INTERNATIONAL JOURNAL OF RESEARCH IN ECONOMICS AND FINANCE, 2026, Vol. 3, No. 5, 53-83. https://doi.org/10.71420/ijref.v3i5.1

Beyond Farmland Grabbing in Low- and Middle-Income Countries: Toward a Food-Oriented Land Policy Model for Governance and Food Security

Abderrahmane ADNANE
Laboratoire : Economie, Finance, Management et Innovation, Faculté d'Economie et de Gestion, Université Ibn Tofail, Kénitra, Morocco.

Nouh EL HARMOUZI
Laboratoire : Economie, Finance, Management et Innovation, Faculté d'Economie et de Gestion, Université Ibn Tofail, Kénitra, Morocco.

Abstract. Since the 2007-2008 food crisis, large-scale land acquisitions have intensified dramatically across low- and middle-income countries, particularly in sub-Saharan Africa, fueling mounting international competition over agricultural land resources. Between 2000 and 2020, over 33 million hectares were subject to recorded transnational transactions, raising fundamental questions about the implications of this phenomenon for the food security of local populations. Despite a growing body of scholarship, three critical gaps persist: international legal frameworks remain largely declaratory and weakly enforceable; existing analyses insufficiently bridge global land acquisition dynamics with endogenous national regulatory instruments; and the concept of a food-oriented land policy remains theoretically underdeveloped. Against this backdrop, this article advances a conceptual model of food-oriented land policy as a strategic regulatory instrument designed to act both upstream, by addressing the multidimensional determinants of farmland grabbing through preventive mechanisms, and downstream, by strengthening the food resilience of local communities exposed to the effects of large-scale agricultural investments. Methodologically, the study adopts a qualitative and systemic approach, combining a critical and selective review of peer-reviewed literature indexed in Scopus and Web of Science with institutional sources (FAO, World Bank, Land Matrix), complemented by an integrative theoretical construction process. The article makes three major contributions. First, it introduces an original analytical architecture structured around four interdependent categories of determinants, propulsive and stimulatory factors driving land grabbing, and accelerative and decelerative factors shaping its food security outcomes, hereby explaining why similar land acquisition dynamics generate divergent alimentary results across different national contexts. Second, food-oriented land policy is conceptualized as an endogenous regulatory mechanism operating across three complementary levels: preventive regulation (land tenure security, acquisition thresholds), contractual regulation (inclusive clauses, local food allocation requirements), and systemic regulation (resilience to climatic and geopolitical shocks). Third, by explicitly articulating these regulatory layers with the four dimensions of food security - availability, accessibility, utilization, and stability - the framework provides an empirically testable analytical foundation for strengthening national food sovereignty in a context of globalized land competition and growing ecological and geopolitical instability.

Keywords: Land grabbing; Food security; Food-oriented land policy; Land governance; Food sovereignty; Regulatory framework.

1. Introduction

Since the food crisis of 2007–2008, and more recently the successive shocks associated with COVID-19 pandemic, mounting geopolitical instability, and the acceleration of the climate

crisis, pressures on agricultural land have intensified worldwide, especially in countries of the Global South. Recent studies document intense competition over arable land among food, energy, extractive, and climate-related uses, against a backdrop of rising land prices, increasing financialization, and the consolidation of land access in favour of powerful actors (IPES-Food, 2024; IFAD, 2021; FAO et al., 2021). These dynamics disproportionately undermine smallholder farmers, pastoralists, Indigenous peoples, and other groups who depend on secure land access for their livelihoods and food resilience (IFAD, 2021; FAO, 2020). They confirm that land is not merely an economic asset but a central determinant of sustainable food systems and food security.

Although the literature has extensively documented the effects of land grabbing on food security (Borras & Franco, 2012 ; Cotula, 2013), it still tends to treat global pressures as structurally inevitable external shocks, without sufficiently identifying the institutional mechanisms through which national land policy can regulate, redirect, and transform their domestic effects (Liu, 2014 ; Borras, Franco & Wang, 2013 ; IFAD, 2021 ; FAO, GLTN & ILC, 2025 ; Achamyeleh et al., 2023). In doing so, this body of work diagnoses but does not prescribe, and describes but does not model, leaving policymakers without an operational framework to strengthen national food sovereignty in the face of global land competition (Zoomers & Otsuki, 2025; Akalu et al., 2025).

This shortfall appears at three levels. Normatively, international instruments - from the FAO Voluntary Guidelines (2012) to the United Nations Declaration on the Rights of Peasants (2018) - remain largely declaratory and weakly binding. Analytically, existing studies still insufficiently connect global land-acquisition dynamics and their multidimensional drivers to the national regulatory instruments capable of containing them. Conceptually, the notion of an explicitly food-oriented land policy remains underdeveloped, notwithstanding recent efforts to frame related concepts such as land governance for food security and food-systems land governance (Chairunnisya & Jamil, 2024; Akalu et al., 2025).

To date, the expression “food land policy” does not appear to have been explicitly employed in the academic literature. Nevertheless, closely related concepts, such as “land governance for food security,” “land policy for food security,” or “food systems land governance”, are widely used to analyze land resource regulation in relation to food objectives. These theoretical frameworks provide the basis for our conceptualization of food land policy as a strategic device aimed at organizing, regulating, and securing access to, use of, and control over agricultural land in order to preserve food security and food sovereignty, promote the sustainability of agricultural systems, and ensure the effective protection of rural communities’ rights. Such a policy reconciles economic, social, and environmental objectives while articulating the actions of local, national, and international actors to ensure equitable and sustainable land governance and to consolidate the potential benefits of large-scale agricultural investments (Maxwell & Wiebe, 1998 ; Liu, 2014 ; Baltissen & Betsema, 2016 ; Abdallah, Ayamga, & Awuni, 2022 ; Jacobs, 2024 ; IPES-Food, 2024 ; Chairunnisya & Jamil, 2024 ; Akalu et al., 2025).

The present article addresses this triple gap by proposing an integrative conceptual model of a food-oriented land policy designed as a strategic regulatory instrument for food resilience. The model is conceived to operate both upstream, by acting on the determinants of land grabbing that are endogenous or controllable via public policy, and downstream, by mitigating the impacts of large-scale land investments on the food resilience of local populations.

Within this framework, food-oriented land policy is conceived as a strategic regulatory instrument designed to transform structural vulnerability into public governance capacity. Rather than seeking to eliminate the external forces that drive land grabbing, it aims to regulate their domestic transmission and moderate their systemic effects. It operates through three

complementary functions: preventive regulation, which reduces exposure to land grabbing by securing tenure rights, regulating land prices, and limiting institutional vulnerabilities; contractual regulation, which intervenes at the level of land deals to steer investments toward domestic food production rather than export crops or agrofuels; and systemic regulation, which addresses the broader land environment by integrating issues such as urban expansion, ecological degradation, water governance, and land conflicts in order to strengthen resilience, stability, and the long-term sustainability of the food system.

To achieve these objectives, the study adopts a qualitative, systemic approach. It draws on a critical, selective review of the scholarly literature, primarily Scopus- and Web of Science-indexed articles, and institutional sources, including FAO, World Bank, and UNCTAD reports, as well as the Land Matrix database. This documentary analysis is complemented by a theoretical construction that formalizes the role of food-oriented land policy in the multi-level regulation of land grabbing and its effects on food security. The integrative approach not only reveals the limits of existing sectoral analyses but also yields an analytical framework relevant to public policy design and academic debate.

The article is organized as follows. The first section examines the tensions between land grabbing, normative sovereignty, and food security, with a view to highlighting the limitations of prevailing approaches. The second section develops the theoretical and conceptual foundations of food-oriented land policy, linking its different regulatory functions to the four dimensions of food security. The third section presents the integrated conceptual model and discusses its analytical and operational implications for land governance and food-system resilience. The conclusion summarizes the main contributions of the article, acknowledges its limitations, and outlines avenues for future research.

2. Research design and methodology

This study adopts a qualitative, conceptual, and systemic approach, grounded in a critical and integrative review of the scientific literature. It does not aim to produce empirical findings, but rather to develop an original analytical framework capable of formalizing the relationships between land-grabbing dynamics, land governance mechanisms, and food security outcomes. In this respect, the article's contribution is primarily theoretical and conceptual: it seeks to fill an analytical gap in the existing literature by proposing an integrative model that bridges dimensions previously treated in a fragmented or sectoral manner.

The construction of this framework rests on two complementary pillars. First, a critical and selective review of the scientific literature, primarily consisting of Scopus- and Web of Science-indexed articles on land grabbing, land governance, agricultural policy, and food security. Second, a targeted mobilization of institutional sources, reports from the FAO, the World Bank, UNCTAD, and the Land Matrix database, which serve to anchor the model in the empirical realities documented by international organizations. These two sources are used in a complementary manner: the scientific literature informs the theoretical construction, while institutional data allow for its relevance to be assessed against observed trends.

The integrative approach adopted here differs from conventional sectoral analyses in that it seeks to connect, within a unified causal framework, dimensions that are typically treated separately: the political economy of land acquisitions, the governance of land rights, the contractual regulation of agricultural investments, and the resilience of food systems. This multi-level articulation constitutes the core of the article's methodological contribution and should be clearly distinguished from an empirical or quantitative approach: no statistical testing, no primary case study, and no original data collection are involved. The causal relationships proposed by the model are formulated as theoretically grounded, empirically testable

hypotheses, intended to guide future research based on panel data or comparative country studies.

3. Literature review and Limitations of current approaches

Large-scale land acquisitions, or the land rush, reflect a profound restructuring of global agricultural governance. Since the 2007–2008 food crisis, transnational land transactions have expanded rapidly, particularly in low-income countries, through contracts that are often legally ambiguous, economically uneven, and politically sensitive (Cochrane & Andrews, 2021). Between 2000 and 2020, Land Matrix recorded 1,865 transactions covering nearly 33 million hectares (Land Matrix, 2021), while the World Bank estimated that more than 45 million hectares were involved between 2008 and 2010. More recently, Blue Carbon's acquisition of 25 million hectares in Africa in 2023 highlights the systemic scale of the phenomenon (IPES-Food, 2024).

These dynamics go far beyond economic reorganization. They reveal a deeper reconfiguration of power relations within the global agropolitical order, intensifying the North–South divide while also exposing an emerging East–West cleavage shaped by the growing involvement of countries such as China, India, and Brazil, which seek to secure food and energy supplies (Borras et al., 2011; Brun, 2023). Land thus becomes a safe-haven asset, a speculative object, and a geostrategic instrument, in a process of capital reterritorialization and increasing financialization that weakens its food-producing function (Borras & Franco, 2012; Jacquemot, 2018; Zhan et al., 2015).

Although some view these acquisitions as drivers of investment and agricultural modernization, the literature largely emphasizes their adverse effects: displacement of smallholders, marginalization of rural women, widening land inequalities, and the diversion of fertile land toward export crops or biofuels rather than subsistence systems (IPES-Food, 2017; Fraval et al., 2020). These trends undermine local agricultural systems, deepen dependence on global markets, and intensify food insecurity, confirming the long-standing view that equitable access to land is a cornerstone of food security.

From a normative perspective, international regulation remains limited. The International Covenant on Economic, Social and Cultural Rights recognizes the right to adequate food, but lacks binding enforcement mechanisms. Similarly, the FAO Voluntary Guidelines (2012) and the Nyéléni Declaration (2007) set ethical principles without legal force (Borras & Franco, 2010). The United Nations Declaration on the Rights of Peasants (2018) explicitly recognizes rights to land and natural resources, yet its impact is constrained by weak national legal frameworks, especially regarding customary tenure (Cotula, 2012). These limitations expose rural communities to structural vulnerability, often expressed through dispossession without free, prior, and informed consent.

