

**LAND REGISTRATION IN URBAN AREAS (URBAN LAND REGISTRY):  
SPECIAL CHALLENGES OF LAND REGISTRATION IN SURABAYA CITY**

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**Abstract**

*Land registration is a strategic step in ensuring legal certainty over property rights in the Republic of Indonesia. However, in large, densely populated cities like Surabaya, this process faces complex challenges. This article examines specific issues in urban land registration, including abandoned land and squatter settlements. The research uses empirical juridical methods to examine the gap between regulations and implementation on the ground. The study reveals that low public participation, overlapping ownership, and weak law enforcement are key obstacles, alongside socio-economic issues such as squatter urbanization. This article recommends a participatory approach, reformulation of local regulations, and integration of land and housing policies as solutions.*

**Keywords:** Land Registration, Urban Areas, Legal Certainty

**Abstrak**

Pendaftaran tanah merupakan langkah strategis dalam menjamin kepastian hukum atas hak milik di wilayah Republik Indonesia. Namun, di kota besar dan padat penduduk seperti Surabaya, proses ini menghadapi tantangan yang kompleks. Artikel ini mengkaji permasalahan spesifik dalam pendaftaran tanah kawasan urban, termasuk tanah terlantar dan hunian liar (squatter). Penelitian ini menggunakan metode yuridis empiris untuk melihat kesenjangan antara regulasi dan implementasi di lapangan. Hasil kajian menunjukkan bahwa rendahnya partisipasi masyarakat, tumpang tindih kepemilikan, dan lemahnya penegakan hukum menjadi hambatan utama, di samping persoalan sosial-ekonomi seperti urbanisasi liar. Artikel ini merekomendasikan pendekatan partisipatif, reformulasi regulasi lokal, serta integrasi kebijakan pertanahan dan perumahan sebagai solusi.

**Kata Kunci:** Pendaftaran Tanah, Perkotaan, Kepastian Hukum

**I. INTRODUCTION**

Land registration is an integral part of the national agrarian legal system, aiming to provide legal certainty and protection for land rights (Ayanti, K.D. 2024). This aligns with the mandate of Article 19 of Law Number 5 of 1960 concerning Basic Agrarian Regulations (UUPA), which requires the government to organize land registration throughout the Republic of Indonesia. In rural areas, the implementation of the Complete Systematic Land Registration (PTSL) program has been relatively smooth, despite facing administrative



obstacles (Harahap, S.M., & Imsar, I.2023). However, in urban areas—especially large and densely populated cities like Surabaya—land registration faces far more complex challenges. Surabaya, as a metropolitan city with a population of over 3 million, has social, economic, and spatial dynamics that significantly impact the land registration process.

Rapid population growth and urbanization have led to a drastic increase in demand for land, while land availability is increasingly limited (Hasid, H.Z. et al. 2022). As a result, various problems arise, such as abandoned land unused by its owners, and the emergence of informal settlements or squatters—people occupying land without a legal basis. These issues not only create social inequality but also create ambiguity in the legal status of land parcels, which impacts registration difficulties. Furthermore, cities like Surabaya have a long history of informal land use, including inheritance without authentic proof, verbal transactions, and the construction of houses on state or company land without permits. This leaves many parcels with unclear legal status, complicating the systematic certification process.

These problems are exacerbated by the lack of active community participation in the PTSL (Complete Land Registration System) process, whether due to ignorance, distrust of the process, or fear of eviction. Furthermore, implementing officials often face limited legal data, boundary conflicts, and overlapping land maps, which slow down the data validation process. Against this background, this article aims to critically examine the main challenges in implementing land registration in densely populated urban areas, with a specific focus on the city of Surabaya. This study also highlights two important issues that are often overlooked: (1) the management of abandoned land in urban areas, and (2) the management of squatter settlements that do not yet have legal status. It is hoped that this study can provide input for the formulation of more responsive and equitable policies in the context of land registration in large cities.

## **II. RESEARCH METHODS**

This research uses an empirical juridical approach (socio-legal research), a legal research method that examines not only laws and regulations as normative legal material (law on the books) but also how these laws are implemented in the field (law in action). This approach was chosen because land registration issues in densely populated areas like Surabaya are not only related to formal legal aspects but are also heavily influenced by social, economic, and cultural factors.

