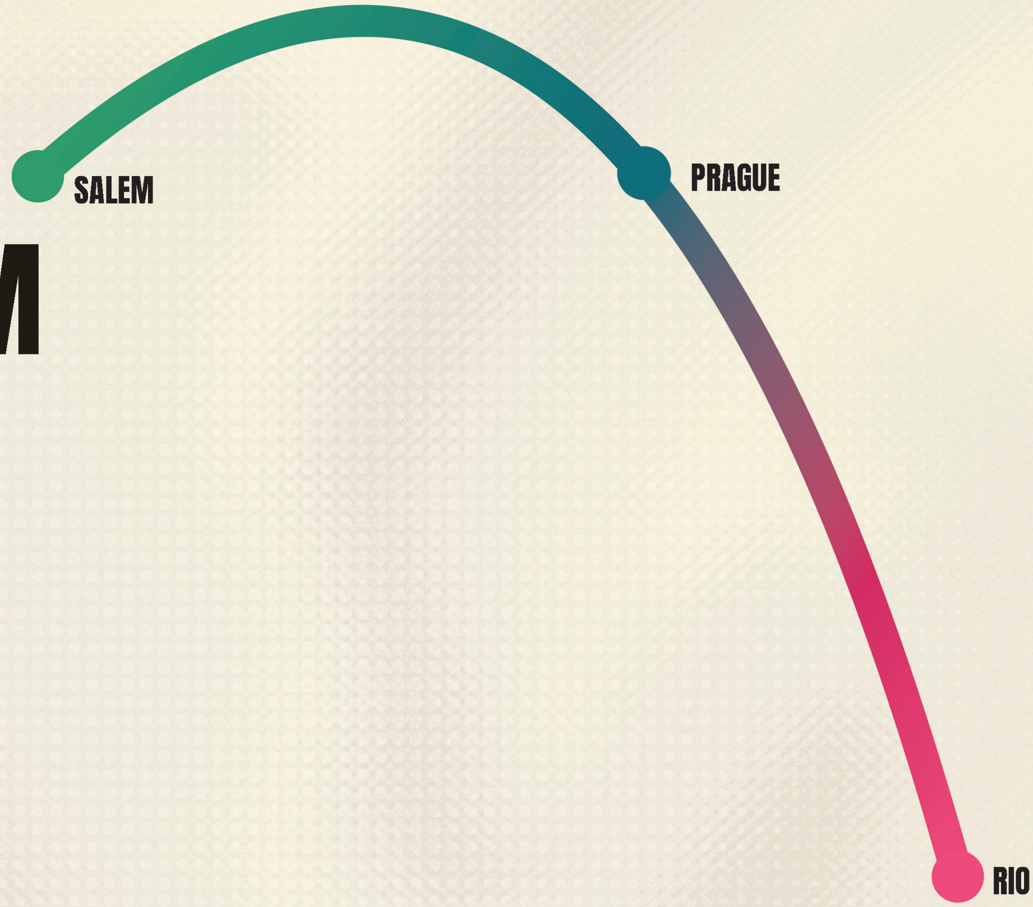
FROM LEGAL REFORM



TO MARKET FORMATION

Justice, Participation, and Transition in Emerging Cannabis Markets

OPEN SOCIETY FOUNDATIONS

Open Society's Advancing Global Drug Policy Reform Programme
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I. GLOSSARY

Legalization: A change in the legal status of cannabis that permits some or all forms of cultivation, processing, sale, or possession under defined conditions. Legalization is a statutory or judicial event. It establishes legal permission but does not by itself determine the conditions of market participation.

Regulation: The rules, standards, and oversight methods through which states govern cannabis markets after legalization, including licensing requirements, compliance standards, testing protocols, enforcement procedures, and administrative processes. Regulation is treated here as a component of formalization, not a synonym for it. The conditions that determine who participates in legal markets go beyond the regulatory apparatus to include capital access, documentation systems, institutional trust, land tenure, and the sequencing of obligations relative to producer capacity. References to regulatory structures or designs describe the architecture of those institutions and the participation outcomes they produce.

Formalization: The process through which producers and economic activity operating outside state systems are brought within them, through registration, licensing, documentation, taxation, and compliance with regulatory standards. Formalization is broader than regulation. It includes the material and institutional conditions that determine whether producers can actually meet the obligations legal participation imposes.

Transition: The process through which producers, communities, and market systems move from illicit or informal cannabis economies into regulated legal regimes. Transition describes the economic risks, administrative demands, and institutional trustworthiness that separate legal eligibility from actual market entry.

Sequencing: The order in which policy steps are taken during the transition from illicit to legal markets, particularly the relationship between the introduction of regulatory obligations and the establishment of conditions that allow producers to meet them. The concept originates in Alternative Development, where proper sequencing requires that viable livelihoods and institutional support are in place before illicit cultivation is disrupted.

Legacy Operator: A person or community with an established history of cannabis cultivation, processing, or distribution before legalization. In U.S. cannabis policy, the term typically refers to individuals who operated in illicit markets before state-level reform. The term is used here more broadly to include traditional cultivators, small-scale farmers, and Indigenous communities whose participation in cannabis economies predates legal change, regardless of jurisdiction or legal tradition.

Market Design: The deliberate structuring of markets through rules, institutions, and incentive structures that determine who can participate, on what terms, and how value is distributed. Market design treats markets as constructed rather than naturally occurring, and the rules governing entry, competition, and access as political and institutional choices. The term is used interchangeably with ‘market architecture’ and refers to the regulatory and structural decisions that shape participation in emerging cannabis markets.

Regulatory Capacity: The ability of state institutions to perform the oversight functions assigned to them, including monitoring, enforcement, standard-setting, and public health protection. In cannabis regulation, this encompasses laboratory accreditation, product testing, agricultural standards, track-and-trace systems, and drug safety monitoring.

Market Structure: The organizational characteristics of an industry, including the number and size of firms, barriers to entry, ownership patterns, and the degree of vertical integration. In cannabis regulation, market structure is determined by licensing regimes, capitalization requirements, and rules governing who can operate at which points in the supply chain. The distinction matters because market structure and regulatory capacity are frequently conflated in cannabis reform discussions.

Social Equity: A policy framework adopted in several U.S. state cannabis markets that directs licensing preferences, technical assistance, or financial support toward individuals and communities disproportionately harmed by cannabis prohibition. As used here, the term refers specifically to these U.S.-originated program models. The larger justice and equity concerns addressed throughout the report, including structural exclusion, racialized enforcement legacies, and gendered barriers to participation, are not captured by social equity as a program category.

Alternative Development: A development-oriented approach to drug policy, recognized within the international drug control framework and codified in the 2013 United Nations Guiding Principles on Alternative Development. AD is a holistic strategy addressing the main causes of the illicit cultivation of drug crops and stresses proper sequencing, proportionality, territorial approaches confronting underlying development deficits, and outcome-based evaluation as preconditions for a sustainable transition from illicit to licit livelihoods.

Genetic Enclosure: The conversion of collectively maintained biological resources into privately held intellectual property. The concept draws on the political economy of enclosure, in which resources previously held in common are brought under private ownership and control.

II. EXECUTIVE SUMMARY

This report synthesizes insights from a three-year series of international expert convenings on justice, participation, and market design in emerging cannabis markets. The series began in Salem, Massachusetts, in 2022, continued in Prague, Czech Republic, in 2023, and culminated in the Expert Forum on Global Justice in Emerging Cannabis Markets, held in Rio de Janeiro, Brazil, in October 2025. Across these meetings, policymakers, regulators, civil society actors, patient associations, researchers, and traditional and small-scale producers from the Global South and North examined how cannabis reform operates in practice.

The analysis draws primarily on the Forum discussions and builds on the analytical foundations developed at the earlier convenings. It does not necessarily reflect the institutional positions of the co-hosting parties.

The Forum's comparative record allowed the report to separate two elements that cannabis reform debates often combine: regulatory capacity and market structure. North American jurisdictions have accumulated operational knowledge in testing, product safety, and public health oversight that addresses core state functions, and much of this knowledge can be adapted across jurisdictions. The commercial architecture built around that infrastructure does not transfer in the same way. Licensing regimes, capitalization thresholds, and ownership rules reflect particular political and economic conditions. In the United States, litigation, commercial pressure, and revenue imperatives helped shape them. When jurisdictions adopt regulatory capacity and commercial structure as a single package, rules developed under those conditions become terms of market participation elsewhere, importing exclusionary policies into state environments for which they were not designed. The sections that follow trace the consequences of this conflation across market design, transition, enforcement legacies, intellectual property, and the role of Alternative Development in emerging legal drug markets.

Throughout, the report identifies recurring points of friction in cannabis reform and highlights design levers that may reduce exclusion, support safer transitions, and strengthen regulatory credibility. Its findings are most relevant to jurisdictions pursuing reform amid prohibition legacies, informal economies, and contested state authority. They are not intended to apply uniformly across legal systems or market models.