Conceptually, debates contrast food security, understood as physical and economic access to food, with food sovereignty, which affirms peoples' right to define their own agricultural and food systems (P. Thierry, 2011; FranceAgriMer, 2023). However, food sovereignty remains difficult to operationalize under conditions of economic openness and global market pressure (Poderati, 2022). For countries of the Global South, it therefore represents a strategic imperative requiring a food-oriented land policy capable of securing land use, strengthening local agricultural systems, and enhancing resilience to external pressures (Baltissen & Betsema, 2016).

a. Food security in the face of tensions between normative sovereignty and extractive land-grabbing practices

Food sovereignty, defined as the right of peoples to determine their agricultural and food policies in accordance with their own priorities and resources, is firmly anchored in the principle of self-determination and permanent sovereignty over natural resources, as enshrined in the Charter of the United Nations and the 1966 International Covenants. This legal foundation has been progressively consolidated through key international instruments, including the Declaration on Social Progress and Development (UN, 1965), which links development to equity and inclusive participation; the Declaration on Principles of International Law concerning Friendly Relations and Cooperation among States (UN, 1970), which affirms full sovereignty over natural resources; and the Declaration on the Right to Development (UN, 1986), which recognizes development as an inalienable human right and calls for the removal of structural barriers. The Vienna Declaration and Programme of Action (UN, 1993) further integrated human rights, sustainable development, and State sovereignty within a universal and interdependent framework, culminating in the 2018 United Nations Declaration on the Rights of Peasants and Other People Working in Rural Areas, which explicitly recognizes the rights to land, natural resources, and secure tenure as essential safeguards against exclusionary and dispossessive dynamics.

At the regional level, the African Charter on Human and Peoples' Rights (1981) recognizes the right of peoples to freely dispose of their natural resources (Art. 21), while subjecting its exercise to respect for international law, reciprocity, and fair trade principles. This deliberately ambiguous formulation leaves room for flexible, and at times opportunistic, interpretations by States or investors, whereby land grabbing reactivates postcolonial logics of domination and dispossession (Bureau, Gozlan, & Jean, 2005). Such dynamics undermine endogenous agricultural knowledge systems, erode identity-based ties to land, and transform peasants into precarious laborers on their own territories. Rosa Luxemburg (1952) had already described this process as an extension of capitalism through expropriation, a diagnosis that remains strikingly relevant. Large-scale agro-industrial projects are often justified in the name of global food security, yet their implementation follows an extractivist logic that runs counter to the imperatives of sustainability, social justice, and sovereignty (Poderati, 2022). Certain importing States, particularly from the Gulf region, China, or the European Union, increasingly mobilize the rhetoric of food sovereignty as an instrument of soft power, legitimizing land acquisitions through the need to secure food supplies (OECD, 2011; Marzocchi & Cámara, 2024).

In a context of normative ambiguity, land-grabbing contracts are frequently justified through development- and food security–oriented narratives, despite their destabilizing effects on local agrarian systems. Although international law recognizes food sovereignty as a fundamental principle of social justice and equitable access to land, the actual impact of land transactions on food security ultimately depends on the contractual design and underlying power relations: when balanced, such agreements may generate positive outcomes; when asymmetrical, they tend to reinforce structural vulnerabilities and exacerbate food insecurity.

From an optimistic perspective, foreign direct investment in agriculture can serve as a lever for land valorization through the expansion of cultivated areas, yield intensification, diffusion of modern agricultural technologies, strengthening of rural infrastructure, job creation, and capital transfers (Park, 2021; Djokoto et al., 2022; Wabwile et al., 2024; Akalu et al., 2025). These potential spillovers, frequently invoked to justify large-scale land acquisitions, are framed within a logic of economic co-development between investors and host countries. However, such dynamics rely on conditions that are rarely met in low-income countries (Arthur et al., 2024), where food security remains structurally dependent on access to new arable land due to

chronically low agricultural productivity. While some studies acknowledge that foreign investors perceive local food markets as promising emerging segments (Z. Kubit & C. Husmann, 2019), their strategies are primarily anchored in the search for low-cost factors of production - arable land and labor - serving agro-export models that are often disconnected from local food priorities (O. Kareem, 2018).

Although certain land acquisitions may generate short-term gains, the specialized literature converges in showing that, over the medium and long term, such operations are systematically associated with a deterioration of food security by undermining food availability, access, and stability for local populations (Blekking et al., 2024; Castet, 2024). In sub-Saharan Africa, these investments have failed to trigger a significant improvement in food supply. On the contrary, the number of undernourished people continues to rise (S. Vieri & G. Calabrò, 2019). Ethiopia provides a paradigmatic example: more than two million people depend on food aid, while several hundred thousand hectares have come under foreign control (L. Cochrane, 2011). Moreover, it would be reductive to confine land grabbing solely to transnational actors. Internal land appropriation dynamics, driven by national entities, also undermine food system equilibria (Ah. Abdallah et al., 2023).

Food sovereignty can be weakened not only by external interests but also internally, when authorities prioritize extractive logics over the collective rights of local populations. Land appropriation dynamics transform traditional agrarian systems and reinforce the structural dependency of African countries (K. Ambalam, 2014; Abdallah et al., 2022). Assessing the impacts of such investments remains complex, as outcomes depend on the interplay of political, institutional, economic, and social factors. According to FAO analyses, large-scale land acquisitions in developing countries tend to generate more risks than benefits, and positive outcomes, when they occur, are closely contingent upon the quality of land governance and the effective integration of local farmers into inclusive contractual frameworks (P. Liu, 2014).

b. Land policies and Food security

Land policies are generally analyzed from the perspective of securing property rights, the functioning of land markets, institutional governance of natural resources, or local development, as these dimensions are considered essential for stimulating agricultural investment and economic efficiency (Deininger et al., 2002; Lund et al., 2006; Lawry et al., 2015; Holden, 2020; Adéchian & Baco, 2025; Wegerif et al., 2025). However, these approaches remain insufficiently linked to the broader objectives of food security and food sovereignty, which are threatened by the dynamics of arable land grabs.

Even recent studies on land policies that have analyzed property rights as key determinants of agricultural investment and the resilience of food production systems (Liu et al., 2026) have done so without establishing explicit links to the reality of large-scale land acquisitions, while some studies highlight the need to rethink land governance frameworks in the face of new dynamics of land grabbing and environmental transformations (Zoomers & Otsuki, 2025).

More fundamentally, existing research rarely views land policy as a coordinated, multidimensional public policy capable of simultaneously mobilizing economic, land-use, environmental, and institutional instruments to address the structural drivers of land grabbing and their consequences for food security. Such an approach would require intervention both upstream (preventive and contractual regulation), by reducing the factors that facilitate and drive large-scale land acquisitions detrimental to local food security, and downstream (systemic regulation), by mitigating their effects on local agricultural systems and food security outcomes.

Furthermore, the literature has not yet proposed an analytical framework for systematically organizing these determinants according to their role in the dynamics of land grabbing. In

particular, the distinction between driving factors (structural drivers initiating land acquisition dynamics), stimulating factors (contextual conditions facilitating their emergence), accelerating factors (mechanisms amplifying their expansion), and decelerating factors (institutional or regulatory mechanisms capable of curbing them) remains largely absent from existing analytical models. This lack of conceptual structuring limits the ability of current research to translate theoretical analyses into coherent public policy strategies.

To address this gap, this article proposes an integrative conceptual framework that articulates these four categories of determinants within a food land policy model, conceived as a multidimensional strategic regulatory instrument. By linking the identification of drivers, enablers, accelerators, and decelerators to food security objectives, this analytical framework offers a systemic perspective that allows for better integration of land governance, agricultural systems, and public intervention.

c. The regulatory function of food land policy

Land grabbing can only be adequately understood through a systemic perspective, insofar as it emerges from the interaction of determinants governed by both complementary and conflicting logics. Propulsive factors constitute the structural driving forces of the phenomenon, reflecting global pressures associated with demographic growth, the increasing scarcity of arable land and water resources, rising energy demands, speculative and ecological offsetting strategies, as well as geopolitical ambitions aimed at securing food supplies and consolidating food power.

These dynamics materialize through the operation of stimulatory factors, operating at both local and international levels, which create a favorable environment for the activation and expansion of large-scale land acquisitions. Neoliberal policy orientations, weak protection of local land tenure rights, rising public indebtedness, increased openness to foreign direct investment, and the availability of vast areas of underutilized low-cost agricultural land collectively provide institutional and financial legitimacy to large-scale land deals. This configuration reflects an economic rationale centered on profitability and capital attractiveness, frequently at the expense of food sovereignty, land justice, and the rights of rural communities.

In this context, land grabbing dynamics - often embodied in asymmetrical, weakly inclusive, and sometimes predatory contractual arrangements - undermine food security through two principal transmission channels. The first is quantitative: land concentration progressively reduces the amount of arable land available per capita and restricts local populations' access to productive resources. The second is economic: the financialization and speculation surrounding land and agricultural commodities fuel food price increases and volatility, thereby exacerbating food insecurity among the most vulnerable populations.

Accelerative factors further intensify these destabilizing effects. Armed conflicts, cyclical crises, land artificialization, rising domestic food demand in host countries, deforestation, and speculative dynamics in land and agricultural markets increase the vulnerability of rural communities while deepening power asymmetries between smallholders and transnational investors. Conversely, decelerative factors - including food aid, strategic food imports, the sustainable valorization of fertile land, local income generation, technology transfers, and the strengthening of land tenure security - may mitigate the destructive consequences of land grabbing and enhance the resilience of food systems.

The deterioration of food security, however, often triggers costly short-term policy responses, notably rising food imports, increasing external indebtedness, and expanding social expenditures. These adjustments generate substantial macroeconomic costs by aggravating the accumulation of twin deficits - fiscal and trade deficits - and reinforcing dependence on foreign financing and foreign currency inflows. Under such conditions of structural financial

vulnerability, host countries endowed with abundant cultivable land become increasingly pressured to expose their land resources to large-scale foreign investors, thereby perpetuating a vicious cycle of land grabbing, economic dependency, and food insecurity.

The articulation of these propulsive, stimulatory, accelerative, and decelerative factors highlights the profoundly multidimensional character of land grabbing and its implications for food security. Rather than constituting a purely mechanical economic process, land grabbing should be understood as a complex arena of tensions in which structural dynamics, geopolitical interests, financial strategies, and social resistance continuously interact. A critical analysis of these interconnections is therefore essential for understanding the regulatory, land justice, and sustainability challenges that are likely to shape the future of global agricultural and food systems.

From this perspective, food land policy emerges as a strategic regulatory instrument capable of acting primarily on endogenous factors - that is, those more directly controllable through national public action. Through the establishment of protective legal frameworks, land tenure security mechanisms, and inclusive governance arrangements, States possess levers to contain the influence of external propulsive and stimulatory forces and to curb the effects of accelerative factors on food security. By strengthening transaction transparency, regulating foreign agricultural investments, promoting equitable land distribution, and supporting local subsistence agriculture, a coherent food land policy helps transform potential decelerative factors into genuine systemic safeguards. More fundamentally, it enables a reorientation of land-grabbing dynamics toward a food sovereignty logic by integrating the imperatives of environmental sustainability, social justice, and resilience to climate-related shocks.

Beyond its explicit objective of securing land rights and regulating their circulation, land policy embodies a form of public action, reflecting a societal vision and translating a political conception of territorial management (L. Éric & P. Delville, 2022). Land, although legally appropriable and privately held, constitutes a hybrid good whose generalized externalities and collective interest qualify it as an "impure public good." As such, it must be conceived as a strategic regional resource requiring inclusive and efficient governance oriented toward land tenure security and social inclusion. It is within this framework that the notion of an "intelligent" food land policy - or Land Mix Policy - emerges, mobilizing a heterogeneous set of fiscal, financial, and regulatory instruments to shape the behavior of actors involved in land contracts in line with predefined socioeconomic and ecological objectives. This capacity to reconcile stakeholder interests while ensuring equitable regulation of land competition constitutes the foundation of land governance in the service of sustainable development (FAO, 2012).

