

Badr KHALLOUQ

☎ +212 6 91 68 67 49 | ✉ baderkhalok@gmail.com | 🔗 LinkedIn | 🐙 GitHub | 📁 Portfolio | 📍 Rabat, Morocco

PROFESSIONAL PROFILE

PhD in Human Geography and State Engineer in Urban Planning and Territorial Development, with over twelve years of experience in the analysis of territorial dynamics, the production and mobilisation of geographic knowledge, land governance and support to public policies in Morocco. My role at the National Land Conservation, Cadastre and Cartography Agency (ANCFCC) has led me to work across nearly 90% of the national territory and to collaborate with a wide range of public, territorial, private and civil society stakeholders for the collection, cross-checking and validation of territorial and cartographic data. My background combines scientific research, field surveys, multi-stakeholder coordination, institutional analysis, teaching and methodological supervision.

EDUCATION

Sidi Mohamed Ben Abdellah University

PhD in Human Geography

Thesis on the territorial governance of agricultural collective lands in Morocco.

Fez, Morocco

Feb. 2021 – Mar. 2026

Higher School of Architecture and Building Professions – UPF

State Engineering Degree in Urban Planning and Territorial Development

Fez, Morocco

Feb. 2022 – Jul. 2024

Hassan II Agronomic and Veterinary Institute

Specialised Master's Degree in Geospatial Sciences and Land Governance

Rabat, Morocco

Feb. 2018 – Jul. 2020

Mohammed V University

Bachelor's Degree in French Law

Rabat, Morocco

Mar. 2018 – Jul. 2019

Ibn Tofail University

Professional Bachelor's Degree in GIS and Spatial Management

Kenitra, Morocco

Feb. 2017 – Aug. 2018

PROFESSIONAL EXPERIENCE

National Land Conservation, Cadastre and Cartography Agency (ANCFCC)

State Engineer – Department of Base Cartography

Rabat, Morocco

Oct. 2013 – Present

- Led field missions covering nearly 90% of the Moroccan territory, providing in-depth knowledge of territorial realities, urbanisation dynamics, land systems and development issues.
- Collected, cross-checked, verified and validated territorial and cartographic data in coordination with public administrations, territorial authorities, local services, public institutions, private stakeholders, local communities and civil society actors.
- Coordinated national operations for the production, updating and quality control of cartographic reference data, in collaboration with institutional and territorial stakeholders.
- Analysed spatial and territorial dynamics and produced geographic information to support territorial planning, land management and public decision-making.
- Participated in institutional and technical cooperation projects, particularly with the French National Geographic Institute (IGN France), for the development and modernisation of national geographic reference systems.
- Contributed to the design and implementation of a prototype vector database and national geographic reference systems, as well as to the development of mobile GIS tools for field data collection, updating, quality control and validation.

ACADEMIC EXPERIENCE

Hassan II Agronomic and Veterinary Institute

Teaching and Academic Supervision

Rabat, Morocco

Feb. 2025 – Jul. 2026

- Teaching advanced GIS applied to territorial planning, combining theoretical concepts, spatial analysis methods and practical applications to territorial issues.
- Scientific supervision and methodological guidance of Master's students in Geospatial Sciences and Land Governance in their final-year projects.
- Supervision of student projects using emerging geospatial technologies, including GeoAI, Machine Learning, Google Earth Engine, remote sensing and spatial predictive modelling, for the analysis of territorial dynamics and decision support.

- Support for research work on territorial dynamics, land governance, property valuation and geospatial decision-support methods.
- Participation as a jury member for final-year project defences, including scientific and methodological assessment of the work and formulation of recommendations.
- Knowledge transfer and dissemination of scientific and technical expertise to students, fostering the link between academic research, geospatial innovation and professional practice.

DOCTORAL RESEARCH AND EMPIRICAL INVESTIGATIONS

- Analysis of agricultural collective land privatisation (melkisation) policies and their implications for land governance, territorial dynamics and rural development.
- Use of the Land Governance Assessment Framework (LGAF) as an analytical framework to examine institutional arrangements, land rights, land management mechanisms and good land governance issues.
- Field investigations and surveys with local and institutional stakeholders to confront territorial realities with institutional frameworks and public policy orientations.
- Combination of quantitative, qualitative, institutional and geospatial approaches to produce and territorialise knowledge for understanding territorial transformations and supporting decision-making.
- Development of applied research on the valorisation of agricultural collective lands, integrating farmers' perceptions and local knowledge through participatory multi-criteria analysis and territorial decision support.
- Dissemination of results through scientific publications and communications on land and territorial governance, rural transformations and geospatial decision-support approaches.

