



MICRO-CREDENTIAL

LAND MANAGEMENT IN CENTRAL ASIA

5.- Land Use Concept and Forms

Social Aspects of Land Use

LM-W05-V34



A Foundation of Society — from the first seeds planted in ancient soil to the sprawling cities of today, humanity's relationship with land has been the defining force of civilization.

For most of human history, our ancestors lived nomadic lives — following animals, foraging plants, and moving with the seasons. Everything changed around **10,000 BCE** with the Neolithic Revolution, when communities first learned to cultivate crops and domesticate animals.

This shift to agriculture gave rise to permanent settlements, surplus food, specialized labor, and ultimately, complex civilizations. Land became the primary source of sustenance, shelter, and collective identity — no longer

01

Nomadic Existence

Movement dictated by seasons and natural resources

02

Neolithic Revolution

~10,000 BCE — dawn of agriculture and permanent settlements

03

Complex Civilizations

Surplus, specialization, and rooted communities emerge



Indigenous Sacred Ties

For indigenous communities worldwide, land is not merely a resource — it is the living core of spiritual belief, cultural memory, and ancestral heritage. Displacement from ancestral land is not just economic loss; it is an erasure of identity.



Rural Livelihoods & Tradition

Farming, fishing, and forestry communities develop deep social structures shaped by the land they inhabit. Seasonal rhythms, communal labor, and generations of knowledge bind people to place in profound ways.



The Maasai Example

The Maasai of East Africa have maintained ancestral grazing lands for centuries. Their pastoral system reflects an intimate understanding of landscape ecology, community governance, and cultural continuity — all inseparable from the land itself.



Land Feeds Us All

Sustenance, Culture, Community
— the market is where land's gifts
become shared life.



The Shifting Landscape

Drivers of Land Use Change —
understanding the powerful forces
reshaping how humanity relates
to, and transforms, the land
around us.

9.7B

Global Population by 2050

Projected by the United Nations

68%

Living in Urban Areas by 2050

Up from 55% today

As the global population races toward **9.7 billion by 2050**, cities are expanding at an unprecedented pace, consuming vast tracts of agricultural land, wetlands, and forests. Urban sprawl — the unplanned, low-density outward expansion of cities — doesn't just reshape the physical landscape. It dismantles rural communities, disrupts traditional livelihoods, and strains ecosystems that people depend on for clean water, food, and climate regulation.

The tension between the need to house growing populations and the imperative to preserve productive land represents one of the defining land use challenges of our era.

Industrial Agriculture

The shift from subsistence farming to industrialized production has dramatically increased yields — but at significant ecological and social costs. Monocultures, chemical inputs, and mechanization have transformed rural landscapes and displaced smallholder farmers worldwide.

Global Commodity Demand

Insatiable global demand for palm oil, soy, and beef is the primary engine driving deforestation across the Amazon, Congo Basin, and Southeast Asian rainforests — displacing indigenous communities and erasing biodiversity hotspots in the process.

Mining Concessions

In tropical forests, mining concessions granted by governments transform entire landscapes within months, displacing local and indigenous communities while generating wealth that rarely reaches those who lose their homes. (*Rosero-Añazco et al., Ecology & Society, 2025*)

How land is governed — who owns it, who can use it, and who decides — is perhaps the single most powerful determinant of land use outcomes. **Land consolidation** programs, designed to reduce fragmentation and improve agricultural efficiency, often fail to account for the social fabric of rural communities, displacing smallholders and ignoring customary tenure rights.

Research highlights that equitable outcomes require explicit attention to social dimensions during land consolidation processes. (*de Vries, MDPI, 2022*) Similarly, the structure of **property rights** and land distribution profoundly shapes what gets grown, who benefits, and who bears the costs of land use change. (*Rhemtulla, Ecology & Society, 2016*)

