

Land Management in the Peripheries of Sub-Saharan African Cities: The Case of the 9th District of N'Djamena

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Abstract: Rapid urban growth in Sub-Saharan Africa, particularly in N'Djamena, has led to uncontrolled expansion toward the urban peripheries, characterized by informal urbanization beyond the control of public authorities. The 9th district of the Chadian capital perfectly illustrates this dynamic, marked by intense land pressure, a limited institutional supply of serviced plots, and fragile land governance. This study, based on a mixed-methods approach (surveys of 250 households, interviews, observation, and document analysis), reveals that nearly 90% of land acquisitions occur through informal—mainly customary—channels. Various actors are involved in this process: traditional chiefs (Bulama), former farmers, private individuals, informal intermediaries, and, to a lesser extent, certain public institutions whose roles remain marginal.

Land speculation, combined with a lack of regulation, contributes to chronic land insecurity, the proliferation of conflicts, and growing urban segregation. Restructuring policies implemented remain sporadic and can even generate new vulnerabilities for affected populations. The study proposes a six-step model describing the empirical land acquisition process in N'Djamena and highlights the urgent need for an inclusive, context-sensitive land reform adapted to local realities, to ensure more controlled, sustainable, and equitable urbanization.

Keywords: Land Management, Urbanization, N'Djamena, Bulama, Informality, Urban Planning.

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I. INTRODUCTION

Rapid urban growth in Sub-Saharan Africa is one of the most significant phenomena of recent decades. It often results in disorganized spatial expansion toward peripheral areas, where land occupation escapes the control of public authorities^{1,2}. This process is characterized by informal urbanization and illegal or irregular land occupation, often occurring outside of any regulatory framework^{3,4}.

N'Djamena, the capital of Chad, is a perfect illustration of this trend. Initially centered around its administrative and commercial core, the city has experienced significant expansion toward its outskirts since the 1990s⁵. This growth has largely been spontaneous and outside of master planning schemes, leading to a proliferation of unplanned neighborhoods that are poorly served and lack basic infrastructure⁶.

N'Djamena's population grew from approximately 400,000 inhabitants in 1993 to over 1.5 million in 2021⁷. This demographic explosion has generated intense land pressure,

which the State and local governments have been unable to anticipate or control⁸. As a result, the majority of residents in peripheral areas live in persistent land insecurity, without legal titles or recognized rights^{9,10}.

In response, authorities have implemented so-called "catch-up urban planning" policies, which aim to regularize informal neighborhoods through plot restructuring, retroactive land subdivision, and the installation of minimal infrastructure^{11,12}.

At the same time, residents have adopted a strategy of land anticipation: they acquire plots in peripheral areas, often through customary or informal transactions, in the hope that urban expansion will eventually reach these zones and increase the value of their investments^{13,14}. This urban anticipation phenomenon is exacerbated by the limited institutional supply of buildable land and failures in urban governance.

Land speculation thrives in a regulatory vacuum sustained by the lack of reliable cadastral data, the absence of

modern land registration systems, and jurisdictional conflicts between state institutions and customary authorities^{15,16}. The 9th district of N'Djamena is particularly affected by these

challenges, as it is under strong land pressure due to its strategic location and serves as an informal settlement area for displaced or evicted populations.

II. MATERIALS AND METHOD

➤ Study Area

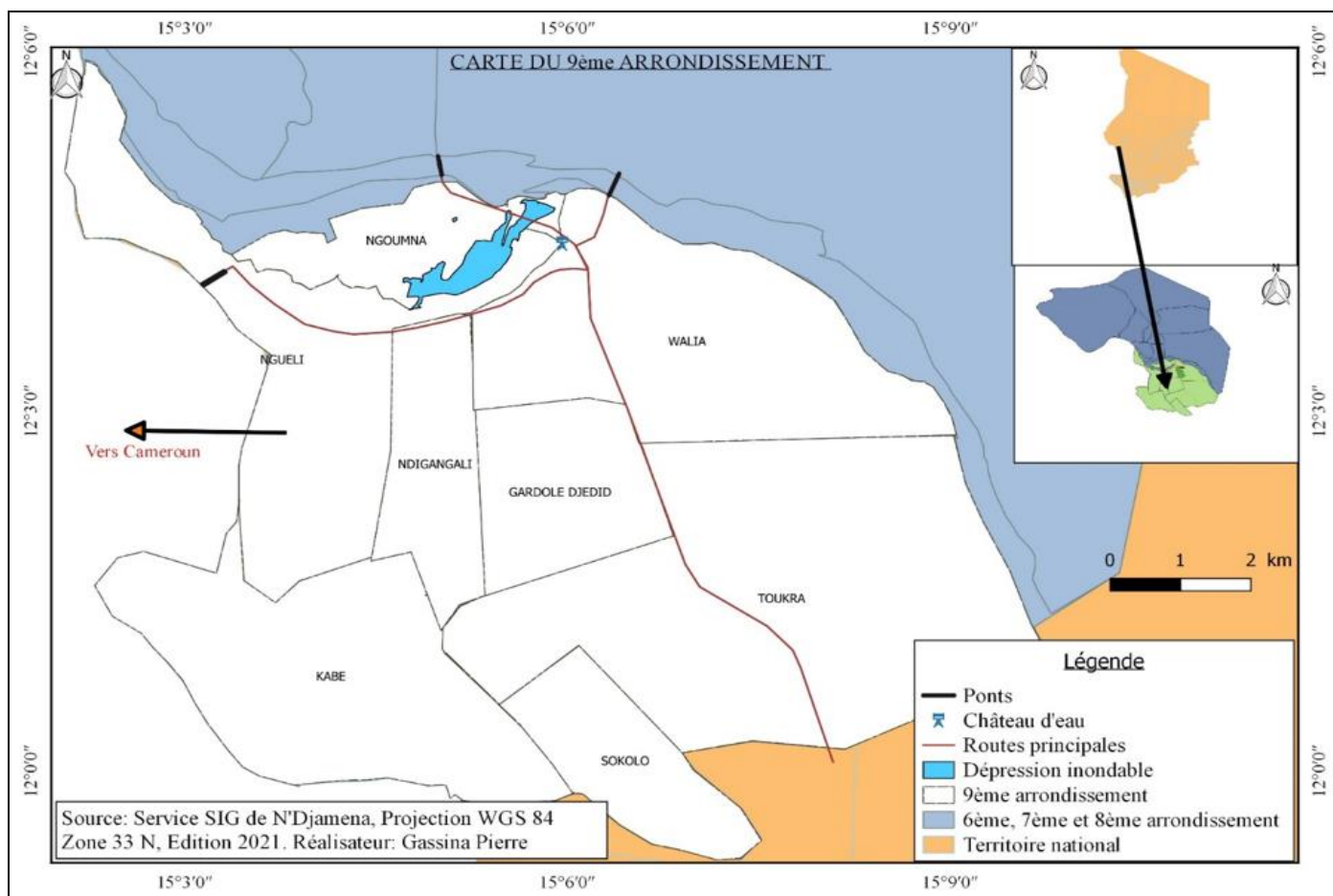


Fig 1 Map of the 9th District of N'djamena

The 9th district of N'Djamena, located in the southern part of the Chadian capital, is the study area for this research. This district comprises several neighborhoods undergoing rapid urban transformation, such as Walia, Toukra, Ngoumna, Nguéli, Gardolé Djedid, Sokolo, Ndigangali, and Kabé. It represents a transitional zone between the consolidated urban areas of the city center and the peripheral rural zones that are gradually being integrated into the urban fabric. This situation makes it an ideal setting for analyzing land dynamics related to rapid urbanization.

