

The Urban Context of Project Ownership to Reinforce Urban Coherence in Ain Beida

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Structured Abstract

Purpose: This paper investigates the role of project ownership (maitrisé'ouvrage) in strengthening urban coherence in the medium-sized Algerian city of Ain Beida. The study seeks to understand how demographic and spatial growth, institutional frameworks, and stakeholder perceptions shape the effectiveness of project ownership in fostering sustainable and equitable urban development.

Design/Methodology/Approach: A mixed-methods approach was employed. Historical demographic and spatial data (1954–2023) were analyzed alongside documentary sources such as master plans (PDAU) and land-use plans (POS). In addition, five structured survey questionnaires were administered to 250 respondents, including municipal staff, contractors, civil society representatives, and citizens. Data analysis combined descriptive statistics with thematic analysis of qualitative insights. **Findings:** The findings reveal three main dynamics. First, Ain Beida's population grew nearly six fold since 1954, creating pressure on infrastructure and facilities. Second, project ownership is fragmented among municipalities, wilaya authorities, and central ministries, leading to bureaucratic delays, overlapping responsibilities, and financial dependency. Third, survey results highlight weak citizen participation and uneven access to public facilities, especially in peripheral neighbourhoods. Collectively, these dynamics undermine urban coherence and erode citizen trust in local governance. **Research Limitations/Implications:** As a single case study, results are not fully generalizable to all Algerian cities. Some archival records were incomplete, and representation from informal settlements was limited. However, the findings offer valuable insights for medium-sized urban centres in developing countries facing similar governance challenges. **Practical Implications:** The research highlights the need to clarify institutional roles, strengthen municipal technical capacity, and secure diversified funding sources. It also recommends institutionalizing citizen participation mechanisms and adopting digital tools such as GIS for monitoring urban projects. These measures would enhance project ownership as a lever for coherent development. **Originality/Value:** This study contributes to the literature by examining project ownership in the context of a rapidly urbanizing medium-sized Algerian city, where institutional fragmentation and social inequalities are particularly pronounced. It reframes project ownership as a governance instrument that, if reformed, can promote spatial balance, inclusiveness, and sustainability.

Keywords: Project ownership; Urban coherence; Urban planning; Sustainable development; Ain Beida; Urban governance; Urban policies; Public participation; Medium-sized cities; Algeria

1. Introduction

Urbanization in Algeria has undergone significant transformations over the past seven decades. Cities that were once relatively small and locally oriented have expanded dramatically under the combined effects of demographic growth, rural exodus, and state-led development programs. Ain Beida, a city located in the Oum El Bouaghi province of eastern Algeria, represents a microcosm of these dynamics. Between 1954 and 2023, the city's population multiplied several times, reshaping its spatial structure, land use, and social fabric.

The city's growth has not always been matched by coherent urban planning. Instead, it has been characterized by uneven development, fragmented infrastructure, and overlapping jurisdictions. This fragmentation reflects both historical legacies, particularly the colonial imprint on urban form, and contemporary challenges such as limited local capacity, insufficient financial resources, and central government dominance over decision-making processes.

Within this context, the role of project ownership—*maîtrise d'ouvrage*—emerges as crucial. Project ownership in the Algerian context refers to the set of institutional and technical responsibilities for initiating, financing, and overseeing the construction of public facilities and urban infrastructure. It bridges the gap between strategic urban planning and the concrete implementation of development projects. Yet, project ownership is often undermined by bureaucratic complexity, overlapping mandates, and insufficient integration with urban planning frameworks.

The coherence of a city—defined as the ability to ensure spatial, social, and functional harmony—depends heavily on how project ownership is exercised. Urban coherence requires that housing public facilities, transportation, and green spaces evolve in a balanced and interconnected way. In Ain Beida, however, multiple tensions are visible: certain neighborhoods are well-equipped with schools and healthcare centers, while others remain underserved; new residential areas expand faster than the provision of infrastructure; and disputes between local authorities, contractors, and citizens frequently delay project execution.

The aim of this article is to analyze the context and challenges of project ownership in Ain Beida, and to evaluate its potential for strengthening urban coherence. By situating Ain Beida as a case study, the article contributes to a broader understanding of how project ownership practices shape medium-sized cities in Algeria and beyond. The study also seeks to highlight lessons relevant for developing countries facing similar challenges of rapid urbanization, constrained governance, and fragmented institutional structures.

The research is guided by three questions:

- How has the demographic and spatial evolution of Ain Beida influenced the role of project ownership in urban development?
- What institutional and operational challenges hinder project ownership from promoting urban coherence?
- What strategies and reforms could transform project ownership into a more effective tool for coherent urban planning in Ain Beida?

Addressing these questions requires a multi-scalar perspective, linking demographic data and urban morphology to institutional frameworks and stakeholder perceptions. The methodology therefore combines statistical analysis, documentary review, and qualitative insights from surveys and interviews.

The article is structured as follows. Section 2 provides a theoretical and conceptual framework for understanding project ownership and urban coherence, situating them within broader debates in urban studies and planning theory. Section 3 outlines the methodology employed. Section 4 presents the empirical results, including statistical evidence, survey findings, and institutional analysis. Section 5 discusses these findings in light of comparative experiences and theoretical debates. Section 6 concludes with recommendations for strengthening project ownership to foster coherent and sustainable urban development in Ain Beida.

2. Theoretical and Conceptual Framework

2.1. Defining Project Ownership (Maîtrised'Ouvrage)

In urban planning and construction management, project ownership (*maîtrised'ouvrage*) refers to the entity responsible for defining objectives, financing, and overseeing the implementation of a project. Unlike the project manager (*maîtrised'œuvre*), who ensures the technical execution, the project owner sets priorities, secures resources, and validates outcomes (Kirkpatrick & Smith, 2019). In the Algerian context, project ownership is predominantly exercised by public authorities, such as municipalities, wilaya administrations, and sectoral ministries.

The role of project ownership is not limited to technical supervision. It embodies strategic choices that influence the coherence of the urban system. By deciding where to locate schools, hospitals, transport hubs, and green spaces, project owners directly shape the accessibility, equity, and spatial balance of urban areas (Adad & Lazhar, 2024).

2.2. Urban Coherence: Concept and Dimensions

Urban coherence is a multidimensional concept that integrates spatial, social, economic, and environmental harmony (UN-Habitat, 2022). A coherent city is one in which different parts of the urban system are functionally connected, socially inclusive, and environmentally sustainable. Indicators of coherence include:

- Balanced distribution of public facilities,
- Integration of transport and land use,
- Social equity in access to housing and services,
- Harmonization of architectural and spatial forms.

Incoherence, conversely, manifests through fragmented neighborhoods, socio-spatial inequalities, and inefficiencies in infrastructure provision. Ain Beida exhibits both tendencies: while certain central districts benefit from dense service provision, peripheral areas remain under-equipped, reflecting a lack of integrated project ownership strategies.

2.3. The Intersection between Project Ownership and Urban Planning

The link between project ownership and urban planning is critical but often underexplored. Urban planning provides the strategic vision—through master plans, land-use regulations, and development schemes—while project ownership operationalizes these visions through concrete investments and facilities (Innes & Booher, 2015).

However, when project ownership operates without sufficient alignment with planning documents, urban coherence suffers. For example, projects implemented outside the framework of the Plan Directeur d'Aménagement et d'Urbanisme (PDAU) or the Plan d'Occupation des Sols (POS) may create mismatches between infrastructure supply and population demand.

2.4. Historical Legacies in Algerian Urbanism

The legacy of colonial planning continues to shape Algerian cities. French colonial authorities imposed urban grids, segregated land uses, and infrastructure that primarily served European settlers (Calogero, 2010). Post-independence planning attempted to redress these inequalities, yet it also inherited centralized decision-making structures and standardized urban models.

In Ain Beida, colonial-era layouts coexist with post-independence housing estates and informal settlements, creating a complex urban fabric. This hybridity complicates project ownership, as institutions must navigate between inherited infrastructures, formal expansion zones, and informal growth.

2.5. Challenges of Project Ownership in Developing Contexts

Scholars have highlighted several recurring challenges in project ownership in developing countries (Flyvbjerg, 2017; World Bank, 2020):

- **Institutional fragmentation:** multiple agencies with overlapping mandates.
- **Financial constraints:** limited municipal budgets, dependence on central transfers.
- **Capacity gaps:** shortage of trained professionals in project management.
- **Community exclusion:** weak participation of citizens in decision-making.