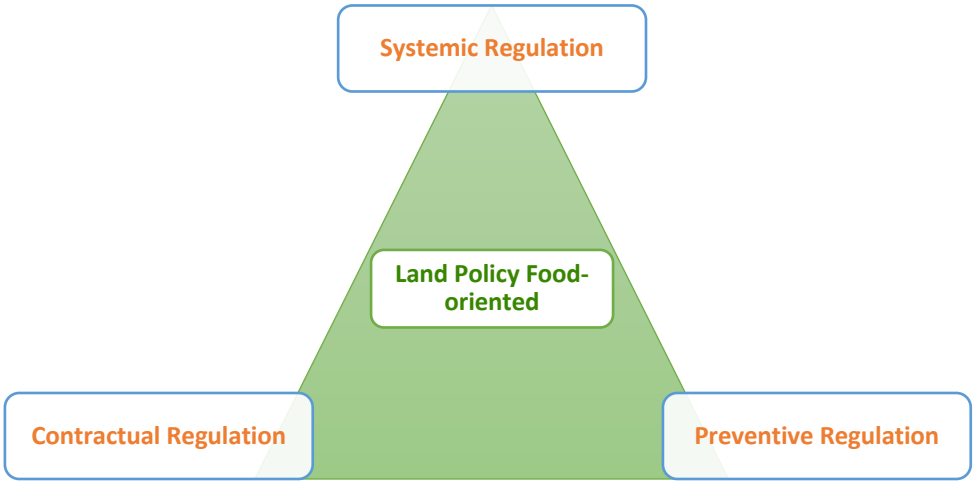
In sub-Saharan Africa, the cultivated land area - estimated at less than 200 million hectares - remains far below its potential, which exceeds one billion hectares, in contrast to other regions such as Asia or OECD countries that are approaching their agricultural limits (CGAAER, 2017). This relative underutilization of land, combined with persistent food insecurity and growing international demand, reinforces the need to redefine agricultural land policy instruments by aligning them with imperatives of land tenure security and socio-territorial inclusion.

Within this institutional reconfiguration, agricultural land policy seeks to correct market failures - such as land grabbing, speculation, and concentration - and to restore the economic, social, and ecological functions of land (Ruralization, 2020). It also aims to rebalance contractual relations between landowners and tenants by protecting both ownership and use rights (Courleux & Fabre, 2013). This multi-scalar regulation is operationalized through a set of measures designed to: (i) protect contracting parties (tenants and owners), (ii) preserve land

from speculation and fragmentation, and (iii) safeguard public order through transaction transparency (Wageningen Economic Research, 2021). The scope of action of such policy is broad, mobilizing a wide range of public policy instruments and requiring sustained intersectoral coordination. It operates within a dual temporality: upstream, by acting on propulsive and stimulatory factors of land grabbing; and downstream, by mitigating its effects, particularly on food security.

This dynamic articulation between prevention and mitigation confers upon food land policy a pivotal role as an instrument of territorial governance and land-use regulation. It can thus be conceived as a multi-level device structured around three complementary functional axes, articulated within a systemic perspective of food security (Figure 1).

Figure 1. The Triangular Function of Food Land Policy



Source: Authors' own elaboration.

i. Level 1: Preventive Regulation

This initial level aims to prevent and limit land grabbing by mobilizing anticipatory control measures and preventive policy instruments.

- **Institutional Regulation and Land Tenure Security**

The regulation and securing of land rights constitute a central lever of food-oriented land policies, as they aim to curb institutional loopholes that foster opportunistic rents and agricultural land dispossession. In Africa, institutional fragmentation and the weak articulation between formal legal frameworks and customary systems have produced legally ambiguous governance structures that facilitate asymmetric appropriation dynamics to the detriment of local communities (Nolte & Väth, 2015).

Customary land tenure systems - covering between five and six billion hectares and affecting nearly three billion people worldwide - are based on collective forms of land use that require appropriate legal recognition to ensure land tenure security through locally grounded, inclusive, and legitimate governance arrangements (Wily, 2022). Yet only a small share of rural land in Africa - approximately 10 percent - is formally registered (Wily, 2021). The diversity of tenure regimes - patrilineal, matrilineal (as in Ghana, Malawi, Mozambique, Tanzania, and Zambia), communal, nationalized (Ethiopia, Angola, Mozambique), or modernized (Rwanda) - combined with State and market interventions, has frequently disrupted ancestral land equilibria without due consideration of local social and cultural logics (Tribillon, 2018).

The formation of land investment contracts is therefore largely conditioned by the nature of regulatory institutions, whose functional permeability exacerbates the vulnerability of customary regimes to predatory strategies pursued by external actors. Certain national reforms, such as those implemented in Tanzania, illustrate attempts at reterritorializing authority and recentralizing State control through binding constraints on foreign investors and procedural restructuring of land negotiations (Schlimmer, 2019). Since 1990, thirty-six new African land laws have explicitly recognized customary ownership and community-based governance (including in Burkina Faso, Tunisia, Mali, Liberia, South Sudan, and Kenya), thereby advancing the constitutionalization of customary tenure systems without calling private property into question (Wily, 2022). This land tenure transition is based on the legal integration - or, in some cases, substitution - of customary institutions within formal frameworks, with a central imperative being the recognition, registration, and protection of community rights in accordance with Article 17 of the United Nations Declaration on the Rights of Peasants (UN, 2018).

Nevertheless, legal formalization does not automatically guarantee social effectiveness or protection against arbitrariness. Land insecurity may persist - or even intensify - when institutional arrangements reproduce asymmetries of access or power (Roudart & Guénard, 2019). The State itself may become a vector of dispossession by promoting legislation that facilitates land conversion in favor of market interests, while regional organizations, such as the African Union, may further contribute to land commodification through sectoral policies or development projects (Hands Off the Land, 2012).

Land tenure security cannot be dissociated from land justice: it becomes fully effective only within an inclusive framework that accounts for socio-economic asymmetries and the plurality of land rights. Robust land governance acts as a catalyst for transactional trust and foreign direct investment (FDI) inflows. In this context, reliable and resilient local institutions enhance FDI attractiveness, independently of restrictions such as limited access to exploitation licenses (Fronzetti et al., 2024; Kwaw & Tian, 2023). Institutional quality, political stability, and corruption control emerge as key levers for stimulating FDI and securing its long-term establishment (Ferreira & Ferreira, 2016; Mazzocchi et al., 2018; Sabir et al., 2019).

Finally, certain extractive practices—such as clientelism or corruption - may, in the short term, facilitate bureaucratic procedures and improve selected economic indicators in fragile institutional environments (Lakha et al., 2024; Ashukem & Ngang, 2022). However, in institutionally robust contexts (e.g., Botswana, Ghana), sustainable economic growth and FDI attractiveness are firmly grounded in governance quality and institutional integrity. Accordingly, the institutional transition of African land tenure regimes - driven by the formal recognition of customary rights (UN, 2018) and the establishment of multi-level governance arrangements (national, regional, and communal) - tends to enhance land tenure clarity, stability, and security. This transition constitutes a central lever for preventing land grabbing and for promoting transparent and equitable regulation of land transactions.

- **Regulation of Land Appropriation Thresholds**

The first level of intervention is grounded in a logic of preventive quantitative regulation, aimed at constraining land grabbing dynamics through the establishment of maximum land appropriation thresholds, defined on the basis of contextual criteria (land availability, ecological vulnerability, demographic pressure) and subject to periodic revision. The objective is to introduce a principle of proportionality in access to land, thereby limiting excessive land concentration processes that undermine territorial equity, productive land use for food purposes (Holden et al., 2020), and long-term economic growth (Cipollina et al., 2018).

It should be emphasized that the growing asymmetry in access to land, both in terms of surface area and asset value, constitutes a structural and globally pervasive phenomenon, characterized by self-reinforcing dynamics and closely intertwined with power relations. This trend calls for a reassessment of land accumulation mechanisms benefiting minority groups (Wegerif & Guereña, 2020) and strongly argues for the implementation of more inclusive land policies, particularly in favor of women (Ordioni, 2005), who continue to suffer disproportionately from fragmented land governance and insufficient coordination among the institutions involved (Tekwa, 2025).

- **Steering Land Prices**

The relative price of land (LP), along with the capture of land value added, constitutes a central lever that food-oriented land policy (FLP) can mobilize to contain predatory land grabbing dynamics. Through carefully calibrated fiscal and regulatory engineering - including differentiated taxation, the imposition of price floors or ceilings, the definition of spatial or temporal quotas, and the regulation of land market volatility - these instruments aim to redirect economic agents' arbitrage decisions toward outcomes consistent with the general interest.

However, the effectiveness of such instruments depends on a delicate balance. Overregulation or poorly designed taxation schemes may generate economic distortions that weaken agricultural profitability, leading to productive disengagement or the adoption of intensive practices incompatible with ecological imperatives. More critically, such disincentives may accelerate the conversion of agricultural land to non-agricultural uses, thereby contributing to land artificialization. The European experience is instructive in this regard: the combination of declining farm profitability and increased fiscal pressure on land assets has fueled speculative dynamics resulting in the large-scale urbanization of cultivated areas (Sainteny & Dupuis, 2022).

Nevertheless, land taxation is frequently identified in the literature as a high-potential regulatory tool, simultaneously serving as a mechanism to deter concentration and speculation, and as an instrument to channel investments toward agroecologically sustainable uses. Its actual impact, however, remains fundamentally contingent upon its technico-political architecture. Poorly calibrated taxation may produce counterintuitive effects, exacerbating inequalities in access to land or further weakening already fragile agricultural systems.

In the African context, this debate is particularly salient. Fiscal frameworks remain largely incomplete, fragmented, and permissive. Tax exemption regimes, untargeted incentives, and inefficient collection systems contribute to the chronic underutilization of available fiscal potential. As demonstrated by Jacquemot and Raffinot (2018), most African economies operate significantly below their "fiscal frontier", defined as the optimal threshold of public resource mobilization without regressive effects. In this regard, the rigorous activation of land-based fiscal instruments could simultaneously exert a deterrent effect on land grabbing strategies and provide a strategic source of financing for agricultural and food policies.

In an environment where financing needs related to food security are intensifying and becoming structurally persistent, optimizing fiscal returns from land can no longer be regarded as a technical option, but rather as a core imperative of economic and territorial governance (FAO, 2024).

Preventive land regulation thus provides a strategic framework for containing land grabbing through limitation, tenure security, and fiscally guided incentives aligned with food security objectives. Its effectiveness, however, remains conditional upon institutional quality and inclusive governance.

Preventive regulation, grounded in both theoretical and empirical evidence, enhances food accessibility by strengthening agricultural land tenure security.

P1: The implementation of preventive regulatory mechanisms, tailored to local agroecological and socio-demographic specificities, curbs land concentration and promotes food security in host countries.

ii. Level 2: Contractual Regulation

This second level of regulation prioritizes the adjustment of contractual relationships through the revision and renegotiation of agreements, with a view to mitigating the adverse effects of land grabbing and ensuring equitable access to land.

- **Food-Oriented Allocation of Land Resources**

The phenomenon of land grabbing exerts contrasting effects on food security, revealing a structural tension between economic performance and food sovereignty. While certain land-based investments may catalyze agricultural valorization dynamics benefiting a segment of the local population, others result in the capture of land resources for international markets (Müller et al., 2021), or even in the abandonment of agro-industrial projects by foreign investors after the acquisition of vast tracts of land to the detriment of host communities (Ndenyele et al., 2025).

In this context, large-scale land transactions may contribute to an increase in agricultural gross domestic product, but often at the cost of weakening local food systems (Edafe et al., 2023; Blekking et al., 2024). By redirecting food crops toward export-oriented value chains, such transactions threaten the availability of staple goods, deepen inequalities in food access, and durably undermine rural food security.

It is therefore incumbent upon land policy to foster the emergence of coherent contractual frameworks capable of articulating local communities' food aspirations with the dynamics of integration into international markets. This second level of land policy regulation operates within a logic of regulated contractual governance, whereby public authorities oversee land transfers through codified legal mechanisms that promote inclusive, symmetrical, and non-predatory contracts.