III. KEY FINDINGS

The findings below summarize structural dynamics that emerged through comparative discussion at the Rio Forum. They are not consensus statements, do not measure outcomes or evaluate policy effectiveness, and do not reflect the positions of the convening entities.

DESIGN SETS THE TERMS OF ENTRY

Early design choices determine participation and become embedded in institutional practice. Participants described licensing structures, regulatory criteria, and sequencing decisions as determining who can enter cannabis markets and on what terms. Once incorporated into law and institutional practice, these conditions become harder to reverse as markets grow.

Standards, capital requirements, land access, and production models filter participation. Forum discussions linked market entry and outcomes to access to capital and land; compliance requirements calibrated to industrial-scale production; and regulatory classifications, including tetrahydrocannabinol (THC) limits and medical-use definitions, transferred without adaptation. Participants treated these barriers as political and economic choices built into regulatory systems.

Export-oriented compliance standards displace domestic market formation. Participants described producers being required to satisfy export-grade or pharmaceutical-level standards before they could supply domestic consumers. This sequence effectively excludes them in favor of actors already positioned to meet international benchmarks.

Regulatory capacity can transfer across contexts; commercial market structures cannot. Public health oversight, laboratory systems, product testing, and quality assurance perform core state functions and can be adopted across jurisdictions. Licensing regimes, ownership models, capitalization thresholds, and vertical-integration rules arise from particular political and economic conditions. Treating these commercial structures as neutral benchmarks, or as extensions of public health requirements, constrains local control over market design.

TRANSITION MUST BE BUILT

Mistrust of state institutions functions as an operative barrier to transition. Forum discussions described how communities with histories of criminalization and coercive enforcement may see regulatory engagement as a source of risk rather than protection or opportunity. Their reluctance reflects a rational assessment of that risk.

Without credible transition routes, legalization sustains dual and hybrid markets. Participants described legal and informal systems continuing side by side when regulation presupposes administrative capacity, financing infrastructure, and secure land tenure that many producers do not have. The Forum treated these parallel markets as predictable consequences of transition rules that do not fit producers' conditions, rather than as evidence that reform itself has failed.

Alternative Development principles matter most during initial regulatory design. Sequenced obligations, proportionality, and territorial approaches carry the greatest weight when they inform early decisions about licensing, market entry, and participation thresholds. Once the regulatory architecture is in place, participants described these principles as able to adjust conditions only at the margins.

> ***Regulatory capacity can transfer across contexts; commercial market structures cannot.***

WHAT LEGALIZATION INHERITS

Enforcement institutions frequently carry prohibition-era power into legalization. Forum discussions identified this pattern in several jurisdictions, particularly in North America, where agencies that enforced cannabis prohibition retained their budgets, staff, and organizational mandates after legalization. The pattern is not universal. Some countries assign cannabis oversight to health or agricultural ministries without carrying enforcement institutions into the new system, while others are building regulatory bodies from scratch. Where prohibition-era agencies assume regulatory authority, the institutional cultures and community relationships formed under prohibition continue to condition how legalization is administered.

Without safeguards, legalization reproduces racialized and gendered exclusion. Participants linked requirements concerning land, capital, and documentation to the disproportionate exclusion of women and communities historically targeted under prohibition. Formally neutral rules produce unequal results when licensing and compliance systems presume individual ownership and access to capital that these communities are least likely to possess. For women in particular, formalization shifts the basis of participation away from labor, community knowledge, and social networks and toward capital and compliance capacity. This shift excludes women from roles they held throughout prohibition and the early stages of cannabis reform.

ADVANTAGE LOCKS IN EARLY

Control of intellectual property, genetics, and branding determines where value is captured as markets form. Forum discussions described genetic enclosure and plant variety protection as converting collectively stewarded resources into privately-held assets, while branding separates profit from cultivation and geographic origin. In countries where cannabis cultivation has historically been practiced, these processes are moving faster than legal reform. If enclosure succeeds, independent producers are repositioned as contract growers or input suppliers.

Court-driven market formation accelerates reform while distributing advantage and risk unevenly. Participants described judicial decisions filling gaps where legislative action had stalled. Those rulings define eligible actors, permitted organizational forms, and lawful practices. They give a first-mover advantage to actors with the legal capacity to act, while participants who cannot absorb legal and regulatory risk remain exposed to reversal and uncertainty.

Collective institutions and multiple licensing pathways can increase inclusion, but they remain structurally exposed. Home cultivation, patient associations, cooperatives, and non-commercial models reduce barriers when licensing regimes recognize them as core market components. Without legal standing, financial support, and governance protections against capture, these models remain vulnerable to consolidation under competitive market conditions.

IV. METHODOLOGY

This report synthesizes expert discussions from the Expert Forum on Global Justice in Emerging Cannabis Markets, held in Rio de Janeiro in October 2025. Using that record, the analysis identifies recurring constraints, institutional patterns, and implementation challenges described across several countries pursuing cannabis reform. It separates participants' reported experience from the report's comparative study and the implications drawn for reform design. It does not measure outcomes, evaluate individual policy models, or produce statistically generalizable findings. Nor does it represent the institutional positions of the co-hosting parties.

The report's primary sources were full transcripts of recorded plenary sessions, panel discussions, and facilitated working groups, supplemented by structured facilitator notes. Transcripts were the primary record. The analysis used them to detect recurring themes, points of divergence, and issues that cut across discussions. Facilitator notes supplied context and captured material not fully reflected in the recordings.

The Forum also included a site visit to ABRARIO, a medical cannabis patient association in Rio de Janeiro. Observations from the visit, together with information that ABRARIO provided directly, form the basis of the case study in Section XIV. Informal exchanges added contextual insight but were reflected in the report only when they aligned with themes documented in sessions or written materials.

To honor confidentiality commitments, the report does not attribute statements to named individuals. It identifies jurisdictions and regions only when multiple participants described a pattern, the underlying events were matters of public record, or the institution concerned reviewed the relevant text and consented to being identified. The ABRARIO case study is included on this last basis. Statements that could identify an individual speaker were generalized or omitted.

Background papers commissioned for the convening, select external policy literature, and publicly available sources provided context on legalization frameworks, social equity approaches, international drug control regimes, and relevant case studies. These materials informed the report's interpretation but were not primary empirical inputs.

The analysis focuses on early regulatory choices, sequencing decisions, and institutional capacities that determine how cannabis reform develops over time. Its findings are most relevant to jurisdictions pursuing or refining reform in contexts forged by prohibition legacies, uneven state capacity, and contested market development. They are not intended to apply uniformly across legal systems or market models.

V. FROM SALEM TO RIO

The Rio Forum ("The Forum"), convened in October 2025, was the third in a series of international expert meetings on justice, participation, and market design in emerging cannabis markets. Across the series, the analytical focus moved in stages: Salem examined the structural harms of prohibition and early legalization; Prague situated those harms within development pathways, production systems, and institutional capacity; and Rio considered how regulatory design sets the terms of participation.

The first convening, held in Salem, Massachusetts, in November 2022, focused on harms participants associated with cannabis prohibition and early legalization models in North America. Participants identified three structural outcomes: the displacement of legacy operators; the entrenchment, through regulatory criteria, of energy- and capital-intensive indoor cultivation; and the failure of early legalization models to address racialized enforcement harms. They attributed these outcomes to market-first reform rather than isolated implementation failures. Attendees also identified a limitation in the discussion itself. Global South voices, regulators, and producing communities were underrepresented, and they said later convenings needed to address that gap.

The Prague convening, held in May 2023, responded by adding sessions focused on Africa and Latin America. This brought producer-country perspectives into a discussion that had been shaped mainly by North American and European experience. Prague participants said that equity-oriented cannabis policy could not be reduced to market access alone. They described the effectiveness of legal reform as dependent on transition pathways, production systems, and institutional capacity, and said that regulatory tools transferred without adaptation to local conditions generate exclusion. They also cautioned against using the small number of jurisdictions with operational legalization experience, notably several U.S. states and Canada, as templates for replication.

The Rio Forum then moved the inquiry from harms and applicable frameworks toward the way design choices influence participation in practice. The Forum brought together stakeholders from Latin America, the Caribbean, Africa, Europe, and North America. Its discussions started with conditions facing producing countries, including informal production, communal land arrangements, and punitive enforcement histories, rather than with the consumer-market settings in which most legalization experience has accumulated. Forum discussions moved beyond "social equity" as a program category to examine participation, transition, and market design as institutional and political processes resulting from local conditions and the exercise of state authority.

The Forum also emphasized that legal access to cannabis can take several forms: home cultivation, patient and producer associations, cooperatives, pharmacy-based dispensing, and commercial licensing. It treated these access regimes as core elements of market architecture because they shape both the scope of participation and how participation is distributed.

VI. WHAT TRANSFERS AND WHAT DOESN'T

Organizers designed the Forum as a Global South–South exchange. Participants from producing countries led most workshops and panels, drawing on their regulatory, agricultural, and organizational experience. That arrangement gave priority to these forms of knowledge and guided the discussion as it developed.

