing

3.2.1.1. Quantitative Data Processing

The quantitative data, which are collected using the KoboCollect software, were transferred to the Statistical Package for Social Science (SPSS version 22) software on Windows for statistical analyses.

Concerning the statistical analysis, the variables were summarized by the proportions followed by the calculation of their prevalence and their confidence interval at the 95% level (95% CI) according to the following formula:

$$\left[f - 1,96\frac{\sqrt{f(1-f)}}{\sqrt{n}}, f + 1,96\frac{\sqrt{f(1-f)}}{\sqrt{n}}\right]$$

Furthermore, the calculation of the confidence interval was done according to the lower limit and the upper limit.

For the comparison between greater Lomé and Atakpamé, the Pearson chi-square (chi2) test for comparison was applied. This made it possible to deduce p-values. Formatting of tables and graphs is done with Excel software.

3.2.1.2. Qualitative Data Processing

As for the qualitative data, content analysis based on logico- semantic and structural methods was applied to identify the manifest and latent meaning of the information.

Emphasis was placed on the order of appearance and frequency/repetition of symbolic representations in speeches. Then, attitudes and reactions of the interviewees were interpreted. In doing so, we were able to understand what we could fundamentally miss through the collection of data on the basis of a questionnaire.Furthermore, the principles of analysis are based on the argumentative logics that develop interviewed. So, we proceeded to study and compare the meanings of the speeches actors interviewed to highlight the systems of representation they convey. Personal experiences were then translated into collective issues in order to understand the experience of the interviewees.

4. Results

4.1. Land Regulation Put to the Test of Practical Standards in Greater Lomé and Atakpamé

The land management problem is explained, for some respondents, by several factors, some of which are listed below.

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Table 3.
Factors of difficult land regulation.

Cities	GREATER LOMÉ		95% CI	ATAKPAME		95% CI	P-value
Difficulties in land regulation	**Effective**	**%**	**Lower/Upper terminal**	**Effective**	**%**	**Lower/Upper terminal**	
Absence of land mapping	109	52.40	45.61- 59.19	79	64.75	56.27- 73.23	0.029
Failure to register plots purchased with the cadastral service	132	63.46	56.91- 70.00	96	78.69	71.42- 85.95	0.004
Clandestine and friendly purchase of land	125	60.10	53.44- 66.75	92	75.41	67.76- 83.05	0.005
Total	366	175.96		267	218.85		-

Note: The data contained in this table is multiple choice.
Source: Field survey, July 2023.

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Analysis of the data in Table 3 shows that the non-registration of plots purchased from the cadastral service constitutes, in greater Lomé and Atakpamé, the main factor which makes land management difficult. The emphasis placed on this modality shows that the land system is informal. Indeed, whatever solutions the public authorities propose, if the buyers' plots have not been identified and registered, land management difficulties will persist. For example, to develop the Local Urban Plan, it is necessary for the State to have at its disposal plot plans, land titles, etc. landowners. However, obtaining these documents requires, on the part of the buyers, a land registration process. If the failure to register plots with the cadastral service is mainly mentioned in the two research cities, then there is reason to conclude that land management efforts will only be failures. Here, the question of land information comes up insistently. For our part, we must move towards land education.

In addition, the absence of land mapping mentioned by the respondents opens another door for analysis. Before making the population aware of how the land system works, the State will first have to update certain spatial management tools such as land mapping. This model allows you to have general knowledge of the categories of domains available and the identity of their owner. These details, which will be recorded in the cadastral plan, will allow the State to have the necessary information for spatial regulation and management of land crises.

Apart from these factors, some respondents from greater Lomé mention land speculation as an obstacle to land regulation.

4.1.1. Land Speculation, an Obstacle Still in Full Swing

The difficulty in land regulation depends, for certain informants, on the variable setting of land prices. Regulating land means putting in place provisions that can control or correct the functioning of the land system. For certain buyers, in order to achieve this control of the system, it will be necessary to regulate the prices of land which are set liberally.