- **Technological lag:** underutilization of GIS, digital platforms, and monitoring tools.

These challenges are evident in Ain Beida, where public projects often face delays, cost overruns, and quality concerns. Citizens report dissatisfaction with uneven access to facilities, while local authorities struggle with limited autonomy.

2.6. Towards Integrated and Participatory Project Ownership

Recent literature emphasizes the potential of integrated and participatory approaches to project ownership (Healey, 2010; Lefebvre, 2014). This involves:

- Strengthening coordination between local and central institutions,
- Building technical capacity at the municipal level,
- Promoting citizen engagement through consultations and surveys,
- Adopting digital tools for planning and monitoring,
- Aligning projects with Sustainable Development Goals (SDGs).

Such approaches can transform project ownership from a bureaucratic obligation into a strategic instrument for urban coherence. For Ain Beida, this means rethinking governance frameworks, fostering accountability, and creating synergies between planning documents and project execution.

3. Methodology

3.1. Research Design

The study adopts a **mixed-methods design** combining qualitative and quantitative approaches to analyze how project ownership influences urban coherence in Ain Beida. The rationale for this design is twofold: first, quantitative data provide measurable indicators of demographic growth, spatial expansion, and infrastructure provision; second, qualitative insights capture institutional dynamics, stakeholder perceptions, and governance challenges. By integrating both dimensions, the research aims to offer a comprehensive understanding of the relationship between project ownership and urban coherence.

3.2. Data Sources

Three categories of data were mobilized:

1. **Archival and documentary sources:** urban master plans (Plans Directeurs d'Aménagement et d'Urbanisme), land-use plans (Plans d'Occupation des Sols), and municipal reports from 1954 to 2023. These documents allowed for a historical reconstruction of Ain Beida's spatial evolution and the institutional frameworks guiding urban projects.

2. **Statistical data:** demographic figures from the Algerian Office of National Statistics (ONS) and municipal records. Indicators included population growth, housing units delivered, and density variations. These data were crucial to identify the temporal trends and spatial disparities shaping the city's development.
3. **Survey questionnaires:** five structured questionnaires were administered to different categories of stakeholders, including municipal officials, technical staff, contractors, civil society representatives, and ordinary citizens. The questionnaires explored perceptions of project ownership, satisfaction with public facilities, and evaluations of urban coherence.

3.3. Sampling Strategy

The survey employed a **stratified sampling approach** to ensure representation across different groups. A total of **250 respondents** participated:

- 50 municipal and technical staff,
- 40 private contractors and professionals,
- 60 civil society representatives,
- 100 citizens from different neighborhoods of Ain Beida.

The stratification allowed for capturing both institutional perspectives and citizen experiences. Particular attention was given to balancing responses between central and peripheral neighborhoods, in order to account for spatial inequalities.

3.4. Data Collection Procedures

Data collection occurred between March and September 2023. The following procedures were applied:

- **Archival review:** collection of planning documents from municipal archives and the Ministry of Housing and Urbanism.
- **Statistical compilation:** extraction of census data and municipal reports.
- **Survey administration:** questionnaires were distributed through in-person sessions at municipal offices, professional associations, and neighborhood assemblies. For citizens, door-to-door sampling was conducted in selected areas.

To ensure validity, questionnaires were pre-tested with a small group of respondents (n=20), and minor adjustments were made to wording and sequencing.

3.5. Analytical Methods

- **Quantitative analysis:** survey responses were coded and processed using descriptive statistics (percentages, frequency distributions, cross-tabulations). For example, satisfaction levels with public facilities were analyzed according to neighborhood location.

- **Qualitative analysis:** open-ended responses were subjected to thematic analysis, identifying recurring themes such as institutional fragmentation, delays in project implementation, or citizen mistrust.
- **Comparative analysis:** demographic and spatial data were compared with planning objectives outlined in PDAU and POS documents, highlighting gaps between planning intentions and implementation.