The objective is to ensure an efficient and equitable allocation of land resources, enabling the coexistence of divergent interests - agro-industrial investors, local farmers, and rural communities - within a perspective of sustainable land valorization. This level presupposes institutional capacity to reconcile customary norms with statutory law, while guaranteeing transparency, accountability, and participation in decision-making processes through a multi-stakeholder approach under the supervision of independent land authorities (Biloa & Gaarde, 2024).

- **Establishment of Autonomous Land Authorities**

Land policy, considered as an isolated normative framework, cannot in itself guarantee effective synergy between land governance and economic growth dynamics. Optimizing the impact of foreign direct investment (FDI) on gross domestic product in Sub-Saharan Africa requires the establishment of autonomous land authorities that are institutionally independent from central political power (Bendoma et al., 2024).

The creation of genuinely depoliticized land regulatory bodies therefore constitutes a structural condition for ensuring credible, transparent land governance conducive to FDI attractiveness. Conversely, the proliferation of politically dependent commissions or judicial bodies subordinated to the executive branch proves counterproductive, as it perpetuates power

asymmetries and institutional vulnerabilities, thereby compromising sustainable land reform efforts and fostering the political instrumentalization of land administration (Lavigne Delville & Houngbedji, 2023).

The contractual balance sought through land policies rests on the assumption of efficient land markets and institutional transparency capable of reducing information asymmetries among stakeholders. In this perspective, digital technologies applied to land administration play a central role by facilitating the production and dissemination of reliable, accessible, and up-to-date data for the benefit of all users - institutions, communities, investors, and smallholders alike (Home, 2021).

Although this technological transformation remains at an early stage across much of the African continent, it represents a strategic lever for optimizing land allocation, strengthening transaction traceability, and promoting more inclusive and efficient land governance. However, despite advancements in digital governance and information transparency, land contracts remain vulnerable to instrumentalization in unstable institutional contexts, where power relations and dominant economic logics shape their implementation to the detriment of local populations.

- **Instrumentalization of Land Contracts in Unstable Contexts**

The growing integration of developing economies into globalization processes has, on the one hand, intensified increasingly conflicting interests and, on the other, reconfigured African national legal frameworks in ways that influence political legitimacy, the protection of land rights, and the dynamics of land contractualization (Cotula, 2011).

Such contractual processes frequently operate to the detriment of local farmers and customary occupants, within the framework of exclusive agreements whose legitimacy is shaped by the state according to its politico-economic interests (Ferrando, 2014). In this context, the boundary between legality and illegality becomes blurred, unstable, and evolving. It is no longer the legal norm that frames the contract; rather, contractual efficiency logic redefines its contours, reshaping legal rules according to their economic utility.

The state may thus deploy subtle legal engineering designed to neutralize potential contestation from indigenous communities holding ancestral or collective land rights, in order to favor economic efficiency and capital accumulation.

This dynamic results in an instrumentalized legal construction, reconfigured according to shifting dominant interests and progressively integrated into the collective imaginary at the expense of endogenous institutions and local practices. The process consecrates a neoliberal economic paradigm in which traditional land management logics are displaced in favor of private actors vested with a form of delegated authority. In this sense, the land contract becomes a tool for legitimizing structural violence and a systemic vector of dispossession serving large-scale investment (Lund, 2011), to the detriment of family farming and local prerogatives (Cotula, 2013).

It is within fragile institutional environments that land contracts tend to reinforce profound imbalances, primarily benefiting a capitalist oligarchy and intra-regional enterprises often supported by the state, both in Africa and Latin America (Borras et al., 2012). Illustrative examples include the arbitrary allocation of land rights to electoral clients (Boone, 2014), contested reliability of land registries, abuse of authority by tribal and political leaders, corruption among public officials, overlapping customary structures, and ethnoreligious conflicts that exacerbate land disputes (Bah & Dossa, 2025). These dynamics are further compounded by economic stakes linked to conflicts of interest and corporatist struggles among stakeholders (Lavigne Delville & Houngbedji, 2023).

Ultimately, contractual regulation emerges as a central instrument for overseeing land transactions, promoting optimal land allocation, and attempting to reconcile economic attractiveness with food availability. However, its effectiveness remains largely contingent upon institutional robustness, contractual transparency, and states' capacity to resist neoliberal drifts and power asymmetries that fuel land grabbing dynamics.

In summary, the literature converges on the view that regulating land transactions through inclusive contractual clauses constitutes a major determinant of food security. On this basis, we formulate the following theoretical Proposition:

P2: The inclusion of binding, participatory, and socially inclusive contractual clauses in land agreements enables the reconciliation of agro-industrial investment with national food security by acting in a corrective manner on both accelerating and decelerating factors.

iii. Level 3: Systemic Regulation

The third level is grounded in a systemic approach centered on anticipation and resilience, aimed at mitigating the amplifying external effects that land grabbing dynamics - even when legally regulated - may exert on food security. This level takes into account exogenous and interconnected variables that place increasing pressure on food systems: climate shocks (global warming, aridification, water stress) (Saccone & Vallino, 2025); demographic transitions (rapid population growth, urbanization, delayed aging); geopolitical disruptions (armed conflicts, regional instability) (Dai et al., 2024; Saccone & Vallino, 2025); and cyclical economic crises (market volatility, agricultural price inflation) (Baffes et al., 2025; Zelingher & Makowski, 2023).

If not integrated into the design of land policies, these factors may transform land grabbing into a catalyst for structural food insecurity, notably by weakening the resilience of subsistence production systems, exacerbating land-use conflicts, and intensifying the vulnerability of rural populations.

Price volatility - both a core manifestation of systemic risks and a major transmission channel of vulnerability across global and local agricultural markets (IFPRI & World Bank, 2025) - has become a structural and difficult-to-contain phenomenon that disproportionately burdens low-income populations, who may experience food inflation of up to 30%, far above general inflation (FAO, 2025), as well as net food-importing countries. In response, leading international organizations (FAO, IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO, IFPRI, and the UN High-Level Task Force) call for an integrated multilateral food governance framework combining structural resilience-building with enhanced market transparency (FAO et al., 2011). Simultaneously, the financialization of agricultural markets intensifies exposure to global price shocks, particularly in developing countries dependent on strategic cereals such as wheat and maize (Manogna & Kulkarni, 2024). Against this backdrop, food land policy must move beyond reactive redistribution to become a strategic instrument of adaptive allocation, reconciling investment attractiveness with the protection of local land-use rights through coordinated multilevel governance and normative integration. Yet in Africa, despite progress in recognizing customary rights, incomplete legislation and fragmented implementation continue to weaken land governance (Wegerif et al., 2025), underscoring that effective food land policy depends on the coherent articulation of preventive regulation, contractual oversight, and systemic anticipation.

- **Water, Land, and Food Security: A Structuring Interdependence**

Under the combined pressures of demographic growth, agricultural development imperatives, and rising geopolitical tensions, water has become a strategic resource intrinsically linked to land governance, particularly in developing countries (M. Bied-Charreton et al., 2006). Water

management can no longer be conceived independently of land tenure systems, as water security and land tenure security constitute a structurally interdependent nexus (Klümper & Theesfeld, 2017; Nhamo et al., 2022). Any credible land reform must therefore operationally integrate the regulation of water rights, since the dissociation of land and water entitlements generates fragmented uses, conflicts, and legal insecurity, thereby undermining the sustainability of rural livelihoods (FAO, 2021). Conceiving water as a common good requires the adaptation of land tenure regimes to shield it from exclusive capture and commodification dynamics. Yet this imperative stands in tension with the expectations of foreign investors, for whom flexibility in use rights functions as a lever of capital valorization (Jacobs, 2024), revealing the structural ambivalence of contemporary land policies, caught between sovereignty imperatives and pressures for investment attractiveness.

- **External Debt and Pressure on Agricultural Resources: Toward Strategic Regulation**

The formulation of a truly comprehensive land policy cannot disregard the complexity induced by external debt, given its decisive repercussions on food security. Debt functions as a structural mechanism with a dual role: first, as a catalyst of land grabbing and the growing financialization of agricultural land, generating monetary flows directed toward servicing foreign-currency-denominated obligations; and second, as an amplifier of food vulnerabilities, by weakening the sovereign capacity of states to regulate their land resources.

Exogenous conditionalities attached to borrowing, combined with stringent repayment requirements and the fiscal austerity policies that follow, impose economic and political constraints that substantially compromise national land and food autonomy (CADTM, 2024). Consequently, any holistic agricultural land strategy - conceived in synergy with broader public policy instruments - must prioritize the financial sustainability of the state. This implies, foremost, shielding land resources from international negotiation processes and financial commodification dynamics that threaten their strategic character. The preservation of sovereign policy space is essential for the equitable and sustainable governance of agricultural land.

Even in the absence of a formal correlational analysis, preliminary observation suggests that highly indebted African countries endowed with significant arable land areas are often those transferring substantial portions of their agricultural land to foreign investors. The International Monetary Fund (IMF, 2024) identifies South Sudan, Laos, Indonesia, Cambodia, Ethiopia, Cameroon, and the Democratic Republic of the Congo as developing states facing particularly high levels of debt. Simultaneously, these countries appear prominently exposed to large-scale land acquisitions, according to consolidated data from the World Bank, the Land Matrix Initiative, and Statista (2024).

The convergence between high public debt and land vulnerability reveals a structural mechanism that deepens dependence on foreign capital and undermines national land sovereignty, making a robustly regulated food land policy a strategic lever for safeguarding local rights and strengthening food system resilience.

- **Regulation of Agricultural Soils: Reconciling Multifunctionality and Sustainability**

Land policy must draw a strict boundary between urban expansion and agricultural land, as the unchecked artificialization of fertile soils by infrastructure and sprawl erodes their food-producing function and ultimately jeopardizes food security.

Agricultural space cannot be reduced to a monofunctional land reserve; it embodies a high multifunctional value requiring integrated and sustainable governance (Jouve & Vianey, 2012). The systematic opposition between urbanization and agriculture is neither natural nor

inevitable. Urban agriculture - through organoponic systems, vertical farms, productive eco-districts, or proximity market gardening - illustrates attempts at reconciling city and countryside, although its expansion remains constrained by high land costs and industrial pollution (Aubry et al., 2022).

In Africa, land sustainability constitutes a strategic imperative for the durability of agrarian systems, food security, and ecological resilience. It calls for integrated land engineering combining technical support, agronomic research, institutional strengthening, and financing of soil conservation programs (Dugué et al., 2024). Agroecological zoning provides a protective framework against land grabbing and artificialization, yet its effectiveness depends on rigorous land-use planning, integrated agricultural policies, and strengthened rural infrastructure (Mkonda, 2021; FAO, 2021). These efforts, however, are weakened by economic extraversion and fiscal constraints associated with public indebtedness.

The legal securitization of land rights constitutes an operational pillar of sustainable land management, fostering rational resource allocation and the adoption of conservation practices. The formal recognition of customary rights and protection against arbitrariness enhance local engagement, although formalization alone does not automatically guarantee ecological conservation (Delville et al., 2022).

In the context of land liberalization and financialization, the intensified pressure from capital-intensive actors on soils demands a polycentric governance approach that integrates conservation, land justice, and local knowledge to reconcile agricultural productivity with the preservation of ecosystem functions.

- **Land Policy as an Instrument of Food Resilience in the Face of Violence**

Whether resulting from land insecurity, other drivers, or a combination thereof, armed conflicts undermine the foundations of food and social security, disrupt livelihoods, destroy fertile areas, weaken agricultural markets, and destabilize social dynamics (Bindeouè et al., 2020; Rudolfsen & Vesco, 2024; Muhyie et al., 2025). Such violence frequently emerges in contexts of institutional failure that food land policy must explicitly address, insofar as agricultural land must be shielded from the spillover effects of violence.