With this in mind, investigations were carried out on the price of land in greater Lomé and precisely in the two research communes (Gulf 7 and Agoè-Nyivé 4). This survey only took into account the price of a plot of land. The responses collected are presented in the graph below:

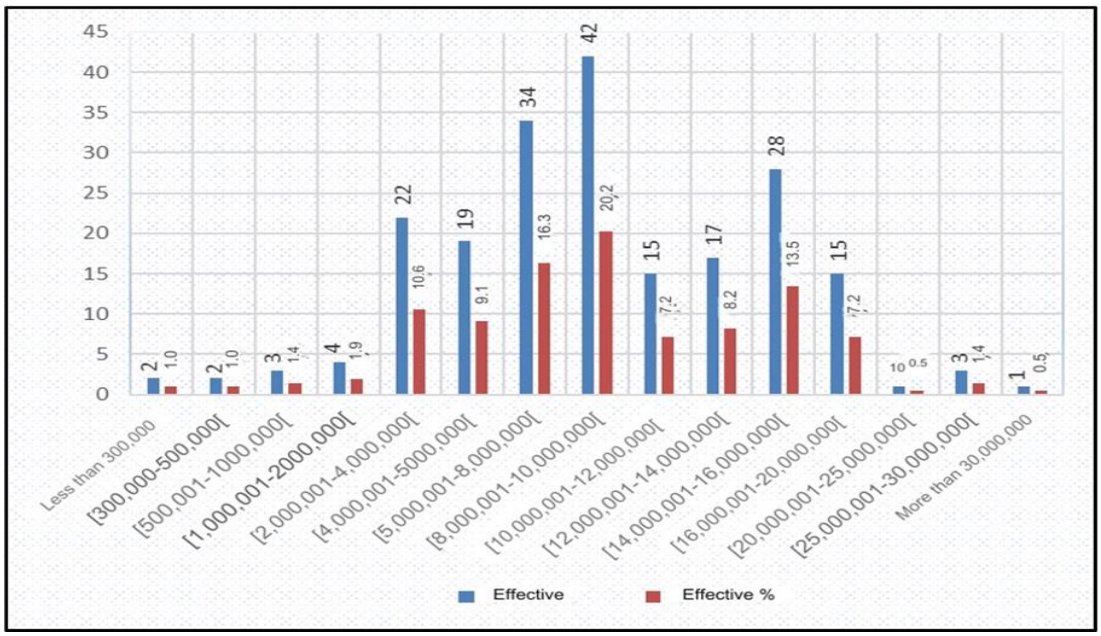

Figure 3.
Current price of a lot of land in greater Lomé.
Source: Field survey July 2023.

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Reading Figure 3 shows that, in greater Lomé, for the same lot, prices vary. For some interviewees, this creates disorder and makes the land sector difficult to regulate. Regulating land prices launches an unprecedented debate that is difficult to achieve in practice. By questioning these buyers about the substance of their ideas, they believe that it is not a question of the State replacing the selling owners. But, for the public authorities, it is a question of harmonizing land prices according to lots.

For these categories of actors, there is a correlation between land speculation and the difficulties observed in the regulation of this sector. Obviously, this approach seems complicated by the fact that the State does not hold ownership rights to the land. However, it remains relevant for scientific reflection and invites specialists to pay attention to its feasibility.

Today, land overbidding remains the thorn that makes land regulation more difficult. It opens doors to the games of actors which reduce the efforts of sustainable management of space.

The difficult management of land in the two research towns is explained, to another extent, by the purchase of family or community land.

4.1.2. The Purchase of Family Land, a Catalyst for Land Disorder

During the various interviews with respondents, the purchase of family estates is frequently mentioned as one of the factors that makes land regulation difficult. Which raised the following question: how does the purchase of family land complicate land management in Togolese cities? The responses collected are recorded in the following table:

Table 4.
Conséquences of purchasing family land.

Cities	**GREATER LOME**		**95% CI**	**ATAKPAME**		**95% CI**	**P-value**
Consequences	**Effective**	**%**	**Lower/Upper terminal**	**Effective**	**%**	**Lower/Upper terminal**	
Sale of family land without formal procedures	132	90.41	85.63- 95.18	84	84.85	77.78- 91.91	0.186
Absence of land transfer documents in the event of sale	77	52.74	44.64- 60.83	69	69.7	60.64- 78.75	0.008
Solicitation of non-accredited surveyors for subdivisions	61	41.78	33.78- 49.78	79	79.8	71.88- 87.70	< 0.0001
Total	270	184.93	-	232	234.35	-	

Note: The data contained in this table is multiple choice.
Source: Field survey, July 2023.

In greater Lomé, the purchase of family estates complicates land management to the extent that the sale of land is carried out without formal procedures resulting, in the majority, in the absence of land transfer documents. In Atakpamé, in addition to the non-compliance with formal procedures in the sale of family land, the respondents mentioned that the subdivision of this land purchased from the communities is done by unaccredited and unreliable surveyors.

The analysis of these responses reveals informality in family land transactions; which makes the procedures unclear and biased. For several informants, the surveyors recruited by the communities are in the wrong when it comes to subdividing land for sale.