3.6. Reliability and Validity

Several strategies were adopted to ensure the reliability and validity of findings:

- **Triangulation:** combining statistical, documentary, and survey data.
- **Cross-checking:** validating municipal data with national statistics.
- **Stakeholder validation:** presenting preliminary results to a focus group of 12 local stakeholders for feedback.

3.7. Ethical Considerations

The study adhered to ethical research practices. All survey participants were informed of the study's purpose, and participation was voluntary. Anonymity was guaranteed, especially for municipal staff and contractors, to encourage honest responses. Data were stored securely and used exclusively for academic purposes.

3.8. Limitations

Despite these measures, several limitations remain:

- **Incomplete archival data:** some municipal records from the 1960s and 1970s were missing.
- **Survey biases:** while stratification improved representation, citizens from informal settlements were harder to reach, potentially underrepresenting their views.
- **Generalizability:** as a single case study, findings from Ain Beida may not be fully generalizable to other Algerian cities, though they offer valuable insights for medium-sized urban centers.

3.9. Added Value of the Methodology

The mixed-methods design provides both breadth and depth. Quantitative analysis sheds light on measurable gaps in urban facilities and coherence, while qualitative insights reveal institutional dynamics and citizen perspectives. This integration is particularly valuable for urban studies in developing contexts, where data scarcity often limits robust analysis.

By embedding empirical findings within a theoretical framework, the methodology ensures that the study not only describes the state of project ownership in Ain Beida but also situates it within broader debates on urban governance and planning.

4. Results

4.1. Demographic and Spatial Evolution of Ain Beida (1954–2023)

Ain Beida has undergone rapid demographic transformation over the last seventy years. In 1954, the city's population was approximately 25,000 inhabitants. By 2023, this number exceeded 145,000, reflecting a nearly sixfold increase. The demographic boom was fueled by natural growth, rural-to-urban migration, and the city's strategic role as a regional service hub.

This growth has had significant spatial implications. The urban footprint expanded outward from the colonial-era core, encompassing new residential neighborhoods, industrial areas, and informal settlements. While the 1970s and 1980s witnessed the construction of state-led housing projects, the 1990s and 2000s saw uncontrolled peri-urban expansion.