In this framework, food security must also derive from a pacifying land policy conceived as an instrument for consolidating institutional trust and social loyalty. This entails, first, recognizing, promoting, and protecting property rights to prevent land conflicts - often rooted in unclear definitions of use and ownership prerogatives or unresolved overlaps between customary and statutory regimes - and, second, safeguarding agricultural land and food accessibility from conflict-related distortions through institutional mechanisms aimed at mitigating impacts on food security (Hendrix & Anderson, 2020).

In contexts such as the Democratic Republic of the Congo, land insecurity can manifest as structural violence, where the enforcement of rights depends on armed force amid fragile or absent customary regulatory mechanisms (Assumani, 2020). The coexistence of overlapping normative frameworks fosters competing claims and contestation, exposing land policy to securitized instrumentalization. Systemic regulation thus emerges as a strategic lever, embedding food land policy within a resilience-oriented framework that simultaneously safeguards ecological sustainability, secures rights, and ensures food availability, contingent on states' ability to integrate exogenous climatic, economic, geopolitical, and social factors while coordinating land governance, water management, and social justice in an inclusive and sovereign manner.

Converging evidence in the existing literature suggests that the integration of systemic risks into public policy constitutes a decisive determinant of food security. Building on this insight, the following theoretical Proposition is advanced:

P3: A food-oriented land policy incorporating resilience mechanisms can mitigate the adverse effects of land grabbing on food security by strengthening adaptive capacity in the face of climatic, demographic, and geopolitical shocks.

4. Results: Integrated conceptual framework of food-oriented land policy and land grabbing dynamic

a. Land Grabbing as a Multidimensional and Structured Process

As previously outlined, land grabbing must be understood as a systemic and multidimensional process arising from the complex interaction between exogenous forces and domestic dynamics. Structured around four interdependent categories - propulsive, stimulatory, accelerative, and decelerative factors - this analytical framework elucidates the mechanisms through which land acquisitions reconfigure agrarian equilibria and reshape the structural foundations of food security. The interplay among these determinants' accounts both for the progressive decline in cultivable land per capita and for the contextual heterogeneity of observed impacts across institutional, economic, and social settings.

b. Transmission Channels to Food Security

In accordance with FAO criteria, this model conceptualizes food security through four interdependent dimensions: availability, accessibility, utilization, and stability.

While much of the literature prioritizes availability and access (Ashby et al., 2016; Leroy et al., 2015; Manikas et al., 2023; Piperata et al., 2022), this framework adopts an integrated perspective. The utilization dimension, often neglected, refers to the effective conversion of food into adequate nutritional status, incorporating dietary diversity, sanitary conditions, and physiological absorption capacity. The stability dimension captures temporal resilience to economic, climatic, and geopolitical shocks.

The impact of land grabbing across these four dimensions is inherently non-uniform. It depends on the relative weight of accelerating and decelerating factors, as well as on institutional configurations that shape land governance outcomes. Land acquisitions may therefore generate either positive-sum or negative-sum food security dynamics.

c. Endogenization Through Food-Oriented Land Policy

Within this complex architecture, food-oriented land policy operates as a strategic instrument capable of transforming structural vulnerability into regulated governance capacity.

Any factor over which national policy can exert influence is treated as endogenous. Accordingly, the objective of land policy is not to suppress exogenous propelling forces, but to regulate their domestic transmission and reshape their systemic effects. Food-oriented land policy intervenes through three complementary regulatory functions:

- **Preventive Regulation**

Preventive regulation targets endogenous stimulating factors. It seeks to reduce structural exposure to land grabbing by securing land tenure rights, regulating agricultural land prices, establishing land-per-capita thresholds, managing public debt vulnerabilities linked to land transactions. Its primary function is to safeguard food accessibility and preserve the structural land base.

- **Contractual Regulation**

Contractual regulation operates at the negotiation and implementation stages of land agreements. It promotes inclusive and binding contractual clauses designed to align land use with national food security objectives. Such mechanisms may redirect investments toward domestic food production rather than export-oriented crops or agrofuels, as documented by Rulli and D'Odorico (2014), Müller et al. (2021), and more recently Blekking et al. (2024).

An Agricultural Extraversion Index (AEI) - defined as the ratio of exported output to total production on acquired land - may serve as an evaluative tool. Complementarily, dietary diversity indicators can assess qualitative food outcomes. This regulatory layer functions as a deceleration mechanism, moderating potential adverse impacts on availability and utilization.

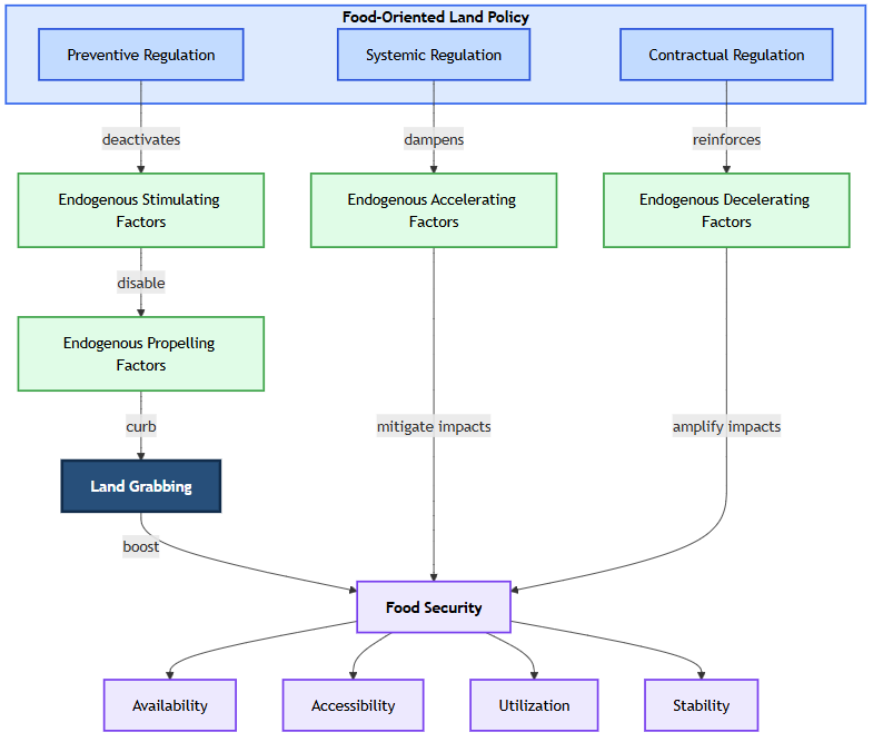
- **Systemic Regulation**

Systemic regulation encompasses the broader structural environment affecting agricultural land, including urban expansion pressures, environmental degradation, water governance, land conflicts, productivity and cost structures. It strengthens long-term resilience by integrating land governance with water management, ecological sustainability, and social justice. Its primary contribution lies in ensuring stability and reinforcing adaptive capacity against exogenous shocks.

Building on the preceding analysis, we construct the integrated conceptual framework of the model, illustrated in Figure 2.

d. Conceptual Model Diagram

Figure 2: A Food-Oriented Land Policy Framework for Regulating Land Grabbing and Safeguarding Food Security



5. Discussion: Functional Articulation and Governance Architecture

Each regulatory function maintains a distinct yet complementary relationship with food security dimensions:

- Preventive regulation secures access and structural land foundations;
- Contractual regulation optimizes availability and utilization;
- Systemic regulation guarantees stability and resilience.

Their articulation forms an integrated governance architecture that positions land regulation as a central lever of food system sustainability.

Within the integrated architecture of the model, P1 operates at the structural level, shaping the configuration of land control, allocation, and use, and thereby influencing the material foundations of food systems. P2 acts at the institutional and socio-political levels, improving the governance quality of land agreements and fostering stakeholder inclusion, thus mediating distributive and contractual dynamics. P3, by contrast, addresses the systemic layer, strengthening the adaptive and absorptive capacities of the food–land nexus in the face of exogenous shocks.

Taken together, these hypotheses articulate a multi-level regulatory configuration - structural, institutional, and systemic - whose interactions generate a coherent governance architecture. Their complementarity produces cumulative and potentially synergistic effects, reinforcing food security across its four dimensions: accessibility, availability, utilization, and stability.

a. Empirical implications and operationalization of the model

The integrated conceptual framework developed in this study is not intended to remain purely theoretical; rather, it provides a structured basis for empirical investigation into the relationships between land grabbing dynamics, food-oriented land policy, and food security outcomes. By explicitly linking the four categories of determinants (propulsive, stimulatory, accelerative, and decelerative) to the four dimensions of food security (availability, accessibility, utilization, and stability), the model enables the formulation of testable hypotheses and measurable relationships.

From an empirical perspective, the framework can be operationalized through the identification of observable proxies for each category of variables. Propulsive factors may be captured through macro-structural indicators such as population growth, global food demand, or international commodity prices. Stimulatory factors can be proxied by variables reflecting domestic institutional and economic conditions, including public debt levels, foreign direct investment inflows in agriculture, land governance quality indices, and the availability of arable land. Accelerative factors may be measured through indicators of conflict intensity, climate variability, land-use change, and market volatility, while decelerative factors can be approximated by food imports, social protection mechanisms, agricultural productivity gains, and land tenure security indices.

The three regulatory levels of food-oriented land policy also lend themselves to empirical specification. Preventive regulation may be assessed through indicators of land tenure formalization, land taxation policies, and regulatory constraints on land acquisitions. Contractual regulation can be examined through the presence of inclusive clauses in land contracts, the degree of local participation, and the orientation of production toward domestic versus export markets, which may be captured through indices such as an Agricultural Extraversion Index (AEI). Systemic regulation can be evaluated through composite measures

of resilience, including climate adaptation policies, water governance indicators, and conflict mitigation mechanisms.

Within this empirical architecture, the hypotheses formulated in this study can be tested using various methodological approaches. Cross-country panel data analyses may be employed to examine the relationship between land grabbing intensity and food security indicators, while accounting for the moderating role of accelerative and decelerative factors. Structural equation modeling (SEM) offers a particularly suitable framework for capturing the complex interactions and feedback loops embedded in the model. In addition, comparative case studies may provide in-depth insights into the institutional and contractual configurations that condition the outcomes of land acquisitions in different contexts.

Importantly, the model implies that the net impact of land grabbing on food security is not unidirectional but results from the dynamic interaction between amplifying and mitigating forces. Specifically, the effects transmitted through key channels, such as food price volatility and the reallocation of agricultural land capital, are reinforced by accelerative factors and moderated by decelerative mechanisms. The overall outcome therefore depends on the relative dominance and interaction of these opposing forces, which can be empirically assessed through interaction terms or moderation analysis.

By providing a clear pathway for empirical testing, this framework contributes to bridging the gap between conceptual analysis and evidence-based policymaking. It opens avenues for future research aimed at validating, refining, and contextualizing the model across different geographical and institutional settings, thereby enhancing its relevance for both academic inquiry and policy design.

To operationalize the proposed conceptual framework, *Table 1* provides an indicative and non-exhaustive mapping between theoretical variables, their observable proxies, and potential data sources. This mapping is intended not as a definitive specification, but as an exploratory guide outlining possible empirical pathways for future academic investigation and model validation. It thereby aims to clarify potential avenues for operationalization and to support further refinement, adaptation, and empirical testing of the proposed framework across different contextual settings.