Wanting to enjoy an inheritance that is not necessarily legitimate, the actors, in the greatest clandestinity, recruit surveyors who support them in subdividing the land and selling it without everyone knowing. Naturally, these lands sold informally are subject to disputes. Regulation becomes difficult to the extent that the estate put up for sale has not previously been the subject of a formal

procedure at the land registry. This means that the authenticity of the sales documents is rejected by the other beneficiaries of the family. These various problems mentioned above bring to the surface the question of subdivision.

4.2. Land Subdivision in Greater Lomé and Atakpamé: A Prerogative of Illegality?

The controversies observed in subdivision operations lead us to ask the following questions: who do buyers ask for the subdivision of their plots? The responses collected are recorded in numerical data in the figures below:

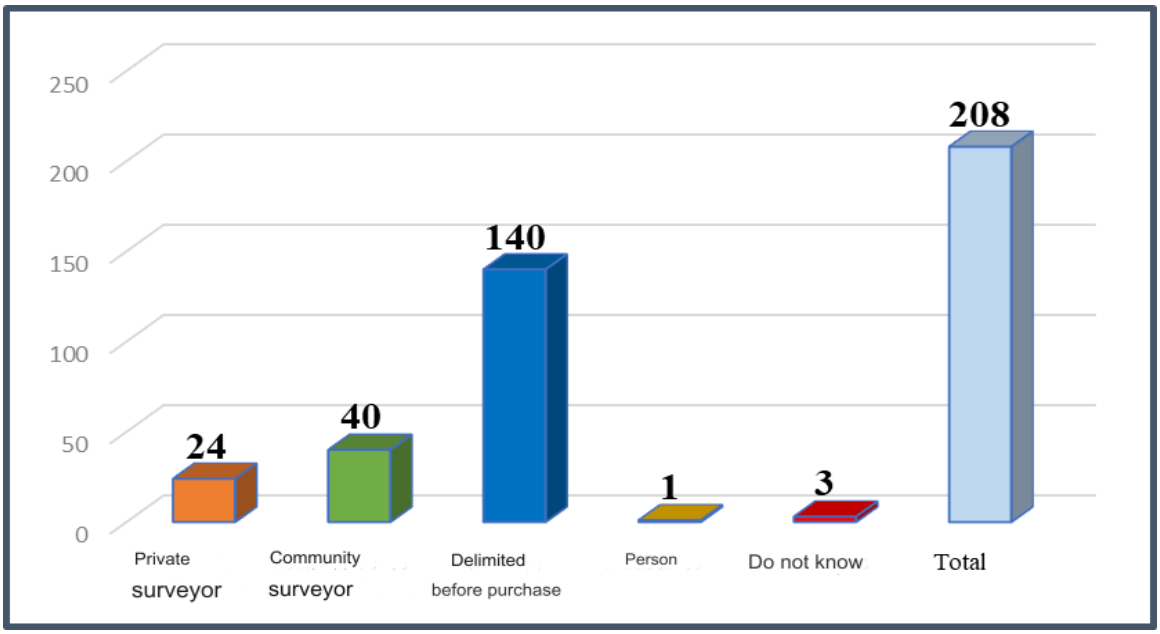

Figure 4.
Profiles of actors solicited for subdivision in greater Lomé.
Source: Field survey, July 2023.