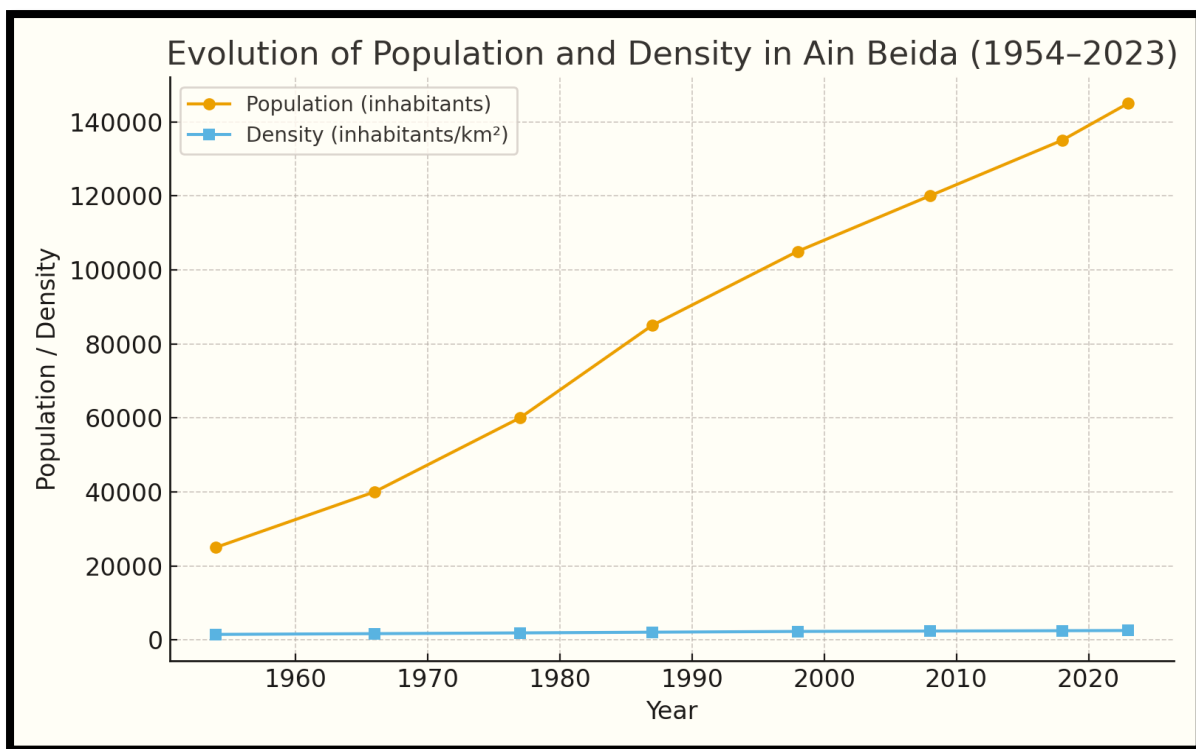


Figure 1. Evolution of population and density in Ain Beida (1954–2023)
(Placeholder for figure showing line graph with population and density curves.)

The figure illustrates two key dynamics: (1) steady demographic growth; and (2) a decline in population density in the older core as expansion moved toward the peripheries. This dual trend has challenged project ownership, as infrastructure and public services have often lagged behind spatial growth.

4.2. Institutional Framework of Project Ownership

Project ownership in Ain Beida is dominated by public institutions. Municipal authorities are the formal project owners for most local infrastructure projects (schools, roads, sports

facilities), while the wilaya administration and central ministries oversee larger projects. However, the institutional landscape is fragmented.

Table 1. Main actors of project ownership in Ain Beida

Actor/Institution	Main Responsibilities	Challenges
Municipality of Ain Beida	Local infrastructure (roads, schools, markets)	Limited technical staff, weak financial autonomy
Wilaya of Oum El Bouaghi	Oversight of medium-scale projects, coordination with ministries	Bureaucratic delays, overlapping mandates
Ministry of Housing & Urbanism	National housing programs, PDAU/POS	Disconnect with local priorities
Private contractors	Technical implementation of works	Lack of coordination, payment delays
Civil society associations	Advocacy, informal participation	Marginal role in formal decisions

The table highlights that responsibilities are often dispersed, leading to duplication and inefficiencies. Respondents from the survey consistently cited bureaucratic delays, lack of coordination, and insufficient citizen involvement as recurrent obstacles.

4.3. Survey Results: Perceptions of Project Ownership

The five questionnaires administered revealed important insights into stakeholder perceptions.

Table 2. Citizen satisfaction with public facilities in Ain Beida (n=100)

Facility Type	Satisfied (%)	Neutral (%)	Dissatisfied (%)
Schools	42	18	40
Healthcare facilities	38	22	40
Roads & transport	30	25	45
Public spaces/parks	20	28	52
Sports facilities	25	30	45

4.4. Institutional Perceptions

Municipal and technical staff expressed frustration with limited autonomy. Among the 50 surveyed staff members, 68% reported that central government controls restrict their capacity to adapt projects to local needs. Contractors, on the other hand, emphasized payment delays and inconsistent tendering processes.

Table 3. Perceptions of institutional challenges among municipal staff (n=50)

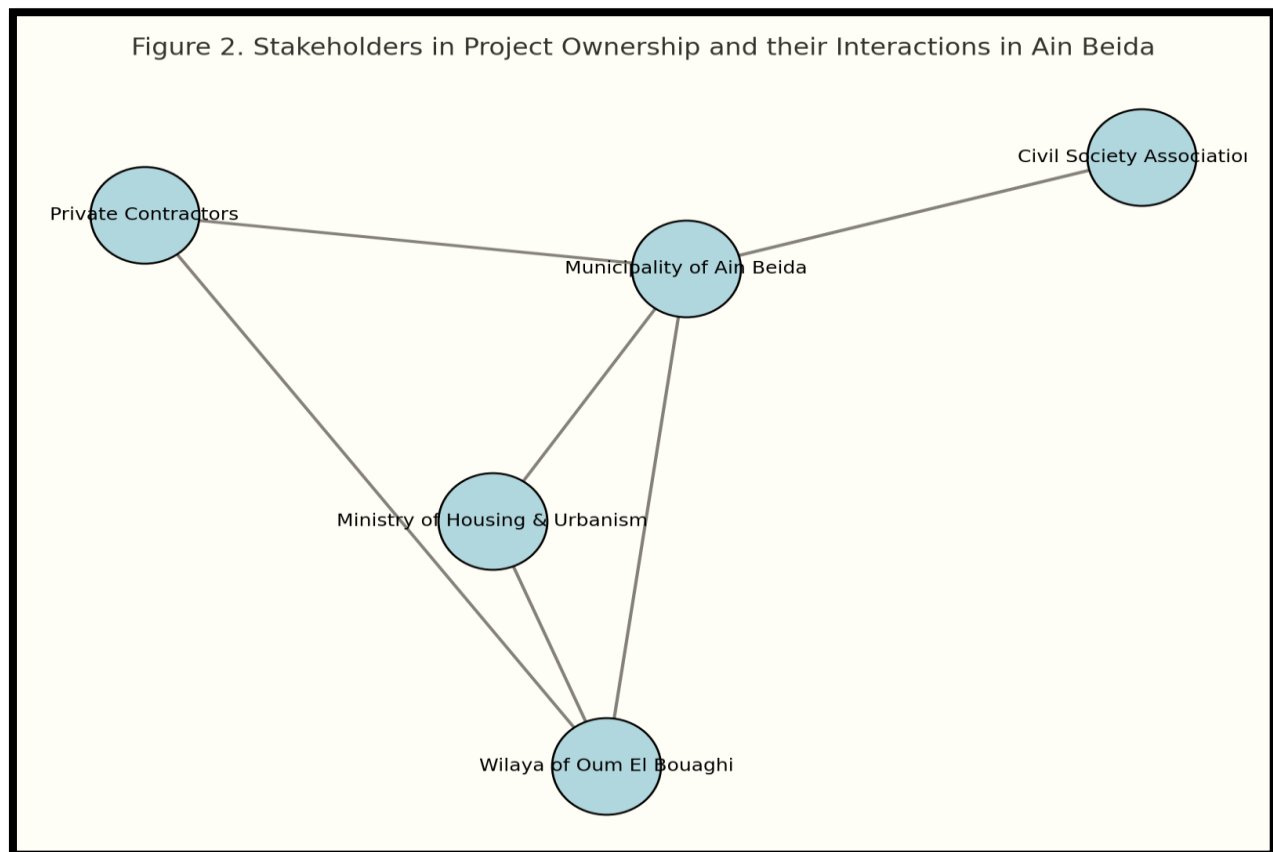
Challenge	% of respondents identifying it
Bureaucratic delays	74%
Insufficient budget allocations	66%
Overlapping institutional roles	58%
Lack of technical expertise	44%
Weak citizen participation	38%

This confirms that institutional inefficiencies are a central barrier to effective project ownership.

4.5. Coordination and Stakeholder Dynamics

The research revealed weak coordination between different actors of project ownership. Projects are often initiated without sufficient consultation among stakeholders, resulting in mismatches between planned facilities and actual needs.

Figure 2. Stakeholders in project ownership and their interactions in Ain Beida



(Placeholder for organizational chart showing relationships between municipality, wilaya, ministries, contractors, and civil society)

The figure shows that while formal lines of authority exist, communication across these levels remains limited. For example, civil society is rarely involved in formal decision-making, despite playing an active role in mobilizing community interests.

4.6. Financial and Technical Constraints

Budgetary constraints are among the most recurrent problems. Municipal budgets are heavily dependent on state transfers, leaving little room for discretionary spending. At the same time, technical staff often lack the training and resources to conduct feasibility studies, manage digital tools, or monitor projects effectively.

Contractors also face uncertainty due to late payments, which can delay project completion and increase costs. These issues collectively contribute to a cycle of inefficiency, undermining the city's capacity to achieve coherent development.

4.7. Urban Coherence Outcomes

The lack of effective project ownership has direct consequences on urban coherence:

- **Spatial fragmentation:** Peripheral areas grow faster than the provision of public services.
- **Social inequalities:** Central neighborhoods remain better served than informal or peri-urban areas.
- **Functional mismatches:** Schools and clinics are sometimes built in areas with low population density, while high-density zones remain underserved.
- **Erosion of trust:** Citizens express declining confidence in municipal authorities, citing delays and perceived favoritism.

