



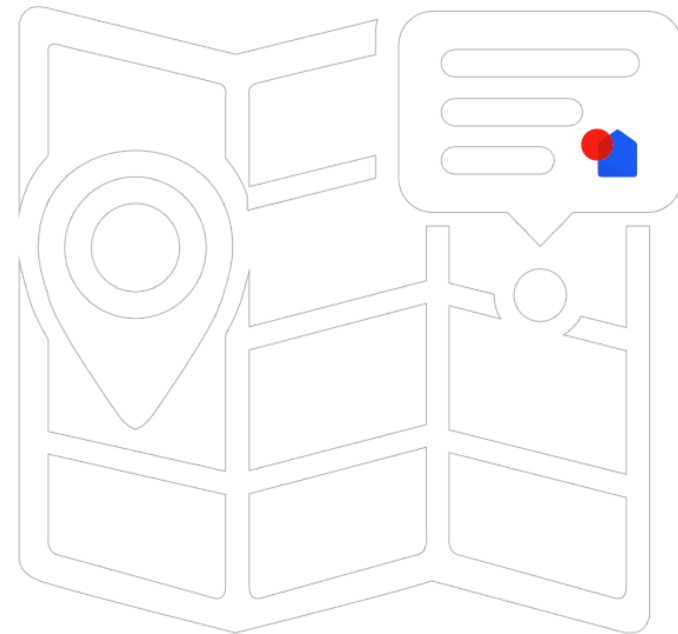
SMART INDEXES

Geoanalytics of Dubai, UAE

Lands segmentation by type of ownership in Dubai based on Open Data

Report including rights to units inside buildings

Prepared by [Smart Indexes](#)





Task

Segment all built-up land parcels (Parcel IDs with existing buildings) for which we have identified a complete set of attributes, in order to analyze and classify their legal forms of ownership according to Dubai's system.

Problem Statement

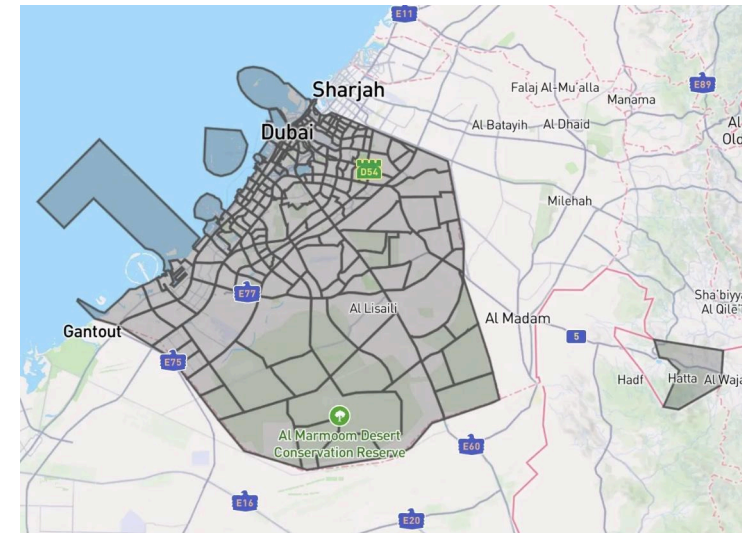
The primary Land Registry dataset does not include a complete set of attributes required for this ownership-type classification.

To compensate, we also ingested and analyzed Sales Transactions and Rent Contracts data to infer each parcel's tenure and unit usage.

Important

The type of ownership applies not only to the land (Parcel ID), but also to individual real estate units within the buildings constructed on these plots. An investor should consider the combination of rights to units: Freehold, Commonhold, Leasehold and their combinations, when choosing a plot for investment.

As a result, our segmentation covers 104,383 built-up parcels: approximately 52.6 % of Dubai's total 198,500+ registered land parcels.