## **2.1. Data Types and Sources**

This research uses two types of data:

- Primary Data, obtained through in-depth interviews with informants from the Surabaya City Land Office, village officials, and residents living in squatter areas and owners of uncertified land.
- Secondary Data, obtained through a literature review of:
  - Legislation (UUPA, Government Regulation No. 24 of 1997, Regulation of the Minister of Agrarian Affairs and Spatial Planning/National Land Agency No. 6 of 2018 concerning PTSL)
  - Scientific literature: journals, books, articles on agrarian law
  - Official reports: statistical data from the ATR/BPN and the Surabaya City Government

## **2.2. Data Collection Techniques**

1. Semi-structured interviews: Conducted with village heads and relevant residents.
2. Field observations: Conducted in several dispute-prone areas and densely populated areas, such as Tambaksari, Simokerto, and Asemrowo, to directly observe the physical form of the land and informal settlements.
3. Documentation study: Reviewing land maps, measurement drawings, and archives of dispute complaints.

## **2.3. Data Analysis Techniques**

Data were analyzed descriptively and qualitatively, with the following stages:

1. Data reduction: Distilling the main information from interviews and observations.
2. Data Display: Presenting information in the form of tables, narratives, and quotations.
3. Conclusion Drawing: Linking field findings to theoretical frameworks and legal norms to answer the research questions.

## **2.4. Theoretical Framework**

This research uses several conceptual frameworks as a basis for analysis:

1. The Theory of Legal Certainty (*Rechtszekerheid*) by Gustav Radbruch, to explain the importance of formal legality in land registration.
2. The Theory of Legal Pluralism, to understand the existence of non-state norms (e.g., customary or social land tenure) that persist in urban communities.

3. The Theory of Community Participation, as an evaluative framework for assessing the extent to which citizens contribute to or hinder the implementation of the PTSL program.

With this empirical legal approach, it is hoped that this research will provide a comprehensive picture of the challenges of land registration in urban areas, not only from a regulatory perspective, but also from the accompanying social dynamics.

### **III. RESEARCH RESULTS**

Land registration issues in urban areas like Surabaya are not only related to legal and formal aspects, but are also heavily influenced by complex social, economic, and spatial planning factors. The biggest challenges in land registration in densely populated cities are unclear land legal status, low community participation, and the presence of informal settlements (squatters). These problems are exacerbated by the high rate of undocumented land transactions, oral inheritance, and administrative disorder at the community level. As much as 28% of land in Surabaya remains uncertified, the majority of which is located in densely populated areas such as Simokerto, Tambaksari, and Asemrowo. According to Putri & Santosa (2020), in many large Indonesian cities, land registration is often hampered by inconsistencies between legal and physical data, as well as a lack of synchronization of policies between vertical institutions and local governments.

Legal challenges such as land ownership without a valid legal basis lead to uncertainty about ownership status. In this context, the theory of *Rechtszekerheid*, or legal certainty, becomes highly relevant, as unclear land status can be detrimental to both legal owners and long-term residents. Surabaya, as a metropolitan city, also faces demographic pressures, with population growth and urbanization driving increased demand for residential land. This demand is not always accompanied by orderly legal mechanisms, leading to the emergence of informal settlements on riverbanks, railway lines, and state-owned or state-owned land. According to Wulandari and Puspitasari (2021), the squatter phenomenon is a manifestation of the land system's failure to provide legal and affordable access to land for low-income communities.

Furthermore, residents' non-involvement in the Complete Systematic Land Registration Program (PTSL) is inextricably linked to distrust of the government, lack of outreach, and fear of eviction. This is evident from field data, which shows that 35% of residents did not participate due to fear of eviction, and 30% due to lack of ownership documents. In this context, community participation is crucial for the success of land registration. A study by

Kartika & Prasetyo (2023) found that a participatory approach prioritizing legal education, neighborhood association (RT/RW) involvement, and technical assistance increased participation by up to 60% in marginal urban areas. This approach is considered more effective than top-down strategies that rely solely on one-way outreach.

Furthermore, the issue of abandoned land is also a significant concern. Land abandoned by its owners, whether due to economic factors or market speculation, has the potential to be exploited illegally by others. Such land is often converted into squatter settlements and even becomes the subject of disputes. According to Nugroho et al. (2019), abandoned land in large cities is at high risk of being claimed by informal communities, especially amidst the housing crisis. Therefore, optimizing land use and reforming regulations regarding land redistribution are crucial steps to address overlapping claims and promote more equitable urban spatial governance.

Overall, resolving land registration issues in urban areas requires a collaborative approach between the ATR/BPN, local governments, and civil society. Land data digitization through the GeoKKP system, integration of legal and spatial data, and the involvement of academics and NGOs are long-term solutions recommended by land experts. This approach aims not only to improve bureaucratic efficiency but also to create a more inclusive, transparent, and socially just land system, as recommended by UN-Habitat in its World Cities Report (2020).