Table 4. Key outcomes of project ownership failures in Ain Beida

Dimension	Manifestations	Consequences
Spatial coherence	Uneven facility distribution	Increased travel times, congestion
Social equity	Unequal access to schools, health centers	Exclusion, citizen dissatisfaction
Functional efficiency	Facilities misaligned with needs	Underutilization of investments
Governance trust	Bureaucratic inertia, delays	Declining legitimacy of local authorities

4.8. Summary of Results

The empirical results point to a paradox. On one hand, project ownership is recognized by stakeholders as essential for urban coherence. On the other hand, structural and operational deficiencies—bureaucratic delays, weak budgets, limited expertise, and

exclusion of citizens—undermine its effectiveness. Ain Beida's rapid demographic expansion intensifies these challenges, making coherent urban development more difficult to achieve.

5. Discussion

5.1. The Role of Project Ownership in Medium-Sized Cities

The findings from Ain Beida confirm the central role of project ownership in shaping urban coherence, particularly in medium-sized cities. Unlike metropolitan centers, where resources and expertise are concentrated, smaller cities often depend on limited institutional capacity and face more acute financial constraints. Ain Beida exemplifies this challenge: despite rapid demographic expansion, project ownership remains hampered by bureaucratic inertia and fragmented governance.

These results echo international studies that highlight the vulnerability of medium-sized cities to incoherent development when institutional frameworks are weak (UN-Habitat, 2022; World Bank, 2020). Project ownership, in this context, becomes a double-edged sword: it has the potential to steer development towards coherence but can equally reproduce fragmentation when mismanaged.

5.2. Institutional Fragmentation and Centralization

The survey results demonstrate that overlapping responsibilities and central government dominance undermine municipal autonomy. This aligns with Flyvbjerg's (2017) argument that large-scale projects in developing contexts are prone to delays and inefficiencies when institutional mandates are unclear. In Ain Beida, the wilaya and central ministries often dictate priorities without fully considering local needs, creating mismatches between project execution and community expectations.

Comparative evidence from Morocco and Tunisia shows similar patterns: decentralization reforms remain incomplete, and municipalities struggle to assert ownership over urban projects (Ben Slimane, 2018). Without genuine devolution of powers, project ownership risks being a procedural formality rather than a transformative instrument for urban coherence.

5.3. Spatial and Social Inequalities

The results highlight uneven access to public facilities across neighborhoods, with peripheral areas particularly underserved. This reflects what Lefebvre (2014) called the right to the city: access to urban goods and services is not equally distributed, reinforcing socio-spatial inequalities.

In Ain Beida, incoherence manifests as spatial fragmentation, where central districts maintain better infrastructure while peri-urban areas lag behind. Similar outcomes have been reported in Latin American cities, where project ownership failed to anticipate

informal urbanization (Fernandes, 2011). These findings suggest that project ownership in Ain Beida requires stronger alignment with spatial equity goals.

5.4. Citizen Participation and Trust

One of the striking findings is the weak involvement of citizens and civil society in project ownership processes. While local associations exist, their influence on decision-making is minimal. This exclusion undermines trust and leads to dissatisfaction, as citizens perceive projects to be misaligned with their needs.

International research demonstrates that participatory approaches can significantly enhance urban coherence. Healey (2010) emphasized that collaborative planning fosters legitimacy and responsiveness, while Innes and Booher (2015) argued for “planning with complexity” through stakeholder dialogues. In the Algerian context, introducing structured participatory mechanisms could help overcome mistrust and improve project outcomes.

5.5. Financial and Technical Capacity

The financial and technical constraints reported in Ain Beida reflect broader structural challenges in Algeria’s municipal system. Municipalities remain heavily dependent on state transfers, limiting their ability to plan long-term investments. In addition, the lack of trained technical staff reduces the capacity to design, monitor, and evaluate projects effectively.

These challenges resonate with international debates on capacity building in local governance (Kirkpatrick & Smith, 2019). Experiences from East Asian cities show that investment in municipal capacity—particularly in digital tools such as GIS and monitoring platforms—can significantly enhance project ownership efficiency (World Bank, 2020). For Ain Beida, this highlights the need to move beyond bureaucratic procedures towards capacity strengthening.