Administrative borders of communities at Emirate Dubai, UAE





Introduction to the task

Forms of ownership	Definitions	Features of the form of ownership
Freehold	A form of full ownership of real estate, in which the owner has full ownership of the land and building for an unlimited period. In Dubai, foreign citizens can purchase real estate in areas designated for freehold and dispose of it at their own discretion (sell, rent, pass on by inheritance).	Full ownership of land and buildings with no time limit. Possibility of sale, gift, inheritance and rent without restrictions. Foreign nationals can purchase real estate in certain zones. Subject to registration with Dubai Land Department (DLD) and obtaining Title Deed. In a freehold area, the property is often sold as freehold units (Strata Title) rather than necessarily the entire area.
Leasehold	The right to lease real estate for a long term (usually 10–99 years). Unlike freehold, the owner of a leasehold does not become the owner of the land, but has the right to use the property and lease it out for the duration of the contract.	Ownership of a property for a limited period (usually 10 to 99 years). The land remains the property of the lessor, and the lease may require renewal. Limited rights to modify or improve the property without the consent of the landowner. Ownership reverts to the landowner upon expiry of the term. Must be registered with the Dubai Land Department (DLD). After 99 years the leasehold automatically returns to the developer unless extended.



Forms of ownership	Definitions	Features of the form of ownership
Commonhold Properties	A system of ownership in which the owners of individual apartments or offices in a multi-unit building own their unit on a freehold basis, while the common areas of the building (elevators, hallways, parking) are jointly owned by all owners. The building is managed by an owners' association.	Owners own individual units (apartments, offices) on a Freehold basis. Joint ownership of common areas of the building (elevators, corridors, parking). Management is carried out by an owners' association, which is responsible for maintenance. Subject to registration with the Dubai Land Department (DLD). In Dubai the term "Commonhold" is more often used in conjunction with Strata-title and Owners Association (relevant laws).
Usufruct	The right to use someone else's real estate without the right to change its structure. This right is often granted for a long period (up to 99 years) and gives the owner of the usufruct the opportunity to rent out the property and receive income, but without the right to sell or fundamentally change the property.	Long-term right to use the property (up to 99 years). No right to change the structure of the property or to own the land. It is possible to rent out the property and generate income. The right to use is not inheritable. Must be registered with the Dubai Land Department (DLD).



Forms of ownership	Definitions	Features of the form of ownership
Musataha	A long-term right of ownership of land (up to 50 years with the possibility of extension), which gives the owner the right to build, change and improve real estate on the land. At the end of the term, the right of musataha reverts to the owner of the land, including all improvements and buildings, unless otherwise specified in the contract.	• Long-term land ownership right (up to 50 years with the possibility of extension). • The owner is given the right to build, improve and modify the facilities on the land. • At the end of the term, the ownership right is returned to the owner of the land. • Used in development and infrastructure projects. • Subject to registration with the Dubai Land Department (DLD).



Definitions & Key Characteristics

Form	Description and legal use
Freehold	Full, perpetual ownership of land & buildings. Sale, lease, inheritance without term limits. Includes registration via Title Deed (DLD). Foreign buyers permitted in designated zones. Freehold rights extend not only to the land, but can also apply to individual units (apartments, offices) within a building on that site.
Leasehold	Long-term leasehold (10–99 years). Land remains landlord's; tenant holds use rights for the term. Registration at DLD; no permanent ownership. For example, one unit in a building may be Freehold and another may be Leasehold.
Commonhold	Individual freehold title to a unit (apartment/office) in a multi-unit property; shared ownership of common areas via an owners' association.
Usufruct	Right to use and derive income from property (up to 99 years) without alteration rights. Not inheritable; reverts to owner upon expiry.
Musataha	Long-term right (up to 50 years, renewable) to develop & improve land. Rights revert on expiry per contract terms.



Executive Summary

- **Total plots registered** (Dubai Land Department, Dubai Pulse – Land Registry): **198,500+**
- **Plots with buildings present** (i.e. parcel + building): **104,383**
- **Segmentation by ownership type** accounting of rights to units of the 104,383 buildings on the land of Dubai:

• Freehold:	26,177	27%	Also combinations of ownership types:		
• Leasehold:	6	0%	• Freehold + Commonhold:	1,467	1.4%
• Commonhold:	3	0%	• Freehold + Leasehold:	1,731	1.7%
• Usufruct:	23,055	22.1%	• Leasehold + Commonhold:	0	0%
• Musataha:	5,365	5.1%	• Freehold + Leasehold + Commonhold:	449	0.4%
• Not identified:	46,130	44.2%			

Total: 104,383 building 100%

Notices

"Not identified" indicates parcels for which no rent-contract data are available in the public Dubai Land Department source:

[Rent Contracts](#).

The absence of such records may reflect an uncertain usage status for various reasons: some parcels are in the midst of auction processes, while others are earmarked for future government-led development.



Objective

To segment Dubai's built-up land parcels by legal form of ownership, using open datasets, and to deliver both CSV and GeoJSON outputs annotated with boolean flags for each ownership form for immediate use in analytical mapping.

Data Sources

1. **Dubai Pulse – Land Registry**
(dm_registration.dm_land_registry_open)

Parcel id of land plots, ownership attributes.

2. **Dubai Pulse – Building Summary**
(dm_building_summary_information_open)

Indicates which parcels have constructed buildings.

3. **Dubai Land Department – Sales & Rent Contracts**

Used to flag parcels without publicly registered transaction data.





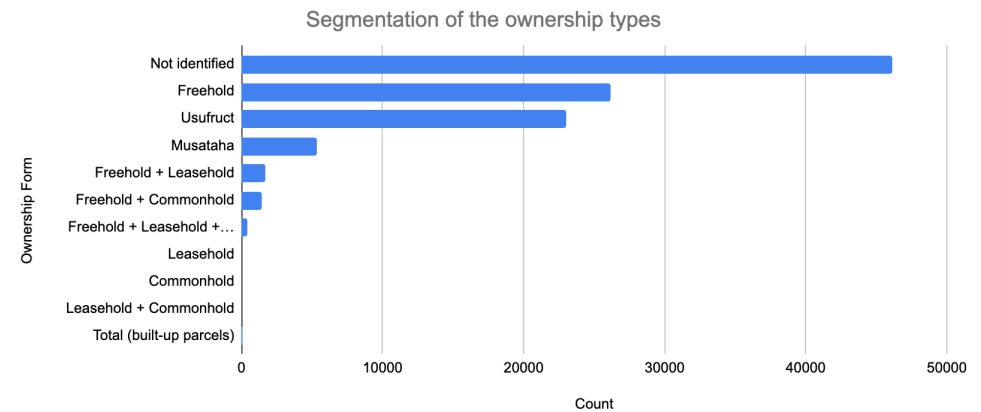
Methodology

1. Filter the 198,500+ land registry records to those parcels with one or more buildings (104,383).
2. Parse each parcel's recorded ownership type (ownership_form_en).
3. Normalize into the nine canonical categories + "Not identified":
 - Freehold
 - Leasehold
 - Commonhold
 - Usufruct
 - Musataha
 - Freehold + Commonhold
 - Freehold + Leasehold
 - Leasehold + Commonhold
 - Freehold + Leasehold + Commonhold
 - Not identified
4. Flag each parcel with boolean columns (1 = yes, 0 = no):
 - is_freehold
 - is_leasehold
 - is_commonhold
 - is_usufruct
 - is_musataha
 - is_freehold_commonhold
 - is_freehold_leasehold
 - is_leasehold_commonhold
 - is_freehold_leasehold_commonhold
5. Aggregate counts and percentages, taking into account the rights to units inside buildings.
6. Export:
 - CSV (Land_Registry_Property_Segments.csv) with all original fields + flags.
 - GeoJSON (Land_Registry_Property_Segments.geojson) for mapping (polygon geometries + flags).

