

MEANING OF LAND

Our perceptions of land are not only a response to the outside world, but also a cause and an effect of cultural filtering, by which certain phenomena feature prominently, while others recede into the background. In other words, the less visible the elements of land are to a particular stakeholder, the less meaning they have for that person and perhaps result in a lack of awareness as to their possible critical functions.

The meaning and value of land can change as we become wealthier or do not directly depend on the land for our immediate survival. Furthermore, land is often infused with a feeling of sovereignty and jurisdiction – aligned with different patterns of ownership and use rights – which in turn governs our economic and socio-political interactions and conflicts with others.

All these factors influence attitudes towards land use and the way that land is managed. Nevertheless, keeping land in a healthy state is an essential contribution to human security – access to food and water, the stability of employment and livelihoods, resilience to climate change and extreme weather events, and ultimately social and political security.

LAND AS A BOUNTIFUL ASSET

Whether land is a private or public asset, it has the potential to provide a full suite of goods and services: mitigating climate change at the global scale, regulating water supply at the landscape scale, and supporting food production at the local scale. Natural and managed ecosystems support local livelihoods and allow communities to grow and prosper. Land is bountiful, but also bounded and its goods and services are relatively finite. To ensure equitable use, it is not enough to simply identify who owns the land and how they use it. Land management practices often have downstream consequences; as a result, landowners increasingly face restrictions on how they use or manage land so as to safeguard the multiple ecosystem services it provides.

A more comprehensive understanding of land's multiple functions and services (i.e., the benefits to humans and other species) and the process of ascribing value to them suggests that in the future farmers and other land managers should have an expanded role as stewards of the land and its associated resources.

To protect and nurture this bountiful asset, it is important to recognize rights, rewards, and responsibilities as the pillars of sustainable land management. Farmers and land managers often require incentives to ensure the supply of goods and services their land provides, including those beyond the market, whether conserving biodiversity, safeguarding water supplies, protecting against flooding, or sequestering carbon. The extent to which the wider community should compensate owners for these ecosystem services is an evolving debate, and, even if consensus is reached on how much should be paid, there are a number of practical problems regarding how compensation ought to be allocated.¹ For most countries, long-term food security and economic growth are highly dependent on the sustainable management of their land-based natural capital.

Land has forever been intertwined with human development; its economic function being but one of many. Land is a unique, valuable, and immovable resource of limited quantity, providing multiple benefits to society. It is the most basic element of subsistence, valued for its richness above and below ground. Land is a strategic socio-economic asset, particularly in poor societies where survival and wealth are often still largely determined by the control of, and access to, land. As a result, land is

Definitions of land

The UNCCD defines land as “the terrestrial bio-productive system that comprises soil, vegetation, other biota, and the ecological and hydrological processes that operate within the system.”²

Alternatively, land is defined as “a delineable area of the Earth’s terrestrial surface, encompassing all attributes of the biosphere immediately above or below this surface, including those of the near-surface climate, the soil and terrain forms, the surface hydrology (including shallow lakes, rivers, marshes, and swamps), the near-surface sedimentary layers and associated groundwater reserve, the plant and animal populations (biodiversity), the human settlement pattern and physical results of past and present human activity (terracing, water storage or drainage structures, roads, buildings, etc.).”³

ties to a complex network of issues ranging from power relationships to economics, from symbolic attachments to systemic inequities. Land is a central element in the varied and complex social relations of production and consumption.

THE MULTI-DIMENSIONAL CHARACTER OF LAND

Effectively negotiating the sustainable use, management, and planning of land resources requires integrative systems and participatory stakeholder approaches rather than linear, sectoral strategies. An aspiring outlook requires seeing and understanding land in all its dimensions. In Figure 1.1, we present indicative perspectives on the meaning of land to illustrate the diversity of the challenges, issues, and priorities confronted by different stakeholders.

Of course, these are just stereotypes for the purpose of illustration. Most stakeholders hold multiple views on specific land uses and on the concept of land itself. They often fit into more than one category, or may hold significantly differing views from the majority. By definition, a holistic approach better reflects the diversity of views and promotes a greater understanding of trade-offs and synergies in identifying the most appropriate solutions for scaling-up sustainable management practices.

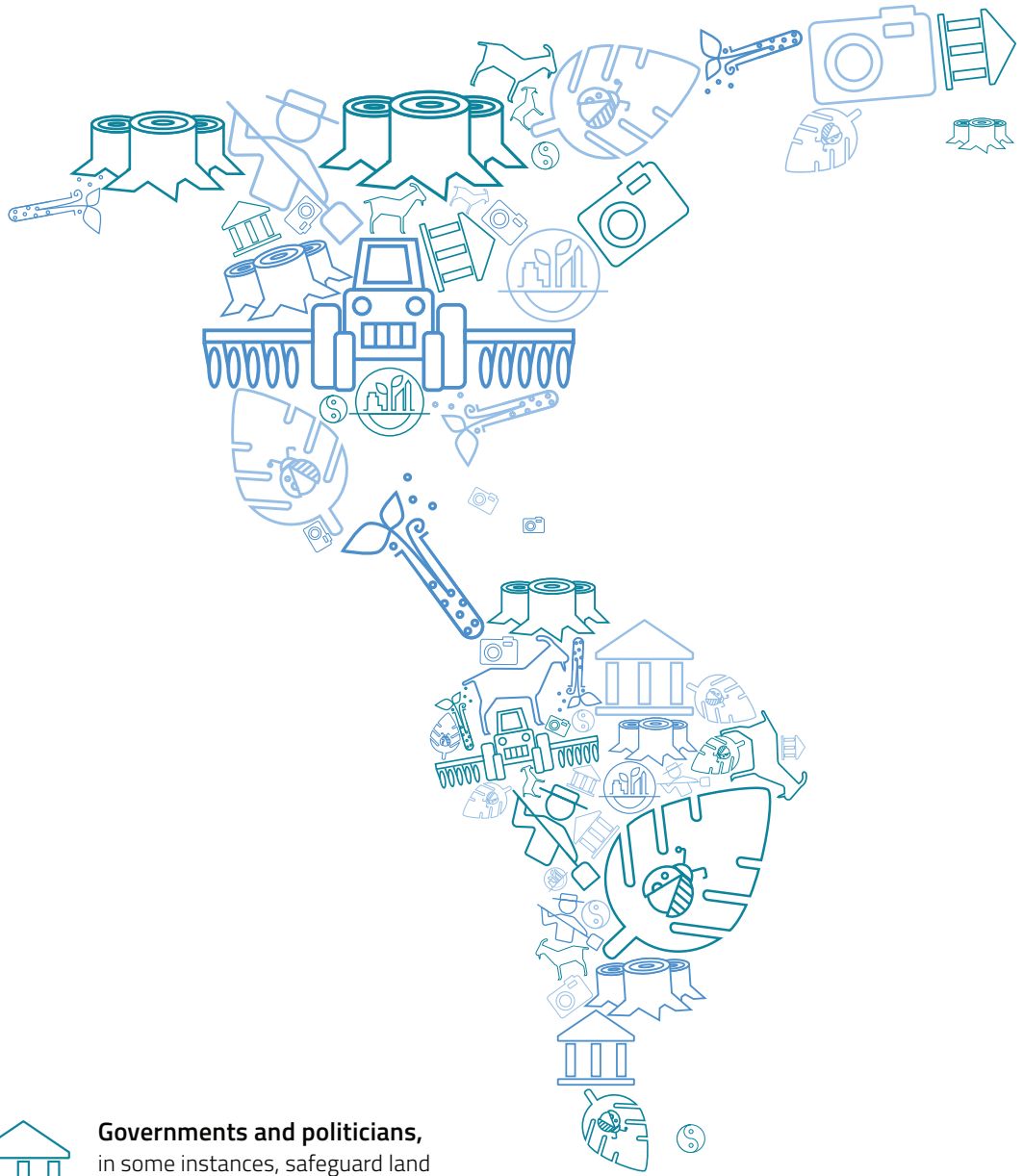


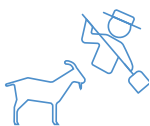
Figure 1.1:
Stakeholder perceptions on the meaning and value of land



Governments and politicians,
in some instances, safeguard land for the public good, while in other instances, they employ it as an instrument of power and control.



Scientists and researchers
see land as a composite of soil, water, biodiversity and minerals, interacting to provide goods and services that benefit humans and sustain ecosystem functions.



Subsistence farmers and pastoralists
view it as source of food and livelihood; an intergenerational transfer of wealth, and a sense of place and belonging.



Indigenous and local communities
often consider land to be a communal or sacred asset, to be protected for current and future generations. Many faith groups regard certain landscapes or land forms as imbued with particular spiritual significance or power.



Conservationists and environmental activists
tend to appreciate the value of land as a habitat for species or as a wilderness to be protected.



Agri-business and industrial farmers/ranchers

consider it as a business opportunity and profit-making asset.



Timber, paper and pulp companies

focus on the trees, while the mining and energy sectors are primarily concerned with what lies below the surface of land.



Urban developers and frontier settlers

are constantly searching for land to expand the human domain and create economic wealth. Gardeners and architects enjoy the prospect of modifying or transforming landscapes in pursuit of the aesthetic enhancement of our cultural environment.



Artists, philosophers and tourists see land as a respite or refuge, a source of spirituality, inspiration and beauty.

LAND AS PRIVATE PROPERTY

Land as private property is a relatively recent phenomenon and is more dominant in some cultures than others. In many countries, the government still controls vast tracts of land, yet some of the most productive were and are being reallocated or sold as private property to individuals and corporations. Acquisition by both the state and private entities⁴ can have devastating impacts on the people who have traditionally lived on the land, but do not hold formal or legal title.⁵

Although land has always been a uniquely valued and trusted asset, an exclusive political and legal system that encourages private ownership has changed people's relationship to land, particularly in urban and other high-value economic areas.⁶ Large areas of land change hands around the world via transactions that are subject to different degrees of regulation and formality, although attempts are being made to promote voluntary guidelines on the governance of tenure.⁷

In some developing countries, there has been significant consolidation of land holdings in the past few decades, and legal titling is now the norm and closely linked to wealth creation. Historically, many rural lands around the world, that were traditionally owned and governed by local communities and indigenous peoples under customary tenure systems, have now been acquired by the state. More recently, some countries have started the process of relinquishing state control of land, returning it to indigenous peoples and local communities.⁸

People living in the developed world expect land ownership to be clearly identified, mapped and protected by legal title, and supported by land administration institutions. However, throughout much of the developing world, individual property rights are not recognized as such, and rights to natural resources are often shared among different users within local communities.⁹ For instance, in West Africa, different user groups (e.g., men, women, farmers, pastoralists, churches) may have rights and access to different parts of the same land resource: trees in a community-managed forest provide fodder for livestock; fruits and vegetables are collected by women; timber is harvested by men. Moreover, even in this overlapping system of land use, shared access may vary at different times of the year.¹⁰

Statutory legal systems are not always appropriate or sufficiently flexible to cope with the complexity of customary land use. On the other hand, where land rights are not formally established or regulated by government authorities, they can easily be disregarded due to increasing pressure on, and competition for, land resources. Ignoring the rationale for customary tenure systems – which support long-term regenerative practices and multiple uses by different parties – may be detrimental to both society and the environment.¹¹

Many developing countries lack adequate laws, or fail to implement established provisions that legally determine who owns the land and its resources. This can lead to default ownership by the state, powerful individuals, or corporations. Such events frequently result in dire consequences for traditional land users, whose lands are often expropriated without consent or compensation, leaving them alienated from their community and their property. Multiple factors can converge to dispossess people from their land, induce conflicts, and increase migration from rural areas. Traditional sustainable approaches to land management also sometimes falter under the pressure of demographic change or the influence of modernity in traditional societies.

LAND AS A PUBLIC GOOD

Land plays an important role in capturing and storing atmospheric carbon; it governs biophysical cycles and provides a multitude of goods and services that benefit society as a whole. However, if badly managed or degraded, these functions are lost. Landscapes are a mosaic of ecosystems and human communities are embedded within them. Unfortunately, the role of land as a public good and common resource does not currently enjoy sufficient recognition in land use policy and planning.

One way of looking at land is assuming that it belongs to everybody, with each field or plot having a local custodian.

The custodian's role in enhancing the positive – or curtail the negative – impacts associated with different land uses can deliver diffuse benefits of great importance to the health of the wider landscape and society. For example, individual decisions to cut trees or plow permanent pasture will release carbon, thus increasing the negative impacts of climate change and reducing public benefits.

In Nigeria, some floodplains have multiple overlapping uses by different stakeholders: fisher folk have rights to the land during the rainy season, with varying types of fishing permitted; farmers plant crops during the dry season; and livestock herders have rights post-harvest, and to uncultivated grasslands within the floodplain.¹² In these types of customary use systems, the question of “to whom the land belongs” is unclear; even the concept of primary versus secondary users is irrelevant. Rights overlap and care should be taken to avoid misunderstandings when working with traditional concepts of property rights. Land often belongs to a “community,” which may include different ethnic groups and land users, so defining land rights often needs to account for these traditional governance systems and mechanisms of negotiation.