Consolidation Policy

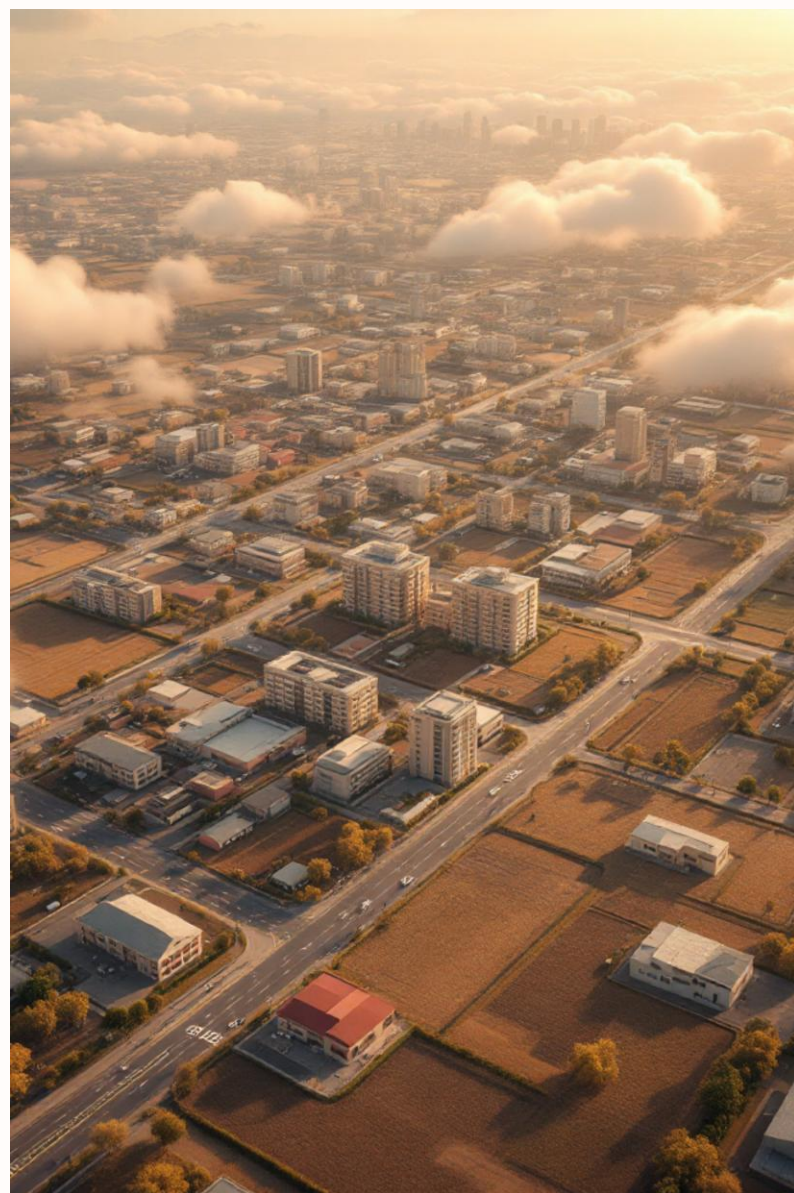
Reorganizes holdings — with social risks

Property Rights

Define who controls land use decisions

Land Distribution

Shapes equity in access and benefit



The Expanding Footprint

Urbanization and Agriculture in Conflict — cities grow as farmland shrinks, raising urgent questions about food security and community resilience.

The Equity Divide

Who Benefits, Who Loses? — land use change is rarely neutral. Its rewards and burdens fall unevenly, and understanding that uneven distribution is essential for just and sustainable futures.



Who Bears the Cost?

Land use change — from deforestation to urban development to agricultural intensification — does not affect all people equally. Vulnerable populations, including the rural poor, indigenous communities, and women, disproportionately depend on ecosystem services for their daily survival.

When those services are disrupted or captured by powerful interests, the result is a redistribution of well-being: clear **"winners and losers"** in the appropriation of what nature provides. (NCBI, 2024)



Socioeconomic Factors

Poverty limits communities' ability to adapt when land-based resources are degraded or appropriated



Power Dynamics

Powerful actors — corporations, governments — capture resource benefits while externalizing costs onto weaker communities

A comprehensive equity framework for land use requires examining three interconnected dimensions. *(Springer Nature, 2024)*

Distributional Equity

How are the resources, costs, and benefits of land use distributed across society? Are the burdens of conservation or development borne fairly? Are the gains — food, income, clean water — shared equitably, or concentrated among the few?



Recognitional Equity

Whose values, identities, and rights are acknowledged in land use decisions? Do planning processes recognize customary tenure, indigenous worldviews, and the diverse ways different communities relate to the land — or do they privilege dominant cultural frameworks?



Procedural Equity

Who is invited to the table when land use decisions are made? Are affected communities genuinely consulted, or are decisions imposed from above? Fair process is as important as fair outcomes — and often determines whether outcomes remain just over time.