Many international cannabis policy forums implicitly treat North American and European legalization regimes as benchmarks. The Forum instead centered jurisdictions pursuing legalization amid smallholder agriculture, informal economies, communal land arrangements, and uneven state capacity. Participants emphasized adapting regulation to these conditions rather than reproducing models developed elsewhere. Read across the sessions, their discussions supported a distinction central to the report: regulatory capacity and market structure do not transfer in the same way.

> ***Where regulation protects a high-cost production model from lower-cost competitors, concentration follows from the rules, not from efficiencies.***

North American jurisdictions have accumulated substantial operational knowledge in public health oversight, laboratory accreditation, product testing, agricultural and manufacturing standards, track-and-trace systems, and drug safety. This knowledge addresses core state functions when cannabis is regulated at scale, and much of it can be adapted across contexts. Commercial market structures are more contingent. Rules governing licensing, capitalization, ownership, vertical integration, marketing, and retail reflect particular political and economic conditions. They are not neutral best practices. In the United States in particular, litigation, commercial interests, and tax-revenue imperatives have driven these structures and produced capital-intensive compliance regimes designed for those pressures.

IN PRACTICE

A health ministry designing a medical cannabis program can adopt another country's laboratory accreditation rules, contaminant limits, and track-and-trace requirements with limited modification because product safety and traceability perform the same functions across jurisdictions. Commercial licensing rules do not transfer as cleanly. In an investor-driven market, a minimum-capital requirement can serve as a reasonable protection against speculation. In a market composed of smallholder farmers, the same requirement is exclusionary.

A common rejoinder holds that consolidation reflects efficiency, since compliance capacity and access to capital can support economies of scale in cannabis as in other agricultural commodities. The Forum record contradicts that account. Participants described outdoor smallholders in the Global South as the lowest-cost cannabis producers. Under compliance regimes calibrated to pharmaceutical-grade indoor production, however, the ability to operate effectively depends on absorbing regulatory costs. When rules protect a high-cost production model from lower-cost competitors, concentration follows from regulatory design rather than productive efficiency.

Policy objectives also differ sharply across many Global South countries. Their legal cannabis systems, which remain mostly medicinal and industrial, are frequently expected to stabilize rural livelihoods, integrate traditional and small-scale producers, expand medical access, and conform to wider development goals. Importing market structures developed under different political and economic conditions can put these objectives at risk, even when public health and safety standards are formally met. A jurisdiction can adopt strict quality controls and compliance systems without also importing the ownership models, licensing regimes, or capital requirements optimized for North American financial and political conditions.

The Forum's Global South–South orientation was therefore technical rather than normative. Experience from Canada, Europe, and the United States served as a reference for regulatory capacity, not as a template for market design. By separating functions that can transfer across contexts from arrangements that depend on local political and economic conditions, the Forum clarified why legal change alone does not produce comparable outcomes across jurisdictions. The central question is who controls market-design decisions and whether cannabis reform serves development objectives or forecloses them.

VII. PROHIBITION'S PRODUCTION MODEL

Production models are a core design choice in cannabis regulation. Rules that treat them as neutral or interchangeable carry assumptions about who can participate and on what terms.

> ***The compliance regime obscures its own origins, presenting historically contingent choices as universal standards.***

Across North America and Europe, legal cannabis production has developed largely around indoor cultivation, which demands substantial capital and resources. Prohibition first pushed illicit cultivation indoors because concealment was the priority. When U.S. jurisdictions began legalizing medical cannabis after California's 1996 Compassionate Use Act, regulators framed cannabis as a pharmaceutical product. They adopted standards to match: good manufacturing practice (GMP) requirements, controlled-environment mandates, and testing protocols drawn from drug manufacturing. Adult-use legalization followed more than a decade later and largely inherited this system, including facility and compliance requirements created for a medical product grown in a controlled indoor setting. Licensing standards across North American jurisdictions now embed the model's capital and energy demands, presenting them as neutral technical requirements rather than products of a particular regulatory history.

Many Global South jurisdictions represented in Rio are pursuing outdoor, sun-grown, or mixed-light cultivation integrated into existing agricultural systems. These methods depend less on artificial inputs and more on land access, plant genetics, climate conditions, and local technical expertise. Their cost structures, labor trends, and risk profiles differ from those of indoor cultivation.

Participants from these regions described outdoor and mixed-light production as accumulated, situated capacity. The report places that account within a longer material history. Cannabis has been cultivated for generations across Latin America, the Caribbean, Africa, and parts of Asia under both licit and illicit conditions. The agricultural knowledge and production infrastructure that sustained those economies did not disappear when legal status changed. Cultivation in Morocco's Rif region predates the country's independence and its current regulatory framework. Traditional cultivation in South Africa's Eastern Cape continued through decades of prohibition under the 1965 Substances Control Act. Caribbean cannabis farming remains part of broader smallholder agricultural systems marked by colonial-era land patterns. Brazilian Indigenous communities maintain cultivation practices tied to medicinal, ceremonial, and economic functions that predate national drug control.

When regulators apply criteria designed for indoor production in these settings, the effect is exclusionary. Infrastructure, security, and energy requirements that function in a North American warehouse raise entry barriers for Caribbean or South American growers without proportionate gains in safety or quality. By presenting historically contingent choices as universal standards, these compliance regimes obscure their own origins.

For many Global South producers, outdoor cultivation is not a transitional phase to be regulated away. It is an economic advantage that lowers production costs, reduces energy dependence, and remains consistent with existing agricultural systems. Treating sun-grown production as inherently provisional excludes the producers best positioned to compete on cost and sustainability.

Forum participants found value in North American public health frameworks and technical knowledge concerning testing, labeling, and consumer safety. They did not treat North American production models as templates. Regulation that ignores the outsized role of production models narrows participation and concentrates market access among actors able to absorb the costs of a model designed for someone else's conditions.

VIII. STANDARDS AS MARKET GATES

Cannabis legalization creates formal eligibility, but actual participation depends on whether producers can meet the material and technical demands built into regulatory systems. Those demands become structural conditions of market entry.

> ***The binding constraint was not the cost of the license but the cost of becoming licensable.***

Standards and definitions operate as primary market gates.

Quality, safety, and traceability standards are the dominant gatekeeping mechanisms in legal cannabis markets. Medical systems, in particular, often inherit these standards from pharmaceutical and food-safety regimes designed for capital-intensive production. In Forum discussions, participants identified the cost of building, certifying, and maintaining compliant facilities as the primary barrier.

For small-scale producers and traditional cultivators, the capital needed to meet Good Agricultural and Collection Practice (GACP), Good Manufacturing Practice (GMP), security, and traceability requirements regularly exceeds any realistic return in early-stage markets. As markets mature, specialized intermediaries emerge to provide compliance services or broker market access. These intermediaries can enable entry, but they also capture value and shift bargaining power away from producers that lack independent compliance capacity. The result follows a familiar agricultural pattern. The producer grows the crop, while the service provider collects the margin.

Regulatory definitions create another barrier. Core classifications, including the distinction between hemp and cannabis, cannabinoid thresholds, and medical and non-medical designations, do not translate consistently across jurisdictions. In Europe, THC thresholds applied to plants grown for industrial purposes are often conflated with standards of legality or safety. Producers must work through overlapping regulatory regimes, absorbing the resulting uncertainty, delay, and cost. When jurisdictions transfer classifications without adapting them, those classifications function as barriers rather than neutral technical distinctions.

IN PRACTICE

Participants described a pattern they considered common in export-oriented medical cannabis markets. A grower who cannot afford pharmaceutical-grade certification sells to an intermediary that can meet the requirement. Once certified, the product commands a far higher price than the same crop at the farm gate. The intermediary keeps that difference, year after year, in exchange for managing the paperwork and audits.

Capital scarcity drives exit and consolidation.

Access to capital determines both who enters legal markets and who remains in them. Formal eligibility means little when producers lack affordable credit, insurance, land financing, or the working capital needed to absorb regulatory delays and compliance costs. Financing constraints bind most tightly after commercial licensing and initial entry, when operating expenses accumulate before revenue materializes.

Many U.S. social equity programs falter at this stage. Licensing preferences and technical assistance may help producers enter, but capital scarcity and regulatory complexity can overwhelm that initial support. Producers then delay entry, leave the market, or accept unfavorable arrangements with intermediaries or investors that provide financing in exchange for control. Limited access to capital also accelerates consolidation. Better-financed actors can meet compliance costs, absorb risk, acquire competitors, and eventually gain greater influence over the regulatory outcomes governing their commercial interests.

Land requirements restrict access before licensing.

Land rights and real estate conditions set binding restrictions within regulated cannabis systems. Forum participants discussed producers in multiple jurisdictions who faced insecure land access, communal tenure arrangements that regulators did not recognize, histories of displacement, or speculative pressure on real estate. Each condition restricted access to sites that could qualify under the rules. Participants also described land and property values in eligible areas rising in anticipation of legalization, sometimes before regulators issued a single license. Producers without existing resources were priced out first.

Rules requiring fixed-location facilities, security infrastructure, and substantial construction make suitable land a prerequisite for participation. These requirements fall hardest on women, Indigenous communities, and small-scale producers, who are less likely to hold formal title or obtain credit secured against land.

Participants working in two jurisdictions reported that fewer than one-third of women held title to the land they worked, preventing them from obtaining licenses, credit, and market access. The report places those accounts within a broader pattern. Across much of the Global South, women's formal ownership of agricultural land remains well below their share of agricultural labor. Licensing regimes that tie eligibility to land title therefore build a gender filter into market entry from the outset.

Bureaucratic burdens erode viability after entry.

Exclusion from legal markets does not end when a producer receives authorization. Producers with licenses or informal authorization face documentation, reporting, inspection, and renewal requirements throughout the life of the license. Participants described eligibility records, proof of prior harm, legal documents, and residency verification as recurring barriers, particularly for producers whose long participation in informal markets left them without formal records.

Shifting classifications, extensive reporting obligations, and inspection regimes frequently exceed the administrative capacity of smaller operators. In several contexts discussed at the Forum, informal or grey-market activity continued after legalization because compliant pathways remained inaccessible. Other producers judged formalization a worse bargain than informality because it demanded documentation, greater visibility, and increased exposure to state institutions. In both circumstances, the report interprets continued informality as a rational response to the same design failure.

Collective infrastructure lowers costs but remains exposed.

Cooperatives, associations, and shared facilities are among the few mechanisms that directly reduce fixed production and compliance costs. By pooling resources, collective models have lowered entry barriers and supported operational compliance in multiple jurisdictions. They cannot, however, offset constraints involving land access, capital availability, and market power on their own.

Forum participants described a recurring pattern in which women established collective organizations but were displaced from leadership by men once those organizations acquired economic value. Without legal recognition, continuing financial and technical support, and governance protections against corporate capture, collective models remain structurally exposed as markets expand.

IX. LEGALIZATION REDISTRIBUTES RISK

Transition from illicit to legal cannabis markets requires active institutional support, and it rarely proceeds evenly. Legal reform changes who may lawfully cultivate and sell cannabis for medicinal, industrial, or recreational purposes. It does not resolve the economic, administrative, and social conditions that determine whether established producers can enter formal systems and remain there. Participants in Rio described legalization as redistributing risk rather than reducing it, particularly when engagement with state authorities increased perceived exposure to enforcement, surveillance, or loss of freedom.

Mistrust of state institutions emerged as a central constraint on transition, especially among communities with histories of criminalization. The report does not treat this mistrust as a perception problem to be corrected. It understands it as a rational response to direct experience of state harm. When producers judge regulatory engagement likely to increase that exposure, participation narrows regardless of what the law formally authorizes.

Legal eligibility and the barriers to economic transition.

The relationship between illicit market history and eligibility for legal markets varies across jurisdictions. In some countries, producers with histories of illicit or informal cultivation are formally eligible to participate. Still, they cannot meet capital requirements, documentation demands, and compliance thresholds that presume resources they do not possess.

Upfront administrative fees are often negligible. The binding constraint is the capital needed to satisfy the production and facility standards attached to a license. Elsewhere, a criminal record or previous involvement in illicit cannabis activity creates an explicit statutory disqualification. The two arrangements operate differently but produce the same result. Communities with the longest histories of cannabis cultivation and the deepest practical knowledge of the plant remain excluded from the legal industry their labor built.

Participants described several jurisdictions in which legal reform altered enforcement and drug-policing practices without producing meaningful transition. Producers faced a narrow set of choices: continue outside formal systems, leave the market entirely, or enter under conditions that reduced their autonomy, income, or security. Fear of punitive enforcement and increased scrutiny discouraged early engagement with regulators, particularly when the rules remained incomplete or could change.

Participants also questioned whether speed and early compliance provide useful measures of reform success. Those measures favor actors already equipped to move quickly. They disadvantage producers whose transition depends on time, adaptation, and sustained support.

Individual licensing models restrict traditional and Indigenous participation.

Licensing models built for individual, incorporated enterprises frequently conflict with the communal land tenure, collective cultivation practices, and oral or informal documentation systems through which many traditional and Indigenous producers operate. Histories of land displacement and state-backed violence deepen that conflict. They also erode the institutional trust that formalization requires.

In places where cannabis cultivation predates prohibition, reform efforts that do not recognize these production histories may create formal eligibility that traditional producers cannot use. Participation narrows when legal reform requires them to abandon collective practices and historical production systems. It also narrows when regulatory systems privilege external standards and imported genetics over locally rooted varieties and knowledge.

> ***This mistrust is not a perception problem to be corrected. It is a rational response to direct experience of state harm.***

Unequal access redistributes harm under legalization.

Forum participants noted that cannabis reform had reduced some forms of direct physical harm associated with prohibition, particularly exposure to arrest, police violence, and unsafe clandestine production. These reductions remained uneven and were largely limited to people able to enter emerging legal pathways. As markets formalized, participants described harm as being redistributed rather than eliminated.

For many groups historically targeted under prohibition, legalization shifted risk from criminal enforcement to the structural and economic exclusion built into legal markets. Requirements involving land tenure, capital access, documentation, and compliance disproportionately excluded people already carrying the social and legal consequences of criminalization. These barriers translated into lost livelihoods and dependency within supply chains. For those who remained outside formal systems, exposure to crop eradication and policing continued.

Gendered dynamics of transition and displacement.

For women, this redistribution of harm took a specific form. Legalization lowers exposure to state-backed violence, arrest, and incarceration but does not translate into balanced access to ownership or decision-making authority within emerging legal markets. Under prohibition, women occupied operational and leadership roles across informal cannabis economies: organizing collectives, sustaining production, maintaining distribution networks, and leading advocacy. Participation at these stages drew on labor, community knowledge, and social networks.

The move to regulated production shifts the basis of participation. Entry becomes contingent on secure land tenure, access to finance, and the capacity to meet licensing and compliance requirements. Across jurisdictions represented at the Forum, these conditions map directly onto the resources women are least likely to hold. As legal reform advances, markets redistribute authority toward capital-intensive and compliance-heavy modes of production, displacing the women whose work sustained these economies through prohibition and early transition.

Market design and the persistence of parallel supply.

Participants described dual or hybrid markets, where legal and illicit cannabis supply coexist, as a consequence of poorly aligned transitions. Legal markets struggle to displace illicit supply when they cannot compete on quality, price, or ease of access, or when reform fails to create adequate domestic outlets for legal production and retail access.

Published estimates from one jurisdiction with more than a decade of legal sales show how persistent this divide can be: only a minority of the cannabis consumed nationally passes through legal channels. Participants attributed the gap mainly to registration requirements, limited points of sale, and supply constraints, rather than to patterns of consumption.

In their accounts, the continued presence of illicit supply reflected decisions about market design and the order in which reforms were introduced. Registration rules, retail access, and supply conditions all affect the ability of legal sellers to compete. When legal cannabis remains expensive, scarce, or difficult to obtain, illicit suppliers retain their customers. Forum discussions therefore approached displacement as something that must be built into the transition, rather than something legalization produces on its own. Participants considered measures to strengthen producer capacity, keep prices competitive, build confidence in legal products, and establish trust in the regulatory system.

IN PRACTICE

Why legal markets fail to displace illicit ones: A legal market has to win customers on price, quality, and convenience, like any market. If the legal route is slower, scarcer, or significantly more expensive than the illicit one, buyers have no reason to switch. Legal status alone does not create a competitive product.

X. INSTITUTIONS PROHIBITION LEFT BEHIND

Across much of Latin America, Africa, and the Caribbean, the report traces cannabis criminalization primarily to international drug control regimes. Political, military, and administrative leaders adopted these arrangements to meet external diplomatic and security expectations rather than domestic public health concerns. The resulting laws, enforcement institutions, and policing methods frequently conflicted with local economic realities, established agricultural systems, and prevailing consumption and medicinal practices.

> ***Communities that experienced prohibition as surveillance and dispossession assess legalization against that lived history, not on its stated terms.***

Legal reform in these settings inherits systems and legal exclusions built to deter and punish, not to support lawful participation. Because those systems can continue to shape enforcement and lawful entry after the law changes, reform that disregards their history risks reproducing structural harm under new legal authority. In these contexts, justice considerations are therefore necessary to a credible transition.

Legalization can shift enforcement functions while preserving institutional power.

Cannabis enforcement operates within broader systems of public security and economic regulation. Since the adoption of international scheduling conventions, twentieth-century drug-control norms and foreign-policy considerations have shaped these systems. The agencies created within them were designed to suppress cannabis activity and control territory.

Changing cannabis law does not automatically weaken those institutions. A comparative examination of North and South American contexts at the Forum indicates that sharp declines in cannabis arrests, including the near-elimination of low-level possession enforcement in some U.S. jurisdictions, have not been accompanied by a comparable reduction in overall enforcement capacity. Police agencies and state authorities generally retain their budgets, staff, and institutional mandates as cannabis laws change. This pattern is not universal: some countries place cannabis oversight within health or agricultural ministries, while others create new regulatory bodies.

Where prohibition-era institutions remain involved, enforcement functions adapt rather than recede. As criminal enforcement declines, oversight expands into licensing, inspections, compliance monitoring, and civil penalties, often under the same institutions or personnel previously responsible for prosecution. In some jurisdictions, cannabis tax revenue has also been directed to policing, regulatory enforcement, or surveillance infrastructure, strengthening capacity that reform was expected to diminish. Where prohibition-era agencies absorb regulatory authority, the institutional cultures and community relationships formed under prohibition continue to shape how legalization is administered.

Legalization therefore frequently reorganizes enforcement authority without redistributing institutional power. Institutions that remain structurally intact and politically influential continue to shape who bears risk and who benefits from reform. Without deliberate efforts to constrain their power, reorient their mandates, and redirect fiscal flows away from punitive functions, legalization reproduces the governance dynamics of prohibition under new legal authority.

Racialized and colonial enforcement produces lasting economic exclusion.

Forum participants from Brazil, Mexico, South Africa, Morocco, and Caribbean jurisdictions described how prohibition disrupted established agricultural systems and local economies across Latin America, Africa, and the Caribbean, including within Indigenous territories. According to their accounts, enforcement agencies criminalized longstanding cultivation practices, seized land, and displaced labor through incarceration and forced migration, leaving entire communities in prolonged economic precarity.[1]

Forum discussions did not present prohibition-era cannabis economies as free of coercion or exploitation. Participants described cultivation in many regions as embedded in broader trafficking structures that generated violence and corruption beyond the activities of smallholder growers. Those harms provided a durable political justification for enforcement. Yet participants reported that enforcement concentrated on the most economically vulnerable people in cannabis supply chains rather than the structures that sustained violence and corruption. Poverty, weak governance, and the absence of alternative livelihoods, which enforcement was nominally intended to address, persisted through those decades. In many cases, participants attributed their worsening directly to enforcement.

The report traces these outcomes to systems of governance rooted in colonial rule, reproduced through post-independence state institutions, and reinforced by international drug-control regimes. In several jurisdictions discussed at the Forum, participants described cannabis prohibition as a means of economic and territorial control that excluded specific populations from land, markets, and formal economic participation. They also described continuing damage to household income, land tenure, local security, and regional development, including where cannabis laws have since been reformed.

1. Forum testimony across multiple panels and working sessions documented this pattern. Brazilian Indigenous representatives described displacement from productive land and criminalization of traditional cultivation. Mexican participants described military operations targeting Indigenous women cultivators in Oaxaca. South African participants cited the 1965 Substances Control Act as the instrument through which Eastern Cape cultivation traditions were suppressed. Moroccan and Caribbean participants described parallel dynamics under colonial and post-independence enforcement regimes.

These legacies operate at both individual and territorial levels. Criminal records, enforcement histories, and asset loss restrict access to formal employment, finance, insurance, and public services. When these exclusions become concentrated geographically, they stigmatize entire areas, discouraging regional investment and contributing to cycles of underdevelopment. Communities that experienced prohibition as surveillance and dispossession therefore assess legalization against that history rather than its stated terms. The preceding transition analysis explains the resulting constraint: where regulatory engagement is judged to increase exposure to enforcement, surveillance, or economic loss, participation narrows regardless of what the law permits. Practices that regulators interpret as noncompliance, including avoiding registration and preferring informal arrangements, can therefore reflect rational efforts to limit exposure to institutions that have historically caused harm.

Conventional reparative mechanisms are poorly equipped to address these harms. In many jurisdictions, enforcement data systems were not designed to record the collateral economic consequences of prohibition. Damage may be widely recognized yet remain administratively difficult to substantiate. This documentation gap imposes standards of proof that affected communities are structurally unable to meet. Effective repair therefore requires investment in documentation infrastructure and evidentiary standards that recognize the forms of harm prohibition produced.

Acknowledging prohibition-era harm as a condition of regulatory legitimacy.

Legalization, participants argued, cannot be treated solely as a forward-looking regulatory exercise. They described meaningful reform as contingent on truth-telling, memorialization, and public recognition of the state violence carried out under prohibition. The most concrete testimony came from Latin America. Indigenous women described organizing in response to military operations that targeted their communities, while affected families, often led by women, launched campaigns seeking accountability for the loss, displacement, and death produced by drug enforcement.

Repair also surfaced independently in the Forum's design exercises. When asked to build a cannabis market from first principles, one working group made repair and memorialization founding values. It invoked South Africa's post-apartheid truth and reconciliation process as a model and argued that market institutions should preserve the memory of the drug war rather than allow legalization to erase it.

Participants said that when legalization proceeds without this acknowledgment, affected communities read it as shifting benefits to the state and new market actors while leaving historical harm unaddressed. Because communities assess reform against earlier experiences of surveillance and dispossession, the same communities whose participation is needed for legitimacy may see state-led reform as a process not designed to serve their interests.

Participants assigned recognition and market inclusion different functions. They described legitimacy as emerging when histories of harm shape governance priorities, institutional memory, and the reparative distribution of legalization benefits. Without credible processes of acknowledgment, they argued, whatever legitimacy legalization achieves will remain fragile.

XI. ENCLOSURE OF CANNABIS GENETICS

Discussions in Rio identified control regarding intellectual property, trademarks, and genetics as the earliest point of value capture in emerging cannabis markets. Intellectual property regimes operate before licensing structures and compliance requirements take effect, setting ownership, bargaining power, and patterns of dependency at the point of market formation.

> ***Legal title crosses borders more readily than recognition of stewardship and cultivation knowledge.***

Genetic control determines who produces and on what terms.

Control over seeds and plant cultivars determines who is able to cultivate, on what terms, and with how much independence from buyers. Traditional cultivators and Indigenous communities have stewarded cannabis varieties adapted to local ecologies, climates, and cultural practices for generations. These varieties commonly lack protection under plant variety statutes or geographic indication frameworks, leaving the communities that developed them without legal tools to control how those varieties are used or to capture value from their commercialization.

Commercial cannabis actors, by contrast, increasingly use patents, plant variety protection certificates, and exclusive licensing arrangements to convert previously communal genetic resources into privately held assets. These legal instruments restrict how genetics can be used, exchanged, or further developed. If enclosure continues, traditional producers lose autonomy over production decisions and become contract growers or raw material suppliers with limited pricing power and no role beyond primary production. Where the commodity structures of coffee and cocoa consolidated long ago, the architecture of cannabis markets remains in formation.

The filing record makes the pattern visible. A participant tracking European plant variety protection reported that the EU office received roughly twenty applications for new hemp varieties in the sixteen years before 2015, then several thousand in the four years that followed as stock market capital moved into cannabis. Filings fell back to a handful when that capital withdrew. Enclosure follows investment cycles rather than the pace of cultivation and plant breeding, and the protections claimed during a spike remain in force long after the money that motivated them has left the sector.

Intellectual property law converts genetic control into market power.

Once genetic control is established through cultivation practice or selective breeding, intellectual property (IP) law turns it into an enforceable legal right. Access to that law is unevenly distributed. Patent applications, plant variety registration, and trademark enforcement entail sustained procedural work, specialized counsel, and significant capital. The cultivators who produce genetic diversity and locally adapted growing knowledge rarely have the resources to file and defend claims, while well-capitalized firms routinely do. IP regimes therefore allocate the power to exclude according to legal capacity rather than to contribution or stewardship, and exclusion from a genetic line is what repositions independent cultivators as contract suppliers.

Branding redirects value from cultivation to trademark holders.

Even where cultivation stays with producing communities, branding and trademark control move the point of value capture downstream. Returns accrue to the firms that own the trademarks, generated by advertising, reputation, and name recognition rather than by anything that happens in the field. Unless branding and trademark privileges are conditioned on a demonstrable link to producing communities, the separation will widen as cannabis markets formalize.

Trade rules and ownership.

Intellectual property systems interact with trade rules to reinforce global inequities in value capture. Firms operating within jurisdictions that have developed legal infrastructure can register commercial rights, defend them in court, and profit from them across borders. Producers in countries with weaker legal infrastructure face high barriers to asserting claims internationally, even over the varieties and cultivation practices they developed.

Firms based in North America and Europe commercialize genetic resources, cultural knowledge, and locally developed practices with little of the value returning to source communities. They patent varieties bred from genetics that producer communities have maintained, and they sell branded products derived from traditional knowledge without benefit-sharing obligations. Legal title crosses borders more readily than recognition of stewardship and cultivation knowledge.

Credentials, experience, and the definition of expertise.

Intellectual property law and regulatory criteria determine what formal markets count as expertise. The rules governing cannabis commerce privilege knowledge that can be formally documented, attributed to individual authorship, and confirmed by clinical trials, peer-reviewed studies, and patent filings. The agencies and firms that control market access do not recognize knowledge produced outside the credentialing processes.