Although this article is primarily conceptual, its propositions are consistent with a growing body of empirical research showing that the effects of large-scale land acquisitions on food security are highly contingent on institutional quality, contractual design, and national regulatory capacity. Empirical studies have documented adverse outcomes, including land dispossession, reduced local food availability, and increased dependence on volatile markets in contexts characterized by weak governance and asymmetrical bargaining power (Brüntrup, 2010; Wily, 2011; Blekking et al., 2024). Conversely, more inclusive and better-regulated arrangements have occasionally generated partial benefits, particularly where local actors retain meaningful control over land use, production orientation, and benefit-sharing mechanisms (Cotula, 2012; FAO, 2021; Achamyeleh et al., 2023; Blekking et al., 2024). This empirical heterogeneity directly supports the central claim of the present model: land grabbing is not inherently deterministic in its consequences, but rather mediated by regulatory configurations that can either amplify or mitigate its food-security impacts. Food-oriented land policy thus emerges as a central governance lever, as it makes it possible to act simultaneously upstream, at the stage where land pressures are formed, at the level of land transactions themselves, and downstream, on the systemic effects of land grabbing. Its strength lies precisely in this capacity to combine three complementary regulatory registers - preventive, contractual, and systemic - in order to transform structural vulnerability into public governance capacity. In this sense, it goes beyond merely regulating access to land: it becomes a strategic instrument for

safeguarding food security, enhancing agricultural system resilience, and reinforcing national food sovereignty

Table 1: Operationalization Framework: Variables, Proxies, and Data Sources for the Food-Oriented Land Policy Model

Model Component	Conceptual Variables	Empirical Indicators (Proxies)	Potential Data Sources	Expected Effects
Propulsive factors	Global structural pressures	- Population growth rate (%)- Global food price index- Energy demand (biofuels)- Global availability of arable land	World Bank, FAO, (FAOSTAT)FAO, Food Price IndexIEA	↑ Land grabbing dynamics
Stimulatory factors	Domestic enabling conditions	- Public debt (% of GDP)- Agricultural FDI inflows- Land governance index- Arable land availability (ha per capita)	IMFWorld BankLand Governance Assessment Framework (LGAF)Land Matrix	↑ Likelihood of land acquisitions
Accelerative factors	Amplification of negative impacts	- Conflict intensity index (UCDP/ACLED)- Climate variability (precipitation anomalies)- Land-use change / land artificialization- Food price volatility	UCDP / ACLEDFAO / World Bank Climate DataESA / World BankIFPRI	↑ Negative impacts on food security
Decelerative factors	Mitigating mechanisms	- Food imports (% of consumption)- Food aid flows- Agricultural productivity (yields)- Land tenure security index	FAOWFPWorld BankLand Matrix / land indices	↓ Negative impacts
Preventive regulation (P1)	Structural control mechanisms	- Land tenure formalization rate- Land taxation policies- Regulation of land acquisitions	FAOOECDWorld Bank	↓ Land grabbing / ↑ Accessibility
Contractual regulation (P2)	Quality of land contracts	- Presence of inclusive clauses- Degree of local participation- Production orientation (export vs domestic)- Agricultural Extraversion Index (AEI)	Land MatrixCase studiesNational data	↑ Availability & utilization
Systemic regulation (P3)	Structural resilience mechanisms	- Climate resilience index- Water governance indicators- Integrated agricultural policies- Conflict management mechanisms	FAOND-GAIN IndexWorld BankUNDP	↑ Stability
Transmission channels	Impact mechanisms	- Food price volatility- Reallocation of agricultural land capital	FAOIFPRIWorld Bank	Ambivalent effects
Food security outcomes	Dependent variables	- Food availability (kcal per capita)- Food access (prices, income)- Food utilization (dietary diversity)- Food stability (variability over time)	FAOWFPWorld Bank	Outcome variables

b. Theoretical and policy implications

This study generates significant theoretical and policy implications. From a theoretical perspective, it advances the literature by integrating land grabbing into a unified systemic framework that explicitly connects its multidimensional determinants to the four pillars of food security. By conceptualizing food-oriented land policy as an endogenous and multi-level regulatory mechanism, the analysis moves beyond fragmented approaches and provides a coherent analytical structure capable of capturing dynamic interactions, feedback loops, and context-specific effects. It thus contributes to bridging the gap between land governance and food security studies, while offering a transferable framework applicable across diverse institutional settings. From a policy perspective, the findings underscore the central role of land policy as a strategic lever for regulating land markets, mitigating power asymmetries, and enhancing food system resilience. The articulation of preventive, contractual, and systemic regulatory functions highlights the need for integrated and multi-scalar interventions, combining legal safeguards, inclusive contractual arrangements, fiscal instruments, and resilience-oriented planning. Ultimately, the study calls for a reorientation of land governance frameworks toward food sovereignty, social equity, and environmental sustainability, emphasizing that effective policy design must simultaneously address structural drivers, institutional weaknesses, and exogenous shocks.

The operationalization of multiscale coordination in food-oriented land policy requires the establishment of coherent governance mechanisms capable of aligning sectoral interventions within a unified strategic framework. At the national level, this may take the form of strengthened intersectoral coordination across land, territorial, fiscal, social, regulatory, and even monetary policies. For instance, targeted fiscal incentives, competition policies fostering local–foreign partnerships, and accommodative monetary instruments, such as preferential interest rates supporting local agricultural entrepreneurship, can collectively enhance domestic productive capacity while safeguarding land sovereignty. Alternatively, a more institutionalized approach may involve the creation of a dedicated National Food Security Authority, or Food-Oriented Land Governance Authority (FLGA), tasked with centralizing and overseeing the implementation of food-oriented land policy. Such an authority would be responsible for monitoring land-based investments, validating contractual arrangements, promoting inclusive model contracts, and ensuring participatory consultation processes involving local communities. By acting as a coordination hub between national, local, and international stakeholders, it could reduce fragmentation and improve policy coherence. However, the effectiveness of both approaches ultimately hinges on the degree of institutional independence and governance integrity. Without sufficient autonomy from political interference, such mechanisms risk being instrumentalized by vested interests, thereby reproducing the very asymmetries and governance failures they are intended to correct.

c. Limitations and Future Research Directions

This study also presents several limitations that should be acknowledged. Its contribution is primarily conceptual and integrative, meaning that the proposed framework has not yet been empirically tested using primary data. Consequently, the causal relationships suggested in the model should be understood as theoretically informed propositions rather than as empirically validated findings. In addition, the analysis draws on a selective review of the literature and institutional sources, which, although appropriate for theory building, may not fully capture the diversity of local configurations, informal arrangements, and country-specific institutional dynamics surrounding land grabbing. The broad scope of the framework also entails a degree of empirical generalization, leaving limited room to account for the heterogeneity of land tenure regimes, agrarian structures, and regulatory capacities across contexts. Moreover, the model

remains constrained by the availability and comparability of secondary data, which are often fragmented, uneven, or underreported, particularly in low-income settings where large-scale land acquisitions are frequently opaque.

Future research would therefore benefit from being organized around four priority directions. First, the proposed model should be empirically validated through cross-country comparative studies or longitudinal analyses capable of testing the causal relationships advanced in this article. Second, the core variables require further operationalization, with clear indicators developed for the propulsive, stimulatory, accelerative, and decelerative factors. Third, it would be useful to examine institutional, legal, and territorial variation in order to assess the robustness of the model across differentiated governance contexts. Finally, future research should further explore the articulation between national, regional, and local scales, since the regulation of land-grabbing dynamics also depends on interactions across these levels of governance.

6. Conclusion

This study aimed to examine the regulatory dimension of food land policy through a systemic approach, identifying the levers capable of enhancing food security. The analysis led to the development of a conceptual model structured around three complementary levels of regulation -preventive, contractual, and systemic - directly linked to the four dimensions of food security: availability, accessibility, stability, and utilization. This framework provides an integrated perspective on land governance mechanisms, highlighting the need to coordinate fiscal instruments, legal frameworks, institutional capacities, and socio-economic dynamics within a sustainability-oriented paradigm.

From a theoretical standpoint, the primary contribution lies in the construction of an innovative analytical framework that transcends fragmented approaches to land governance, offering a multidimensional and adaptive vision. The model reconceptualizes food land policy as a systemic regulatory field in which economic, social, and environmental dynamics interact simultaneously.

From a practical perspective, the framework equips policymakers and institutional actors with an operational tool to anticipate, guide, and correct land-related imbalances, prevent speculative behaviors, improve resource allocation, and enhance the resilience of food systems.

Nonetheless, this study has certain limitations. It is primarily based on conceptual and theoretical analysis, which would benefit from empirical validation across multiple territorial scales and international comparisons. Furthermore, the interactions among the three levels of regulation warrant further exploration to assess their effectiveness and adaptability in diverse socio-economic and political contexts.

These limitations open promising avenues for future research. Subsequent studies could focus on the empirical operationalization of the model, employing both quantitative and qualitative field data, as well as integrating additional variables such as demographic trends, ecological transitions, or technological innovations that may influence food land governance. Comparative regional and international analyses would also allow for the evaluation of the model's transferability and enrich the discourse on land governance in a world increasingly confronted with recurrent food, environmental, and geopolitical crises.

7. References

- Abdallah, A. H., Ayamga, M., & Awuni, J. A. (2023). Impact of land grabbing on food security: Evidence from Ghana. Environment, Development and Sustainability, 25, 6071-6094. https://doi.org/10.1007/s10668-022-02294-7

- Achamyeleh Gashu Adam., Alelegn Wenedem Agegnehu., Bayeh Tiruneh Dessie., & Amare Sewunet Minale. (2023). Responsible governance of land tenure in the context of agricultural investment: From theory to practice: Lessons from Ethiopia. Research in Globalization, 6, 100131. https://doi.org/10.1016/j.resglo.2023.100131
- Adéchian, S. A., & Baco, M. N. (2025). How does land tenure security contribute to the sustainable development of rural households? Evidence from Benin (West Africa). Frontiers in Sustainable Food Systems, 9, 1621537. https://doi.org/10.3389/fsufs.2025.1621537
- Akalu, L. S., Wang, H., Walelign, S. Z., Kassie, W. A., & Baylie, F. (2025, 6 août). L'impact des investissements agricoles à grande échelle sur le bien-être des communautés locales : une méta-analyse. Humanities and Social Sciences Communications, 12, Article 1256. https://doi.org/10.1057/s41599-025-05487-3
- Alden Wily, L. (2021). The tragedy of public lands in Africa: The continuing struggle to challenge state landlordism and decolonise property relations in Africa. In H. Siphalla & J. Osogo Ambani (Eds.), Furthering constitutions, birthing peace: Liber amicorum Yash Pal Ghai (pp. xxx-xxx). Strathmore University Press.
- Ambalam, K. (2014). Food sovereignty in the era of land grabbing: An African perspective. Journal of Sustainable Development, 7(2), 121-131. https://doi.org/10.5539/jsd.v7n2p121
- Arthur, B., Saha, M., Sarpong, F. A., & Dutta, K. D. (2024). Unlocking Africa's potential: The transformative power of foreign direct investment for sustainable development. Heliyon, 10(5), e26507. https://doi.org/10.1016/j.heliyon.2024.e26507
- Ashby, S., Kleve, S., McKechnie, R., & Palermo, C. (2016). Measurement of the dimensions of food insecurity in developed countries: A systematic literature review. Public Health Nutrition, 19(16), 2887–2896. https://doi.org/10.1017/S1368980016001166
- Ashukem, J.-C. N., & Ngang, C. C. (2022). L'accaparement des terres et ses implications pour le droit au développement en Afrique. Revue africaine des droits de l'homme, 22(2), Article 4. https://doi.org/10.17159/1996-2096/2022/v22n2a4
- Assumani, F. M. (2020). Mobilisation de la violence armée dans la sécurisation foncière : Cas de la plaine de la Ruzizi au Sud-Kivu en République démocratique du Congo. Revue internationale des études du développement, 244(4), 55-77.
- Aubry, C., Fargue-Lelièvre, A., Saint-Ges, V., & Morel, K. (2022). La diversité des formes d'agriculture urbaine et de leurs modèles économiques. In Comprendre, accompagner et outiller les acteurs de l'agriculture urbaine : Contributions de la recherche (pp. 1-12). Quae.
- Baffes, J., Mekonnen, D., & Temaj, K. (2025). Risks and challenges in global agricultural markets. World Bank Blogs.
- Bah, I., & Dossa, K. F. (2025). Land governance in French-speaking Africa: Comparative analysis of legal and institutional reforms for sustainable management of community lands. Land, 14(2), 276. https://doi.org/10.3390/land14020276
- Baltissen, G., & Betsema, G. (2016). Linking land governance and food security in Africa: Outcomes from Uganda, Ghana & Ethiopia (LANDac Reflection Paper). LANDac. https://www.landgovernance.org/assets/20160831-LANDac_Reflection-paper1.pdf
- Bendoma, M., Kogueda Afia, F. B., & Ndzie Ndzobo, A. M. (2024). Impact of land governance on foreign direct investment in Sub-Saharan Africa. African Journal of Land Policy and Geospatial Sciences, 8(6). https://doi.org/10.48346/IMIST.PRSM/ajlp-gs.v8i6.55767