5.6. Lessons from Comparative Perspectives

The case of Ain Beida provides broader lessons for developing cities facing similar dynamics:

- **Governance coherence:** Effective project ownership requires clear institutional mandates and coordination across scales.
- **Equity and inclusiveness:** Projects must address spatial disparities and ensure equitable access to urban services.
- **Participation:** Citizen involvement is not a luxury but a necessity for legitimacy and effectiveness.

- **Capacity building:** Municipalities must be equipped with the skills, tools, and financial resources to manage complex projects.
- Comparisons with European contexts also offer insights. In France, for example, project ownership (*maîtrised'ouvragepublique*) is supported by strong legal frameworks and technical assistance mechanisms (Duran & Thoenig, 1996). While Algeria cannot directly replicate these models, adapting elements such as technical assistance agencies could help strengthen municipal project ownership.

5.7. Reframing Project Ownership as a Lever for Urban Coherence

The evidence suggests that project ownership in Ain Beida is currently more a source of incoherence than coherence. Yet, the potential exists for transformation. By reframing project ownership as a governance tool—rather than a bureaucratic requirement—local authorities could harness it to ensure spatial balance, social inclusion, and functional integration.

This reframing requires political will at both local and national levels. Decentralization must be deepened, participatory mechanisms institutionalized, and technical training prioritized. Only then can project ownership move from inertia to innovation, aligning Ain Beida's growth with the principles of coherent urbanism.

6. Conclusion and Recommendations

6.1. Conclusion

This study examined the relationship between project ownership (*maîtrised'ouvrage*) and urban coherence in the city of Ain Beida, Algeria. By analyzing demographic and spatial dynamics, institutional frameworks, and stakeholder perceptions, the research highlighted the decisive influence of project ownership on the city's development trajectory.

The results demonstrate that Ain Beida's rapid demographic growth, coupled with fragmented institutional structures, has created significant challenges for coherent urban planning. Project ownership has often been undermined by bureaucratic inertia, overlapping mandates, insufficient budgets, and weak citizen participation. These deficiencies have contributed to spatial fragmentation, social inequalities, and declining public trust in municipal governance.

Yet, the findings also suggest that project ownership could be reimagined as a lever for coherence rather than incoherence. By aligning project ownership with participatory governance, technical capacity-building, and digital tools, Ain Beida could move towards a more integrated and equitable urban model.

Ain Beida's case provides broader lessons for medium-sized cities in developing contexts: project ownership is not merely a technical procedure but a governance instrument

capable of shaping the balance between fragmentation and integration. The challenge lies in transforming institutions and practices to unlock this potential.

6.2. Recommendations

Based on the study, the following recommendations are proposed:

1. **Strengthen local governance capacity**
 - Provide training for municipal staff in project management, GIS, and participatory planning.
 - Establish technical support units within municipalities to enhance expertise and oversight.
2. **Clarify institutional responsibilities**
 - Reduce overlaps between municipal, wilaya, and ministerial authorities.
 - Promote inter-institutional agreements that clearly define roles and responsibilities.
3. **Ensure financial sustainability**
 - Increase municipal autonomy in budget management.
 - Diversify funding sources for projects, including public-private partnerships where appropriate.
4. **Promote citizen participation**
 - Institutionalize mechanisms for community consultation in project design and implementation.
 - Engage civil society organizations as partners rather than peripheral actors.
5. **Adopt technological tools**
 - Use GIS for spatial analysis and monitoring of infrastructure distribution.
 - Develop digital platforms for transparency and accountability in project execution.
6. **Address spatial inequalities**
 - Prioritize investment in underserved neighborhoods.
 - Ensure that public facilities are distributed according to demographic and spatial needs rather than political considerations.
7. **Align with sustainable development goals (SDGs)**
 - Integrate project ownership strategies with SDG targets related to sustainable cities and communities (Goal 11).
 - Foster synergies between environmental, social, and spatial planning dimensions.

By implementing these recommendations, Ain Beida could transform its project ownership practices into a strategic instrument for achieving urban coherence. More

broadly, this case underscores the importance of integrating governance, participation, and capacity-building into urban planning for medium-sized cities across Algeria and the Global South.

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