➤ Data Collection

The adopted methodology is based on a mixed-methods approach, combining both quantitative and qualitative tools. The data presented in this article stem from doctoral research conducted as part of a Ph.D. thesis entitled Urban Growth and Drinking Water Access Dynamics in the 9th District of N'Djamena, defended in 2024 at the University of Maroua.

➤ Field Surveys Were Conducted Between 2019 and 2021 and Drew on Multiple Data Sources:

• Household Surveys:

250 households were surveyed using a stratified random sampling method that accounted for the socio-spatial diversity of neighborhoods within the 9th district. The objective was to gather information on modes of land access, occupancy status, housing conditions, and perceptions of land tenure regularity.

• Semi-Structured Interviews:

These were conducted with land registry officials, interns assigned to this service, representatives of SOPROFIM (Chadian Land and Real Estate Promotion Company), as well as staff from the 9th district municipality and informal actors serving as land intermediaries.

• Direct Observation:

Several field visits were carried out to document land use patterns, construction dynamics, and housing

developments in areas undergoing densification. These observations helped to supplement and nuance the data collected through surveys.

- **Document Analysis:**

The study also relied on institutional documents (SOPROFIM reports, cadastral maps, land laws, regulatory texts) and scientific articles focused on urbanization, land management, and territorial dynamics in N'Djamena and other African cities.

- **Data Processing**

Data were processed using a complementary approach:

- **Quantitative Data:**

The results from household surveys were entered and analyzed using Microsoft Excel, enabling the calculation of frequencies, percentages, and the construction of cross-

tabulations to illustrate major trends (e.g., land tenure status and types of transactions).

- **Qualitative Data:**

Interviews and observations were subjected to thematic analysis. This allowed the identification of the main actors involved in land management, the observed modes of land acquisition (both formal and informal), and the socio-spatial impacts of informal urbanization.

III. RESULTS

- **Key Actors in Land Acquisition and Sales**

Land management in the 9th district of N'Djamena is characterized by the involvement of a wide range of actors from both formal and informal spheres. Figure 2 below summarizes the various actors:

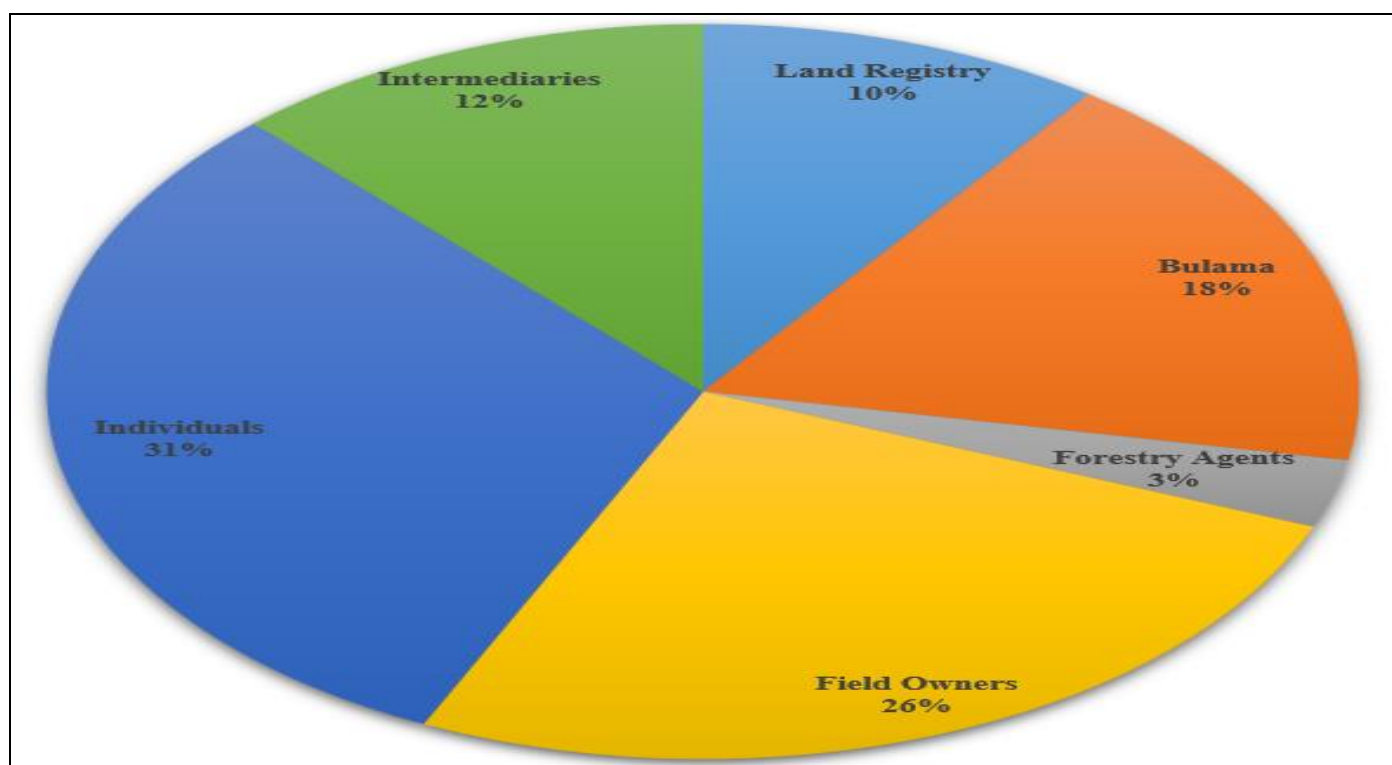


Fig 2 Proportion of Actors Involved in Land Sales in the 9th District of N'Djamena

Source: Field Survey (2021)

Figure 2 highlights the main actors involved in land allocation and sales in the 9th district:

- The Bulama (traditional chiefs) play a central role in land allocation. Recognized by Chadian legislation, they actively participate in land sales according to local customs. They subdivide plots, sign sale certificates, and serve as customary guarantors in these transactions. In 2021, 18% of the plots sold in the district were transacted under their authority.
- Former landowners (farmers) represent another key category. Previously engaged in agriculture, these individuals are gradually selling off their farmland for

residential use due to urbanization pressure. In 2021, 26% of surveyed plots were acquired from these landowners.

- Private individuals include those who resold land they originally obtained for personal use or purchased for speculative purposes. This group accounted for 31% of land sales in 2021.
- Intermediaries, often descendants of indigenous inhabitants, act as facilitators. Although they were involved in 12% of land acquisitions, their role is sometimes a source of conflict due to fraudulent practices such as multiple sales of the same plot, lack of proper documentation, or transactions on unauthorized land.

- Public services, such as the Land Registry Directorate and SOPROFIM, intervene mainly in the context of land subdivision and site servicing. However, their impact remains limited: only 5% of households obtained land through official state channels or its partners.
- Forestry agents, though marginally involved, were identified as illegal sellers in protected areas such as the Walia Forest.

➤ *Modes of Acquisition and Specific Features of Land Occupation*

Official procedures for land access, such as private sales with land titles, public auctions, or rural concessions, are rarely applied. This is due to their complexity, high cost, and limited access to competent services. Figure 3 presents the distribution of plot types according to their development status within a sample of 233 parcels.