A landmark study in Southwestern Ethiopia demonstrates how a **social-ecological approach** can make equity tangible in land use planning. Rather than treating communities as a single homogeneous group, researchers used disaggregated analysis to identify distinct beneficiary groups — farmers, women, youth, forest-dependent households — and traced how different land use scenarios affected each group differently.

By combining **scenario planning** with explicit equity analysis, the study made visible the hidden trade-offs and inequalities that conventional approaches overlook. The result: decision-makers could pursue land use strategies that actively promoted equity rather than inadvertently reinforcing existing disadvantages.

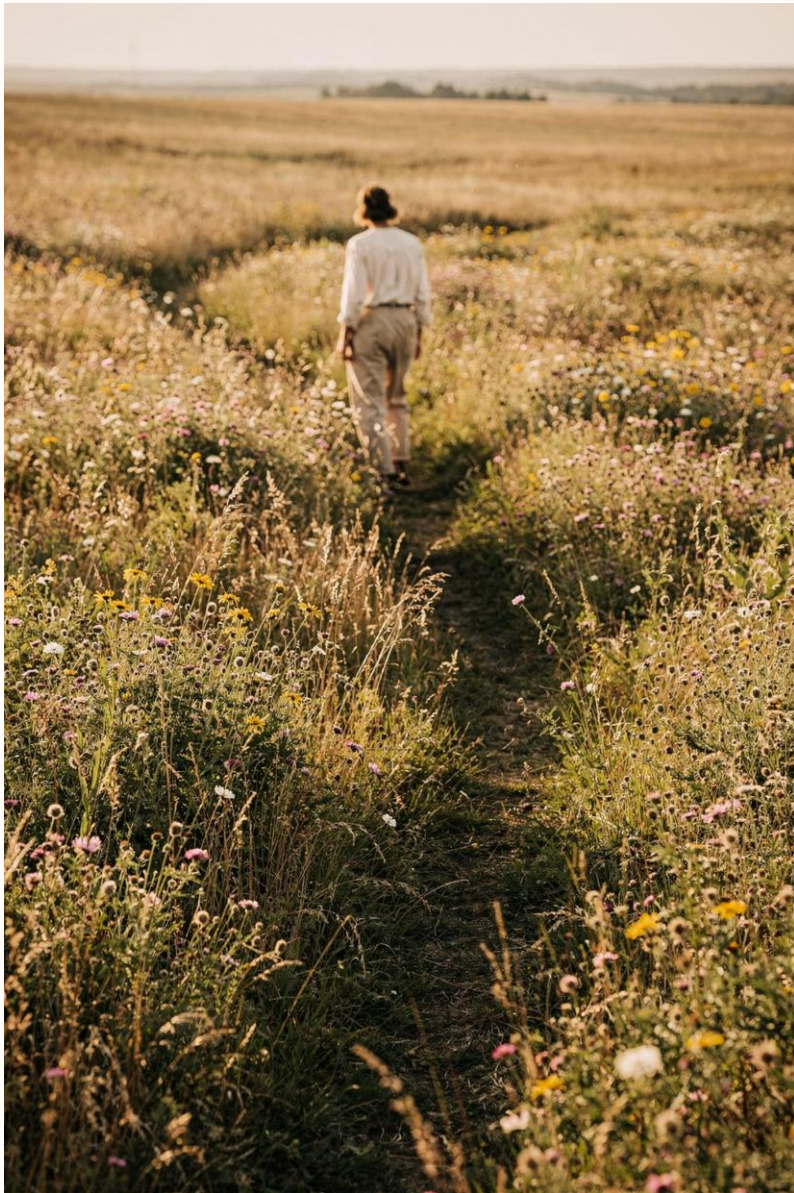
(NCBI, 2024)



A Tale of Two Futures

Equity in Land Use — the choices made today determine whether land nourishes communities or depletes them for generations to come.

Moving beyond extraction and maximization — a new generation of land stewards is redefining humanity's relationship with the landscapes they inhabit and care for.



Beyond the Productivist Ideal: Land Stewardship

For most of the 20th century, land use was governed by a **productivist ideal**: land's value was measured in yields, commodities, and economic output. That paradigm is shifting. A growing movement of **amenity migrants** — people drawn to rangelands and rural areas by lifestyle and environmental values rather than agricultural production — is quietly transforming agrifood systems across North America, Australia, and Europe.