Results

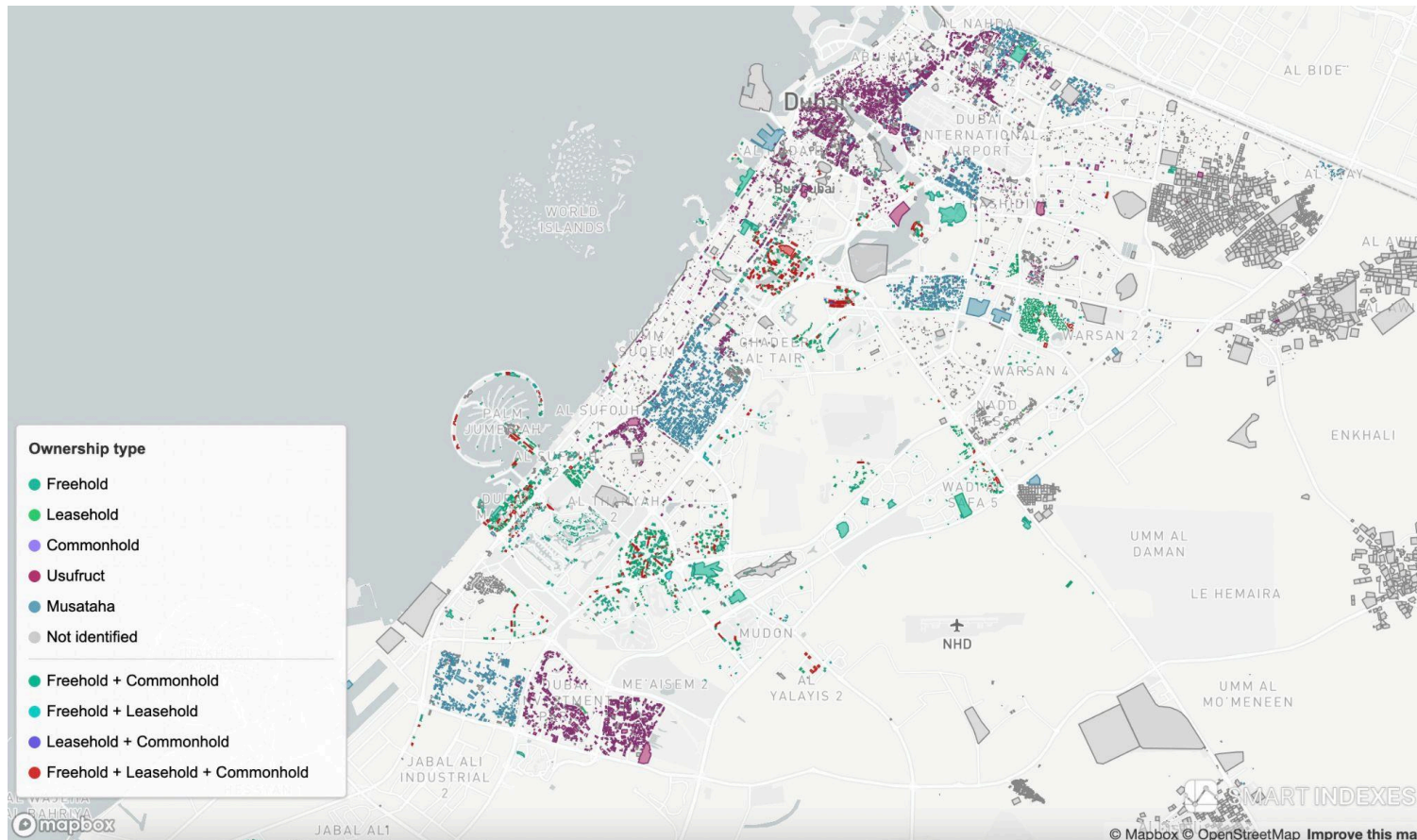
Table 1. Segmentation by Ownership Type

Ownership Form	Count	Percent
Not identified	46,130	44.2 %
Freehold	26,177	27 %
Usufruct	23,055	22.1 %
Musataha	5,365	5.1 %
Freehold + Leasehold	1,731	1.7 %
Freehold + Commonhold	1,467	1.4 %
Freehold + Leasehold + Commonhold	449	0.4 %
Leasehold	6	0 %
Commonhold	3	0 %
Leasehold + Commonhold	0	0 %
Total (built-up parcels)	104,383	100 %



Histogram of segmentation by ownership type.

Real time GeoAnalytics of lands by segmentation of ownership types



Visualization of Dubai's land plots according to segmentation of ownership types.

Conclusion & Next Steps

- 44% of built-up parcels lack public sales/rent data — these require supplemental data collection or direct inquiry to DLD.
- The Freehold segment (27%) and Usufruct segment (22.1%) together account for nearly half of Dubai's built-up land market.
- Unit-by-unit analysis shows that pure Freehold = 27%, and the combinations Freehold+Commonhold (1.4%) + Freehold+Leasehold (1.7%) + Freehold+Leasehold+Commonhold (0.4%) give an additional 3.5%.
- Musataha (5.1%) and Commonhold-only/Leasehold-only are practically not found separately (0%).

Recommendations for use the results of research:

1. Prioritize growth corridors in areas with high Freehold and Usufruct concentration for new logistics / residential projects.
2. Engage DLD or local registries to enrich the 44% "Not identified" category.
3. Integrate the GeoJSON layer into their GIS platform for real-time monitoring of ownership changes, including rights to units in buildings.



Dubai's map at location of Jumeirah Village
Circle with land segmentation by ownership types.