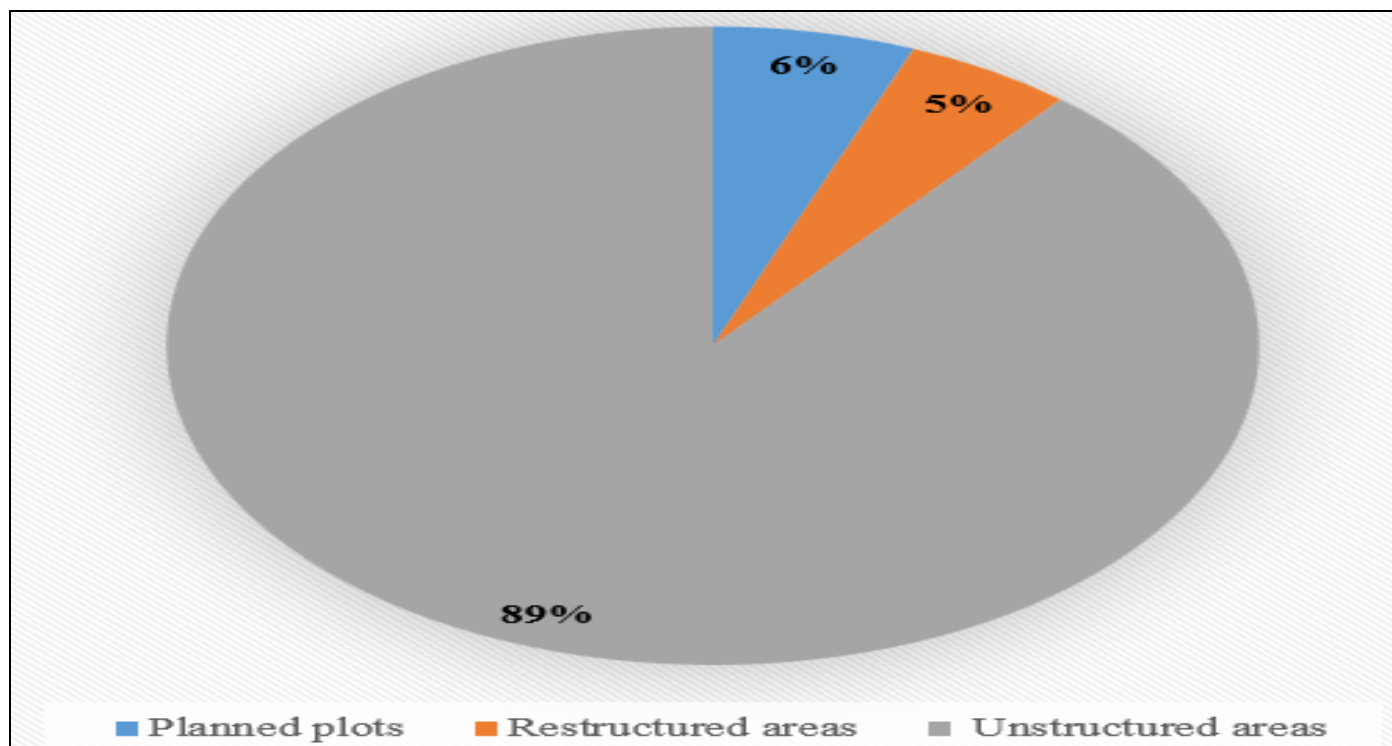


Fig 3 Proportion of Land Types According to Development Status

Source: Field Survey (2021)

Figure 3 reveals the predominance of informal land occupation in the peripheral areas of the 9th district of N'Djamena:

• *Non-Restructured Land:*

With 208 cases, representing 89.27% of the total, this category largely dominates. It indicates the overwhelming presence of informal land occupation, not governed by urban restructuring operations. This situation reflects a lack of planning and oversight in urban peripheries, especially in the 9th district of N'Djamena.

• *Restructured Land:*

Only 12 plots (5.15%) have been integrated into urban restructuring operations. This low figure highlights the very limited scope of public land regularization policies, which are often out of sync with the reality of urban expansion.

• *Subdivided (Planned) Land:*

A total of 13 plots (5.58%) correspond to parcels from planned subdivisions, allocated by State services or their partners, such as the cadastre office or SOPROFIM. Despite

their compliance with legal frameworks, these plots remain very much in the minority.

In most cases, land occupation occurs outside any formal urban planning logic. Land accumulation for speculative purposes is common among influential actors (civil servants, traders), even though many plots remain undeveloped. This increases land pressure on low-income households, who are pushed to the margins of the formal city.