These new stewards are motivated by relational and non-commodity values: a sense of belonging to a place, a responsibility to maintain biodiversity, and a desire to contribute to community resilience. Research identifies four key drivers of this stewardship: **values, property goals, knowledge, and contextual factors**. (*Springer Nature, 2025*)

Values

Environmental and relational motivations beyond profit

Knowledge

Ecological literacy driving better decisions

Property Goals

Long-term legacy over short-term yield

Context

Local culture and community shaping practice

The Value of Agricultural Land: More Than Just Production

Ecological Value

Agricultural land provides critical ecosystem services: carbon sequestration, groundwater recharge, habitat corridors, and flood regulation. Municipalities are increasingly recognizing these services as public goods requiring active protection.

Recreational Value

Green agricultural belts around cities provide vital recreational space for urban populations. Access to nature has documented benefits for mental health, community cohesion, and quality of life.

The Preservation Conflict

Despite these recognized values, agricultural land faces relentless pressure from housing and infrastructure development. Long-term decision-making frameworks and stronger legal protections are urgently needed. (*ScienceDirect, 2020*)

Cultural Value

Farmscapes carry deep historical meaning — traditional field patterns, hedgerows, terraces, and irrigation systems represent centuries of accumulated human knowledge and cultural heritage that cannot be rebuilt once destroyed.



Cultivating Stewardship

Nurturing Land for Future
Generations — every seed planted
is an act of faith in the future, and
a commitment to those who will
inherit the Earth.

The Path Forward

Integrating Social Dimensions — the most technically sophisticated land use plan will fail without genuine attention to the people whose lives it shapes. This chapter examines the frameworks for getting it right.



Why Integration Matters

Ecological science can tell us what land is capable of producing. Social science can tell us who needs what, who makes decisions, and who bears risks. Only by combining both can land use planning achieve outcomes that are genuinely sustainable and just.

A social-ecological approach treats landscapes as complex systems in which human communities and ecological processes are deeply intertwined — and plans accordingly.
(Springer Nature, 2024)

2 Empower local communities

Shift decision-making power toward those most affected by land use outcomes

1

Combine ecological and social data

Holistic land use planning grounded in both scientific and community knowledge

Recognize diverse values

3

Move beyond commodity-only frameworks to honor cultural, spiritual, and ecological values

Ensuring that land governance systems serve everyone — not just those with power and resources — requires a fundamental rethinking of how land rights are recognized, recorded, and protected.

Fit-for-Purpose Frameworks

Traditional land administration systems designed for wealthy, formal economies often fail in contexts with complex customary tenure, informal settlements, or rapidly changing land use. Fit-for-purpose approaches adapt to local realities rather than imposing external models. (MDPI, 2022)

Rights for Marginalized Groups

Women, indigenous peoples, pastoralists, and informal settlers are among the most land-insecure populations globally. Explicitly targeting their land rights in policy and legal frameworks is a precondition for equitable development outcomes.

Addressing Historical Injustice

In many regions, current land inequality is the direct legacy of colonial dispossession, discriminatory policy, or violent conflict. Genuine land reform must grapple honestly with history to build legitimate, stable, and just land governance systems for the future.



Building Equitable Land Use Together — the most durable solutions emerge not from offices and policy documents, but from genuine dialogue with the communities who call the land home.

Applying equitable land use frameworks in sub-Saharan Africa, South and Southeast Asia, and Latin America requires genuine adaptation to local contexts, not the export of Western models. It means centering **indigenous and customary land governance**, building local institutional capacity, and ensuring that international investment and conservation agendas do not replicate historic patterns of dispossession under a green or development banner.

Sustainable development and social justice are not trade-offs — in the Global South, they are inseparable.

The regions facing the most acute land use pressures — rapid population growth, climate vulnerability, colonial land legacies, and intense development pressure — are concentrated in the **Global South**. Here, the stakes of getting land use right are highest, and the costs of getting it wrong most severe.

Conclusion: Our Shared Future on a Shared Planet

Land as Foundation

Land is not merely a productive resource or a commodity to be traded. It is the living foundation of our societies, cultures, and economies — the ground on which everything we value is built.

Equity and Stewardship

Prioritizing social equity — distributional, recognitional, and procedural — alongside ecological sustainability is not idealism. It is the only realistic path to land use systems that are stable, legitimate, and resilient over time.

Decisions That Endure

The land use choices made in the coming decades will shape the world inherited by future generations. Acting with justice, foresight, and genuine inclusion is both a moral imperative and a practical necessity.



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