SCIENTIFIC PUBLICATIONS

Articles in Peer-Reviewed Publications – Scopus Indexed

- **Khallouq, B.** (2025). *Application of the SLEUTH Model for Land Use Prediction: Simulation of Urban Sprawl in the City of Meknes*. E3S Web of Conferences, 686, 06005.
- **Khallouq, B.** *Urban Sprawl and Collective Land Vulnerability in Irrigated Perimeters: A Geospatial and Predictive Modeling Approach Using LCM in Sidi Kacem, Morocco*.

Manuscripts in Preparation / Submission

- **Khallouq, B.** *Collective Land Reform and Good Land Governance in Morocco: A Contextualized LGAF-Based Assessment of the Melkisation Policy in Sidi Kacem*.
- **Khallouq, B.** *GIS-AHP Multi-Criteria Analysis for Mapping Agricultural Land Valorization Potential of Collective Farmlands in the Sidi Kacem Irrigated Perimeter, Morocco*.

Scientific Presentations and Conferences

- **FEZ GIS-Users' 2026** – 7th International Congress of GIS Users, Fez, Morocco. Oral presentation accepted, 7 October 2026.
- **Land Management and Utilization (LMU)** – Invited author, 2026.

TECHNICAL SKILLS

GIS & Spatial Analysis: QGIS, ArcGIS, spatial analysis, cartographic modelling, multi-criteria analysis (AHP), spatial statistics and spatial data management.

Remote Sensing: Google Earth Engine, optical and radar imagery processing, land-use/land-cover classification, change detection and time-series analysis.

GeoAI & Machine Learning: Random Forest, XGBoost, SVM, spatial predictive modelling and urban expansion simulation using SLEUTH, LCM and PLUS.

Cartography & Geodesy: Topographic mapping, GNSS, levelling, orthophotos, photogrammetry, map production and quality control.

Land Governance & Cadastre: Land information systems, cadastre, collective lands, land governance, melkisation, land valuation and rural land management.

Territorial Planning: Urban and territorial planning, spatial analysis, land-use planning, territorial development and decision-support approaches.

REAL ESTATE VALUATION AND RICS PATHWAY

RICS – Valuation Pathway

MRICS Candidate

2026

- Application in progress through the APC Preliminary Assessment route, with a validated MRICS supervisor.
- Practical valuation experience within a RICS-regulated firm, covering land, residential, commercial and industrial/logistics properties.
- Judicial valuation and expropriation experience in collaboration with an MRICS professional.

TRAINING AND MOOCs

École Polytechnique Fédérale de Lausanne (EPFL)

MOOCs

Online

2024

- Management of Urban Infrastructures – Part 1.
- African Cities 2: Urban Planning and Management.
- Geographic Information Systems – Part 1.
- Geographic Information Systems – Part 2.

Mohammed VI Polytechnic University (UM6P)

MOOCs

Online

2024 – 2025

- African Urban Economic Development in the Context of Climate Change.
- Urban Data Management: Key to the Development of Smarter African Cities.

UN-Habitat & University of Nairobi

MOOC

Online

2024

- Digital Governance for Inclusive and Sustainable African Cities.

Centre for Affordable Housing Finance in Africa (CAHF)

MOOC

Online

2025

- Making Housing Markets Work in African Cities.

African Centre for Cities – University of Cape Town

MOOC

Online

2025

- Smart Cities, Clever Tactics, and Urban Possibilities in Africa.

Ain Shams University – Smart and Future Cities Laboratory

MOOC

Online

2025

- Urban AI for Sustainable and Equitable Smart African Cities.

OTHER PROFESSIONAL ACTIVITIES

Edaphos Engineering

Independent Consulting Assignment

Switzerland

- Field missions related to agricultural land prospecting and valuation.
- Support for land, environmental and territorial studies.

AMAN DIRASSAT

Environmental Impact Studies

Agadir, Morocco

- Contribution to the preparation and follow-up of environmental impact assessments for development projects.
- Coordination and follow-up with regional authorities and institutional stakeholders.

GLOBAL CHARTERED EXPERTS (GCE)

Real Estate Valuation and Advisory

Casablanca, Morocco

- Contribution to real estate valuation and appraisal assignments covering land, residential, commercial, industrial and logistics assets.
- Participation in the analysis and valuation of real estate development projects within a professional valuation and advisory practice.

LANGUAGES AND INTERESTS

Languages: Arabic (Native); French (Excellent professional and academic proficiency); English (Good professional and scientific proficiency).

Interests: Running, reading and travel.