Finally, restructuring operations launched by public authorities—although aimed at organizing urban space (road layouts, alignments)—sometimes result in unplanned evictions and relocations, disproportionately affecting the most vulnerable populations.

➤ *Model of Residential Land Acquisition in N'Djamena (Peripheral Areas)*

In the southern periphery of N'Djamena, acquiring a plot for residential construction generally follows an informal but relatively structured process. Six main steps can be identified as the primary modes of access to residential land. These steps are illustrated in Figure 4 below:

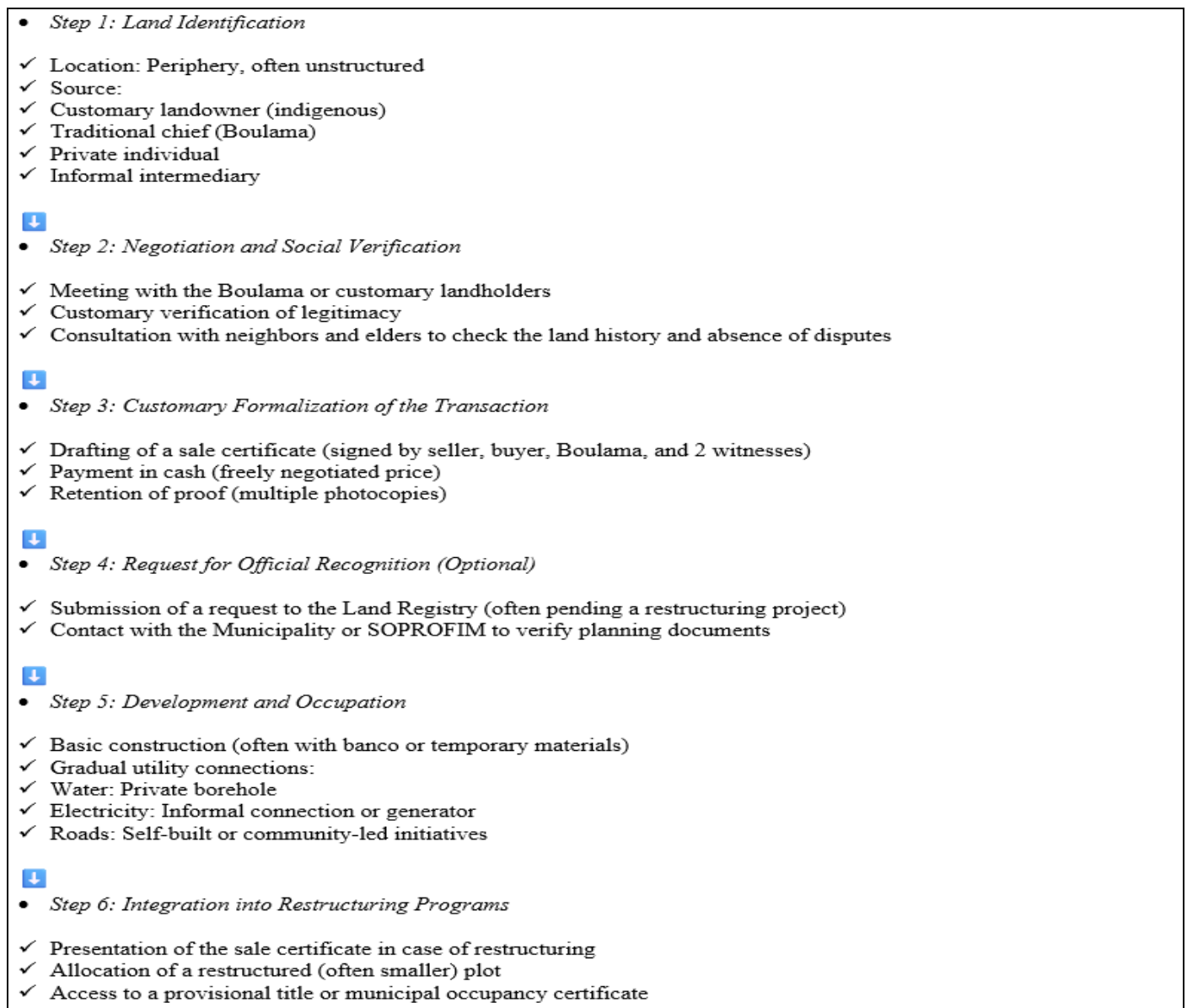


Fig 4 Diagram Summarizing the Land Acquisition Process in the Peripheries of N'Djamena

Source: GASSINA Pierre, 2025

IV. DISCUSSION

The results of this study highlight the complex land dynamics in the 9th district of N'Djamena, confirming the analyses of Durand-Lasserve & Royston (2002) and UN-Habitat (2010) on African urban peripheries. The land market is primarily based on informal practices, where traditional chiefs (Boulama), former landowners, and intermediaries play a central role. This dominance of customary logics at the expense of structured public governance aligns with the findings of Njoh (2013) and Durand-Lasserve (2006) regarding the persistence of hybrid land access systems.

With nearly 89% of transactions occurring outside the legal framework, the situation illustrates legal pluralism, where customary legitimacy coexists with state legality. This duality, criticized by UN-Habitat (2014) and Durand-Lasserve (2006), results in widespread land insecurity,

discourages long-term investment, and fosters the development of unplanned, underserved settlements.

The very low proportion of acquisitions through public mechanisms (around 5%) confirms the State's inability to effectively regulate urban development, as pointed out by UN-Habitat (2010). Institutions like SOPROFIM, designed to oversee land management, remain largely ineffective.

Moreover, land speculation driven by influential actors such as civil servants and traders fuels a rent-seeking logic that disadvantages low-income populations. Durand-Lasserve (2006) and Njoh (2013) denounce this unequal appropriation of land as a driver of socio-spatial exclusion.

