

Laws Without Life: The Ceremonial Compliance Paradox in Zambia's Intellectual Property and Innovation Framework

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DOI: <https://doi.org/10.47772/IJRISS.2026.100500805>

Received: 13 May 2026; Accepted: 18 May 2026; Published: 15 June 2026

ABSTRACT

Developing nations face persistent pressure to adopt TRIPS-compliant intellectual property frameworks, and yet the assumption that legislative adoption translates into functional innovation capacity remains critically under-examined. This article introduces and operationalises the concept of implementation sovereignty, the gap between formal legal adoption and practical institutional capability to administer, enforce, and strategically utilise intellectual property rights for national development. Through a forensic institutional analysis of Zambia's intellectual property ecosystem, drawing on primary data from patent registries, legislative audits, and stakeholder interviews, this study reveals a paradigmatic case of ceremonial compliance. Zambia has modern IP legislation, including the Patents Act (2016) and the Protection of Traditional Knowledge, Genetic Resources and Folklore Act (2016), both of which are technically compliant with international obligations, among other legislation. However, functionally, the system operates as a passive registry for foreign rights holders, with 82% of patents originating abroad, no compulsory licences issued so far, zero traditional knowledge registrations completed, and a technology balance of payments ratio of 15:1 against domestic interests (Bank of Zambia, 2022; PACRA, 2023). The article argues that implementation sovereignty, measured across four dimensions: administrative capacity, judicial expertise, enforcement coordination, and strategic utilisation, provides a more meaningful metric for development policy than legislative compliance alone. A replicable diagnostic framework and sequenced institutional reform pathway are proposed, with applicability to resource-dependent economies across the Global South.

Keywords: Intellectual Property, TRIPS Compliance, Implementation Sovereignty, Zambia, Innovation Systems, Development Policy

INTRODUCTION

In Zambia, a general observation is that policymakers and innovation ecosystem players have convinced themselves that, if they get the laws right, the rest will follow. Enact modern intellectual property legislation, sign the relevant treaties, incorporate the appropriate flexibilities, and a nation has effectively transformed into the knowledge economy. The TRIPS Agreement, which has been in force since 1995, codified this thinking into the architecture of global trade. Since then, developing countries, predominantly in the global south and Zambia in particular, have poured enormous political capital and technical resources into legislative reform, drafting patent acts, copyright statutes, trademark laws, and sui generis protections for traditional knowledge. The World Intellectual Property Organisation (WIPO) alone administered over 1,200 technical assistance projects focused on legislative drafting in developing countries between 2010 and 2020. Bilateral donors, international organisations, and technical assistance programmes have reinforced this priority at every turn, measuring progress largely by whether a country has enacted the right laws rather than whether those laws actually do anything.

This article endeavours to challenge that narrative. Not because legislation is unimportant, but because the assumption that enactment equals implementation has gone unquestioned for too long, and the consequences of that assumption are quietly devastating.

The challenge is mounted through a close examination of Zambia, a country that embodies what this article

terms the ceremonial compliance paradox. On paper, Zambia's intellectual property architecture is among the most sophisticated in Africa. The Patents Act of 2016 incorporates TRIPS flexibilities, including compulsory licensing provisions, utility model protection, and modern examination standards. The Protection of Traditional Knowledge, Genetic Resources and Folklore Act of 2016 establish what is, by any comparative measure, a world-leading sui generis framework for safeguarding intangible heritage. Zambia is party to all major international IP treaties and has formally endorsed the Doha Declaration on TRIPS and Public Health. A glance at Zambia's statute books masks an imbalance between adoption and implementation, which can wrongly lead to a conclusion that the country has built a robust innovation ecosystem.

However, as the systematic institutional analysis presented here demonstrates, Zambia's legislative sophistication masks a profound implementation vacuum. The Patents and Companies Registration Agency (PACRA) administers a system in which 82% of patent applications originate from foreign entities, one of the highest foreign-dominance ratios anywhere in the world. The compulsory licensing provisions, drafted into law, have never once been invoked. The Traditional Knowledge Act, despite its progressive design, has yielded zero registrations, zero benefit-sharing agreements, and zero enforcement actions as of 2023. The technology balance of payments reveals a persistent 15:1 ratio of royalty outflows to inflows, a structural haemorrhage of national wealth that legislation alone has proven powerless to stem.