Indigenous cultivation practices, medicinal use traditions, and seed stewardship constitute applied knowledge systems built across generations of accumulated experience. These systems have their own methods of testing, transmission, and verification. Because they do not generate the credentials that patent offices and regulatory agencies require, the communities holding this knowledge are excluded from formal supply chains even as their knowledge is absorbed into them. Legal industries draw on this knowledge without attribution and without payment.

Treating knowledge recognition as a technical question, a matter of whether a claim satisfies existing proof standards, imports the exclusions embedded in those standards. Narrow definitions of evidence and innovation undervalue traditional producers. Participants treated the question of whose knowledge counts as a question of who benefits. Recognition is an equity determination whether or not it is framed as one.

XII. CONVENTIONS MISTAKEN FOR REQUIREMENTS

Participation in emerging cannabis markets depends partly on which benchmarks, standards, and conditions regulators accept as necessary for legal production and consumption. These premises often reflect inherited conventions rather than deliberate choices adapted to local conditions. The Forum's design exercises identified three with especially significant consequences: commercial licensing as the primary gate to participation, the exceptional regulation of cannabis compared with other agricultural products, and reliance on enforcement-centered compliance. Regulators rarely treat any of the three as a design choice that remains open to revision.

The exercises distinguished constraints grounded in law or demonstrated institutional necessity from those derived from convention, risk aversion, or regulatory templates imported from other sectors. This distinction matters because exclusion can begin with the way regulators define the problem, before implementation starts. When they present conventions as legal requirements, they obscure the available policy choices and narrow the range of viable designs.

Commercial licensing remains a disputed market gate.

Participants did not converge on a single alternative to existing licensing systems. Several argued that jurisdictions should dismantle commercial gatekeeping and register cannabis businesses much as they register bakeries, subject to health and safety oversight but little else. In their view, rigid licensing perpetuates stigma and blocks entry regardless of its stated purpose.

Other participants, including some of the strongest critics of existing regimes, argued that regulators should rebuild gatekeeping deliberately. They proposed licensing tiers, limits on vertical integration, and mandatory market assessments as ways to constrain consolidation. The two positions offered different remedies, but both treated the existing licensing architecture as a set of inherited arrangements rather than a system chosen through deliberate design.

Licensing models presume state capacity and institutional trust.

Cannabis reform debates routinely begin by assuming capable, neutral, and trusted state institutions. Licensing and compliance systems presume consistent administrative capacity, effective inspections, and institutional legitimacy. Many jurisdictions pursuing reform do not have these conditions.

When jurisdictions adopt models from countries with strong administrative systems and deep capital markets as markers of regulatory credibility, pharmaceutical production, traceability, and security requirements become fixed reference points rather than proportionate responses to local risks. Communities whose previous contact with state institutions has involved punishment rather than public service may then read licensing and compliance as new forms of surveillance.

Validation rules exclude traditional knowledge holders.

Market entry rules often tie legitimacy to approval through formal scientific and pharmaceutical institutions. Traditional medicine, cultivation knowledge, and community practices fall outside licensing and compliance systems when they cannot satisfy the forms of evidence regulators recognize. That exclusion reflects the validation system being used; it does not establish that these practices lack functional efficacy or internal rigor.

Indigenous representatives described decades of applied knowledge carrying no weight in processes built around laboratory validation and individual intellectual property claims. Women's groups and community organizations reported that they lacked the resources needed to produce formal clinical studies, standardized production data, and documented quality assurance protocols.

When regulators exclude these forms of knowledge, they also exclude the communities that hold them. Reform debates regularly begin from the premise that illicit cannabis production represents disorder or developmental failure. Yet it operates as an economic system, with labor arrangements, supply chains, and exposure to price volatility and enforcement risk. Treating producing communities primarily as problems to be solved keeps them outside the processes that establish the rules.

Export standards delay domestic market formation.

Governments frequently organize cannabis reform around export objectives. They impose standards designed for international trade before creating a legal route for local producers to supply domestic markets. Forum discussions examined multiple jurisdictions in which medical cannabis and hemp producers had to meet export-grade standards before they could sell domestically or transition from informal production, including regions with long-standing domestic consumption and culturally embedded cannabis economies. Placing domestic demand below export and pharmaceutical supply delays or prevents established producers from entering. It favors producers and firms already equipped to meet international standards.

> ***Treating producing communities primarily as problems to be solved keeps them outside the processes that establish the rules.***

Participants disagreed about the value of export access. Some described it as a realistic source of income for organized smallholders. They cited figures indicating that legal products sold in European markets could earn growers more per hectare than domestic sales were likely to provide for several years. Others accepted those figures but reached the opposite conclusion. Importing countries determine the standards, while holders of brands and export licenses retain most of the margin, and domestic market formation is postponed while governments build the export sector.

Neither position denied the existence or commercial value of export demand. The disagreement concerned sequencing: whether compliance with export standards should be a condition for supplying domestic consumers, and which producers that condition excludes. Assessing reform through speed and early compliance reinforces the same export bias. When governments and international bodies use adoption rates as evidence of success, they reward actors who require the least support and conceal the exclusion of those who require the most.

Indoor production preferences raise capital and environmental costs.

Licensing regimes frequently favor controlled indoor production through their facility requirements and approval criteria. As the earlier production models section explains, indoor cultivation developed under prohibition-era constraints in North American and European markets. Indoor, outdoor, and greenhouse cultivation differ substantially in their carbon footprints, yet licensing standards have preserved the indoor preference without accounting for those environmental differences. The result penalizes more sustainable production systems while raising barriers for producers least able to absorb the associated capital costs.

XIII. MARKET FORMATION THROUGH THE COURTS

The examples in this section reflect a range of legal traditions and jurisdictions represented at the Forum: rights-based constitutional litigation in Mexico, Colombia, and Brazil; court-ordered provisional access regimes elsewhere in South America; advocacy-driven rescheduling campaigns in the United States; and civil society mobilization across the Caribbean and Africa. The claims that follow are comparative, drawn from patterns common to these experiences.[2]

Strategic litigation, advocacy, and democratic participation inform how legal markets develop; when markets open, who gains early access, and which institutional arrangements persist over time. Their influence is greatest where formal regulatory systems remain incomplete, unstable, or actively contested.

> ***Community consultation processes that do not redistribute decision-making authority confirm, rather than correct, the expectation that state-led processes are not designed to serve affected communities.***

Courts as early gatekeepers in market formation.

In jurisdictions where legislative reform has stalled or progressed unevenly, rulings force interventions that compel regulatory response rather than comprehensive market design. Participants attributed fragmented standards and uneven geographic coverage to the institutional limits of judicial authority. Court-centered pathways can catalyze reform where legislatures will not act, while conferring first-mover advantage on the actors best equipped to litigate.

Litigation and the limits of court-driven reform.

Court rulings alter the incentives facing regulators and legislators. Through the recognition of individual rights to medicinal or therapeutic access, courts can prompt agencies to issue interim guidance, tolerate provisional practices, or accelerate rulemaking to limit continued legal exposure. At the same time, reliance on litigation introduces persistent uncertainty. Court decisions are often narrow, jurisdiction-specific, and vulnerable to reversal.

2. Strategic litigation operates differently in common law and civil law systems, and advocacy coalitions organize around different institutional entry points depending on legislative structure and whether civil society organizations can operate and advocate without state restriction.

Participants described litigation absent coordinated advocacy campaigns as insufficient. Legal action forces institutions to respond, but it does not by itself produce lasting policy reform. Court-driven openings were most likely to generate regulatory movement when accompanied by public pressure, media attention, and organized civil society engagement. Litigation accelerates reform while redistributing risk, stratifying participation across actors with unequal legal and financial capacity.

Advocacy coalitions and agenda-setting power.

Advocacy organizations shape how cannabis reform is framed and prioritized. They translate legal rulings, enforcement histories, and international norms into policy demands, and they link courts, communities, and policymaking bodies. Whether reform is treated primarily as a medical, economic, public safety, or justice issue influences regulatory objectives, sequencing decisions, and implementation choices.

Coalitions with greater organizational capacity participate more consistently in participatory processes such as policy working groups and stakeholder engagement. Participants noted this to be particularly true for coalitions funded by commercial cannabis associations. That regular presence gives them control over which issues receive attention and over the terms in which technical design choices are debated at the earliest stages of policy development. Across jurisdictions, advocacy efforts have counteracted exclusion by elevating community voices, but they can just as readily reproduce inequality when those forums remain open mainly to well-resourced coalitions.

Democratic participation, legitimacy, and compliance.

Participation mechanisms influence how legal cannabis markets function after rules are adopted, but access to these mechanisms remains unequal. Formal systems are more likely to be perceived as legitimate when affected communities participate in decision-making. Perceived legitimacy, in turn, shapes voluntary compliance, while exclusion or ineffective participation sustains informal activity and weakens regulatory effectiveness.