LAND AS A SENSE OF PLACE

The questions of belonging and ownership, of rights and responsibilities, are challenging to address in simple terms. The answers lie within a spectrum, from the legal titling of land, to community and customary entitlement, or to a simple sense of belonging. For many people, land is about dignity, culture, and identity. Land ownership implies freedom from exploitation and slavery; it provides safety and security. Unhindered access to land can equal self-determination and the assurance of inter-generational continuity. For some, issues of land tenure are seen as fundamental to human rights.¹³

Many people benefit simply from living and working on the land, or derive cultural or spiritual identity from their place within the landscape. Being in direct contact with the land can lead to both mental and physical health benefits; it can also reinforce who and where we are, giving us a sense of self and place. For communities and societies with strong spiritual connections to the land, sustainable management practices are often an integral part of their traditions, such as sacred groves in India and church forests in Ethiopia.

During the last few years, the concept of existence rights has emerged:¹⁴ the rights of survival of species and ecological interactions. Research shows that this view is prevalent across many societies today. Most people instinctively feel that humans have an obligation to prevent species extinction wherever possible. The huge support for iconic species, such as the tiger or the panda, which most people will never see in the wild, demonstrates that conservation is not just a utilitarian issue.

This view is now shared by the large majority of the world's major philosophies and religions, which recognize the duty of stewardship. The leaders of all the major faiths have issued statements acknowledging the moral obligation of humans not to destroy what remains of nature.¹⁵

Culture can have an important role in bringing together divergent views on how humans adapt to or alter their landscapes. While the cultural aspects of land vary greatly by region and evolve as new areas are settled, markets for land-based products are becoming global in reach. The effect of these external economic drivers can significantly influence, or even destroy, the original sense of place. This dichotomy between tradition and modernity, typical of the globalized world, increases the potential for discord surrounding land use and management. While some give precedence to the market value of land, as measured by its exchange value, others feel that regardless of human involvement, land has intrinsic value in and of itself, and fear that this dimension may be lost when there is the drive to maximize profit.

Table 1.1: Links between faith and environmental thinking¹⁶

Faith	Links to environmental thought
Baha'i	Founded by the Persian Baha'u'llah. Believes all religious leaders are manifestations of God and all scripture sacred. Nature and Scripture are the "two books" of revelation. Shoghi Effendi, Baha'u'llah's great-grandson, noted: "Man is organic with the world. His inner life moulds the environment and is itself also deeply affected by it." ¹⁷
Buddhism	Teaches respect for and interconnectedness of nature; plants and animals are included in schemes of salvation. ¹⁸ Gautama Buddha was born, attained enlightenment, and died under trees. Sacred trees are decorated and revered. Buddhism advocates protection, such as ridam in Bhutan, an annual prohibition on entering a designated mountain forest. ¹⁹
Christianity	Teaches that all creation is a loving act of God and that humanity may not destroy God's creations without the risk of destroying itself. St Francis was an early proponent of ecological stewardship. There have been statements by Christian leaders in response to the ecological crisis. ²⁰ Pope Francis published an encyclical in 2015 calling for protection of nature. ²¹
Daoism	Traditionally believed to have been founded by Lao Tzu. Stresses harmonious interaction with the environment, symbolized by a balance between two opposing forces of Yin and Yang. ²² Chuang Tzu, a Daoist scholar, warns against the concept that all nature must be "useful" and stresses its existence value. ²³ Modern interpretation lays stress on ecology.
Hinduism	The earth is revered as Bhumi, "Mother Earth." There are many references to conservation; e.g., the Arthashastra prescribes fines for destroying trees. ²⁴ Damming India's most sacred rivers, the Ganges and Narmada, generated protests partly for faith reasons. ²⁵ During the Chipko movement, women prevented forest loss by surrounding trees with their bodies. ²⁶
Jainism	Jains minimize harm to all life-forms and their teachings stress sympathy and compassion with all life. ²⁷ Mahavira stated: "One who neglects or disregards the existence of earth, air, fire, water and vegetation disregards his own existence which is entwined with them." The Institute of Jainology produced the 1990 Jain Declaration on Nature. ²⁸
Judaism	In the past, reaction to pantheism downgraded the importance of nature, although this is changing. ²⁹ The Tree of Life is one of Judaism's most powerful images. Planting trees has been a widely observed practice, particularly in recent times and the Torah orders creation of green belts around cities (Numbers 35:4). Trees remain a subject of worship in Israel. ³⁰
Islam	The teaching of Allah in the Qur'an states that humans have stewardship over nature, but nature belongs to God. ³¹ Rivers and lakes need a buffer zone, and tree planting and kindness to animals are encouraged. Islam developed the use of Hima, land protection for grazing, bee-keeping, forests, or water, ³² which is still practiced in Jordan and Saudi Arabia. ³³
Shinto	Shinto was the traditional faith of Japan before Buddhism. There are many deities with no formal hierarchy or doctrine but strong links to nature. Ceremonies appeal to the kami, forces of nature in mountains, springs, trees, etc. Sacred groves are important, including both cultivated and natural areas.
Sikhism	Sikhs believe in one God and their sacred writings are contained in the Guru Granth Sahib. Guru Nanak said "Within the Universe, Earth was created to be a shrine." All nature is sacred according to the Sikh faith. Sikhism follows a three hundred year cycle; the current cycle, due to end in 2299, is understood as the "Cycle of Creation" putting an emphasis on environmental practices.
Zoroastrianism	Founded by Zoroaster in modern day Iran. Later, many Zoroastrians moved to India where they are known as Parsis. They regard the earth as sacred, implying that life is also sacred. The decline of vultures in India due to chemical poisoning ³⁴ is a problem for Parsi communities, because the birds are essential to the tradition of disposing of the dead in "Towers of Silence."