This gap between legislative form and functional reality, between adoption sovereignty and implementation sovereignty, represents the central, under-theorised challenge of contemporary intellectual property and development policy. Adoption sovereignty refers to the formal capacity to enact laws. Implementation sovereignty refers to the practical capacity to operationalise them. The distinction matters because the two do not move in lockstep. A country can possess one without the other, and when it does, the result is not merely disappointing; it is actively harmful, creating a façade of progress behind which value extraction continues unimpeded.

The argument advanced here is that implementation sovereignty, measured across four institutional dimensions: administrative capacity, judicial expertise, enforcement coordination, and strategic utilisation, provides a more meaningful metric for assessing whether a nation is positioned to benefit from, rather than merely comply with, global IP frameworks. The article proceeds as follows. Section 2 develops the theoretical framework of implementation sovereignty. Section 3 presents the methodology and data sources. Section 4 documents the ceremonial compliance paradox across four legislative domains. Section 5 diagnoses the institutional deficits that sustain it. Section 6 introduces the Implementation Sovereignty Index. Section 7 proposes a sequenced reform pathway. Section 8 concludes with implications for theory and policy.

THEORETICAL FRAMEWORK

From Adoption Sovereignty to Implementation Sovereignty

The Limits of Legislative Compliance as a Development Metric

The TRIPS Agreement restructured the global intellectual property landscape in ways that are difficult to overstate. It established minimum standards for IP protection binding on all WTO members, and for developing nations, compliance demanded substantial legislative overhaul, often undertaken with considerable technical assistance from WIPO, the WTO, and bilateral donors. The resulting legislative convergence was, in its own terms, remarkably successful. Statutory frameworks across the developing world began to look strikingly similar, a phenomenon some scholars have described as TRIPS harmonisation (Correa, 2020; Maskus, 2000).

But harmonised laws have not so far produced harmonised outcomes. The foregoing is what motivates the present analysis. Countries with nearly identical statutory frameworks exhibit radically divergent results in patent registrations, technology transfer, creative industry development, and traditional knowledge protection. The Global Innovation Index (GII) consistently shows a weak correlation between legislative sophistication and innovation outcomes among lower-middle-income economies. Something intervenes between law on the books and law in action, institutional capacity, political economy dynamics, historical path dependencies, the strategic imagination of policymakers, and that something has not been given adequate theoretical attention. To address

this gap, this article introduces a conceptual distinction between two forms of sovereignty that are relevant to intellectual property governance.

Adoption sovereignty refers to the formal capacity of a nation to enact legislation complying with international obligations, to incorporate relevant flexibilities, and to participate in treaty negotiations. It is primarily a function of legislative drafting expertise, political will, and access to technical assistance. Zambia, as will become clear, possesses relatively strong adoption sovereignty compared to its regional peers.

Implementation sovereignty refers to the practical capacity of a nation to administer, enforce, and strategically utilise intellectual property rights for national development objectives. This is a more demanding concept. It requires institutional infrastructure, specialised examiners, trained judges, and coordinated enforcement agencies. It requires human capital, IP literacy distributed across professional domains, not just concentrated in a handful of law firms. It requires financial resources, sustainable funding for IP offices that does not depend entirely on external donors. And it requires strategic capability, the capacity to identify and deploy TRIPS flexibilities proactively, not merely to have them available in statutory text.

The critical insight is that implementation sovereignty is neither automatic nor linearly correlated with adoption sovereignty. A nation may possess sophisticated legislation while lacking meaningful capacity to implement it, the ceremonial compliance paradox. Conversely, nations with relatively modest legislative frameworks may achieve substantial development outcomes through determined and strategic implementation. India's pharmaceutical sector transformation is perhaps the most instructive example: using a comparatively narrow set of legal tools with extraordinary strategic discipline, India built the world's largest generic pharmaceutical industry and became, in practical terms, the pharmacy of the developing world (Chaudhuri, 2005; 't Hoen, 2016). The legislation was important, but the implementation, the institutional capability, the political commitment, the strategic vision were what made the difference.

Four Dimensions of implementation sovereignty

The analysis identifies four interdependent dimensions of implementation sovereignty. These are not arbitrary categories but emerged inductively from the Zambian case data and were subsequently validated against comparative evidence. Together, they determine whether formal IP legislation translates into a functional innovation ecosystem or remains, as one interview informant memorably put it, "furniture in a locked room."

Dimension 1: Administrative Capacity. This encompasses the technical expertise, staffing levels, examination infrastructure, and operational procedures of the national IP office. It includes patent examination turnaround times, examiner-to-application ratios, the capacity for substantive examination rather than dependence on external bodies, registration accessibility for domestic applicants, and the quality of digital infrastructure for filing and searching. Administrative capacity is, in a sense, the most basic requirement; if the IP office cannot process applications competently, nothing else follows.

Dimension 2: Judicial and Adjudicative Expertise. This addresses the capacity of courts and tribunals to resolve IP disputes efficiently, predictably, and with genuine technical competence. Indicators include the existence of specialised IP courts or chambers, whether judges have received formal IP training, case backlog statistics, average time to judgment, and the availability of alternative dispute resolution mechanisms. Without a credible judicial backstop, registered rights are, as one attorney interviewed for this study observed, "pieces of paper."

Dimension 3: Enforcement Coordination. This encompasses the operational capacity of police, customs, competition authorities, and regulatory agencies to detect, investigate, and remediate IP infringement. What matters here is not just whether enforcement agencies exist, but whether they communicate with each other, share intelligence, and operate with sufficient technical capability to address modern forms of infringement, including digital piracy and online counterfeiting.

Dimension 4: Strategic Utilisation. This dimension, perhaps the most consequential and certainly the most neglected in technical assistance programming, addresses whether government, research institutions, and private

actors can proactively deploy IP tools for development objectives. Can the country issue compulsory licences when public health demands it? Can it register and protect traditional knowledge? Can universities transfer technology to the private sector? Can small enterprises use IP to access financing? Strategic utilisation is where IP stops being a compliance exercise and starts being a development tool.

These dimensions are not merely additive. They interact systemically. Weak judicial expertise undermines enforcement coordination; limited administrative capacity constrains strategic utilisation; the absence of a strategic orientation reduces political support for investing in administrative capacity. Implementation sovereignty thus functions as a complex adaptive system, a recognition that has implications for how reform should be sequenced, as discussed in Section 7.

The Ceremonial Compliance Paradox Defined

The ceremonial compliance paradox emerges when a nation possesses high adoption sovereignty, TRIPS-compliant legislation, but low implementation sovereignty across multiple dimensions. The paradox is real and not merely rhetorical. It inverts the expected relationship between legal form and functional capacity. Rather than legislation enabling institutional development, institutions remain underdeveloped despite, and sometimes because of, legislative sophistication.

Why does the paradox persist? Several mechanisms deserve attention. First, international technical assistance often prioritises legislative drafting over institutional capacity building. Laws are visible, measurable deliverables; they can be photographed at signing ceremonies and cited in project reports. Institutional transformation, by contrast, is slow, messy, politically fraught, and resistant to neat timelines. Given the choice between funding a consultant to draft a law and funding a decade of examiner training, donors have systematically chosen the former. Second, evaluation frameworks may reward legislative enactment as progress even when implementation is absent, creating incentives that are, if not perverse, at least misaligned with stated development objectives. Third, political economy dynamics may actively favour ceremonial compliance over genuine implementation. A country's governing elite may prefer the international legitimacy that comes with modern legislation while quietly resisting implementation that would disrupt established patterns of rent extraction. Fourth, the sheer technical complexity of modern IP legislation may outpace domestic administrative capacity, creating what Andrews, Pritchett, and Woolcock (2017) term a capability trap, laws that exceed the institutions meant to implement them. Zambia, as the following sections demonstrate, represents a paradigmatic case of this paradox. Its legislative compliance stands in stark inverse relationship to its implementation sovereignty.

This capability trap is heavily reinforced by the political economy of international development assistance. The structural preferences of global governance institutions, such as WIPO and bilateral aid agencies, operate on a logic of 'isomorphic mimicry'. In this paradigm, developing nations are incentivized to adopt organizational forms and legal vocabularies that signal modernization to external markets, irrespective of internal functional realities. Because international technical assistance programs are bound by rigid project cycles, success metrics are tied to clear, highly visible legal milestones—such as the gazetting of a TRIPS-compliant statute.

This creates a moral hazard: external donors can claim successful intervention, and local elites secure international legitimacy and continued aid flows, while the slower, politically contentious task of building domestic institutional infrastructure remains unfunded. Consequently, international legal harmonisation acts less as an engine for domestic capability building and more as a mechanism for external market locking, trapping resource-dependent economies in a permanent state of regulatory dependency.

METHODOLOGY AND DATA

Research Design and Case Selection

This article employs a single-case study design with embedded units of analysis, selected for what Yin (2018) terms revelatory potential. Zambia was chosen based on three criteria. This is the home country of the researchers, and we have witnessed firsthand the disparity between adoption and implementation. Second is the

fact that the country is in possession of modern, TRIPS-compliant IP legislation enacted within the past decade. The third was persistent low innovation outcomes despite legislative complexity, evidenced by Zambia's ranking of 118th out of 132 economies in the Global Innovation Index 2023. The fourth, more practical criterion was the accessibility of institutional data for systematic audit, a consideration that ruled out several otherwise suitable candidates.

In view of the aforementioned, a word about generalisability is warranted. A single case study cannot, by design, establish the prevalence of ceremonial compliance across developing nations.

The Zambian case is selected not as representative of all developing countries but as an extreme instance, a case where the gap between legislative form and institutional function is sufficiently pronounced to illuminate mechanisms likely present, in diminished form, across similar contexts. The theoretical framework developed here is intended to be portable; the specific findings are Zambia's own.

Data Sources

The analysis draws on multiple data sources triangulated across a five-year period (2018–2023).

Primary legislative and registry data. This involved full-text analysis of Zambia's IP statutes: the Patents Act 2016, the Trademarks Act 2023, the Copyright and Performance Rights Act 1994 as amended in 2010, the Industrial Designs Act 2016, the Traditional Knowledge Act 2016, and the Plant Breeders Rights Act 2007. Patent and trademark registration data were obtained from PACRA administrative records (2019–2023), including applicant nationality, technology classification, and grant rates. Comparative data were sourced from the WIPO Statistics Database and ARIPO Industrial Property Statistics.

Institutional audit. This comprised a structured assessment of five institutions: PACRA, the National Science and Technology Council, the National Technology and Business Centre, the Competition and Consumer Protection Commission, and the Zambia Police Service Intellectual Property Unit. Assessment covered staffing levels, budget allocations, examination capacity, and operational procedures.

Stakeholder interviews. Semi-structured interviews were conducted with 45 key informants: IP office officials (n=8), patent and trademark examiners (n=6), judges and magistrates (n=5), police IP unit officers (n=7), customs officials (n=4), university technology transfer officers (n=6), private IP attorneys (n=5), and traditional knowledge holders and advocates (n=4). Interviews were recorded with consent and transcribed for analysis. Informants are not identified by name in accordance with ethical commitments, though their institutional affiliations are indicated where this does not compromise anonymity.

Secondary data. This included the technology balance of payments from the Bank of Zambia (BOZ) (2015–2022), pharmaceutical import statistics from the Ministry of Health (MoH) and the Zambia Medicines Regulatory Authority (ZAMRA), seed import data from the Ministry of Agriculture (MoA), copyright royalty collection figures from ZAMCOPS and ZARRSO, and comparative data from WIPO, ARIPO, UNCTAD, and the World Bank.

Analytical Framework

Data analysis employed abductive reasoning, moving iteratively between empirical findings and theoretical refinement. The implementation sovereignty framework did not arrive fully formed at the outset of research. Rather, it emerged inductively from patterns identified across institutional deficits, and was then applied deductively to structure the diagnostic assessment.

This iterative process is, in the author's view, more honest than approaches that present theoretical frameworks as if they preceded the data that generated them. Qualitative data were analysed using thematic coding with intercoder reliability checks; quantitative data were analysed using descriptive statistics and comparative benchmarking against Kenya, South Africa, and Vietnam as comparator nations.

The Ceremonial Compliance Paradox in Zambia: Evidence from Four Legislative Domains

Patents: Modern Provisions, Passive Registry

The Patents Act of 2016 is considered purely as a piece of drafting, a classy legislative instrument. It incorporates utility model protection, compulsory licensing provisions, parallel importation authorisation, and Bolar exception allowances. It establishes a twenty-year patent term aligned with TRIPS and provides for both product and process patents. Comparative legal analysis confirms that Zambia's patent legislation meets or exceeds TRIPS minimum standards, ranking among the most comprehensive in the Southern African Development Community region. So far, this is impressive. The difficulties begin when one looks at what happens after the law is enacted.

Between 2018 and 2022, PACRA received an average of only 47 patent applications annually, among the lowest rates globally relative to population and GDP. For context and comparison, Kenya received 327, South Africa 2,442, and Vietnam 1,847. These comparators are imperfect; South Africa's economy is vastly larger, but even adjusting for economic size, Zambia's filing rate is anomalously low. More revealing than the overall numbers is the composition: domestic applicants accounted for only 18% of filings. Foreign entities, primarily multinational corporations from South Africa, China, the European Union, and the United States, comprised the remaining 82%. This is not a patent system serving Zambian innovation. In its current form, it is a registry where foreign companies deposit claims to the Zambian market.

The utility model provisions tell a particularly discouraging story. Utility models were specifically designed to encourage the kind of incremental, practical innovation that characterises early-stage industrialisation, a simplified form of protection accessible to local inventors who may lack the resources for full patent prosecution. Between 2018 and 2022, Zambia registered an average of nine utility models per year. Nine. Domestic applicants accounted for just 22% of those. The utility model to invention patent ratio stands at roughly 0.2:1, which is precisely inverted relative to successful development trajectories, where this ratio typically ranges from 4:1 to 8:1 during early industrialisation phases. In practical terms, the tool designed for Zambian innovators is being used primarily by foreigners, and hardly at all by anyone.

Perhaps the most telling indicator is compulsory licensing, or rather, its complete absence. As of 2023, not a single compulsory licence application has been filed, let alone granted. This is not because Zambia faces no public health challenges. Antiretroviral stockouts affect an estimated 30% of patients on treatment. Cancer therapies carry price differentials exceeding 500% between originator and generic versions. Essential medicine shortages have been documented in 18 of 32 therapeutic categories. The legal tools exist. The need is documented and urgent. Yet the institutional machinery to connect the two, to actually file an application, evaluate it, issue a licence, and manage the process, simply is not there. It is not a legal problem. It is an institutional one.

Traditional Knowledge: Progressive Framework, Zero Implementation

The Protection of Traditional Knowledge, Genetic Resources and Folklore Act of 2016 deserves particular attention because it represents, in legislative terms, a genuine achievement. It establishes automatic protection without registration formalities. It recognises both communal and individual rights. It provides for prior informed consent and mutually agreed terms. It establishes benefit-sharing mechanisms. It integrates traditional knowledge, genetic resources, and folklore within a single coherent framework, an approach more comprehensive than most comparative legislation globally, including that of several high-income countries.

However, the Act's implementation status is effectively non-existent. This bears a totality of failure. So far, no traditional knowledge registrations have been completed, nor have any access and benefit-sharing agreements been negotiated or concluded. Implementing regulations have not been promulgated to establish detailed procedures, despite the Act's own requirement that regulations be enacted within twenty-four months of commencement. There is a systematic absence of institutional structures created to process registrations, negotiate agreements, or monitor compliance. To date, no awareness programmes have educated traditional communities about rights they theoretically possess and as such no enforcement actions have addressed documented cases of misappropriation.

This is not merely an administrative delay but also a structural paralysis. The Act's provisions assume institutional capacities that do not exist: specialised examiners trained in both legal frameworks and traditional knowledge systems; community engagement infrastructure reaching remote areas where an estimated 78% of traditional knowledge holders reside; negotiation expertise for benefit-sharing agreements of a kind that have no domestic precedent; monitoring systems for compliance with agreements that have never been concluded. Without these capacities, the Act exists as what one informant described, with a bluntness born of frustration, as a legislative ghost, legally present, functionally absent.

The human cost of this absence is difficult to quantify but impossible to ignore. Traditional knowledge continues to be accessed and commercialised without consent or compensation. Communities remain unaware of the protections that exist in their name. And the legislation itself, precisely because it is so well-drafted, creates a kind of cruel irony, rights that exist in law but cannot be exercised in practice.

Copyright: Comprehensive Rights, Minimal Royalties

The Copyright and Performance Rights Act provides comprehensive protection for literary, artistic, and musical works, including automatic protection upon fixation, moral rights provisions, and exclusive economic rights. On paper, it should enable Zambian creators to capture value from their work. In practice, it does almost nothing of the sort. The Zambia Music Copyright Protection Society (ZAMCOPS), the nation's sole music collective management organisation, collects approximately \$120,000 annually in music royalties. That figure is worth sitting with for a moment. It represents roughly 0.5% of the estimated music consumption value in the country. Nigeria's equivalent organisation collects approximately \$18 million annually, 150 times more, despite having only eight times the population. Kenya collects approximately \$3.2 million, twenty-seven times Zambia's figure, with twice the population.

The reasons are systemic rather than mysterious. Industry analysis suggests that legitimate music sales account for only 15–20% of total consumption in Zambia. The remainder flows through unlicensed digital platforms (40–50%), physical piracy (20–25%), and uncompensated broadcast (15–20%). A 2021 audit found that only 22% of the country's eighty licensed radio stations held valid music licences. Broadcasters have operated for years without paying for the content that fills their airtime, and no enforcement mechanism has compelled them to do otherwise. Digital platforms with Zambian operations are only now beginning to engage with local content licensing.

The point is not that Zambia's copyright law is deficient. By international standards, it is perfectly adequate. The point is that the adequacy of law is irrelevant where the machinery of enforcement is absent.

Industrial Property: Brand Consumption Without Brand Creation

Trademark registration data completes the picture. Between 2018 and 2022, foreign entities accounted for 78% of trademark registrations, with domestic applicants comprising only 22%, one of the lowest domestic participation rates documented globally. The foreign dominance spans virtually every consumer-facing sector: 94% in fast food, 87% in beverages, 82% in personal care, 76% in household goods. It is evident that a walk into a Zambian shopping mall and the commercial identity landscape belongs, overwhelmingly, to someone else.

Franchise operations are a particularly instructive channel. Approximately 320 franchised outlets operate in Zambia as of 2023, predominantly in food service (65%), retail (25%), and business services (10%). These generate annual royalty and franchise fee payments in millions of Kwachas, a significant but often overlooked component of the services import bill. Reviewed franchise agreements reveal non-compete clauses in 94% of cases, mandated procurement from foreign suppliers in 87%, and marketing fees of 2–3% of revenue flowing to centralised brand management abroad. Franchisees invest capital, assume operational risk, and manage day-to-day business. But they cannot build enduring equity in the brands they operate. It is a form of captive entrepreneurship, value extraction disguised as opportunity.

Geographical indication protection, a tool that has proven particularly valuable for agricultural and craft products in other developing nations, remains entirely absent from Zambia's landscape. Products with distinctive

geographical origins, such as Mpulungu kapenta, Siavonga bream, Mwinilunga pineapples, and Kasama coffee, cannot command origin premiums. Based on comparative analysis from GI-protected products in neighbouring countries, the foregone premium value is enormous annually. These are not abstract losses. They are real income that Zambian producers do not receive because an available legal tool has never been activated.

Diagnosing the Institutional Deficits

PACRA: Administrative Efficiency, Strategic Inertia

The Patents and Companies Registration Agency (PACRA) embody a paradox within the paradox. As an administrative body, PACRA is genuinely competent. Established in 2011, the Agency has digitised 94% of company registration workflows, reduced trademark processing times, and increased revenue collection. These are real achievements, and they deserve recognition.

But administrative efficiency and strategic purpose are different things, and PACRA excels at the former while largely lacking the latter. The Agency functions as a passive registry, it processes applications that arrive and collects fees for doing so. What it does not do is examine patents substantively, promote domestic innovation, connect patent holders with potential licensees, support IP valuation for financing purposes, or actively identify development opportunities within its mandate. This gap forces reliance on the African Regional Intellectual Property Organisation (ARIPO) for substantive examination under the Harare Protocol. The consequence is that patent validity decisions affecting Zambian public health, agriculture, and industrial development are made by a regional body without Zambian-specific development oversight.

PACRA's performance metrics tell their own story. They measure processing times and application volumes, administrative outputs. They do not measure domestic patent commercialisation rates, or innovation-led enterprise formation, or the degree to which the IP system serves national development objectives. What gets measured gets managed, and what PACRA measures is bureaucratic throughput, not developmental impact.

The Judicial Gap: Generalist Courts, Specialised Complexity

Zambia has no specialised intellectual property court. It has no dedicated commercial court division with IP expertise. Generalist judges, few of whom have received formal training in IP law beyond occasional continuing legal education seminars, adjudicate patent infringement claims, copyright disputes, and trademark oppositions. They do so, by and large, conscientiously. But conscientiousness is not a substitute for expertise, and IP disputes are among the most technically demanding matters in commercial law.