Access to participation is conditioned by legal expertise, time, funding, and institutional recognition, and these processes reproduce existing asymmetries even as they expand formal inclusion. For women and Indigenous communities facing predatory markets and enforcement risk, participation also functions as a protective strategy.

Participation fatigue was a repeated concern throughout the Forum. Repeated consultation without material influence erodes trust, discourages lasting engagement, and can lead actors to withdraw from legal regimes altogether. Community consultation that does not redistribute decision-making authority confirms, rather than corrects, the expectation that state-led processes are not designed to serve affected communities.

XIV. ABRARIO

ABRARIO is a patient association in Rio de Janeiro that has built a functioning medical cannabis access system on the basis of court rulings rather than statutory authorization. At the time of the Forum's site visit, the association reported serving approximately 3,000 patients. The visit allowed participants to examine how a collective institution sustains access without legislative guidance, and what makes such arrangements fragile. The description that follows draws on that visit and on information provided by the association.

In Brazil, medical cannabis access has advanced through judicial decisions in the absence of coordinated national legislation. Within this system, ABRARIO consolidates functions ordinarily distributed across public regulatory, clinical, and legal systems: cultivation, laboratory extraction, physician-based medical prescribing, and legal advocacy. Housing these functions in one organization lets ABRARIO manage product quality and patient access under restrictive conditions while pooling legal risk at the organizational level rather than leaving it with individual patients and cultivators.

This merging is also the source of the model's vulnerability. Judicial authorization can open access, but it does not provide scalability, long-term certainty, or protection from political reversal. Without statutory recognition or access to institutional finance, the association remains exposed to regulatory restriction and displacement, particularly as commercial markets emerge and expand. The same authorizations that enable ABRARIO's operations could be narrowed or withdrawn through administrative action or shifting judicial interpretation.

Judicial authorization can open access, but it does not provide scalability, long-term certainty, or protection from political reversal.

ABRARIO was assessed as a diagnostic case rather than a replicable model. The case shows courts constructing provisional access regimes in which legislatures have not acted, and shows why those regimes, however functional, cannot substitute for statutory design that provides durability, institutional coordination, and a stable market structure. The site visit made that limit concrete: an association that sustains cultivation, extraction, and physician prescribing for its roughly 3,000 patients still cannot access institutional finance or plan beyond the scope of the next judicial ruling.

XV. ALTERNATIVE DEVELOPMENT

Alternative Development ("AD") is a development-oriented drug control strategy. Its key principles were codified in the 2013 United Nations Guiding Principles on Alternative Development and later complemented by CND Resolution 69/4. These principles include proper sequencing, proportionality, risk reduction, outcome-based evaluation, and territorial approaches that address underlying development deficits. Together, they establish conditions for a sustainable transition from the illicit cultivation of drug crops to licit livelihoods.

AD developed through decades of implementation in coca and opium poppy cultivation settings across the Global South, including Colombia, Bolivia, Peru, Thailand, Afghanistan, and Laos. Much of this work took place in territories marked by strict enforcement, forced eradication, and long-standing marginalization. More recently, governments and development actors have applied AD principles to emerging medicinal cannabis markets and hemp value chains in the Caribbean. That operational history offers substantial practical knowledge about transitions from illicit economies, although the application of AD to regulated cannabis markets remains recent and lacks a comparable evidence base on outcomes.

The barriers examined in the preceding sections explain why this knowledge matters most while market rules are still being designed. Once governments have fixed the architecture of a regulated cannabis market, development approaches lose much of their influence over its terms. They become adjustment mechanisms, helping small-scale growers meet existing requirements through education and capacity-building. At the design stage, AD can instead inform licensing structures, regulatory sequencing, and participation thresholds. Communities and producing regions can then help determine the conditions of their inclusion rather than being asked to comply with conditions already set.

Governments must create institutional space for development actors and affected communities within these processes. Securing that space is itself contested. Approaching cannabis reform as a development question changes who has standing in market design. If reform remains primarily a law enforcement matter, agencies and professional cultures formed under prohibition retain primary authority. A development approach brings health ministries, agricultural extension services, development agencies, and producer communities into transition planning while entry rules are being set.

Forum participants used one Caribbean microstate to illustrate how design-stage integration can operate. They described a medicinal framework that accounted for the country's enforcement history. Traditional cultivators receive free licenses and enter the system through simplified registration. Cannabis was also incorporated into an existing alternative-livelihoods program, placing the state institutions that work with growers in a role focused on rural incomes rather than policing. Participants repeatedly returned to the country's tiered licensing system. During one design exercise, they adopted it as a model for distinguishing the obligations imposed on traditional cultivators from those applied to capitalized commercial operators.

The example has clear limits. It concerns a microstate and a medicinal market, and the framework has not resolved another problem identified throughout the report: producers may obtain legal authorization without gaining access to a viable market. The report therefore treats the case as an illustration of regulatory design, not as evidence of demonstrated policy effectiveness. Participants' discussion identified three conditions supporting this approach: political leadership committed to inclusion before the market opens, development infrastructure already in place, and rules that recognize histories of informal production. Where these conditions are absent, AD reverts to its adjustment role, helping growers navigate rules that development actors and affected communities did not help establish.

Proper sequencing can allow producers to begin operating legally under provisional status. They work through defined milestones toward full facility, testing, and reporting requirements while generating revenue. Requiring full compliance before entry filters out the least capitalized actors first.

Experience from AD programs can also inform differentiated access pathways for remote regions, individual small-scale producers, and community organizations while maintaining public health and quality standards. Development projects can support these pathways through technical and organizational capacity building, infrastructure assistance, and transitional financing. These instruments allow producers and community organizations to enter emerging markets without depending on capital-rich intermediaries. Affected communities and development specialists can also help write safeguards into licensing and transition rules. Their role is to co-design conditions that preserve the bargaining power of small-scale growers and prevent the regulatory framework from consolidating the exclusions it was intended to address.

Once governments have fixed the architecture of a regulated cannabis market, development approaches lose much of their influence over its terms.

AD's applicability should not be overstated. Its frameworks assume traditional cultivation practices, organized producer communities, state institutions capable of supporting development programs, and market conditions that can sustain small-scale production. Applying AD without regard to these conditions would repeat the report's criticism of transferring North American models uncritically across different institutional and territorial settings.

Forum participants also contested the framework's vocabulary. Participants from producing regions questioned whether "development" accurately describes a transition their communities are already carrying out. They argued that the term imposes an external diagnosis measured against benchmarks established elsewhere.

XVI. TOOLS FOR MARKET DESIGN

The preceding sections identify where regulatory structure and institutional choices produce exclusion. The tools in this section translate those findings into specific design choices and are grounded in approaches raised or implied during Forum discussions and ensuing analysis. They are reference points that jurisdictions can adapt to local conditions and to the specific barriers their own regulatory systems generate.

Standards, Compliance, and Sequencing

Compliance standards and the timing of their introduction shape access in legal markets. The tools below address how standards are designed, when they take effect, and how compliance is structured over time.

- Regulatory classification of cannabis cultivation under agricultural rather than pharmaceutical frameworks, with differentiated oversight that applies agricultural good practice standards to growing and reserves pharmaceutical or finished-product standards for processing, extraction, and final product preparation.

- Tiered compliance standards according to production scale, risk profile, and end use, prioritizing product safety and contamination control over production uniformity. Single pharmaceutical or export-oriented benchmarks should not serve as the default.

- Phased introduction of regulatory obligations, separating legal participation from full compliance. Producers may operate provisionally while facilities are upgraded, with taxation, reporting, and facility standards matched to their functional capacity and revenue goals, without lowering end-use requirements.

- Provisional registration status with defined compliance milestones, technical assistance, and explicit renewal conditions.

- Simplified reporting tiers for small and low-risk operators, coordinated across agencies to reduce duplication, conflicting requirements, and cumulative administrative burden.

- Publicly supported testing, laboratory access, processing capacity, and traceability services, with graduated certification pathways that recognize intermediate quality standards as legitimate steps toward full compliance.

- Conditioning of external technical assistance and regulatory benchmarks on demonstrated contextual fit rather than replication, with formal adaptation statements documenting how imported frameworks have been modified for domestic conditions.
- Separation of technical support for public health and safety from prescriptive commercial or production models.
- Regulatory incentives for outdoor and sun-grown cultivation, energy efficiency requirements for indoor operations, and environmental evaluations as conditions of large-scale licensing, with sustainability criteria integrated into compliance systems.
- Mandatory periodic market assessments evaluating participation rates, price trends, concentration trends, and transition outcomes, with defined triggers for regulatory adjustment and public reporting of findings.

Licensing, Market Entry, and Regulatory Definitions

Licensing frameworks and regulatory classifications determine who is eligible to participate in legal cannabis markets. The tools below address how entry pathways are structured, how market architecture constrains concentration, which organizational forms are recognized, and how plant-level classifications determine market access.

