

Digital Land Governance and Gendered Credit Access

A Peri-urban Theoretical Framework for Kigali, Rwanda (2000–2026)

Marie Claire Uwase^{1,2}, Jean de Dieu Uwimana³

¹Department of Advanced Studies, Rwanda Environment Management Authority (REMA) ²Department of Advanced Studies, University of Rwanda ³University of Rwanda

Correspondence: muwase@yahoo.com

Received: 14 July 2025 | Accepted: 10 October 2025 | Published: 19 November 2025 | DOI:

[10.5281/zenodo.18943531](https://doi.org/10.5281/zenodo.18943531)



ABSTRACT

The rapid digitisation of land governance in Rwanda, particularly through the Land Tenure Regularisation Programme, has transformed peri-urban landscapes. While enhancing tenure security, its gendered implications for accessing agricultural credit remain under-theorised, especially in dynamic zones where urban expansion intersects with agrarian livelihoods. This article develops a novel theoretical framework to analyse how digital land registries mediate women's access to formal agricultural credit in peri-urban contexts. It aims to conceptualise the interplay between techno-legal infrastructures, gendered social norms, and financial inclusion. The framework is constructed through a critical synthesis of feminist political economy, institutional economics, and science and technology studies. It integrates concepts of gendered institutional bricolage and digital materiality to analyse the non-linear pathways between registration and credit. The framework posits that digitisation can paradoxically solidify existing patriarchal biases within credit assessment algorithms, despite formal legal equality. A key mechanism is the translation of social norms into digital criteria, which can systematically undervalue women's communal land use practices as collateral. Digital land governance is not a neutral fix for gendered credit gaps. The theoretical framework reveals a complex socio-technical system where digitisation can entrench, rather than dissolve, barriers to women's financial inclusion in peri-urban agriculture. Future empirical research should apply this framework to audit algorithmic bias in credit scoring. Policymakers must mandate gender-disaggregated impact assessments of digital land tools and support the development of complementary, non-individualised collateral instruments. land tenure, financial inclusion, gender, digitalisation, peri-urban, Rwanda, feminist political economy This article provides the first theoretical model linking digital land registry design to gendered credit outcomes in an African peri-urban setting, introducing the concept of 'patriarchal datafication' as a key analytical lens.

Keywords: *Digital Land Governance, Gendered Credit Access, Peri-urban Transformation, Land Tenure Regularisation, Feminist Political Ecology, Kigali*

Article Highlights

- Develops a novel framework linking digital land registries to women's agricultural credit access.
- Posits 'patriarchal datafication' as a key mechanism in

Core Contribution

Provides the first theoretical model connecting digital land registry design to gendered credit outcomes in an African peri-urban context, introducing 'patriarchal datafication' as a

<p>algorithmic credit assessment.</p> <ul style="list-style-type: none">• Reveals digitisation can entrench, rather than dissolve, barriers to financial inclusion.• Calls for gender-disaggregated impact assessments of digital land tools.	<p>critical analytical lens.</p> <p><i>This framework challenges the neutrality of techno-legal fixes for gendered inequality.</i></p>
--	--

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

REQUEST FULL PAPER

 **Email:** info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

 **Submit at:** app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge