



IN SEARCH OF RIGHTS FOR SOIL

Humanistic ecological ethics in modern agriculture

Dr. Pham Tuan Anh

Former Director, Dak Nong Department of Agriculture and Rural Development



INTRODUCTION

The author's recent writings on the Central Highlands have successively touched on many layers of issues hidden beneath the surface of modern agriculture. From quiet shifts in landscapes, livelihoods and governance in "When the Great Green Forest Changes Color," to the "ecological legacies accumulating behind every bountiful harvest," the reality that "soil is gradually dying" under cultivation pressure beyond ecological thresholds, and increasingly visible risks of disruption in agricultural value chains.

Although approached from different angles, all these field studies converge on a common realization: behind the impressive growth figures of commodity agriculture, the soils and ecological space of the Central Highlands are facing profound damage and a gradual depletion of natural vitality.

In this monograph, "In Search of Rights for Soil - Humanistic Ecological Ethics in Modern Agriculture," the concept of "rights of soil" is proposed as a new frame of reference for the integrated relationship among people, living soil systems and sustainable development through a humanistic ecological lens. It is not a fixed template, but an effort to open space for objective, responsible discussion and critique in both contemporary academic and policy spheres.

It is hoped that the issues raised here will inspire those who care about soil and about the ecological foundation shared by us all.



AUTHOR'S NOTE

During an online forum titled “Soil Is Gradually Dying - From Ecological Degradation to Value-Chain Disruption: Implications for Sustainable Agriculture, Community Livelihoods and the EUDR,” organized by Forest Trends in early May 2026, Dr. To Xuan Phuc raised a rather unusual issue: “rights of soil.”

“Rights of soil” emerged at precisely the moment when signs of soil degradation, ecological limits and concerns about the sustainability of intensive agriculture were becoming increasingly visible in the field.

Having been closely connected with the Central Highlands for many years, what concerns me is not only the figures on area, yield or output, but also the quiet changes taking place within the soil season after season.

Soil cannot speak for the injuries it suffers. Yet fading gardens, streams that are gradually drying up, the thinning chorus of insects, and the vague but very real anxieties of farmers about the future of their land - these are the signals the soil is sending us.

This monograph is an attempt to reconsider the relationship between people and soil through a humanistic ecological lens. Soil is approached not only as a means of production, but also as the ecological foundation of life and an inheritance that today's generation passes on to those that follow.

Rights of soil are not about expanding the power of soil, but about limiting human power over soil.

Rights of soil are not only a story about soil. They are also a story about our own future.

As this is still a very new and complex field, the monograph will inevitably have certain limitations.

The author would like to express sincere gratitude for the valuable support and knowledge shared by Dr. To Xuan Phuc and colleagues at Forest Trends.



CONTENTS

Introduction	2
Author's note	3
Opening: When the soil begins to speak	
Soil is gradually being depleted after bountiful harvests Chapter 01	8
1.1. The Central Highlands and the paradox of bountiful harvests	
1.2. When the soil begins to speak	
1.3. What is missing from the way we see soil	
From the Rights of Nature to the search for Rights of Soil Chapter 02	14
2.1. From rights to land to rights of soil	
2.2. When soil is seen as a living ecosystem	
2.3. From Land Ethic to Rights of Nature	
2.4. From academia to legal practice	
2.5. Continuing debates	
2.6. Chapter conclusion: Implications for Vietnam	
Ancestral ethics: Humanistic ecological values in modern agriculture Chapter 03	21
3.1. Soil in ancestral ethics	
3.2. Ecological limits in traditional knowledge	
3.3. Rights of soil through the lens of ancestral ethics	



JUNE 2026

Chapter 04

Rights of Soil: Conceptual framework and foundational principles 24

- 4.1. Foundational principles and terminological boundaries
- 4.2. A conceptual framework for “Rights of Soil”
- 4.3. From rights of soil to human responsibilities

Vietnam context: Legal gaps and a proposed soil guardianship mechanism Chapter 05

29

- 5.1. Rights of soil and social responses
- 5.2. Legal gaps in protecting soil health
- 5.3. A proposed soil guardianship mechanism

Rights of Soil: Gratitude and the duty of reciprocity Chapter 06

32

- 6.1. Gratitude as the starting point
- 6.2. The duty of reciprocity as the foundation
- 6.3. Intergenerational commitment and humanistic ecological responsibility

Conclusion

35

References



OPENING

WHEN THE SOIL BEGINS TO SPEAK

Crops may still look better and yields may still be higher, yet the foundation of life beneath them is gradually weakening... The soil remains silent. But ecological injuries accumulated through many seasons of rain and sun are becoming increasingly visible. That is how the soil speaks.

Perhaps nowhere is the story of soil and people as closely intertwined as in the Central Highlands.

In the memory of many people, this was a land of fertile red basalt soils, seemingly endless forests, streams whose flowing voices had not yet faded, and villages living to the rhythm of the seasons beneath ancient forest canopies. Yet the rapid expansion of industrial crop monocultures in recent years has profoundly reshaped the landscape of the Central Highlands.

The changes are visible on the surface of the land, but their consequences do not stop there. They reach water resources, livelihoods, community culture and the long-term development prospects of an entire region. When the great green forest changes color, it is not only the forest that changes. When soil degrades after bountiful harvests, those impacts gradually appear in people's lives as well.

These changes raise a question: how should we treat soil so that it can continue to sustain our own lives?

To answer that question, we need to return to the vast forests of the Central Highlands.



Photo 3: Mountain forests of the Central Highlands. Source: Forest Trends



JUNE 2026

In those days, soil was not merely a place to sow crops. People in the Central Highlands selected land by its color, the surrounding forest vegetation, water sources and the rhythms of nature. Cultivation was also associated with rotational fallowing, allowing soil time to rest and recover naturally. For Indigenous communities, land was not only a place for dibble planting; it held water for streams, nourished trees in the forest, kept the hearth burning and the village fed, and preserved community memory across generations.

From that very soil, epics, Indigenous knowledge, farming practices and a sense of community grounded in customary law were formed and passed down.

These values do not belong only to the past. In reflections on modern agriculture, Le Minh Hoan has also referred to soil as a living asset that must be cared for, rather than merely a substrate in which seeds are sown.¹ Although they emerge from different contexts, Indigenous knowledge and contemporary governance thinking seem to meet at one common point: soil does not simply produce crops; it supports life.

Yet turning points in economic development opened an entirely different chapter for the land of the Central Highlands. The emergence of large-scale industrial crop monocultures rapidly transformed the region's traditional human-ecological space. Red basalt soil, once the foundation that sustained life according to natural rhythms, gradually became a means of production serving economic growth. Behind bountiful harvests and impressive growth figures, the soil has quietly borne increasing pressure from high-intensity cultivation.

Field observations reveal many worrying signs. Some farms still appear from a distance as uniform green monocultures, yet the biological structure beneath them has already begun to deteriorate: microbial communities are impoverished and soils are becoming compacted and acidified. Farmers understand this better than anyone as technical input costs for "feeding" crops keep rising to compensate for the soil's depleted natural vitality. During field visits and conversations about land and harvests, older farmers have repeatedly voiced a very real concern: "Many people no longer care for the soil; they push it too hard."

Behind that simple statement lies a paradox of modern agriculture: crops may still look better and yields may still be higher, while the living foundation beneath them is steadily weakening. The soil remains, yet - as a thought-provoking policy reflection in the article "When the Soil Falls Silent"² puts it - "the soil no longer 'breathes.' The soil seems to be holding its silence."

The soil remains silent. But ecological injuries accumulated through many seasons of rain and sun are becoming increasingly visible. That is how the soil speaks. It is time to see soil differently - not merely as the place that produces harvests, but as the foundation supporting life and the future of many generations. From this reflection, the concept of "rights of soil" is introduced in this monograph as an attempt to open a more harmonious and responsible way of relating to soil.

1 Healthy Soil - Healthy Farmers

2 Le Minh Hoan - former Member of the Party Central Committee, former Vice Chairman of the National Assembly of the Socialist Republic of Vietnam, and former Minister of Agriculture and Rural Development



CHAPTER I

SOIL IS GRADUALLY BEING DEPLETED AFTER BOUNTIFUL HARVESTS

The search for rights of soil cannot begin with abstract legal concepts. It must begin by looking at what is happening right beneath our feet. To understand why an ecosystem that quietly sustained life for generations is now gradually being depleted, we must look honestly and fairly at how people are treating soil in modern agriculture. The ecological limits of soil are becoming increasingly visible beneath canopies of coffee, pepper, rubber and fruit trees stretching across the hills of the Central Highlands.

The Central Highlands - a region endowed with fertile red basalt soils and home to many of Vietnam's key agricultural commodities - offers a representative picture of this process. Bountiful harvests have transformed the lives of millions of people, but they have also left increasingly visible signs of soil exhaustion. It is from these signs that the question of rights of soil begins to emerge.

1.1. The Central Highlands and the paradox of bountiful harvests

Life was difficult then. Yields were low, output was modest and livelihoods depended heavily on nature. In return, however, soil was allowed to rest and recover according to its own rhythms.

Soil in the memory of the great forests

There was a time, before specialized coffee, pepper and durian production areas appeared, when most Indigenous communities in the Central Highlands depended on swidden fields, forests, rivers and streams, as well as epics, customary laws and the rhythms of village gong culture.

In March, when bees begin gathering honey, many villages would also start searching for land for a new swidden season. Village elders and young men carried machetes through forests, crossed streams and waterfalls, looking for places with bright red soil, deep humus and clean water. Before clearing the land, they performed a ritual to Yàng, asking permission from the spirits and praying for a favorable harvest.



Photo 4: Ripe rice fields in Buon Choah, Krong No. Source: Pham Tuan Anh



After several seasons of sowing and harvesting, people would move on, returning the land to nature. During those years of rest, forest vegetation grew back, leaf litter gradually covered the ground and life quietly regenerated. At the right time, the soil could again receive a new cultivation cycle and continue to sustain the village.

This was not merely a production practice. It was also the way people in the Central Highlands related to soil. They understood that soil, too, needed time to rest after seasons of producing food for people.

Life was difficult then. Yields were low, output was modest and livelihoods depended heavily on nature. In return, however, soil was allowed to rest and recover according to its own rhythms.

Then the Central Highlands entered a different era.

Diverse ecosystems were gradually replaced by large monocultures. Soil, once part of the ecological and cultural space of villages, increasingly became the foundation of an agricultural system governed by market forces.

When soil became a means of production

From the early 1990s, together with Vietnam's Đổi Mới reforms, the region experienced profound changes in population, livelihoods and production methods. People from many parts of the country moved to the Central Highlands to establish new lives. Population grew rapidly, along with demand for residential land, farmland and livelihood opportunities.

Forests that had once covered much of the landscape were gradually converted into swidden fields and specialized industrial crop areas. Coffee, rubber and pepper, followed later by durian and other fruit trees, expanded one after another. From a region largely based on subsistence production, the Central Highlands gradually became one of Vietnam's largest centers of commercial agricultural production.

This transformation brought major changes. Millions of households gained opportunities to escape poverty and improve their living standards. Agriculture became an important engine of regional growth. Bountiful harvests not only changed the economic landscape but also helped many Vietnamese agricultural commodities become more deeply integrated into global markets.

Along with this process, however, the way people viewed soil also changed. Where soil had once been seen as part of an ecosystem on which people depended, it increasingly came to be treated as a means of production for raising yields and maximizing profits. The economic value of land was emphasized more and more, while its inherent ecological functions received less attention.

The rapid expansion of specialized production areas substantially altered the natural landscape of the Central Highlands. Large areas of forest were reduced to make way for agriculture. Diverse ecosystems were gradually replaced by large monocultures. Soil, once part of the ecological and cultural space of villages, increasingly became the foundation of an agricultural system governed by market forces.



These changes created bountiful harvests for the Central Highlands. But they also marked the point at which new pressures began to emerge within the soil.

The paradox behind bountiful harvests

The shift toward commercial agriculture brought significant achievements to the Central Highlands. Major commodities such as coffee, pepper, rubber and durian continually expanded in area and output. Successive bountiful harvests helped raise household incomes, drive economic growth and transform the face of the entire region.

Yet behind those achievements lies a less visible reality. For many years, most efforts within the production system focused on increasing yield and output. To sustain that growth, ever larger amounts of chemical fertilizers, pesticides and other agricultural inputs were used. Crops were supplied with more inputs to produce higher yields, while soil health did not always receive commensurate attention.

This is where the paradox of modern agriculture begins. Above ground, crops can remain green and yields can continue to rise year after year. But beneath the cultivated layer, many vital ecological functions are gradually declining. Organic matter is depleted, soil biota become poorer, and the soil's capacity to retain water and regulate itself weakens over time.

Short-term economic achievements may therefore be traded for a long-term decline in soil health. Soil continues to nourish crops, but increasingly requires more fertilizer, more irrigation and more technical intervention to maintain the same level of productivity. This is the paradox behind bountiful harvests:

“

Yields may continue to rise, while the foundation that makes those harvests possible is gradually being depleted. ”



Photo 5: Farming practices that deplete soil. Source: Pham Tuan Anh



1.2. When the soil begins to speak

Soil cannot speak when it is exploited beyond its capacity to recover, but ecological injuries accumulated season after season are nature's clearest response.

Soil cannot speak.

But soil has never been silent.

When soil is healthy, these signals blend into the normal rhythm of each season and attract little attention. Only when soil begins to weaken do warning signs become more visible: declining fertility, biological imbalance, increasing erosion and growing dependence on chemical inputs.

What is happening in the Central Highlands shows that soil is not an inexhaustible resource. Soil has its own ecological limits, a finite capacity for self-recovery, and can be damaged by the very ways in which people exploit it. The manifestations below are how the soil is speaking.

The soil is becoming overfed

.....
Soil is being “fed” more
and more, yet its health is
not improving accordingly.
This is a sign that the soil
is becoming overfed.
.....

From the outside, many specialized production areas in the Central Highlands are still covered in the green of thriving coffee, pepper or fruit trees. With each season, farmers continue to invest more in fertilizer in the hope of maintaining yields and income.

But beneath the cultivated layer, a different reality is quietly unfolding.

In many production areas, fertilizer use per unit of land has increased substantially compared with the past. Many farmers say they must apply more fertilizer, and apply it more frequently, just to maintain the same yield. This suggests that soil is gradually losing its natural capacity to supply nutrients.

Like the human body, soil needs a balanced diet. When inputs are continually added over long periods, excess nutrients that are not used efficiently can intensify imbalances within the living soil system.

A paradox therefore emerges: soil is being “fed” more and more, yet its health is not improving accordingly. This is a sign that the soil is becoming overfed.



Like the human body, soil fatigue does not appear overnight. It accumulates season by season, through each layer of organic matter lost and each biological cycle disrupted. At some point, these quiet injuries cease to be only a soil problem and become a problem for the entire production system that depends on it.

The fatigue of basalt soils

Not every injury to soil is easily visible to the naked eye. Unlike a felled forest or a polluted river, soil weakening often occurs quietly over many years. Only when yields decline or production costs rise abnormally do people realize that changes have been accumulating within the soil for a long time.

In the Central Highlands, this fatigue is occurring in the very red basalt soils once regarded as the region's most valuable natural resource. Under natural conditions, basalt soils are rich in organic matter, retain water well and support diverse soil biota. These characteristics created advantages for many specialized agricultural areas.

Years of intensive cultivation, however, have gradually changed these soils. Organic matter declines, soils acidify, soil biodiversity becomes poorer, and habitats for beneficial microorganisms shrink. As organic matter falls and soil biota are damaged, physical structure also changes: soil becomes harder and more compact, water infiltration declines and erosion occurs more frequently.

Like the human body, soil fatigue does not appear overnight. It accumulates season by season, through each layer of organic matter lost and each biological cycle disrupted. At some point, these quiet injuries cease to be only a soil problem and become a problem for the entire production system that depends on it.

The worrying part is that this process is usually slow and difficult to detect. By the time signs of weakness are visible in crops or yields begin to decline, damage within the soil may already have accumulated for years. The cost of soil degradation therefore does not always appear immediately; it quietly becomes a long-term risk to agricultural production and people's livelihoods.



Photo 6: Farming practices that deplete soil. Source: Pham Tuan Anh



1.3. What is missing from the way we see soil

Over the years, many solutions have been proposed to protect and restore soil - from increasing the use of organic fertilizer and reducing agricultural chemicals to soil cover and regenerative farming models. These solutions are necessary, yet soil health continues to decline in many places. This suggests that the problem may not be purely technical.

One reality is rarely discussed: in most development decisions, soil is still viewed primarily as a means of production. Its value is commonly measured by yield, output or economic returns, while ecological functions such as sustaining biodiversity, regulating water, storing carbon and nurturing life below ground receive far less attention.

This way of thinking creates a paradox.

“

We pay close attention to what crops need, but rarely ask what soil needs. We readily calculate how much nutrition should be added for crops, but seldom account for what the soil loses season after season. When soil is seen only as a production tool, accumulated damage within it is easily overlooked because it does not immediately appear in short-term economic indicators.

”

What is missing may not be more warnings about soil degradation, but a fuller understanding of soil's place in development. Soil does not merely produce agricultural commodities; it also maintains the conditions that allow life to continue. What we receive from soil today is, in fact, the result of ecological processes accumulated over many previous generations.

What is happening in the Central Highlands shows that the issue lies not only in how we farm, but also in how we understand soil. If soil is seen only as a means of production, restoration efforts will remain confined to technical measures. But if soil is recognized as the foundation supporting life and an ecological inheritance to be passed to future generations, deeper questions arise about responsibility, ecological justice and soil's place in contemporary governance. It is from these concerns that the search for rights of soil begins.



CHAPTER II

FROM THE RIGHTS OF NATURE TO THE SEARCH FOR RIGHTS OF SOIL

In recent decades, soil degradation has become an environmental challenge of growing global concern. As the ecological limits of soil become increasingly apparent under the effects of overexploitation, pollution and climate change, questions about soil protection have moved beyond the confines of agricultural science or purely technical solutions.

Modern soil science has generated new debates in environmental philosophy, ecological ethics and development governance. These debates are gradually changing how people understand nature in general and soil in particular: from a resource serving development to an ecological foundation that sustains life.

This chapter reviews several scientific foundations, strands of academic thought and notable institutional developments around the world that have shaped contemporary discussions of rights of soil.

It should also be emphasized that, to date, no country has recognized “rights of soil” as an independent and fully developed legal regime. This chapter therefore does not search for existing models of soil rights; instead, it clarifies the academic and practical context that gave rise to the question of whether soil should be viewed differently in human development decisions.



While “rights to land” focus on establishing human rights over land resources, “rights of soil” focus on the conditions necessary for soil to maintain its ecological functions and capacity for self-renewal.

2.1. From rights to land to rights of soil

Throughout history, when societies have spoken about rights related to land, they have generally focused on one central question: who has rights to land?

This is the story of ownership rights, use rights, inheritance, transfer and access to land. From ancient legal codes to modern legal systems, land has largely been viewed as property, an economic resource or a means of production serving human development. This approach is commonly described as “rights to land” and forms the basis of most land governance systems in the world today.

From the second half of the twentieth century, however, as environmental crises and soil degradation intensified around the world, scholars began asking a different question: is protecting people’s rights to land enough to protect the very foundation that supports life?

Advances in modern soil science show that soil is not merely an inert medium or a storehouse of nutrients for crops. Soil is a living ecosystem with essential functions for food production, water regulation, carbon storage, biodiversity and climate stability. Research by Rattan Lal, van Mansvelt and many contemporary soil scientists has helped clarify these functions while warning of soil’s ecological limits under growing exploitation pressure.

These findings have changed not only scientific understanding of soil but also environmental philosophy and contemporary legal thought. From Aldo Leopold’s “Land Ethic” to Christopher Stone’s pioneering debates on the legal standing of nature, a new awareness has gradually emerged: nature has value not only because of the benefits it provides to people, but also intrinsic values that deserve respect and protection.

It is in this context that the concept of “rights of soil” gradually emerged as a new approach. While “rights to land” focus on establishing human rights over land resources, “rights of soil” direct attention to the conditions necessary for soil to maintain its ecological functions and capacity for self-renewal.

This does not mean denying human ownership or land-use rights. On the contrary, the approach recognizes that human rights and the long-term health of soil are closely linked and mutually dependent. When soil’s ecological limits are exceeded, not only is the soil damaged; production systems and human livelihoods also bear long-term consequences.



In this sense, “rights of soil” are first and foremost not a legal concept, but a shift in perception: from seeing soil mainly as an object to be owned and exploited to seeing it as a living ecosystem whose conditions for existence need to be protected.

This shift in understanding opens a new question: if soil is not merely a resource to exploit, how should it be understood in the context of modern development? Soil science offers important insights into the living nature of soil.

... soil is not an inert medium, but an extraordinarily complex living ecosystem in which billions of biological, chemical and physical interactions occur every day.

2.2. When soil is seen as a living ecosystem

For a long time, soil was viewed mainly as a layer of material beneath our feet that anchors plants and supplies them with nutrients. Under this view, soil’s value was assessed largely through the yields it produced or the economic benefits it generated.

Advances in soil science, ecology and environmental science over recent decades have substantially changed that understanding. A growing body of evidence shows that soil is not an inert medium, but an extraordinarily complex living ecosystem in which billions of biological, chemical and physical interactions occur every day.

A handful of healthy soil may contain billions of microorganisms and countless other forms of life that participate in nutrient cycling, build soil structure and sustain natural fertility.

From the perspective of modern science, soil does more than produce food. It regulates water flows, stores carbon, supports biodiversity and helps stabilize many natural ecosystems. For this reason, a growing number of scientists and international organizations regard soil health as one of the foundations of sustainable development.



Photo 8: People in the Central Highlands harvesting coffee cherries. Source: Forest Trends



Research by Rattan Lal, Herman van Mansvelt and many contemporary soil scientists has helped clarify these living functions while warning of soil's ecological limits under increasing exploitation pressure. From this work, the concept of "soil health" gradually emerged as a new approach to soil-resource management, emphasizing soil's ability to sustain ecological functions, support life and adapt to environmental change.

This scientific shift has had implications beyond agronomy and soil science. Once soil is understood as a living ecosystem with functions essential to human existence, the question no longer stops at how to exploit soil more efficiently. Another question emerges: do ecosystems possess values and conditions for existence that society ought to respect and protect?

It is from such questions that a new current of thought gradually developed in environmental philosophy and modern law.

.....
... nature is increasingly
seen not merely as an
object of exploitation, but
as an entity that must be
respected, protected and
restored in development
decisions.
.....

2.3. From Land Ethic to Rights of Nature

Changes in how soil and ecosystems are understood have occurred not only in science, but also in environmental philosophy and ecological ethics.

In 1949, Aldo Leopold introduced the concept of the "Land Ethic" in *A Sand County Almanac*. He argued that people should not see themselves as masters of the land, but as members of a broader ecological community that includes soil, water, plants and animals. An action is right when it helps preserve the integrity, stability and beauty of that community.

Building on this foundation, many scholars developed new approaches to the relationship between people and nature. Christopher Stone's famous article *Should Trees Have Standing?* (1972), in particular, asked whether natural entities could be recognized as subjects with rights. Such ideas helped shape the Rights of Nature movement that has emerged in many countries in recent decades.

Several countries and regions have begun recognizing rights of nature or granting legal personality to specific ecological entities. Ecuador's 2008 Constitution recognizes the rights of nature; Bolivia adopted legislation on the Rights of Mother Earth; New Zealand granted legal personality to the Whanganui River; and Spain recognized a special legal status for the Mar Menor lagoon.

Although these cases do not amount to recognition of rights of soil as a distinct category, they reflect an important trend: nature is increasingly seen not merely as an object of exploitation, but as an entity that must be respected, protected and restored in development decisions.



Although natural entities such as rivers, forests and ecosystems have been granted certain legal statuses in some countries, direct recognition of rights of soil remains a new and developing field.

2.4. From academia to legal practice

For a long time, debates on the rights of nature were largely confined to environmental philosophy, law and ecological science. Under growing pressure from environmental crises, however, these ideas gradually moved beyond academia and into policy and legal practice.

A major turning point came in Ecuador, which incorporated the rights of nature into its Constitution in 2008. Bolivia soon followed with laws on the Rights of Mother Earth. Although implementation remains debated, these steps marked a shift from managing resources toward protecting the conditions necessary for ecosystems to exist.

A different approach emerged in New Zealand. Rather than granting broad rights to nature as a whole, the country chose to protect specific ecological entities. In 2017, the Whanganui River was recognized as a legal entity under a co-guardianship arrangement between the State and the Māori community. Similar approaches have recently appeared elsewhere, including Spain's Mar Menor lagoon, which received legal status in response to prolonged environmental degradation.

Alongside rights-of-nature initiatives, many international organizations have begun shifting emphasis from soil exploitation to soil-health protection. The European Union, FAO, ITPS and others have promoted programs to monitor soil health, restore degraded soil and maintain soil's ecological functions over the long term. Although these initiatives do not explicitly use the concept of "rights of soil," they reflect a shared recognition that soil is not an unlimited resource and that the conditions enabling it to perform its living functions must be protected.

Models around the world are not identical. Some jurisdictions grant legal status to natural entities; others emphasize guardianship mechanisms; still others prioritize governance policies based on ecosystem health. Beneath these differences, however, lies an important common point: ecosystems cannot be effectively protected if they are viewed only as economic resources.

Changes in understanding and institutions show that discussions of rights of nature and rights of soil are no longer confined to academia. They are gradually influencing policymaking, environmental governance and ecosystem protection in many countries.

Although natural entities such as rivers, forests and ecosystems have been granted certain legal statuses in some countries, direct recognition of rights of soil remains a new and developing field. Most current initiatives focus on protecting soil health and ecological functions rather than granting soil an independent legal status.

The transition from ideas to institutions also raises new questions. Should every ecosystem be granted legal status? Who should speak for the rights of soil? And how can human development needs be reconciled with nature's ecological limits?



2.5. Continuing debates

Although approaches to rights of nature and rights of soil have advanced considerably in both scholarship and legal practice, the field is still evolving. From philosophical debates and scientific research to institutional experiments in many countries, important questions remain under discussion and have yet to reach broad consensus.

Rights or responsibilities?

One prominent debate is whether soil truly needs to be approached through the language of “rights.” Supporters argue that rights-based language can provide a stronger basis for protecting ecological limits and soil’s living functions. Other scholars contend that the key issue is not to grant soil a new status, but to build effective mechanisms that ensure people fulfill their responsibility to protect and restore it.

Who represents soil?

Even if soil is accepted as a special ecological entity in need of protection, another question arises: who should represent its interests? Because soil cannot speak for the injuries it suffers, protecting its ecological interests necessarily requires the participation of multiple actors, including local communities, scientists, social organizations and the State. This is also a central issue in guardianship models for nature around the world.

How can development be reconciled with ecological limits?

Beyond questions of rights and representation, debate often centers on how to reconcile human development needs with nature’s ecological limits. Most scholars today do not view rights of soil as a concept opposed to development, but as an effort to establish limits that must be respected if ecosystems are to maintain their living functions over the long term.



Photo 9: Coffee grown on fertile soil under an organic and microbial nutrition regime applied since 2018 at Bich Thao Cooperative, Son La. Source: Forest Trends



Despite continuing debate, approaches to rights of soil reinforce an increasingly accepted understanding: soil is not only an economic resource to be exploited, but an ecological foundation that must be maintained if people are to achieve sustainable development over the long term.

Rights of soil can therefore be seen as a new approach that continues to be explored in soil science, ecological ethics and environmental governance.

2.6. Chapter conclusion: Implications for Vietnam

Rights of soil have not yet become a complete doctrine or a widely recognized institutional model. What is unfolding is a search for new approaches to protect soil's living functions in a context where soil degradation, climate change and ecological limits are becoming increasingly evident.

The most important contribution of these debates may not lie in what legal rights have been granted to soil. More importantly, they are helping to change how people understand soil: from a resource to exploit to an ecological foundation that needs to be protected, nurtured and restored.

For Vietnam, the key question is not whether to import any particular model from elsewhere. It is whether we are willing to confront the current condition of our soils. When soil is degrading, losing organic matter and biodiversity, and becoming increasingly dependent on external inputs to maintain productivity, the issue is no longer only about land administration or efficient land use. It is about protecting the ecological foundation that supports the entire agricultural sector and the livelihoods of millions of people.

From this perspective, the search for rights of soil is not primarily about adding another concept to theory or law. More importantly, it reminds us that soil must be protected and nurtured as the very foundation of life. If soil continues to degrade, efforts to build sustainable agriculture will lack a durable foundation.

To protect the future of agriculture, we must first protect soil. And to protect soil, it needs a more rightful place in social awareness, public policy and development decisions.

That is the essence of rights of soil.

”



CHAPTER III

ANCESTRAL ETHICS

HUMANISTIC ECOLOGICAL VALUES IN MODERN AGRICULTURE

In contemporary debates on the rights of nature and rights of soil, many ideas are often regarded as new approaches of our time. Yet the history of how people have related to land shows that awareness of responsibility toward soil did not begin only with modern theories or legal institutions.

Through survival and cultivation, many communities developed principles for relating to soil based on lived experience, observation of nature and responsibility to future generations. Vietnam is no exception.

This chapter revisits humanistic ecological values preserved in farming practices, customary law and Indigenous knowledge as possible guidance for building a more harmonious relationship with soil today.

.....

In ancestral thinking, soil was therefore not merely an object to own or exploit. It was part of a natural order that deserved respect. This spirit was expressed through agricultural beliefs, seasonal rituals and many community conventions governing the use of natural resources.

.....

3.1. Soil in ancestral ethics

Long before concepts such as sustainable development, soil health or rights of nature appeared, soil was already present in Vietnamese life as an inseparable part of livelihood and existence. Soil was not merely where crops were planted, houses built or material wealth created; it was also tied to origins, family memory and the responsibility to pass something on to future generations.

Many traditional farming experiences reflect this view. Our ancestors did not regard soil as a benefit that could be exploited without limit. In traditional farming thought, the use of land was always associated with limits intended to sustain the long-term productivity of fields.



Photo 10: A coffee-growing household practicing soil-nurturing methods in the Central Highlands. Source: Pham Tuan Anh



Ideas such as “using short-term gains to sustain the long term,” “saving something for our children and grandchildren,” and practices of crop rotation and fallowing show that awareness of responsibility toward the future emerged very early.

Notably, these limits were not expressed in the language of science or law, but were transformed into moral and cultural norms. People were constrained not only by immediate interests, but also by responsibilities to the community, ancestors and future generations.

In ancestral thinking, soil was therefore not merely an object to own or exploit. It was part of a natural order that deserved respect. This spirit was expressed through agricultural beliefs, seasonal rituals and many community conventions governing the use of natural resources.

Today, many of these values may no longer survive in their original form. Yet behind practices and experiences passed down through generations lies a message worth reflecting on: people may live from the soil, but cannot endure if they damage the very foundation that sustains them.

... before modern science spoke of ecological limits, many communities had already set limits on themselves in using nature. They never spoke of “rights of soil,” but they recognized that soil has limits that must be respected and that people cannot cross those limits without consequences.

3.2. Ecological limits in traditional knowledge

Throughout the history of many communities, especially Indigenous communities living close to nature, the use of land has never been only a question of yield or output. Production was accompanied by limits shaped by customary law, beliefs, lived experience and community responsibility. From today’s perspective, these can be understood as ecological limits intended to maintain a balance between human needs and nature’s capacity to provide.

The Central Highlands offer a representative example. In the traditional worldview of many Indigenous communities, land, forests and water were not entirely subject to human discretion, but connected to the community, spiritual beings and future generations. Rules surrounding sacred forests, village water sources and seasonal rituals reflected an understanding that the use of nature needed boundaries.

From this understanding, many self-regulating farming practices developed. Rotational fallowing is one example. After several seasons of cultivation, land was returned to nature to restore fertility and regenerate vegetation. Though not explained through modern scientific concepts, the practice shows that communities recognized early on that soil could not be continuously exploited without time to recover.

Traditional knowledge also understood soil, forests and water as organically interconnected. Protecting forests meant protecting water; protecting water meant protecting soil; and protecting soil also meant protecting village livelihoods.



This helped many communities maintain a relative balance between production needs and the ecosystem's capacity for self-recovery.

From today's perspective, these practices may not be fully appropriate in every development context. Yet before modern science spoke of ecological limits, many communities had already set limits on themselves in using nature. They never spoke of "rights of soil," but they recognized that soil has limits that must be respected and that people cannot cross those limits without consequences.

3.3. Rights of soil through the lens of ancestral ethics

The concept of "rights of soil" has appeared in academic and legal debates only in recent decades. Yet a deeper look at how earlier generations related to soil reveals that many foundational values of this approach have existed in different forms for a very long time.

First is the recognition that soil is not an unlimited resource. In traditional life, this was expressed through farming practices, customary rules and codes of conduct designed to avoid exploiting soil beyond nature's capacity to endure. Alongside this was an awareness of intergenerational responsibility: land was not only property to be used, but capital to be protected and passed on to descendants.

Another value frequently present in traditional knowledge is respect for nature's limits. People were not viewed as actors free to decide everything concerning land, forests or water, but as members of a broader ecological order.

Ancestral ethics and the concept of rights of soil, of course, belong to different frames of reference. One emerged from lived experience, Indigenous knowledge and community cultural norms; the other from developments in soil science, environmental philosophy and modern law. Yet the two approaches share important points of intersection. Both aim toward a common goal: protecting the conditions that allow soil to continue sustaining life.

Rights of soil are therefore not entirely alien to Vietnamese culture. What is new lies not in the underlying values themselves, but in how they are expressed and institutionalized in the context of modern society.



CHAPTER IV RIGHTS OF SOIL

CONCEPTUAL FRAMEWORK AND FOUNDATIONAL PRINCIPLES

The analyses in the preceding chapters show that, although they begin from different perspectives - the reality of soil degradation in the Central Highlands, academic debates around the world, and ancestral ethics in relating to soil - they all lead to a shared understanding: soil is not merely a means of production. It is the ecological foundation that sustains life and a condition for the very existence of agriculture.

That understanding, however, will be difficult to translate into change unless it is developed into a framework capable of guiding how people relate to soil. This monograph therefore proposes the concept of “rights of soil” as an effort to reposition soil within contemporary thinking on governance and agricultural development.

This is not a complete doctrine or an established legal institution. It is first of all a conceptual framework intended to help answer a fundamental question: if soil is a foundation of life, how should people relate to it so that its living functions can be maintained over the long term?

4.1. Foundational principles and terminological boundaries

To clarify the substance of this concept, several foundational frames of reference need to be defined in order to avoid inconsistent interpretations.

First, this monograph uses “soil” in the pedological sense: the natural material layer formed at the Earth’s surface in which physical, chemical and biological processes sustain life. This differs from “land,” a term commonly used in public administration, law and spatial planning to refer to territorial space associated with rights of ownership, use and exploitation.

This distinction matters because most debates concerning land have long centered on human rights to land - ownership, use, transfer and access to land resources. By contrast, the concept of “rights of soil” in this monograph addresses a different issue: the ecological conditions that must be secured so that soil can remain alive and continue performing its foundational functions.

Under this approach, soil is regarded as a distinctive ecological subject. Unlike traditional legal subjects, soil has neither will nor the capacity to represent itself. Yet as the foundation that sustains life, soil has minimum conditions for existence that deserve respect and protection.



Accordingly, “rights of soil” do not mean granting soil a legal status equivalent to that of human beings, nor do they deny legally recognized ownership or land-use rights. Nor is the approach intended to personify soil as an entity with independent will or interests.

The core of the concept is recognition that soil has its own ecological limits and minimum conditions for existence that must be respected. When these limits are exceeded over long periods, not only is the soil damaged; human production systems, livelihoods and development also face increasingly serious consequences.

From this approach, the monograph is built around several foundational principles.

First, the principle of respecting ecological limits

All exploitation and use of soil should remain within the carrying capacity and recovery capacity of the soil system.

Second, the principle of intergenerational responsibility

Soil is not only a resource serving the needs of the present generation; it is also an ecological foundation that must be preserved for future generations.

Third, the principle of responsible governance

The right to use land always carries a responsibility to maintain soil health and its capacity for long-term regeneration.

Fourth, the precautionary principle

Preventing soil degradation should take priority over repairing damage after it has occurred.

These principles are not intended to replace existing land-management regulations. Rather, they provide a complementary frame for viewing soil through ecological and social-responsibility lenses. On that basis, “rights of soil” can be understood not as a moral slogan or symbolic declaration, but as a cognitive framework to guide governance and development decisions at a time when soil’s ecological limits are becoming increasingly apparent.



Photo 12: Coffee hills in the Central Highlands. Source: Forest Trends



4.2. A conceptual framework for “Rights of Soil”

If the preceding chapters explained why soil needs to be understood differently, the following section focuses on defining the substance of the concept of “rights of soil.”

The concept of Rights of Soil

Rights of Soil are approached as an ecological-governance conceptual framework that recognizes minimum conditions for the existence of soil ecosystems that should be protected in order to maintain their physical structure, chemical balance, biological diversity and natural capacity for recovery.

On this basis, the framework shapes a new relationship between people and soil, in which resource management and exploitation must go hand in hand with responsibility for maintaining the conditions that sustain soil life and ecological functions.

The concept does not deny human ownership or land-use rights. Its focus is on establishing ecological limits that must be respected in the exploitation, management and use of soil, so that development needs do not undermine the soil system’s ability to maintain its basic living functions over the long term.

Under this approach, rights of soil do not represent an unlimited extension of rights to nature. The focus is on identifying the minimum conditions that must be protected if soil is to remain alive. These conditions are summarized as three basic intrinsic rights corresponding to the three foundational dimensions of soil health: physical, chemical and biological.

The right to maintain physical structure

Physical structure is the first foundation of soil health. Healthy soil needs to maintain porosity, water infiltration and retention, gas exchange, and resilience to erosion and compaction. When this structure is damaged, soil gradually loses its ability to perform basic ecological functions, leading to declines in the chemical and biological processes that take place within it.

Here, the right to maintain physical structure means the right of soil to be protected against impacts that degrade or destroy the natural structure of the soil system. This requires land-use activities to respect soil carrying capacity and to limit cultivation or exploitation practices that cause erosion, compaction, hardening or loss of topsoil.

The right to maintain chemical balance

Beneath the soil surface is a complex system of chemical reactions that determines nutrient supply, regulates the habitat of soil organisms and maintains natural fertility. Prolonged chemical imbalance can lead to acidification, nutrient depletion or accumulation of harmful substances beyond the soil system’s carrying threshold.



Accordingly, the right to maintain chemical balance means the right of soil to be protected from impacts that disrupt the chemical equilibrium needed for the soil system to function normally. It aims to maintain a healthy soil environment, limit pollution and preserve the long-term capacity for nutrient regeneration.

The right to maintain biological life

Soil is more than a collection of minerals and water. It is also the habitat of countless microorganisms, symbiotic fungi, soil fauna and biological networks that quietly sustain essential life cycles. These biological communities give soil its vitality and determine the soil ecosystem's capacity for self-recovery.

The right to maintain biological life means the right of soil to have the conditions needed for soil organisms to continue to exist, develop and perform their ecological functions. It aims to conserve soil biodiversity, maintain organic matter and protect the foundational biological processes occurring beneath the surface.

It should be emphasized that the intrinsic rights proposed here are not rights in the traditional legal sense. They are principles of ecological protection that define limits people need to respect in exploiting and using soil. Rights of soil are therefore not the end of a debate, but the starting point for a new approach to soil in agriculture and natural-resource governance.

Establishing soil's intrinsic rights, however, addresses only half the issue. A right has meaning only when there are actors responsible for respecting and implementing it. If soil is treated as something that deserves protection, the next question is no longer what rights soil has, but what people must do to ensure those rights are respected in practice.

4.3. From rights of soil to human responsibilities

Soil cannot speak for its own rights. Nor can it protect itself from mounting pressures of exploitation. Therefore, if rights of soil are recognized as an ecological-governance principle, responsibility for ensuring those rights rests first and foremost with people.

The first responsibility is to respect soil's ecological limits

Each intrinsic right proposed in this monograph reflects an ecological limit that must be maintained if soil is to continue performing its living functions. All exploitation and use of soil should therefore avoid causing erosion, pollution, biodiversity loss or impacts beyond the soil system's capacity for self-recovery.



Photo 13: Soil covered with microbially composted coffee pulp and coffee husks. Source: Forest Trends



The second responsibility is to avoid harm beyond soil's capacity for self-recovery

Like every ecosystem, soil has a certain capacity to regulate and regenerate itself. That capacity, however, is not unlimited. When exploitation pressure continuously exceeds carrying thresholds over long periods, mechanisms of self-recovery gradually weaken or disappear. The precautionary principle should therefore take precedence over remedial measures. Preventing soil degradation is always less costly and more effective than restoring severely damaged soil.

The third responsibility is to preserve soil as an intergenerational ecological inheritance

Soil is not only a resource serving present development needs; it is also the ecological foundation of future generations. This view is not unfamiliar to ancestral traditions, in which land was often regarded as valuable property to be protected and handed down to descendants. From a rights-of-soil perspective, that responsibility expands: it is not enough to preserve land-use rights; the soil's capacity to live must also be preserved. Short-term economic gains therefore cannot justify sacrificing foundational ecological functions whose recovery may take many years or even generations.

Because soil cannot represent its own interests, protecting its intrinsic rights always requires the participation of many different actors. This is also the basis for discussions of soil guardianship and forms of representation for the soil system's long-term interests in governance practice.

In practice, this responsibility does not belong to any single actor. Farmers, businesses, government agencies, scientists and society as a whole all have roles in maintaining the conditions that allow soil to continue performing its living functions. The degree and form of responsibility may differ, but all should serve the common goal of maintaining soil-system health as a foundation of sustainable development.

“ ”

*Rights of soil are not about expanding the power of soil, but
about limiting human power over soil.*

They remind us that the right to exploit must always be accompanied by a responsibility to preserve; the right to use must come with a duty to conserve; and every present benefit must be considered in relation to the soil's ability to continue existing in the future.

Through this shift, rights of soil cease to be a purely academic concept. They become a reminder of human responsibility toward the ecological foundation that quietly supports life, while opening a new approach for reconciling development needs with the imperative to protect the conditions that make life on Earth possible.



CHAPTER V VIETNAM CONTEXT

LEGAL GAPS AND A PROPOSED SOIL GUARDIANSHIP MECHANISM

The preceding chapters show that rights of soil did not emerge in a vacuum. The idea grew from the reality of soil degradation, debates on the rights of nature, and the need for a new approach to the ecological foundation that sustains life. Yet the value of a concept lies not only in its academic meaning, but also in its ability to engage with practice. In Vietnam today, rights of soil remain a relatively new concept. Examining social responses, identifying legal gaps and discussing a soil guardianship mechanism are therefore necessary steps in assessing how this approach might be applied in practice.

... rights of soil are not opposed to human rights. On the contrary, they arise from the recognition that the human future depends on soil health.

5.1. Rights of soil and social responses

If the concept of “rights of soil” were raised in public discussion in Vietnam today, the first response would probably be surprise. Many people might ask: can soil really have rights? How can an inanimate entity such as soil have rights? And if soil has rights, who represents them?

Such reactions reflect a long-standing and common view: soil is primarily property or a means of production. Its value is typically assessed by its ability to generate products, income and other economic benefits. Talking about rights of soil can therefore feel unfamiliar, because the concept of rights is usually associated with human beings or legal subjects capable of expressing will and participating in social relations.

Rights of soil, however, do not seek to personify soil or grant it rights equivalent to those of people. The approach seeks to recognize conditions for existence that must be protected if humans wish to maintain the ecological functions that soil provides over the long term.

Rights of soil are therefore not opposed to human rights. On the contrary, they arise from the recognition that the human future depends on soil health. When soil degrades,



Photo 14: Boundary between natural forest and a specialized production area. Source: Forest Trends



the consequences extend beyond the soil itself and directly affect agricultural production, water resources, biodiversity and community livelihoods.

The more important question may therefore no longer be whether soil should have rights, but how to protect the conditions necessary for soil to remain alive amid growing exploitation pressure.

5.2. Legal gaps in protecting soil health

In recent years, alongside demands for sustainable development and environmental protection, Vietnam's legal system has gradually added provisions related to soil protection, prevention of soil degradation and appropriate land use. The 2024 Land Law, the Law on Environmental Protection and their implementing regulations all address responsibilities to protect soil, prevent degradation and pollution, and restore areas where soil quality has declined.

These provisions show that soil is no longer viewed solely as a resource for production; it is increasingly receiving attention from environmental and sustainable-development perspectives.

From the perspectives of soil health and rights of soil, however, several notable gaps remain.

First, most current regulations still approach soil mainly as a resource to be managed and used efficiently. Soil-protection objectives are often linked to maintaining land productivity, preventing pollution or ensuring socio-economic efficiency. The ecological functions of soil as a living ecosystem, meanwhile, have yet to become a true center of management mechanisms.

A second gap is the lack of tools for regular, systematic monitoring and assessment of soil health. In production practice, many signs of soil degradation are identified only when crop yields decline or environmental problems become obvious. Management therefore tends to respond to consequences rather than prevent them early.

A third gap concerns responsibility for protecting soil's long-term interests. Although the law establishes responsibilities for land users and government agencies, there is currently no specialized mechanism dedicated to monitoring, warning and protecting soil health with a long-term perspective extending beyond production cycles or administrative terms.

A considerable gap also remains between legal provisions and production practice. Many farming activities still prioritize maximizing short-term yields, contributing in many places to excessive chemical fertilizer use, loss of organic matter, soil erosion and declining soil biodiversity.

These gaps create a need to explore mechanisms that can better represent and protect soil's long-term interests. This provides the basis for the soil-guardianship proposal discussed in the next section.



.....
If soil is a foundation of life,
society needs mechanisms
capable of protecting its
long-term interests
alongside managing and
using it.

The preceding analysis points to an important reality: if soil is recognized as a living ecosystem that needs protection, safeguarding its long-term interests cannot rely only on traditional management mechanisms or short-term production decisions.

The question raised in earlier chapters therefore returns: who will speak for the rights of soil?

.....
Soil cannot represent the injuries it suffers. Yet changes in organic-matter content, erosion, water-holding capacity, biodiversity and signs of pollution are signals that reflect the condition of the living soil system. The issue is therefore not to speak on behalf of soil, but to enable society to recognize and respond to these signals through science and management practice.

This monograph therefore proposes soil guardianship as an approach to monitoring, warning and protecting soil health over the long term. In essence, guardianship does not focus on policing land users; it focuses on tracking indicators that reflect the condition of the living soil system, allowing degradation risks to be identified early and appropriate solutions to be proposed.

At an initial stage, soil guardianship could be conceived as an advisory and policy-review institution rather than a new regulatory agency. A multi-stakeholder Soil Guardianship Council involving scientists, government agencies, communities of land users and sources of Indigenous knowledge could be an initial option. Its purpose would not be to issue administrative orders or add another layer of bureaucracy, but to provide early warning, scientific recommendations and a space for dialogue to protect soil's long-term interests.

For Vietnam, this is only an initial proposal. Any future guardianship mechanism would need careful study of its legal basis, feasibility and compatibility with the existing governance system.

Nevertheless, the idea of soil guardianship suggests an approach worth considering: if soil is a foundation of life, society needs mechanisms capable of protecting its long-term interests alongside managing and using it. Guardianship, in this sense, is not an expansion of the administrative apparatus, but first an expansion of society's responsibility toward soil - through dialogue among science, policy, communities and Indigenous knowledge so that long-term ecological interests are not overwhelmed by immediate economic objectives.





CHAPTER VI

RIGHTS OF SOIL

GRATITUDE AND THE DUTY OF RECIPROCITY

After discussions of soil degradation, rights of nature, protection mechanisms and soil guardianship, a deeper question remains: why should people care about rights of soil?

The answer may not lie only in law, policy or governance tools. It also begins with recognizing that people live because of soil, exist because of soil, and bear responsibility toward the foundation that has quietly sustained them across generations.

At a deeper level, rights of soil are not only a legal issue; they are also a story of gratitude and the duty of reciprocity.

6.1. Gratitude as the starting point

Rights of soil do not begin with law. They begin with the recognition that soil provides not only economic value, but the foundation of life. Ultimately, every responsibility toward soil begins with that recognition.

Before soil became the subject of management policies or academic debate, it was first and foremost the foundation that sustained human life from the earliest days of history.

Every agricultural civilization was built on soil. The food people eat each day, water retained in ecosystems, forests, grasslands and fertile cultivated areas all exist because of quiet biological processes taking place within soil. In this sense, soil is not merely the ground on which people live; it is one of the foundations that makes human existence possible.

Our ancestors understood this relationship very early. In traditional agricultural life, soil was not viewed merely as a means of production. It was linked to livelihoods, family, ancestors and the future of descendants. Many customs, rituals and farming practices were formed not only to pray for favorable harvests, but also to express respect for nature and the resources sustaining community life.

Today, science and technology allow people to achieve yields previous generations could scarcely imagine. At the same time, it is easy to forget how deeply we depend on basic ecological foundations. When food appears on store shelves and agricultural inputs can be bought with ease, soil can become so familiar that it receives little attention.

Rights of soil do not begin with law. They begin with the recognition that soil provides not only economic value, but the foundation of life. Ultimately, every responsibility toward soil begins with that recognition.



..... The duty of reciprocity is not an obligation imposed from outside. It comes from understanding that what we receive today is the result of accumulation from the past, and that what we leave behind will help shape the future.

6.2. The duty of reciprocity as the foundation

Gratitude helps people recognize that they receive more from soil than is usually visible. But recognition alone is not enough to build a sustainable relationship between people and soil.

In agricultural cultures, gratitude is commonly accompanied by reciprocity. When people receive something of value, they also assume a responsibility to preserve, replenish and pass it on. This is not only a moral principle governing relations among people; it can also be extended to the relationship between people and nature.

..... Soil has sustained people for generations. Yet every harvest also takes away some of soil's vitality. Under natural conditions, these losses can be restored over time. When the intensity of exploitation exceeds soil's capacity for self-renewal, however, the balance begins to break down. This is when the duty of reciprocity becomes both an ethical and ecological requirement.

Giving back to soil does not mean returning exactly what has been taken. More important is ensuring that soil use is always accompanied by efforts to maintain and restore soil health. Within a rights-of-soil approach, the duty of reciprocity is the other side of the right to protection. If soil has conditions for existence that must be respected, people also have a responsibility to preserve those conditions.

The duty of reciprocity is not an obligation imposed from outside. It comes from understanding that what we receive today is the result of accumulation from the past, and that what we leave behind will help shape the future. This connection forms the deep ethical foundation of rights of soil.

