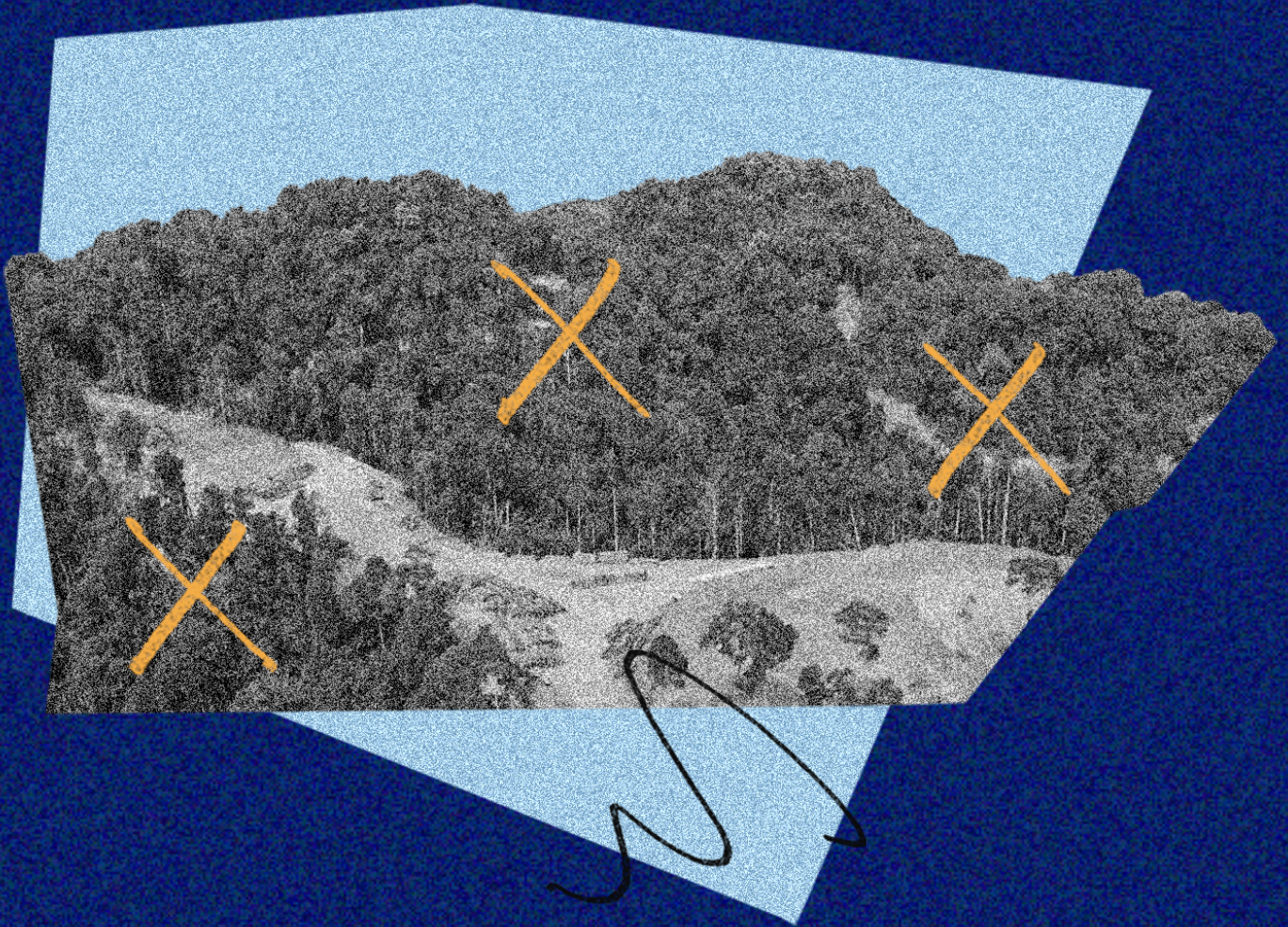




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# MARKETS AND FOREST:

Regulatory  
Opportunities  
in the Amazon

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*Report 4:*

**LAND**

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# MARKETS AND FOREST:

## Regulatory Opportunities in the Amazon

*Report 4:*

# LAND

## Introduction

Regulating sectors that impact forests is essential to prevent, reduce, and combat environmental crimes in the Amazon. Illegality does not lie in natural resources themselves, but in how they are extracted, processed, transported, and traded. When markets for gold, timber, cattle, and land operate without effective regulation, illicit practices make their way into legitimate supply chains and often face little consequence. Strengthening the regulatory framework is a concrete way to address criminal activities driving forest loss.

This report draws on the study *Markets and Forest* (Igarapé Institute, 2025), which analyzed how eight countries in the Amazon Basin—**Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, and Venezuela**—regulate these markets. Countries in the basin are not starting from scratch. In each country, there are rules, registries, and practices that, with adjustments, resources, or better coordination, can strengthen regulation. Many of these tools are little known beyond their national contexts; others are recent and not yet documented. This report compiles these initiatives and presents them as regulatory opportunities, drawing on concrete experiences across the region.

This analysis does not assess the effectiveness of these tools or how they operate in practice, which would require dedicated field studies in each country. Its value lies in bringing together what exists but remains scattered, showing how different countries address similar challenges, and in offering options that can be adapted, combined, or strengthened to fit each national context. Rather than judging what works, it invites exploration of what is available.

The report is organized into three parts: an overview of the land market in the Amazon, a set of regulatory opportunities illustrated by experiences from countries in the basin, and a final section synthesizing the patterns that emerge from this comparative review.

# Context of the Land Market in the Amazon Region

Illegal land appropriation is one of the most entrenched pressures in the Amazon. Its effects are far-reaching: it drives deforestation, disrupts land tenure and land use patterns, generates legal uncertainty, and directly affects the territorial rights of Indigenous and peasant communities. The report *Markets and Forest (2025)* shows that countries in the region have adopted different legal frameworks to sanction land usurpation, invasion, trafficking, and the financing of irregular occupations. However, the reach and level of implementation of these frameworks vary considerably across countries.

Unlike other markets, such as gold mining, timber, and cattle ranching, land is not an extractive activity. Illegality in land markets is associated with access, documentation, and changes in land use. Its governance therefore affects a wide range of productive activities. Illegality lies in how access is obtained: forged documents, corruption of public registries, or the occupation of prohibited areas. What is considered legal or illegal may also change over time, making it difficult to trace the irregular origins of properties and allowing land acquired through fraudulent means to enter formal markets as though it were legitimate.

Illegal land appropriation in the Amazon responds to multiple ways in which land generates value. Illegal deforestation often precedes occupation, claims to property rights, and the subsequent increase in land value, particularly in public forests, protected areas, and Indigenous territories. According to MapBiomass, 90% of the area deforested in the Brazilian Amazon between 1985 and 2023 was first converted to pasture.

As highlighted in the report *Markets and Forest (2025)*, land is also increasingly appropriated to enable access to emerging markets, such as carbon credits and projects aimed at reducing emissions from deforestation, in which territorial control can generate value without necessarily requiring forest conversion. This process carries risks associated with what has been termed “green grabbing,” in contexts where weak monitoring systems and barriers to land formalization allow irregular occupation to take hold.

Land information systems add another layer of complexity. All countries record land transactions, but the availability of and access to these records are uneven. In many cases, the data are accessible only to government agencies or require formal requests. This opacity, combined with the potential capture of administrative bodies by land market actors, reduces the state’s ability to anticipate and contain irregular occupation.

Although most countries have legal provisions prohibiting and penalizing different forms of irregular land occupation, their capacity to enforce them varies. Fragmented land registration systems persist, coordination between agrarian, environmental, and criminal authorities remains limited, and enforcement mechanisms often fail to anticipate or halt occupation before it becomes established, weakening land governance across the region.

# Opportunities to Strengthen Regulatory Framework

Countries in the region have developed measures to structure land governance, address the networks and mechanisms that sustain irregular land appropriation, strengthen territorial enforcement, and protect the rights of Indigenous and peasant communities. These initiatives include criminal provisions, administrative procedures, cadastre and land registry systems, mechanisms for interinstitutional coordination, and judicial measures for territorial protection. This section presents them as regulatory opportunities, illustrated with experiences from **Bolivia, Brazil, Colombia, Ecuador, Peru, and Venezuela.**

## 1. Regulating the Sector: Legal Clarity and Sanctions for Land Occupation, Trafficking, and Land Use

In several Amazonian countries, a first step has been establishing clear legal definitions that distinguish legitimate occupation from land invasions, land trafficking, and unauthorized land use. In contexts where informality, overlapping regulations, and limited state presence have historically coexisted, precise legal categories help reduce discretion and limit the gray areas that facilitate the expansion of irregular occupation.

Normative clarity alone does not resolve the problem of land appropriation, but it provides a foundation for identifying which types of conduct are subject to sanction. It also helps clarify which forms of occupation that require intervention, and the institutions responsible for responding based on the type of irregularity involved.

In Bolivia, Law 477 of 2013 (*Avasallamiento y Tráfico de Tierras*), establishes a framework to protect private, collective, and state property from illegal occupation and irregular land transactions in both urban and rural areas. Article 337 bis of the Penal Code criminalizes land trafficking, establishing prison sentences of three to eight years for acts such as the purchase, sale, or negotiation of land without property rights, including public property and state lands. In practice, these provisions are usually invoked once conflicts have already become visible, while administrative processes that may ultimately consolidate initially irregular appropriations tend to operate with less oversight.

In Ecuador, the Comprehensive Organic Criminal Code (COIP) criminalizes several forms of illegal land trafficking and occupation, including cases affecting community and Indigenous territories. Article 201 of the COIP establishes prison sentences of five to seven years for those who promote or organize illegal settlements on land to which they have no legal title. The Organic Law on Territorial Planning, Land Use and Land Management classifies administrative acts that violate land protection regulations as serious infractions. In practice, enforcement has focused primarily on visible occupations, with more limited reach in addressing the networks that facilitate these processes and with insufficient coordination between criminal, agrarian, and territorial authorities.

The precision of these definitions—what constitutes invasion, what constitutes trafficking, and when sanctions apply—provides a basis for reducing interpretive gaps and guiding more consistent interventions. In practice, however, these definitions have mainly been used to sanction individual conduct. Sustained enforcement targeting the networks and administrative processes that facilitate land appropriation remains the exception rather than the rule.

## 2. Addressing the Drivers of Illegal Land Appropriation: Financing and Intermediary Networks

Illegal land appropriation in the Amazon does not depend only on those who carry out the physical occupation. Behind it are networks of intermediaries, financiers, and actors who facilitate fraudulent procedures, promote invasions, or broker transactions involving land that cannot legally be sold. Without intervention targeting these structures, appropriation tends to persist, even where the state maintains a presence in the territory.

Where sanctions focus only on the direct occupier, the structure that organizes and profits from illegal land appropriation remains intact. Several countries in the region have begun to expand criminal liability to reach these actors further up in the chain.

In Colombia, Article 263 of the Penal Code criminalizes the invasion of land or property belonging to another person. It establishes prison sentences and fines when the act is committed with the intent of obtaining unlawful gain, with aggravated penalties when the conduct involves state property or the use of violence. Under general principles of criminal liability, prosecution can extend to those who promote, finance, or direct such invasions. This allows authorities to hold accountable not only the direct occupier but also those who organize and coordinate the operation. By design, the offense of land invasion primarily targets the act of physical occupation. When irregular land appropriation forms part of broader criminal schemes, authorities often combine the charge with offenses related to organized crime, money laundering, or document forgery.

In Venezuela, the Penal Code sanctions the invasion and usurpation of real estate, with differentiated penalties depending on the seriousness of the act and with aggravated penalties for those who promote, organize, or direct such occupations. In addition, the Land and Agricultural Development Law provides for the forfeiture of agrarian rights granted by the National Land Institute and bars access to public credit when rules governing land use are violated through misrepresentation or fraud. In practice, intervention usually targets the initial occupation. The entrenchment of these appropriations over time may be influenced by administrative decisions related to land adjudication, recognition of productive use, or the granting of agrarian benefits, all of which are subject to uneven levels of oversight.

Expanding criminal liability to reach the links in the networks that sustain appropriation—financiers, intermediaries, and promoters—offers a pathway for intervening in the economic structure behind illegal occupation. This is particularly relevant in contexts where demand for land, financing mechanisms, and channels for fraudulent transactions remain active. In practice, however, these provisions tend to be applied to individual cases. The systematic identification of recurring actors and financing mechanisms remains limited.

## 3. Territorial Enforcement: Cadastre, Land Registries, and Administrative Recovery of Properties

Monitoring land occupation in the Amazon is not limited to field operations. Land registries, cadastral information, and administrative mechanisms for property recovery offer a complementary means of identifying and addressing irregular occupation at an early stage.

In Ecuador, administrative instruments aimed at territorial planning rely on the cadastre, property registries, and land use verification. Together, these tools can help distinguish formal

titleholders, informal possessors, and illegal occupants, providing a basis for the recovery of irregularly held properties. The usefulness of these mechanisms depends on keeping information current and ensuring coordination between municipalities and national authorities.

In addition, notary offices, as entities required to comply with anti-money laundering regulations, must report suspicious transactions to the Financial and Economic Analysis Unit. This creates an additional detection channel which, although not designed specifically to address land trafficking, can help identify patterns of irregular land concentration or anomalous increases in land values.

Territorial information consolidated in Brazil—particularly regarding public lands—constitutes a key input for identifying irregularities. Records from the National Institute for Colonization and Agrarian Reform (Incra), the National Foundation for Indigenous Peoples (Funai), and environmental agencies make it possible to distinguish settlements, Indigenous lands, conservation units, and undesignated public lands. This information enables authorities to detect overlaps and irregularities in undesignated lands, opening up the possibility of early intervention. Territorial information is particularly relevant given that undesignated public lands make up a significant share of the Amazon territory and are the site of a disproportionate number of invasions and speculative processes. The main limitation lies in the gap between registry-based detection and timely administrative action.

In Colombia and Bolivia, undesignated public lands play a similar role in Amazonian territorial dynamics. In Colombia, *baldíos*—undesignated public lands administered by the National Land Agency—are concentrated on the expanding agricultural frontier, where procedures for clarification, registration, and administrative recovery allow authorities to distinguish between de facto occupation and formally titled land, facilitating the early identification of irregularities on public lands. In Bolivia, public lands are subject to land

regularization processes and to a specific legal framework for addressing land invasions, established under Law 477. In both cases, the existence of distinct categories of public land and associated administrative mechanisms provides a regulatory basis for early intervention in cases of irregular occupation. In practice, however, the reach of these mechanisms depends on updated territorial information and the ability to link registry-based detection with effective action on the ground.

Strengthening cadastral systems, administrative registries, and property recovery procedures enables earlier intervention in cases of irregular occupation and gives authorities clearer criteria for distinguishing legal, informal, and illegal situations. Territorial information already exists across the region, as illustrated by the instruments available in Ecuador and Brazil. The critical challenge is ensuring that this information is updated at the same pace as occupation advances and translated into administrative measures before the property is absorbed into the formal land market.

## 4. Coordinating Fragmented Actors: Justice, Cadastre, Environmental and Agrarian Authorities

The institutional response to illegal land appropriation involves multiple entities—judicial authorities, cadastral institutions, environmental agencies, and land administration authorities—which in practice operate with different information and apply their own criteria. Aligning approaches, sharing information, and mounting coordinated responses is difficult when each institution operates according to its own mandate and procedures, although regional experience shows that such coordination is possible. Its functioning, however, depends not only on the willingness of institutions to coordinate, but also on the existence of shared operational frameworks and adequate resources.

In Colombia, the National Land Agency (ANT) is responsible for the administration and formalization of rural land, including the formalization, recovery, and administration of undesignated public lands, as well as actions to protect ethnic territories. Its interventions rely on administrative, cadastral, and registry-based criteria that help distinguish historical occupations, land-use conflicts, and speculative land appropriation. Its mandate, however, is largely limited to public lands and narrows considerably once land passes into private ownership.

When activities with potential criminal implications are identified, the ANT refers the information to the Office of the Attorney General and other relevant authorities, allowing coordination to be initiated at an early stage and linked to environmental management. In addition, the Office of the Inspector General has promoted coordination mechanisms with the Attorney General's Office and the Superintendence of Notaries and Registries to address irregular land concentration in the Amazon. These mechanisms, created relatively recently, have operated intermittently and have not yet consistently enabled early intervention before irregular appropriation and speculative land deals become entrenched.

Peru has general institutional frameworks that allow coordination among agrarian, environmental, and judicial authorities, enabling sanctions to be applied when significant environmental or territorial impacts are documented. Extending this coordination to the early stages of occupation and land-use change would help prevent irregular appropriation from becoming established. Doing so, however, would require establishing shared operational criteria and a tailored framework for managing Amazonian lands, where territorial and institutional conditions are particularly challenging.

In other countries in the region, existing practices offer concrete pathways for coordination among fragmented actors. These include the identification of undesignated public lands, cross-referencing agrarian registries with environmental alerts, the use of notarial or registry information as early warning signals, and administrative referrals to judicial authorities when irregularity are detected. While these practices create operational entry points for coordinated responses in territories under intense land pressure, they do not yet constitute integrated systems.

Strengthening coordination among justice systems, environmental authorities, cadastral institutions, and land administration entities can help bring greater coherence to the state's response to a problem that cuts across institutional mandates. Entry points for this coordination already exist across the region; turning them into stable mechanisms that operate proactively remains one of the central challenges.

## **5. Protecting Indigenous and Community Territories: Titling, Demarcation, and Judicial Mechanisms**

In the Amazon, Indigenous and community territories face pressures ranging from physical invasion to land trafficking and irregular transfers. Titling, demarcation, and judicial mechanisms for territorial protection provide a legal basis for communities and the state to respond to these pressures, although formal protection alone does not fully address the conditions that allow these pressures to persist.

In Bolivia, Law 477 of 2013 incorporates provisions to protect public lands and the territories of Indigenous and peasant peoples from invasions and land trafficking, including sanctions for the irregular transfer of properties designated for communities. This framework is

complemented by the specialized jurisdiction of the Agro-Environmental Tribunal, which has the authority to protect collective rights and to coordinate with Indigenous authorities and organizations.

These instruments are usually invoked in response to conflicts or formal complaints. Although the Agro-Environmental Tribunal has adopted precautionary measures in specific cases to halt illegal activities, its actions are reactive rather than preventive. They respond to judicial proceedings rather than to a system of continuous preventive monitoring in contexts of persistent territorial pressure on collective lands.

In Colombia, Indigenous territories have enjoyed enhanced constitutional protection since 1991. The Constitution recognizes the country's ethnic and cultural diversity (art. 7), guarantees the inalienable, imprescriptible, and non-seizable character of collective lands, including Indigenous *resguardos* (art. 63). It also ensures autonomy in the management of internal affairs and the exercise of their own jurisdiction (arts. 246, 286, and 287), although their status as territorial entities still requires further legislative development. In practice, these guarantees tend to be activated after conflicts emerge, typically at the judicial stage, with less developed mechanisms for responding to early signals of territorial pressure.

These instruments provide a basis for defending Indigenous and community territories against land invasions, land trafficking, and illegal land appropriation. They gain reach when combined with community self-governance capacities and a sustained institutional presence in the territory—conditions that are particularly relevant in contexts of intense land pressure, where formal protection alone is insufficient and needs further support.

## Lessons for the Region

A comparative review of experiences across the Amazon reveals consistent patterns that can help guide action in different contexts:

- **Legal clarity on occupation, land trafficking, and land use helps reduce the gray areas in which irregular land appropriation thrives.** Where definitions are precise—what constitutes an invasion, what qualifies as land trafficking, and which conduct is subject to sanction—authorities have a clearer framework for intervention. Regional experiences suggests that the coherence between criminal, agrarian, and environmental norms, as well as the capacity to sustain their enforcement in the territory, are key conditions for these frameworks to function effectively.
- **Targeting the financiers, intermediary networks, and actors that facilitate fraudulent procedures, addresses the economic structures behind illegal appropriation, rather than focusing solely on the act of physical occupation.** Expanding criminal liability to reach those who finance, promote, or facilitate land invasions aims to raise the costs and create deterrent effects for those operating along the chain. In practice, enforcement tends to focus on the direct occupier; reaching the less visible links in the chain remains one of the main bottlenecks.
- **Administrative and financial tools provide a complementary pathway to criminal enforcement.** The loss of agrarian rights, restrictions on access to public credit, and reporting obligations within anti-money laundering systems create channels for intervention that do not depend on judicial proceedings. These channels respond to different institutional frameworks—registries, agrarian authorities, and anti-money laundering mechanisms—and their use as instruments of territorial control remains underdeveloped, but deserves greater attention.

- **Territorial enforcement is strengthened when it relies on reliable, well-organized information: updated cadastral systems, administrative registries, and property recovery mechanisms.** Knowing which lands are public, who occupies which properties, and how land use is changing provides a basis for anticipating the consolidation of irregular occupations. Keeping these data current and translating them into timely action are key for these mechanisms to function effectively.
- **Advancing the allocation of public lands helps close the gaps that illegal land appropriation exploits.** Where the state has not defined the use or allocation of public lands—particularly undesignated areas—speculative activity and claims over irregularly obtained properties tend to proliferate. Accelerating these processes, linked to cadastral and environmental information, offers a way to reduce the area of land exposed to these dynamics and to anticipate the entry of such properties into formal land market.
- **Coordination among justice systems, cadastral institutions, environmental authorities, and agrarian agencies creates opportunities to address a problem that spans multiple institutional mandates.** When these entities share information and align procedures, institutional response can become more coherent in territories where appropriation advances rapidly. The stability of these mechanisms and their ability to operate effectively on the ground are key conditions for sustaining this response.
- **The protection of Indigenous and community territories relies on titling, demarcation, and judicial mechanisms, including precautionary measures, to counter invasions, usurpation, and irregular transfers.** These instruments become more effective when combined with the self-governance capacities of local communities and with institutional presence in the territory. Their effectiveness increases when deployed early, although their use remains constrained by security conditions, access limitations, and insufficient institutional presence in territories under constant land pressure.

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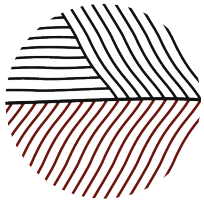
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