Box 1.1: Geomythology³⁵

“So the land is actually like a big book, you know?” Alison Anderson, a Papunya elder in Australia said.³⁶ The Eurocentric worldview requires science to be firmly separated from “folklore.” If we are to honestly contemplate the cultural and spiritual values of the land, these assumptions need to be fundamentally re-examined.

For a geologist, the stains streaking rocks in the Kata Tjuta mountain range in Australia are “desert varnish,” part mineral, part microbial coating typical of arid areas. For the Pitjantjatjara and Anangu cultures, they are the beard of Wanambi, the snake king who lives on the summit. Geologists see rock domes telling a 500 million year story of pebbles, gravel, and sand flushed down into an ancient sea, buried, solidified, tilted, uplifted, and eroded. For the Aboriginal people, each summit represents – indeed, *is* – a being from the Dreamtime. In 1966, Dorothy Vitaliano, of the U.S. Geological Survey, coined the word *geomythology* to describe relationships between legends and geology.³⁷ She divided geologically-inspired folklore into stories satisfying the human need for explanation (*etiological*) and those originating from witnessing real events (*euhemeristic*).

Etiological stories of the land abound in almost every indigenous culture. For many, the land is everything: they are part of the land and the land is part of them: their larder, pharmacy, and place of worship.³⁸ The land itself has memory. Human origins invariably lie beneath the surface; places that provide subterranean access – canyons, craters,

and caves – hold great spiritual significance; the concentration of rock art in such places is witness to this. Euhemeristic stories also play a key role in many cultures. Our ancestors have been roaming the Earth since the great Ice Age and recount stories of sea-level change, glacial floods, and dramatic shifts in the climate. In 2014, the evolution of one glacial landscape in Northwest Montana was documented and it was found that: “Hydrologic processes play critical roles in both the geoscientific and the traditional indigenous narratives ... and the traditional stories and Western geoscience theories exhibit intriguing similarities ...”³⁹

The indigenous worldview is intrinsically holistic: there is no separation between humans and nature, between personal identity and the land, and there is growing interest in integrating this with conventional scientific thinking.⁴⁰ David Bohm, a great theoretical physicist, refers to the “unbroken wholeness of the totality of existence as an undivided flowing movement without borders.”⁴¹ Earth sciences themselves are not beyond holistic thinking: even the familiar separation of the organic from the inorganic begins to break down: minerals undergo a process of what is best described as evolution.⁴² The relationship between individuals and place is inevitably influenced by culture and experience.⁴³ In short, the land is a book, to be read in different ways, with different translations. An understanding and integration of those different books into a hybrid knowledge system must, surely, be a fundamental prerequisite for building the diverse bridges necessary for sustainable development.



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CONCLUSION

Recognizing the perspectives of diverse stakeholders and ensuring their participation in decision-making is a critical first step towards better land management and planning. Land is owned and managed by governments, corporations, communities, and individuals, but we all depend upon the land for our health and well-being. We cannot afford to ignore this fundamental connection.

Global challenges, such as land degradation, are complex, but patterns do emerge which allow for organized thinking and creative new solutions to more efficiently use land resources in the future. In a rapidly changing world, with ever increasing pressures and demands on our natural resource base, the Global Land Outlook highlights the challenges and opportunities for sustainable land use, management, and planning. This Outlook is intended for all of us: from policymakers to small farmers; from corporations to communities; from consumers to producers. So let us turn now to a brief history of how we arrived at this juncture.

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