State-led restructuring operations aim to integrate informal settlements, but they are sometimes accompanied by evictions without viable alternatives—a practice criticized by UN-Habitat (2010) as a punitive and non-inclusive approach to urban rehabilitation.

Finally, land anticipation strategies by city dwellers—buying plots in peripheral areas in hopes of future value appreciation—follow a rational logic. However, as noted by Durand-Lasserve & Royston (2002), this strategy exacerbates land conflicts in the absence of cadastral records and coordination among authorities.

Ultimately, land governance remains largely dominated by informality, while the State continues to act reactively in the face of already advanced urbanization.

V. CONCLUSION

This study on land management in the 9th district of N'Djamena reveals deep tensions between rapid urbanization, informality, and institutional weakness. The analysis shows that most residents access land through informal channels dominated by traditional actors, former landowners, intermediaries, and private individuals, rather than through institutional regulatory mechanisms. This dynamic, intensified by demographic pressure, deficient urban planning, and growing speculation, results in a land configuration marked by insecurity, inefficiency, and conflict.

In response, the State has attempted “catch-up urban planning” strategies to integrate spontaneously occupied areas. However, these interventions often remain limited, fragmented, and sometimes conflict-ridden. The case of the 9th district illustrates a situation where customary practices and individual anticipation strategies take precedence over official planning, deepening the marginalization of the most vulnerable populations.

A more inclusive land governance system—based on a clear articulation between customary norms and state regulations—is essential to ensure equitable, secure, and sustainable access to urban land. This requires not only strengthening the capacity of public institutions (land registry, municipalities, SOPROFIM), but also improving transparency in transactions, updating cadastral data, and ensuring genuine community involvement in planning processes.

Finally, the data from this research, drawn from a doctoral dissertation, call for continued empirical studies at the local level to document land transformations related to urban growth and to contribute to the formulation of urban policies better adapted to the realities of contemporary African cities.

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