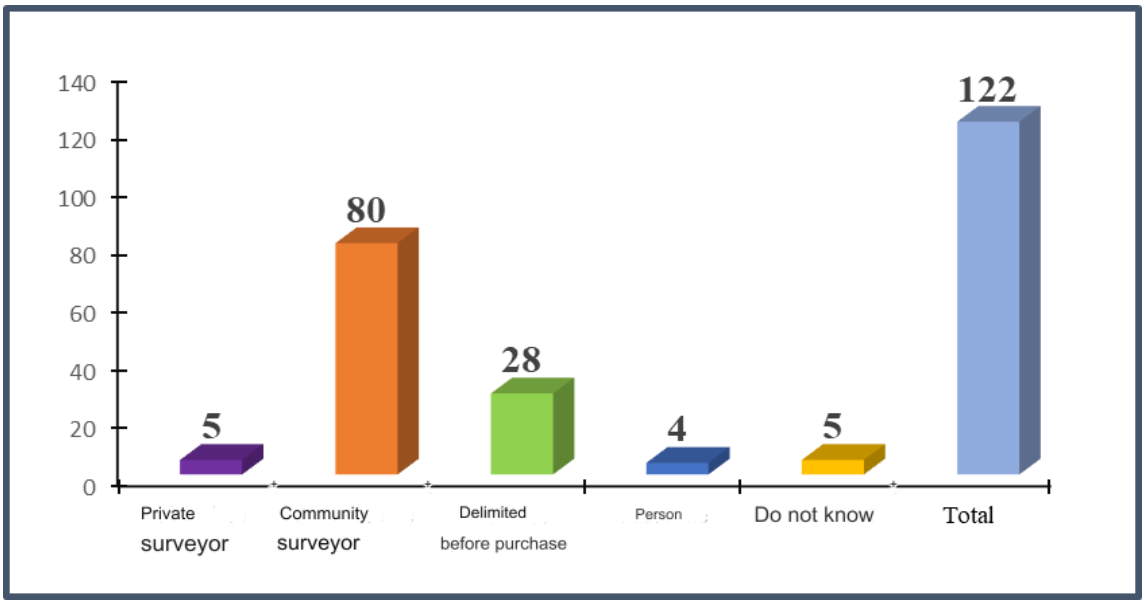

Figure 5.

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Profiles of the actors contacted for the subdivision in Ogou 1 (Atakpamé).
Source: Field survey, July 2023.

The data in Figure 4 show that, in greater Lomé, the land purchased by the buyers surveyed is subdivided before their purchase. On the other hand, in Atakpamé, it is the surveyors of the selling community who carry out the subdivision (see Figure 5). The two modalities mentioned by the respondents pose serious problems. Even if the land is subdivided before the purchase or the surveyors of the selling community carry out the subdivision of the land, there are still concerns regarding compliance with town planning standards. Given that the buyers have mainly purchased their land from communities whose sales deeds are regularly called into question and given the amateur nature of certain surveyors, it is obvious that the subdivisions are biased and cause enormous problems in land regulation. These realities accentuate the difficulties to the extent that, according to a land registry official, the areas of the communities are not yet projected in their new digital system.

Subdividing land requires the purchaser to clearly demarcate his plot and clear public rights-of-way (streets, administrative reserves, etc.). In town planning standards, it is the State which makes the subdivision and approves the habitability of an area. However, in Togo, this procedure is absent and we notice stubborn liberalism in this area. This leads to insecurities which make land management difficult.

However, the buyer, to get out of the problems, has the possibility of calling on an "accredited" surveyor for his subdivision. The emphasis is on "accredited" because Table 4 mentions "the solicitation of non-accredited surveyors" as one of the land management difficulties. Instructed on the regulatory principles of subdivision, the approved surveyor will subdivide the land according to urban planning standards. Which would not cause harm to the applicant during the contradictory demarcation. These problems, underlying poor housing developments, bring to light the debate on the profession of surveyors which, according to informants, must be reformed.

In detail, several cases of land insecurity exist due to the amateurism of certain surveyors. With technological advances, since 2010, the points or geographical coordinates necessary for the delimitation of plots have been taken with the Global Positioning System (GPS). This facilitates data entry into the land registry database. However, it is clear that some surveyors, through lack of knowledge or inadvertence, misunderstand the coordinates which can, after analysis, project the plot into the domain of another applicant. Which leads to encroachment problems.

The unconventional subdivision processes observed in research towns are not unknown to public authorities. Already in February 2023, in a joint press release, the ministers of: Urban Planning, Housing and Land Reforms, Territorial Administration, Decentralization and Territorial Development, Economy and Finance, of Security and Civil Protection, Agriculture, Livestock and Rural Development reminded the land-holding communities, surveyors and topographers that all subdivision operations are now subject to prior authorization from the Ministry of Urban Planning, Housing and Land Reform. Also, it was recommended to mayors to authorize subdivisions upon presentation of the authorization issued by the Ministry of Urban Planning, Housing and Land Reform (MUHRF).

However, the field interviews carried out revealed that several subdivisions continue to operate on the margins and in violation of the measures taken.

This field observation shows a complex system which is largely driven by the actions of the actors. It is obvious and the realities on the ground confirm that the difficulties encountered in land regulation can also be explained by the inconsistency of institutional decisions. To avoid all these inconveniences, how should we proceed to create a subdivision that complies with town planning standards?

4.2.1. What Procedures for a Subdivision That Complies with Town Planning Standards?

The surveyor is the main actor in subdivision operations. Unlike private surveyors, those from the land register are technicians of the conservator and are mandated to carry out conflicting boundaries. They hold land expertise by carrying out the following tasks: topographic surveying, drawing up the plan, georeferencing land titles, etc.

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Faced with the proliferation of unconventional subdivisions, we are led to question certain land surveyors about the formal procedures for subdividing land. The different opinions collected made it possible to draw up this synoptic table:

Table 5.
Different stages for conventional subdivision.