- Scale-based licensing and compliance tiers keyed to canopy size, output volume, or revenue, replacing plant-level thresholds such as THC percentage or genetic classification as the basis for eligibility and regulatory obligations.
- Plant-level thresholds reserved for finished-product regulation, including potency labeling, contaminant limits, and dosage controls, rather than for the classification of plants or producers.
- Context-specific adaptation of regulatory definitions, with review triggers for classifications shown to generate disproportionate barriers or legal uncertainty.
- Structural separation between supply-side and retail operations, including restrictions on vertical integration and financial arrangements that enable control across market tiers, to prevent consolidation and preserve competitive access for small-scale growers, processors, and independent retailers.

- Early-entry authorizations established as a distinct license category, with defined criteria for conversion to full licensure.

- Collective and non-corporate licensing categories, including cooperative, association-based, household-based, patient-led, and community-based production, recognized as permanent market categories.

- Recognition of collective ownership, informal labor histories, and shared cultivation as legitimate forms of prior participation for licensing eligibility and priority access.

- Alternative evidentiary pathways for establishing eligibility, including community attestation, historical cultivation evidence, and verification by local authorities, alongside standard documentation.

- Gender-responsive licensing and compliance requirements, including recognition of non-title-based land use for women cultivators, prohibition on gender-based exclusion from collective governance, and mandatory gender impact assessments as part of periodic regulatory review.

Capital, Land and Infrastructure

Access to capital, land, and production infrastructure determines whether formally eligible producers can participate in practice. The tools below address the material conditions of market entry and sustained operation.

- Early-stage public finance instruments, including grants, low-interest loans, credit guarantees, and risk-sharing mechanisms, disbursed against transition milestones. These instruments should reduce lender exposure without transferring ownership or control to financiers.

- Bridge financing to cover delays in licensing, inspections, or market entry.

- Collateral-free financing and alternative credit mechanisms for producers unable to meet conventional lending requirements, with dedicated access provisions for women cultivators.

- Statutory protections from predatory financing, including limits on license control-transfer provisions in management and debt contracts, and transparency requirements for investor governance arrangements.

- Zoning and siting rules that permit shared, cooperative, or mobile production facilities.
- Public land access programs or long-term leases for eligible producers.
- Provisional recognition of communal and traditional land tenure for licensing and compliance purposes, supported by clear authentication procedures.
- Temporary authorization for existing cultivation sites, and deferral of buildout requirements during transition, with facility and security standards proportional to production scale and risk profile.
- Shared production and market infrastructure, including drying, storage, processing, and distribution facilities, accessible to small-scale as well as collective producers.

Managing Transition and Institutional Risk

Producers' engagement with formal institutions turns on whether it reduces or increases their exposure to enforcement, surveillance, and economic loss. The tools below address enforcement posture, the relationship between legal and illicit markets during transition, and measures to build regulatory credibility with communities targeted under prohibition.

- Enforcement protocols focused on guidance, remediation, and technical support instead of punitive action, with proportional sanctions that escalate only after repeated or willful noncompliance.
- Statutory protection of registered producers from crop eradication, asset seizure, or criminal penalties, applying from enrollment in a transition program and conditioned on continued progress against reporting and transition milestones.
- Regulatory provisions that permit managed coexistence of legal and informal market activity during defined transition periods, with milestone-based pathways to full compliance rather than fixed deadlines and sudden displacement.
- Demand-side measures that reduce incentives for informal supply, including competitive pricing, production standards, and public information campaigns that build trust in the regulated market.
- Publicly funded legal and regulatory literacy programs for community-based organizations, traditional cultivators, and advocacy coalitions, covering contract negotiation, investment terms, licensing procedures, and strategies for effective participation in regulatory processes.

Repair, Accountability, and Governance

Legalization that proceeds without mechanisms to address enforcement legacies or constrain institutional power reproduces exclusion under new legal authority. The tools below target legal repair, fiscal and bureaucratic accountability, and governance of market relationships.

- Automatic expungement and record-sealing for cannabis offenses no longer subject to criminal penalty, with prohibition on the use of records as categorical barriers to public benefits, employment, housing, or legal market participation.

- Caps on the share of cannabis-derived tax revenues directed to law enforcement or surveillance infrastructure, paired with earmarked revenue for communities disproportionately targeted under prohibition and public reporting on enforcement budgets and administrative actions.

- Dedicated cannabis tax revenues for community-led services in areas disproportionately affected by drug enforcement, with community discretion over reinvestment priorities identified by structured participatory processes and subject to public accountability requirements.

- Self-governing oversight bodies with mandated representation from impacted communities, women's organizations, Indigenous groups, and patient associations, granted substantive decision-making authority over regulations, enforcement and revenue allocation.

- Truth-telling, memorialization, and documentation processes housed within public institutions or independent commissions, recording the social, economic, racial and gendered harms of cannabis enforcement under prohibition, supported by documentation infrastructure and documentary standards adequate to substantiate those harms. Documented harms integrated into drug policy strategies, equity frameworks, and budget priorities.

- Governance standards for intermediaries and investors in legal cannabis markets, including ownership transparency, protections against undue influence over producer decisions, guaranteed exit rights for producers in collective or intermediary arrangements, and protections against the displacement of women from leadership as collective organizations gain commercial value.

- Public oversight of shared infrastructure critical to market access, with support for producer-owned or producer-governed intermediaries over external commercial gatekeepers.

- Domestic market development and livelihood protection stated as explicit objectives in statutory and regulatory language, with monitoring systems tracking participation by traditional and small-scale producers, enforcement-related harms, and transition outcomes alongside fiscal indicators.

Intellectual Property and Value Capture

Control over genetics, intellectual property, and commercial branding inform how value accrues in emerging cannabis markets.

- Defensive publication and open-access registries to document existing varieties and limit subsequent patent or plant variety protection claims over collectively stewarded genetic resources, established with the free, prior, and informed consent of source communities.

- Simplified, low-cost registration mechanisms enabling producer organizations, Indigenous authorities, and cooperatives to formalize plant varieties or collective rights for defensive or benefit-sharing purposes, under evidentiary standards that recognize communal stewardship rather than requiring conversion into individual patent claims.

- Territorial or origin-based protection frameworks, such as geographic indications, with governance rules that constrain capture by intermediaries, political actors, or local elites, and that condition branding or trademark privileges on demonstrable linkage to producing communities.

- Parallel recognition frameworks that grant communal, experiential, and Indigenous knowledge systems legal standing within regulatory and commercial processes, so that contributions to genetic stewardship, cultivation practice, and medicinal application are recognized and compensated rather than absorbed into commercial supply chains without attribution.

- Guardrails against cross-border appropriation of genetic resources and traditional knowledge, including benefit-sharing obligations and restrictions on the registration of commercial rights over varieties in jurisdictions other than those where they were developed.

XVII. CONCLUSION

This report concludes a three-year process that began in Salem, continued in Prague, and culminated in Rio de Janeiro. It draws primarily on the Rio Forum record, with the earlier convenings providing the analytical foundations for that discussion. Across the series, practitioners, regulators, researchers, producers, and affected communities from the Global South and North examined how cannabis reform operates in practice. The result is not a single model to copy. It is a comparative record of how legal cannabis markets are built, whom their rules exclude, and which design choices determine whether formal access becomes practical participation. Comparative work on cannabis reform already exists, but almost all of it comes from the small group of consumer markets with the longest experience of legalization. Before this series, no comparable record had been grounded in the conditions of producing countries and developed with traditional producers, regulators, and affected communities in the same room.

> ***The distributional consequences of cannabis reform will be addressed at the design stage, or they will not be addressed at all.***

Across every jurisdiction examined in the convening record, despite differences in legal tradition, institutional capacity, and stage of reform, participants described the same underlying problem: a wide and widening gap between formal eligibility and viable participation. The report’s comparative analysis traces that gap to regulatory structures, including rules governing licensing, capital, land, compliance, and documentation. Their recurrence across different settings suggests a common logic of market construction that operates independently of legislative intent.

The series also placed development objectives and market design within the same institutional process. Alternative Development contributes operational knowledge from decades of work in coca and opium poppy contexts, although the report does not treat that history as evidence of demonstrated outcomes in cannabis markets. Its value lies in informing licensing, sequencing, and participation thresholds before the rules harden. Development actors and affected communities can help set those terms at the design stage. If they enter later, they are left to comment on conditions that have already been fixed.

These dynamics are already underway. Across South America, the Caribbean, and Africa, governments are designing licensing systems and drafting rules that will govern participation for years. Forum discussions described capital-intensive compliance requirements filtering out small-scale producers while genetic enclosure moves faster than legal protections for source communities. The regulatory window narrows as these arrangements become embedded in law and institutional practice. Yet the communities most affected by prohibition remain the least represented in the decisions.

Policymakers, regulators, and international institutions now have access to a detailed comparative record of how market rules produce exclusion. Allowing those rules to continue operating is itself a choice. Where formally neutral requirements repeatedly generate predictable and unequal outcomes, the remaining questions are political. The distributional consequences of cannabis reform will be addressed at the design stage, or they will not be addressed at all.