The city of Surabaya consists of 31 sub-districts and over 154 urban villages (kelurahan), with a population density of approximately 8,400 people per square kilometer. In 2022, the dominant land cover in the study area was built-up land, covering 20,459.61 hectares (61.88%) and vegetated land, covering 7,186.5 hectares (21.74%) of the total area of Surabaya. The lowest land cover area is water bodies, covering 2,847.33 hectares, or 8.62%, and vacant land, covering 2,568.69 hectares, or 7.76% of the total area of Surabaya City. Based on data from the Surabaya City Land Office as of 2023, approximately 28% of land remains unregistered or uncertified, particularly in densely populated and informal areas.

The research results identified four types of land cover in the study area: vegetated land, built-up land, vacant land, and water bodies. The land cover area in 2022 is presented in Table 1, and the land cover map for that year is presented in Figure 1.

Table 3. Land Cover 2022

No	Tutupan Lahan	Luas (Ha)	Luas (%)
1	Lahan Bervegetasi	7.186,5	21,74
2	Lahan Terbangun	20.459,61	61,88
3	Lahan Kosong	2.568,69	7,76
4	Tubuh Air	2.847,33	8,62
5	Total	33.062,13	100

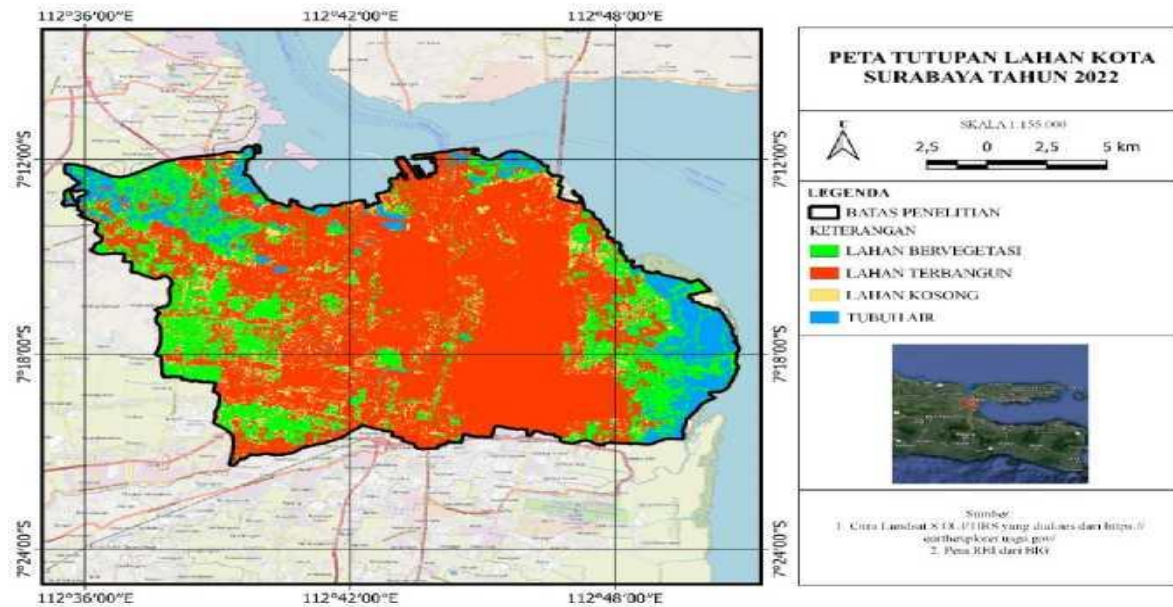


Figure 1. Land Cover Map of Surabaya City in 2022

### 3.2. Legal Challenges: Unclear Land Legal Status

One of the main obstacles is the uncertain legal status of land, resulting from:

- Unrecorded inheritance
- Verbal or undocumented transactions
- Unauthorized occupation of state-owned land

Table 1. General Legal Problems in Surabaya (2023 BPN Data)

Permasalahan Yuridis	Persentase (%)
Pewarisan tanpa akta & dokumen waris	28
Transaksi tanpa AJB (akte jual beli)	22
Sertipikat ganda atau tumpang tindih	15
Tanah dikuasai tanpa dasar hukum (squatter)	20
Lain-lain	15



### **3.3. Physical and Social Challenges: Abandoned Land & Squatters**

#### **a. Abandoned Land**

Land abandoned by its owner without any real use (e.g., former factory land, former housing developments that failed to be built) has the potential to become a squatter area or be claimed by another party.

The Indonesian River Research Agency (BRUIN) reported violations of the conversion of riverbanks on the Surabaya River by visiting the Brantas River Basin Office (BBWS) in Wiyung, Surabaya.

On that occasion, BRUIN, represented by Program Coordinator Muhammad Kholid Basyaiban, submitted a bundle of files containing a complaint letter and documents documenting the violations.