Steps	Procedures
Step 1	Approval of the zone by ministerial decree
2nd step	Design of the detection plan for islands, streets, administrative reserves, flood zones, etc. by the ministry of urban planning
Step 3	Owners with their estates in the approved zone draw up their plans and collect the papers justifying their ownership rights (Land title, etc.)
Step 4	Community surveyors approach the town planning department with their plans for verification
Step 5	The urban surveyor projects the community plan into their base to check the position of the estate in the approved zone
Step 6	In the absence of any disputes, the ministry of town planning issues an extract of approval (Town planning department, extracts division) of the zone where the community's domain is located so that their surveyor can conform to the layouts (Streets, reserves, shapes of blocks, etc.)
Step 7	The private surveyor returns to the land to carry out the layout and fix the boundaries in accordance with the plans and reference axes of the Ministry of Town Planning.
Step 8	Collection of the plan implemented at the Ministry of Urban Planning by the private surveyor
Step 9	The Ministry of Town Planning transfers the file to the land registry which sends its surveyors to control the subdivision (This involves seeing whether the plan implemented by the private surveyor complies with the standards)
Step 10	Release of the final subdivision plan

Source: Field survey, July 2023.

Table 5 highlights the different stages of conventional subdivision. It retraces the important procedures which allow the actors to establish a formal subdivision free from all disputes.

4.2.2. The Implications of Unconventional Housing Developments

Clandestine or unconventional developments lead to land insecurity. Field investigations made it possible to collect forms of land insecurity resulting from poor subdivision.

Table 6.
Consequences of unconventional subdivisions.

Cities	GREATER LOMÉ			ATAKPAME			P-value
Implications	Effective	%	95% CI Lower/Upper terminal	Effective	%	95% CI Lower/Upper terminal	
Seizure of the domain by the courts	39	31.2	23.07- 39.32	27	33.33	23.06- 43.59	0.749
Eviction	70	56	47.29- 64.70	58	71.6	61.78- 81.42	0.024
Expropriation	33	26.4	18.67- 34.12	18	22.22	13.16- 31.27	0.497
Total	142	113.6	-	103	127.15	-	-

Note: The data contained in this table only concerns respondents who suffered the consequences of unconventional housing development and the answers are multiple choice.
Source: Field survey, July 2023.

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The figures in Table 6 show that poor or unconventional subdivisions lead, in greater Lomé and Atakpamé, to evictions and the seizure of estates by the courts. This last decision (seizure of the estates by the courts) is necessary when resistance to the court decision is noticed in the purchaser.

The actions of the actors, observed in the housing estates, resist and surpass the standards established by the State. These realities denote all the complexity that exists when we talk about the land system. On analysis, public power seems to be totally overwhelmed.

4.3. State Failure in the Control of Urban Spaces: Towards Inclusive and Participatory Land Regulation?

The liberalism of land practices requires us to support the thesis of state failure. Except that, for some respondents, the State does not get help from the population and local authorities, namely: mayors, traditional chiefs, district chiefs, etc. Understanding that land regulation is primarily a state responsibility, some informants point out that it is also a participatory and inclusive approach. The population and these aforementioned local personalities live and share daily realities. They must, in a reasonable proportion, support the State in the regulation and security of land.

The inclusion recommended in land regulation must follow, according to the respondents, the following process:

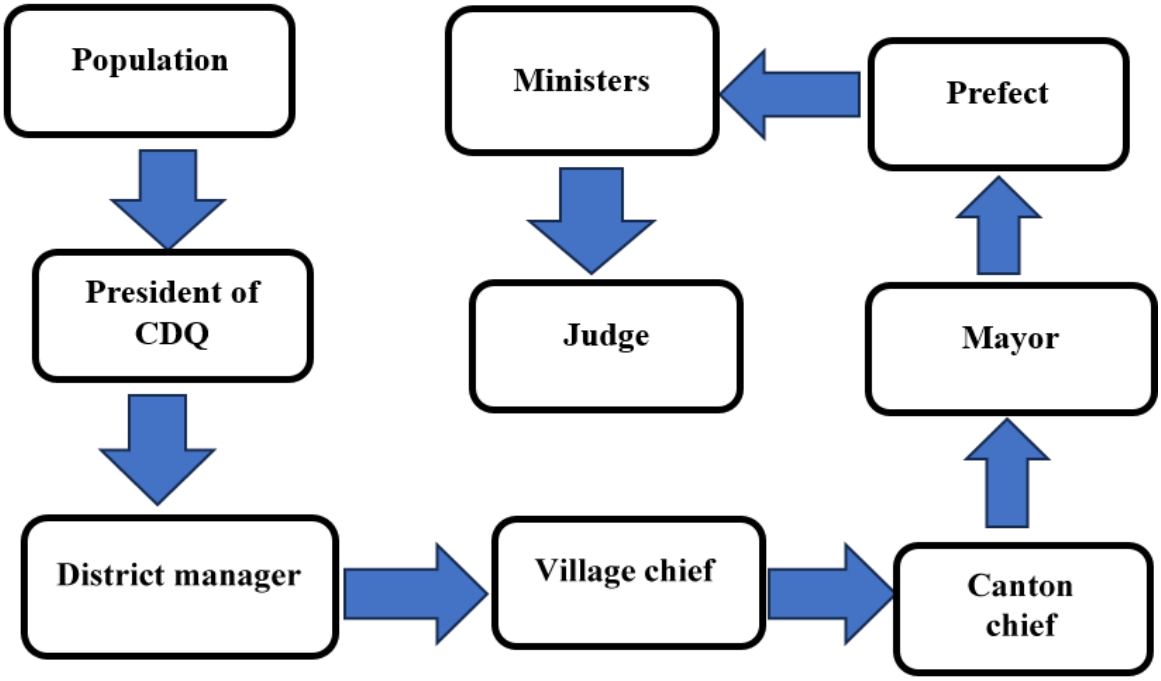

Figure 6.
Process of inclusive land regulation.
Source: Field survey, July 2023.

Figure 6 illustrates a chain of action between local actors, the State and the population. Figure 6 demonstrates the importance of action synergies for inclusive land management.

Reading this diagram brings us closer to land regulation from below. Indeed, the interviewee who mentioned this process explains it as follows:

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The population plays the primary role in this process. Once she notices a case of subdivision, the information must be relayed to the president of the neighborhood development committee who alerts the neighborhood chief. The latter calls on the interested party to verify the subdivision authorization papers.
In the event of absence of supporting documents, the district chief urgently informs the village chief who, in consultation with the cantonal chief, reports the situation to the mayor of the district. The local elected official has the obligation to summon the person concerned to verify the procedures and interrupt their subdivision activity.
In the event of a repeat offense, the matter must be brought to the prefect who, in synergy with the Minister of Urban Planning, Housing and Land Reform, summons the individual for a final warning of his activity.
If the case persists, the ministry transfers the case to the courts, which suspends the subdivision and sentences the individual if necessary.
Extract from an interview with a buyer, president of neighborhood development committee, July 2023

***Box 1**: Chain of action for the inclusive and participatory regulation of housing developments*

The description of this chain of action shows the intervention of a host of actors who must be in synergy to stop the spiral of informality. All in all, the land regulation defended in this work, and which is essential to the creation of a sustainable city, is based on a collective effort even if the State holds a great responsibility as a sovereign actor. Controlling the land system and correcting irregularities is a collective, collegial and impersonal decision. Living in a city where access to land is open to all city dwellers, regardless of generations (present and future), requires a contribution at each level of scale.

4.4. Digitalization as a Method of Land Security in Togo

Land security remains the fundamental step to strengthen if we want to control and correct urban irregularities. To meet current requirements, the land registry has started the digitalization of its services. Since 2010, the use of GPS in taking the coordinates of areas (plots) constitutes the first dazzling step in this digital reform. In this momentum, the "Auto Card" software was chosen to carry out the work to update land registry data. Faced with the growing demand for land files to be secured and in view of land realities which are becoming complex to control, the Auto Card software finds itself limited in its functions. Indeed, with this software, several agents cannot work simultaneously in the system. This slows down the work and creates hassle in land security.

In the dynamic of innovation and to better secure land, the land register has evolved towards "Arcgis" which is also land security software. Compared to the last one, Arcgis offers a varied possibility and allows several agents to carry out land security operations at any time and simultaneously.

Table 7.
Land security procedures in the land registry.

Steps	Procedures
Step 1	• Opening the application
	• Entry of the land registry agent identifier
	• Access to secure a plot
2nd step	• Enter the requisition number already available in the Arcgis software and validate
	• Summary of the requisition (Area, canton, commune, prefecture)
	• Checking plan information
	• Displaying the plot image
	• Validation of the file
	• Confirmation of decision
Step 3	• Verification of the file by the head of division
	• Signature of the land registry director

Source: Field survey, July 2023.

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Figure 7.
Geospatial view and analysis of the positioning of applicant domains.
Source: Directorate of Cadastre, land conservation and Registration readapted by us.

This Figure 7 shows the positioning of the applicants' domains. After entering the coordinates and the requisition number, a map is displayed and you can see the positioning of the plots. This geospatial view makes it possible to check whether the applicant's land falls within an administrative domain, in another requisition and others. This makes it possible to warn the interested party of the risks linked to the purchase or occupation of this land.