- Bied-Charreton, M., Makkaoui, R., Petit, O., & Requier-Desjardins, M. (2006). La gouvernance des ressources en eau dans les pays en développement : Enjeux nationaux et globaux. Mondes en développement, 135(3), 39-62.
- Bindeouè Nassè, T., Sabogu, A., & Osumanu, I. K. (2020). Land conflicts and food security in Africa: An evidence from Dorimon in Ghana. International Journal of Management & Entrepreneurship Research (Vol. 2, No. 2, 2020, pp. 74–96). DOI : https://doi.org/10.51594/ijmer.v2i2.126
- Blekking, J., Aassouli, D., & Jureidini, R. (2024). Food security and large-scale land acquisitions by sovereign wealth funds: A systematic review of the literature from 2012 to 2023. Agricultural and Food Economics, 12(1), Article 28. https://doi.org/10.1186/s40100-024-00320-y
- Boone, C. (2014). Property and Political Order in Africa: Land Rights and the Structure of Politics. Cambridge University Press. https://doi.org/10.1017/CBO9781139629256
- Borras, S. M. Jr., et al. (2011). Towards a better understanding of global land grabbing: An editorial introduction. The Journal of Peasant Studies, 38(2), 209–216.
- Borras, S. M., Franco, J. C., Gómez, S., Kay, C., & Spoor, M. (2012). Land grabbing in Latin America and the Caribbean. Journal of Peasant Studies, 39(3-4), 845–872. https://doi.org/10.1080/03066150.2012.679931
- Borras, S. M., Jr.; Franco, J. C. (2010), From Threat to Opportunity? Problems with the Idea of Using "Legal Tools" in the Struggle against Land Grabbing; ISS Working Paper Series, No. 491; Institute of Social Studies: The Hague, The Netherlands.
- Brun, M. (2023). L'agriculture : un enjeu de puissance et de souveraineté. Regards croisés sur l'économie, (33), 2.
- Bureau, P.; Gozlan, M.; Jean, C.é. Au-delà de la propriété foncière? Quels leviers et quels instruments de l'action publique? CERAI Working Paper; CERAI: Paris, France, 2005.
- CADTM. (2024, 14 novembre). *Dette & souveraineté alimentaire* (AVP n° 83). https://www.cadtm.org/Dette-souverainete-alimentaire
- Castet, A. (2024). The impact of large-scale land acquisitions on child food insecurity in Africa. World Development, 179, 106597. https://doi.org/10.1016/j.worlddev.2024.106597
- Chairunnisya, R. A., & Jamil, A. (2024). Developing food security through sustainable agricultural land policies: A systematic review. E3S Web of Conferences, 479, 07022. https://doi.org/10.1051/e3sconf/202447907022
- Cipollina, M., Cuffaro, N., & D'Agostino, G. (2018). Land inequality and economic growth: A meta-analysis. Sustainability, 10(12), 4655. https://doi.org/10.3390/su10124655
- Cochrane, L. (2011). Food security or food sovereignty: The case of land grabs. The Journal of Humanitarian Assistance
- Cochrane, L., & Andrews, N. (Eds.). (2021). The transnational land rush in Africa: A decade after the spike. Palgrave Macmillan. https://doi.org/10.1007/978-3-030-60789-0
- Conseil des droits de l'homme (ONU). (2018, 28 septembre). Déclaration des Nations Unies sur les droits des paysans et des autres personnes travaillant dans les zones rurales (Résolution 39/12).
- Cotula, L. (2011). Human rights, natural resource and investment law in a globalised world: Shades of grey in the shadow of the law. Routledge.

- Cotula, L. (2013). The Great African Land Grab? Agricultural Investments and the Global Food System. Zed Books.
- Courleux, F., & Fabre, C. (2013). La politique foncière agricole : Atout ou contrainte pour la compétitivité de l'agriculture française ? POUR, 220, 175-184.
- Dai, Y.-S., Dai, P.-F., & Zhou, W.-X. (2024). The impact of geopolitical risk on the international agricultural market: An empirical analysis based on the GJR-GARCH-MIDAS model. arXiv. https://arxiv.org/abs/2404.01641
- Deininger, K., Feder, G., Gordillo de Anda, G., & Munro-Faure, P. (2002). Land policy to facilitate growth and poverty reduction. Rome: Food and Agriculture Organization of the United Nations.
- Delville, P. L., & Houngbedji, K. (2023). The political economy of land reform: State capture and rent-seeking in Benin. In F. Bourguignon et al. (Eds.), State capture and rent-seeking in Benin (pp. 247–297). Cambridge University Press. https://doi.org/10.1017/9781009278522.015
- Djokoto, J. G., Agyei Henaku, K. A.-O., & Badu-Prah, C. (2022). Welfare effects of foreign direct investment in agriculture in developing countries. Frontiers in Sustainable Food Systems, 6, 748796. https://doi.org/10.3389/fsufs.2022.748796
- Dugué, P., Andrieu, N., & Bakker, T. (2024). Pour une gestion durable des sols en Afrique subsaharienne. Cahiers Agricultures, 33(6). https://doi.org/10.1051/cagri/2024003
- Edafe, O. D., Osabuohien, E., Matthew, O., Olurinola, I., Edafe, J., & Osabohien, R. (2023). Large-scale agricultural land investments and food security in Nigeria. Heliyon, 9(9), e19941. https://doi.org/10.1016/j.heliyon.2023.e19941
- Essimi Biloa, A. C., & Gaarde, I. (2024). Promoting inclusive land governance through multi-stakeholder platforms for successful land policy reforms in Africa. African Journal on Land Policy and Geospatial Sciences, 7(1). https://doi.org/10.48346/IMIST.PRSM/ajlp-gs.v7i1.45924
- FAO, IFAD, IMF, OECD, UNCTAD, WFP, World Bank, WTO, IFPRI, & UN HLTF. (2011, June 2). Price volatility in food and agricultural markets: Policy responses. https://openknowledge.fao.org/handle/20.500.14283/bt680e
- FAO. (1996, novembre). Rapport du sommet mondial de l'alimentation.
- FAO. (2012). Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security; FAO: Rome, Italy.
- FAO. (2021). Éclairer le concept de régime foncier applicable à l'eau pour renforcer la sécurité alimentaire et le développement durable (Document de réflexion terres et eaux). https://doi.org/10.4060/cb1230fr
- FAO. (2021). Land tenure and sustainable agri-food systems. FAO. https://d1n0nj0ml605fq.cloudfront.net/media/documents/2021_10_policy_paper_with_fao_land_tenure_and_sustainable_agri-food_systems_si_vHbaFpx.pdf
- FAO. (2024). L'état de la sécurité alimentaire et de la nutrition dans le monde. Food and Agriculture Organization of the United Nations.
- Ferrando, T. (2014). Law and the exclusionary essence of large-scale investments in Sub-Saharan Africa land. African Journal of Legal Studies, 7(1), 71–100. https://doi.org/10.1163/17087384-12342050
- Ferreira, M. P., & Ferreira, J. G. (2016). The impact of selected institutional environment dimensions of Sub-Saharan countries on their ability to attract foreign direct investment. Revista Eletrônica de Negócios Internacionais (Internext), 11(1), 21–36. https://doi.org/10.18568/1980-4865.11121-36

- Food and Agriculture Organization (FAO). (2025, 22 juillet). Low-income countries hit hardest by global food price inflation. FAO.
- FranceAgriMer. (2023). Souveraineté alimentaire : Un éclairage par les indicateurs de bilan.
- Fraval, S.; et al. (2020). Impacts of Large-Scale Land Acquisitions on Food Security. Please verify full bibliographic details.
- Fronzetti Colladon, A., Vestrelli, R., Bait, S., & Schiraldi, M. (2024). A big data approach to understand sub-national determinants of FDI in Africa. arXiv preprint. https://arxiv.org/abs/2403.10239
- Hands Off The Land. (2012, 29 juin). The European Union and the global land grab (Factsheet).
- Hendrix, C. S., & Anderson, C. A. (2020). Resilience and food security amidst conflict and violence. Peace and Conflict Studies Journal. https://www.peiglobal.org/themes/custom/pei_b5/kc_files/Hendrix%20and%20Anderson%202020.pdf
- Holden, S., Deininger, K., & Ghebru, H. (2020). Policies for improved food security: The roles of land tenure policies and land markets. In R. López & M. E. Thomas (Eds.), The role of smallholder farms in food and nutrition security (pp. 153–169). Springer. https://doi.org/10.1007/978-3-030-42148-9_8
- Home, R. (2021). History and prospects for African land governance: Institutions, technology and 'land rights for all'. Land, 10(3), 292. https://doi.org/10.3390/land10030292
- https://futureoffood.org/wp-content/uploads/2021/01/FoodHealthNexus_Report_French_022519_Digital_Letter-1.pdf
- IFPRI & Banque mondiale. (2025). How do food and fertilizer price spikes and volatility impact Central America and the Caribbean? IFPRI Blog.
- International Monetary Fund. (2024). Global Debt Database (GDD). https://www.imf.org/external/datamapper/datasets/GDD
- IPES-Food. (2017). Unravelling the food-health nexus: Addressing practices, political economy, and power relations to build healthier food systems. Future of Food.
- Jacobs, N. (2024, 21 août). Une crise invisible : Les nouvelles dimensions de l'accaparement des terres. IPES-Food. https://ipes-food.org/fr/une-crise-invisible-les-nouvelles-dimensions-de-laccaparement-des-terres/
- Jacquemot, P. (2018). La marchandisation du foncier rural en Afrique : enjeux et perspectives. Willagri.
- Jacquemot, P., & Raffinot, M. (2018). La mobilisation fiscale en Afrique. Revue d'économie financière, 131(3), 243-263.
- Jordan Blekking., Dalal Aassouli., & Ray Jureidini. (2024). Food security and large-scale land acquisitions by sovereign wealth funds: A systematic review of the literature from 2012 to 2023. Agricultural and Food Economics, 12(1), 28. https://doi.org/10.1186/s40100-024-00320-y
- Jouve, A.-M., & Vianey, G. (2012). Le foncier, une ressource territoriale difficile à construire en périurbain. Économie rurale, 330-331(juillet-septembre), 3-16.
- Kareem, O. I. (2018). The determinants of large-scale land investments in Africa. Land Use Policy, 75, 180-190. https://doi.org/10.1016/j.landusepol.2018.03.039