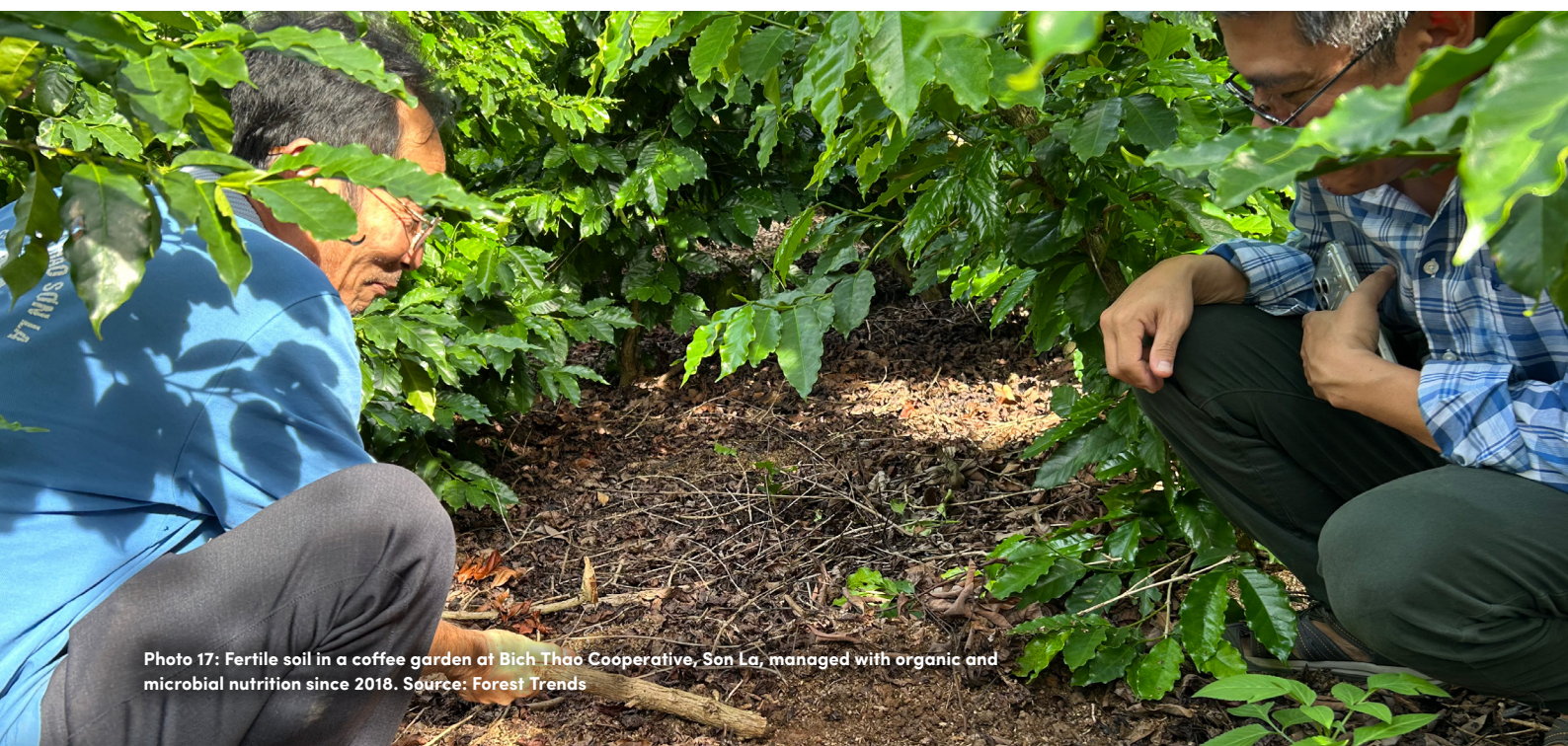


Photo 17: Fertile soil in a coffee garden at Bich Thao Cooperative, Son La, managed with organic and microbial nutrition since 2018. Source: Forest Trends



6.3. Intergenerational commitment and humanistic ecological responsibility

Gratitude helps people recognize that they live because of soil. The duty of reciprocity reminds them of their responsibility to preserve what soil has given. But for these values to move beyond awareness, they must be translated into lasting commitments across generations.

Soil is one of the few inheritances for which every generation is both beneficiary and custodian. We receive today's soil from those who came before us and are responsible for passing it on to those who follow. How we treat soil is therefore never only a question of the present; it is also an intergenerational choice.

Intergenerational commitment begins with a pledge not to turn today's ecological losses into tomorrow's burden. It means choosing development within soil's carrying capacity, pairing soil use with soil restoration, and ensuring that short-term benefits do not undermine the living capacity of the soil system over the long term.

“

Perhaps rights of soil gain their fullest meaning only when they are transformed into gratitude for what soil has given us, a duty of reciprocity for what people have received from soil, and a commitment to preserve healthy soil for future generations. This is not only an ecological responsibility, but also a moral choice in humanity's own development journey.

”

Recognizing rights of soil is not merely about expanding the scope of law or adjusting resource governance. At a deeper level, it is about restoring a humanistic ecological ethic in which people do not only receive from soil, but also bear responsibility to give back for what soil has provided.



CONCLUSION

Soil cannot demand rights for itself. That is precisely why people must learn to listen to the signals from soil and treat it with responsibility, respect and a sense of fairness.

After all the discussion of legal, governance and development dimensions, “rights of soil” begin not with law, but with gratitude toward the soil that has sustained us - and with a duty of reciprocity so that future generations may still inherit soil that is healthy and full of life.

Ultimately, rights of soil are not only a story about soil, but also a story about our own future.



REFERENCES

1. Food and Agriculture Organization of the United Nations (FAO). Status of the World's Soil Resources (SWSR) - Main Report. Rome: FAO, 2015.
2. Food and Agriculture Organization of the United Nations (FAO). Soil biodiversity and ecosystem services. Rome: FAO, 2020.
3. United Nations Convention to Combat Desertification (UNCCD). Global Land Outlook, Second Edition. Bonn: UNCCD, 2022.
4. IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services). Global Assessment Report on Biodiversity and Ecosystem Services. Bonn: IPBES Secretariat, 2019.
5. Altieri, Miguel A. Agroecology: The Science of Sustainable Agriculture. CRC Press, 2018.
6. Gliessman, Stephen R. Agroecology: The Ecology of Sustainable Food Systems. Third Edition. CRC Press, 2015.
7. Rodale Institute. Regenerative Agriculture and the Soil Carbon Solution. Pennsylvania, USA, 2020.
8. Western Highlands Agriculture and Forestry Science Institute (WASI). Report on the status of soil degradation and sustainable management of basalt soils in the Central Highlands. Dak Lak, various years.
9. Ministry of Agriculture and Rural Development. Program on ecological agriculture, modern rural areas and civilized farmers. Hanoi, 2022.
10. Le Minh Hoan. Articles, speeches and policy discussions on ecological agriculture, soil health and sustainable development at sectoral forums, 2021-2025.
11. Stone, Christopher D. Should Trees Have Standing? Toward Legal Rights for Natural Objects. Southern California Law Review, Vol. 45, 1972.
12. Lal, Rattan. Rights of Soil. Journal of Soil and Water Conservation, Vol. 74(6), 2019.
13. van Mansvelt, Jan Dirk et al. The Soil as a Living Entity: Rights of Soil and Ecological Ethics. Organic Agriculture Journal, 2021.
14. Peake, Lewis & Robb, Charlotte. Rights of Soil: Reframing Land Through Ecological Jurisprudence. Environmental Humanities, 2021.



For comments or questions, please email:
mekongrg@gmail.com

For more information on other reports,
please visit: mkrq.org
or scan the QR code

This document was produced with financial support from the United Kingdom. The information presented in this document is the responsibility of the author and does not reflect the views of Forest Trends or the donor.