5. Discussion

The search for land security is a fundamental principle in urban development. Indeed, the reform of the land system makes it possible to improve citizens' accessibility to urban facilities [27]. The difficulties exposed in land regulation result from the games of alliances which are constructed, deconstructed and reconstructed in total informality. These vague and complex practices escape intentional controls. The results of our research demonstrate the ascendancy of practical standards over official standards. Without doubt, "land sellers have means of resistance and pressure which escape state legal principles" [28]. In Lomé, [24] point out that the development of peripheral districts is the work of customary land owners who escape any control of the State and local authorities. By laying the foundations of an analysis based on the strategies of the actors, [29] demonstrate the capacity of the latter to achieve their objectives whatever the means. Obviously, [30] make it clear that the actors, with their relationships, are an integral part of the land system. Indeed, social practices influence the land and reduce its capacity to support human life. Moreover, for Tiamgne, et al. [31] human activities have caused an increase in the use, change and alteration of land. Lin, et al. [32] for their part, find that these situations are intensifying without any real solution because the territory and the population are

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subsystems of urbanization which reflects the interaction between human activities and the natural geographical environment. The concern aroused by the results of this research supports the position of Pescay [33] when he considered that the land market is an unstructured, unorganized and largely informal market, that is to say operating mainly outside the formal rules. For Simmoneau [4] "the informal works; it provides land and housing for the majority of city dwellers."

This informality highlighted by these authors also results from the fact that the land belongs to the communities. Studying land conflicts and the dynamism of management systems, [34] states:

> "[…] Today, land transactions are made between a family member and "an applicant" without informing other family members. As land management does not revolve around an individual but a group of individuals, individual arrangements are constantly called into question by one member of the family."

The transgression of norms and irregular land practices, observed in the field, lead us to conclude with Ansart [35] that the actors are susceptible to choices, initiatives and strategies. In this context, urban governance is needed which makes it possible to operationalize planning tools in order to carefully regulate spatial occupation and the land market. This is a more important aspect in the construction of cities because for Rudolf and Kosman [36] governance refers to a vision of spatial organization by power. Indeed, urbanization without town planning [37] contributes to the amplification of risks of all kinds. And, the city with "its subsystems (economic, spatial, etc.) and the environments in which they evolve are characterized by very great unpredictability" [38].

To maintain sustainable, healthy and orderly urban growth in African cities, decision-makers have, for the most part, relied on a top-down system of land use planning. This approach, although acceptable, is largely questionable. This research does not only focus on the sovereign role of the State in land regulation. Public power is constantly overwhelmed by a land system riddled with vagueness and irregularities. We will have to move towards "co-regulation of land". The population being the primary actors in the land market, it would be desirable to involve them in the spatial management processes. Inclusive planning is a necessary and proven tool for sustainable spatial management [39]. This view is supported by Cobos and Solano [40] who believe that the development of a sustainable land use plan should be a participatory process. For Jaszczak, et al. [41] this process is a means of revitalizing cities to the extent that each city dweller is concerned by urban management in general and land management in particular. According to Kovacs-Györi, et al. [42] the terms livability and sustainability are used as guiding principles of revitalization processes. Indeed, for secondary cities like Atakpamé, revitalization is an important tool for the socio-economic development of their urban structures [43].

For Nyalewo [44] in Togo, housing development is a mixture of the legal and the illegal. Naturally, the cases of unconventional subdivisions widely discussed in the results, despite the bans, confirm this position. To clean up this sector and ensure that town planning standards and state decisions are put into effect, it seems necessary to involve other stakeholders such as the population and local elected officials. This inclusive and participatory regulation makes it possible to overcome the weaknesses of sovereign power. For Nordbeck, et al. [45] one of the causes of weak land regulation lies in the fact that decision-making in land use planning is often centralized, with limited contribution from local communities. For Faure [46] local elected officials have the electoral legitimacy to act, design and carry out territorial projects within the limits of their prerogatives. By involving both the population and local elected officials in the process, [36] believe that "responsibilities are easier to establish, actions more convenient to control and interdependencies between actors easier to take into account". For Emelianoff [47] when we seek to identify the operational translations of sustainable urban development, the question of the transversality of municipal or community action is essential as a prerequisite". For Mandeli [48] the application of this approach will lead to radical changes in the role of public spaces in the life of many cities. According to Dongfeng, et al. [49] promote a win-win situation of urbanization and sustainability, it is necessary to create an interactive development relationship between population urbanization and land urbanization.