- Klümper, F., & Theesfeld, I. (2017). The land–water–food nexus: Expanding the social–ecological system framework to link land and water governance. Resources, 6(3), 28. https://doi.org/10.3390/resources6030028
- Korthals Altes, W. (2020). Technical report on quantitative analysis of land holdings and land market trends: Short handout with main results (RURALIZATION N° 817642).
- Kubik, Z., & Husmann, C. (2019). Determinants of foreign direct investment in the African food and agriculture sector. Center for Development Research (ZEF).
- Kwaw-Nimeson, E., & Tian, Z. (2023). Institutional quality, foreign direct investment, and regional integration: Empirical evidence from CEN-SAD. SAGE Open, 13(1), 1–17. https://doi.org/10.1177/21582440221148389
- Lakha, B., Oyenubi, A., Fadiran, D., & Naik, N. (2024). Governance and the relationship between corruption and FDI in Africa: A threshold regression analysis. International Review of Applied Economics, 38(6), 613–632. https://doi.org/10.1080/02692171.2024.2382112
- Lavigne Delville, P., & Houngbedji, K. (2023). The political economy of land reform. In F. Bourguignon, R. Houssa, J.-P. Platteau, & P. Reding (Eds.), State capture and rent-seeking in Benin: The institutional diagnostic project (pp. 247–297). Cambridge University Press. https://doi.org/10.1017/9781009278522.015
- Lavigne Delville, P., Léonard, É., Colin, J.-P., Requier-Desjardins, M., Burnod, P., & Couture, J.-L. (2022). Gouvernance foncière et lutte contre la dégradation des terres : Prendre au sérieux les droits fonciers et les processus sociaux. Pôle Foncier de Montpellier.
- Lawry, S., Samii, C., Hall, R., Leopold, A., Hornby, D., & Mtero, F. (2015). The impact of land property rights interventions on investment and agricultural productivity in developing countries: A systematic review. Journal of Development Effectiveness, 9(1), 61–81. https://doi.org/10.1080/19439342.2016.1160947
- Leroy, J. L., Ruel, M., Frongillo, E. A., Harris, J., & Ballard, T. J. (2015). Measuring the food access dimension of food security: A critical review and mapping of indicators. Food and Nutrition Bulletin, 36(2), 167–195. https://doi.org/10.1177/0379572115587274
- Liu, P. (2014). Impacts of foreign agricultural investment on developing countries: Evidence from case studies (FAO Commodity and Trade Policy Research Working Papers). Food and Agriculture Organization of the United Nations.
- Liu, R., Zhang, M., Wang, Y., Zou, F., & Lu, W. (2026). The impact of farmland property rights stability on China's food production resilience: Evidence from the new round of land ownership clarification reform. Frontiers in Sustainable Food Systems, 10, 1726373. https://doi.org/10.3389/fsufs.2026.1726373
- Lund, C. (2011). Fragmented sovereignty: Land reform and dispossession in Laos. Journal of Peasant Studies, 38(4), 885–905. https://doi.org/10.1080/03066150.2011.607709
- Lund, C., Odgaard, R., & Sjaastad, E. (2006). Land Rights and Land Conflicts in Africa: A review of issues and experiences. Danish Institute for International Studies. http://www.jstor.org/stable/resrep15635
- Luxemburg, R. The Accumulation of Capital; Routledge & Kegan Paul: London, UK, 1952.
- Manikas, I., Ali, B. M., & Sundarakani, B. (2023). A systematic literature review of indicators measuring food security. Agricultural and Food Security, 12(1), 10. https://doi.org/10.1186/s40066-023-00415-7

- Manogna, R. L., & Kulkarni, N. (2024). Does the financialization of agricultural commodities impact food security? Borsa Istanbul Review, 24(2), 280-291. https://doi.org/10.1016/j.bir.2024.01.001
- Maxwell, D., & Wiebe, K. (1998). Land tenure and food security: A review of concepts, evidence, and methods. Food Policy, 23(6), 391–404.
- Mazzocchi, C., Salvan, M., Orsi, L., & Sali, G. (2018). The determinants of large-scale land acquisitions (LSLAs) in Sub-Saharan Africa (SSA): A case study. Agriculture, 8(12), 194. https://doi.org/10.3390/agriculture8120194
- Michael Brüntrup. (2010). Large scale land acquisitions in developing countries: Opportunities, threats and institutional challenges for rural development and food security. Paper presented at the 14th ICABR Conference, Ravello, Italy. German Development Institute. https://doi.org/10.22004/ag.econ.188080
- Mkonda, M. Y. (2021). Durabilité agricole et sécurité alimentaire dans les zones agroécologiques de Tanzanie. In E. Lichtfouse (Éd.), Sustainable Agriculture Reviews (vol. 52, pp. 309–334). Springer. https://doi.org/10.1007/978-3-030-73245-5_9
- Muhyie, J. H., Yayeh, D., Kidanie, S. A., Metekia, W. A., & Tilahun, T. (2025). Synthesizing the impact of armed conflicts on food security, livelihoods and social dynamics in Amhara Region, Ethiopia. BMC Nutrition, 11(29). https://doi.org/10.1186/s40795-025-01013-5
- Müller, M. F., Penny, G., Niles, M. T., & Mueller, N. D. (2021). Impact of transnational land acquisitions on local food security and dietary diversity. Proceedings of the National Academy of Sciences, 118(4), e2020535118. https://doi.org/10.1073/pnas.2020535118
- Müller, M. F., Penny, G., Niles, M. T., & Mueller, N. D. (2021). Impact of transnational land acquisitions on local food security and dietary diversity. Proceedings of the National Academy of Sciences, 118(4), e2020535118. https://doi.org/10.1073/pnas.2020535118
- Ndenyele, W., Pommerolle, M., Shauri, H., & Nato, G. (2025). Ghost biofuel projects: Abandoned Jatropha Curcas plantations and community welfare in Tana River County, Kenya. African Journal on Land Policy and Geospatial Sciences, 8(3). https://doi.org/10.48346/IMIST.PRSM/ajlp-gs.v8i3.52049
- Nhamo, L., Mpandeli, S., Liphadzi, S., & Mabhaudhi, T. (2022). Securing land and water for food production through sustainable land reform: A nexus planning perspective. Land, 11(7), 974. https://doi.org/10.3390/land11070974
- Nolte, K., & Väth, S. J. (2015). Interplay of land governance and large-scale agricultural investment: Evidence from Ghana and Kenya. The Journal of Modern African Studies, 53(1), 69–92. https://doi.org/10.1017/S0022278X14000688
- Nyéléni. (2007). Nyéléni declaration: Forum for food sovereignty. Sélingué, Mali.
- Ordioni, N. (2005). Pauvreté et inégalités de droits en Afrique : une perspective “genrée”. Mondes en développement, 33(129), 93–106. https://doi.org/10.3917/med.129.0093
- Organization of African Unity (OAU). African Charter on Human and Peoples’ Rights; OAU Doc. CAB/LEG/67/3 rev. 5, 1520 UNTS 217; OAU: Nairobi, Kenya, 1981.
- Park, Y. J. (2021). Chinese FDI and impacts on technology transfer, linkages, and learning in Africa: Evidence from the field. Journal of Chinese Economic and Business Studies, 19(4), 1–12. https://doi.org/10.1080/14765284.2021.1996191

- Piperata, B. A., Scaggs, S. A., Dufour, D. L., & Adams, I. K. (2022). Measuring food insecurity: An introduction to tools for human biologists and ecologists. American Journal of Human Biology, 34(10), e23821. https://doi.org/10.1002/ajhb.23821
- Poderati, G. (2022). Human rights aspects and soil governance: A special focus on land grabbing. Soil Security, 6, 100042. https://doi.org/10.1016/j.soisec.2022.100042
- Roudart, L., & Guénard, C. (2019). Introduction : Dépossessions foncières en milieu rural – Acteurs et processus entre pression et oppression. Revue internationale des études du développement, 238(2), 7-29.
- Rudolfsen, I., & Vesco, P. (2024, June 10). War exposure and food insecurity. Peace Research Institute Oslo (PRIO); Department of Peace and Conflict Research, Uppsala University. https://viewsforecasting.org/wp-content/uploads/WorkingPaper_RufolfsenVesco2024.pdf
- Rulli, M. C., & D'Odorico, P. (2014). Food appropriation through large scale land acquisitions. Environmental Research Letters, 9(6), 064030. https://doi.org/10.1088/1748-9326/9/6/064030
- Sabir, S., Rafique, A., & Abbas, K. (2019). Institutions and FDI: Evidence from developed and developing countries. Financial Innovation, 5(8), 1–20. https://doi.org/10.1186/s40854-019-0123-7
- Saccone, D., & Vallino, E. (2025). Global food security in a turbulent world: Reviewing the impacts of the pandemic, the war and climate change. Agricultural and Food Economics, 13, Article 47. https://doi.org/10.1186/s40100-025-00388-0
- Sainteny, G., & Dupuis, L. (2022). La taxation des terres agricoles en Europe : Approche comparative. Fondation pour la Recherche sur la Biodiversité.
- Schlimmer, S. (2019). Négocier les politiques de la terre pour territorialiser le pouvoir de l'État : Les effets politiques des transactions de la terre en Tanzanie. Revue internationale des études du développement, (238), 33–59. https://doi.org/10.3917/ried.238.0033
- Statista. (2024, 31 juillet). Les pays les plus vulnérables à l'accaparement des terres : pays en développement avec le plus de terres cédées à des investisseurs étrangers (2000-2024) [Infographie]. https://fr.statista.com/infographie/19092/pays-les-plus-touches-par-accaparement-des-terres-superficie-cedee-investisseurs-etrangers/ongo (RDC)
- Tekwa, N. (2025). Policy fragmentation, women's land rights and governance in Zimbabwe: A feminist policy advocacy approach. African Journal on Land Policy and Geospatial Sciences, 8(1), 165–178. https://doi.org/10.48346/IMIST.PRSM/ajlp-gs.v8i1.54611
- Thierry, P. (2011). Land Policy and Food Security: A Comparative Analysis. Please verify full bibliographic details.
- Tribillon, J.-F. (2018). Les régimes fonciers en Afrique subsaharienne. L'Économie politique, 78(2), 30-47. https://doi.org/10.3917/leco.078.0030
- United Nations. International Covenant on Economic, Social and Cultural Rights; United Nations: New York, NY, USA, 1965.
- United Nations. International Covenant on Economic, Social and Cultural Rights; United Nations: New York, NY, USA, 1970.
- United Nations. International Covenant on Economic, Social and Cultural Rights; United Nations: New York, NY, USA, 1986.
- United Nations. International Covenant on Economic, Social and Cultural Rights; United Nations: New York, NY, USA, 1993.

- Vieri, S., & Calabrò, G. (2019). Food security and land grabbing in low-income countries of the Sub-Saharan Africa. Calitatea – Acces la Succes, 20(172), 118-125. https://doi.org/10.1007/978-94-007-0519-7_2
- Wabwile, I., Abdillahi, U. A., Simiyu, E. J., & Ngala, C. O. (2024). Foreign direct investment and its effect on agricultural productivity: Evidence from Kenya. International Journal of Finance & Banking Studies, 13(4), 48–57. https://doi.org/10.20525/ijfbs.v13i4.3736
- Wageningen Economic Research. (2021). Les réglementations des marchés fonciers agricoles au sein des États-membres de l'UE : Analyse des outils de régulation foncière au sein de 22 États membres de l'UE.
- Wegerif, M. C. A., & Guereña, A. (2020). Land inequality trends and drivers. Land, 9(4), 101. https://doi.org/10.3390/land9040101
- Wegerif, M., Coulibaly, M., & Ouédraogo, H. (2025). Land tenure governance in the first decades of the 21st century: Progress, challenges, and lessons from 18 countries. Land, 14(4), 671. https://doi.org/10.3390/land14040671
- Wily, L. (2011). The tragedy of public lands: The fate of the commons under global commercial pressure. The International Land Coalition.
- Wily, L. A. (2022). Transforming legal status of customary land rights: What this means for women and men in rural Africa. In U. E. Chigbu (Ed.), Land governance and gender: The tenure-gender nexus in land management and land policy (pp. 169-181). CAB International. https://doi.org/10.1079/9781789247664.0014
- Zelingher, R., & Makowski, D. (2023). Investigating and forecasting the impact of crop production shocks on global commodity prices. Environmental Research Letters, 19(1), 014026. https://doi.org/10.1088/1748-9326/ad0dda
- Zhan, J., et al. (2015). Large-scale land acquisitions: Focus on South-East Asia. In International Development Policy (No. 6). Brill-Nijhoff.
- Zoomers, A., & Otsuki, K. (2025). Seven reasons why climate-induced land grabbing requires significant changes in land governance. The Journal of Peasant Studies, 52(7), 1473–1492. https://doi.org/10.1080/03066150.2025.2474523