#### **b. Squatters**

Squatter settlements have sprung up in areas such as:

- Wiyung Riverbanks
- Land owned by BRUIN
- Railway tracks

Figure 2. Squatter settlements on the Brantas Riverbanks in Wiyung, Surabaya



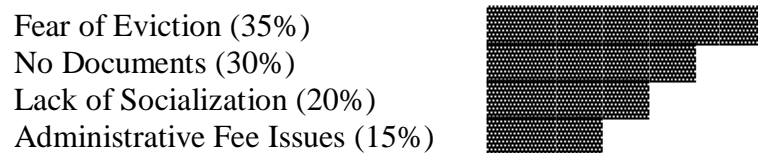
(Illustration Photo: Source —surabayapagi.com)

### 3.4. Public Participation Remains Low

The PTSL program relies heavily on the public's willingness to open access to information, prepare documents, and attend the measurement process. However, some residents avoid this process due to:

1. Fear of eviction (especially squatters)
2. Lack of documents
3. Distrust of government processes

Diagram 1. Reasons for Residents' Rejection or Non-Involvement in PTSL matlab % of residents who did not participate



### 3.5. Case Study: Simokerto Village

In Simokerto Village, of the total 5,100 plots of land:

- 2,100 plots remain uncertified
- 900 of these are controlled by squatters
- Only 60% of residents are willing to actively participate in PTSL activities in 2022

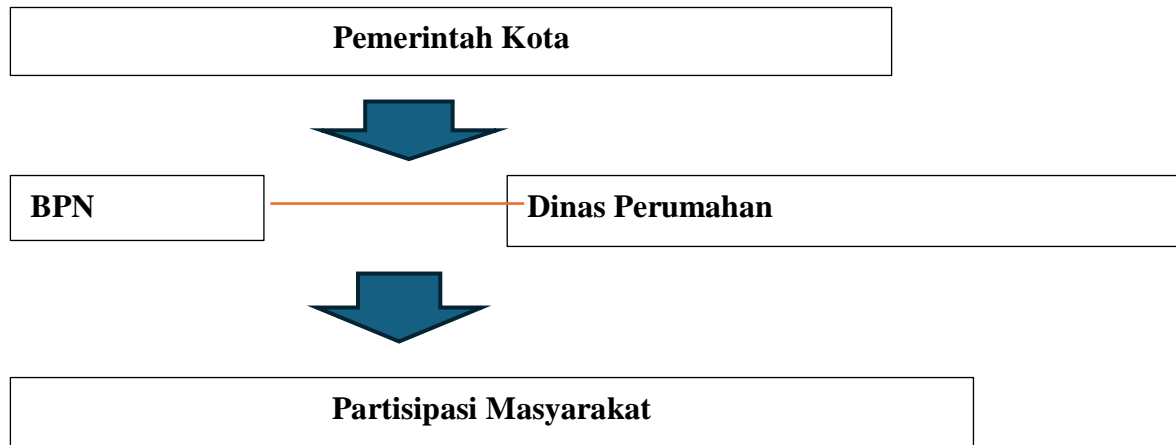
The dominant inhibiting factors are illegal land tenure status and fear of mass evictions if the legalization process is expedited.

### 3.6. Efforts and Solutions

1. Participatory Approach & Education
  - Neighborhood/Community Unit-Based Outreach
  - Simple legal education for squatters
2. Legal Reform
  - Flexible regulations for the legalization of informal housing
  - Optimizing the use of abandoned land
3. Inter-Agency Collaboration
  - Synergy between the National Land Agency (BPN), the City Planning Agency, and the Housing Agency



Diagram 2. Integrative Model for Land Management in Urban Areas



If implemented well, this integration of land and social policies will create a land registration system that is inclusive, responsive, and equitable for all city residents — including those living informally.

#### IV. CONCLUSION

Land registration in densely populated urban areas like Surabaya faces a variety of structural, social, and legal challenges that are far more complex than in rural areas. Although national programs such as the Complete Systematic Land Registration (PTSL) exist, their implementation in urban areas is hampered by:

1. Low community participation, particularly among informal landowners (squatters), due to fear of eviction and unclear legal status.
2. Legal obstacles, such as land transactions without valid deeds, informal inheritance, and overlapping ownership claims.
3. Physical problems, including the large number of abandoned, underutilized land and overlapping maps and survey drawings.
4. Lack of institutional integration, where coordination between the National Land Agency (BPN), local governments, and social institutions remains suboptimal.

Field evidence also shows that areas such as Simokerto, Tambaksari, and Asemrowo have a high level of backlog in land certification and a predominance of informal settlements, which worsens land governance.

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