The construction of a sustainable urban territory is a long road which requires the revision of thought patterns [41]. Without a participatory approach, lasting control of land would always be an

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unrealizable wish. For Sébastien and Brodhag [50] the social dimension of sustainable development is systematically squeezed and is rarely the subject of heated debates between environmentalists and economists. In the process of creating a sustainable city, Blondiaux and Sintomer [51] point out that broad participation of the population makes it possible to reach consensus that can generate legitimacy, "based on public reasons resulting from an inclusive and equitable deliberation process, in which all citizens can participate and in which they are encouraged to cooperate freely. From this perspective, it is essential to understand the evolution of interrelations between the different scales of governance, to advance knowledge on territorial planning practices [52].

Adopting this approach of Co-regulation of space with citizens means providing the territory with its spirit, that is to say with the relationship in which the individual/collective relationship is developed, neither can be neglected [53]. Moreover, for Remøy and Street [54] the importance of involving stakeholders in decision-making processes is widely recognized. To maximize the efficiency and effectiveness of land use management, it is recommended that stakeholders be actively involved in all stages of the land use planning process [55]. This approach that we defend in this work was also at the heart of the reflections of Zhang, et al. [27] when they advocated that the city should be managed in a global and local approach and that the local should be the fundamental core of urban interventions.

6. Conclusions and Recommendations

Sustainable city policies outline the patterns of urban territories that we want for the present and future generation. In this process, control of land remains the non- negotiable element. For Cabrera-Barona, et al. [56] spatial protection is an imperative for sustainable urban development. Land use planning and regulation is a key tool for preventing and resolving risks to natural resources and the ecological environment [27]. According to Remøy and Street [54] land use planning contributes to improving the quality and efficiency of land use.

All the literature developed around sustainable cities poses a certain number of requirements, namely: prospecting, planning and regulation. Due to the dynamic nature of cities, Cabrera-Barona, et al. [56] believe that it is crucial to consider geographic information systems (GIS) in a systematic way in urban analysis. According to, Rani, et al. [57] this tool which is called GIS, helps in planning better land use. This becomes important to the extent that, for Kpotchou [58] the fragility of African cities in general and Togolese cities in particular is explained by the weak operationalization of urban planning policies. These approaches, approached differently, are involved in the control of urban territories. Concerning this point, difficulties in land regulation have been noted in Togo. The relentless space and land covetousness that we are witnessing creates situations that are not very favorable to sustainable land regulation. By placing the cities of greater Lomé and Atakpamé at the heart of the analyses, we see that irregular social practices are ascendant and are thwarting the land regulation efforts made until now. The presentation of the results demonstrates that the failure to register plots purchased with the cadastral service complicates regulation and land security. Also, unconventional subdivisions and the vague strategies of surveyors are mentioned as factors that make land control difficult.

In Atakpamé, family lands are prone to uncertainty because of the disagreements that exist around transactions. However, these are the areas that urban elites mainly acquire. Naturally, we are witnessing unorthodox subdivision operations and the falsification of purchasing documents.

In greater Lomé, unconventional housing developments are crossing a critical threshold. The amateurism of private surveyors has led to biased and vague subdivisions. Sometimes, the interplay of interests forces certain surveyors to contravene town planning standards. Undoubtedly, we observe, following contradictory boundaries, the occupation of public rights-of-way (streets, administrative reserves, etc.). Facts which explain the constant evacuations in the search areas.

Irregular land practices that escape institutional control portend those visions of sustainable cities risk becoming a new deception in development programs. Aware of this evidence, *the inclusive and participatory approach to land regulation was proposed in this work.* As actors in land production, it seems important to us to involve grassroots populations and local elected officials in this control process and

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to make them accountable. The collaborative approach presented in the results constitutes a springboard for the sustainable regulation of urban land.

Everyone is aware that the State is overwhelmed by a land system in which the interplay of actors is constructed with the greatest finesse. To compensate for its inadequacies and these weaknesses, it seems necessary to us to involve local actors so that they can play the role of citizen monitoring in support of the sovereign role of the State. This approach, which has the appearance of integrated and participatory land governance, entrusts the destiny of our urban territories to a plurality of actors who support and complement each other simultaneously.

Regarding the difficulties and limitations of this research, the absence of a formal database of landowners did not make it possible to reach all buyers as desired. In addition, several respondents, having the status of landowner, fear giving information that could harm their land holdings. Despite our confidence, the reluctance of certain informants made individual interviews complex. However, all these difficulties did not prevent the collection of necessary and relevant information. Some respondents, overwhelmed by land problems, preferred to share all their frustrations with us with the sole aim of freeing their hearts.

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The Ethical Committee of the the Regional Center of Excellence on Sustainable Cities in Africa/ University of Lomé, Togo has granted approval for this study on 5 June 2023 (Ref. No. 50/AT/D/CERViDA-UL/2023).

Transparency:
The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

Competing Interests:
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