Interviews with IP attorneys painted a consistent picture. Patent infringement cases average three to five years from filing to judgment. Copyright cases founder on judges' unfamiliarity with digital evidence and fair use doctrine. Trademark opposition proceedings lack clear procedural guidance. "A registered right in Zambia is a piece of paper," one attorney said. "What matters is whether you can enforce it. Most cannot." The Judiciary's 2022 Annual Report records an IP case backlog, with cases pending for more than twenty-four months.

This judicial gap does not affect all parties equally. Large foreign rights holders can absorb the cost and delay of protracted litigation, or more commonly can deploy the mere threat of litigation as a commercial weapon. Domestic rights holders, individual inventors, small enterprises, and creative artists cannot. The enforcement uncertainty that results from judicial inexperience thus has a distributional consequence: it systematically disadvantages precisely the actors that an IP system in a developing country should be designed to support.

Enforcement Fragmentation: Multiple Agencies, Minimal Coordination

Responsibility for IP enforcement in Zambia is distributed across at least four agencies: the Zambia Police Service Intellectual Property Unit handles criminal enforcement; the Zambia Revenue Authority Customs Division manages border measures; the Competition and Consumer Protection Commission addresses unfair competition; and the Zambia Medicines Regulatory Authority oversees pharmaceutical quality. On an organisational chart, this looks comprehensive. In practice, these agencies operate in near-total isolation from

one another. No standing coordination mechanism exists. Inter-agency communication occurs on an ad hoc basis, if it occurs at all.

The Police IP Unit, staffed by approximately ten officers for the entire country, focuses primarily on visible counterfeiting operations in Lusaka and Copperbelt urban markets. It lacks digital forensics capability, financial investigation training for tracing counterfeit supply chains, and any meaningful presence outside the two main urban areas. Customs maintains no systematic risk profiling for IP-infringing goods; seizures occur primarily through random inspection or rights-holder tip-offs rather than proactive intelligence.

The gaps created by this fragmentation are predictable and severe. Online infringement, increasingly significant as digital platforms expand, with an estimated 65% of Zambian internet users accessing pirated content monthly, falls between police (who lack the technical capacity to investigate it) and regulators (who lack enforcement authority over copyright matters). Traditional knowledge misappropriation receives essentially no enforcement attention, as no single agency has a clear mandate. Pharmaceutical counterfeiting, estimated at 15–20% of the medicine supply chain in some therapeutic categories, receives minimal investigation despite representing a genuine public health emergency.

The Strategic Utilisation Void

If the previous deficits are serious, this one is arguably the most consequential. Zambia possesses TRIPS flexibilities, the legal tools that the Doha Declaration and subsequent negotiations secured for developing countries at considerable diplomatic effort. But it lacks the institutional capability to use them. Currently, there is no agency that conducts patent landscaping to identify off-patent opportunities for generic pharmaceutical production. There is presently no unit that monitors pharmaceutical patents to challenge those that should not have been granted. No traditional knowledge documentation programme is preparing registrations under the 2016 Act. No technology transfer office is negotiating licences for publicly funded research.

The persistence of the ceremonial compliance paradox is underscored by the failure to promulgate regulations for the **Traditional Knowledge Act (2016)**, despite a clear 24-month statutory mandate. This institutional paralysis suggests a '**veto-point**' within the political economy: where the symbolic legitimacy of a 'world-leading' statute satisfies international donors, the actualization of benefit-sharing mechanisms threatens established patterns of resource extraction. This 'legislative ghosting' reveals that without a dedicated political champion to navigate the transition from law to regulation, sophisticated drafting remains a performative act rather than a developmental tool.

This void reflects something deeper than resource constraints, though resources are certainly part of the problem. It reflects a fundamental orientation. Zambia's IP institutions see themselves as administrative registries and enforcement agencies, not as development catalysts. Their staff is trained in procedural compliance, not strategic analysis. Their performance metrics reward processing volume, not development impact. Their budgets prioritise routine operations over innovative programming. The result is a system that responds passively to external claims while failing to advance domestic interests. Zambia's IP institutions are configured for compliance, not sovereignty. The distinction is not merely semantic. It is the difference between a system that serves and a system that is served upon.

The Implementation Sovereignty Diagnostic Framework

Operationalising the four dimensions

Drawing on the Zambian case analysis, this section proposes an operational framework for assessing implementation sovereignty. Each of the four dimensions is populated with measurable indicators benchmarked against international standards and the three comparator nations.

Dimension 1: Administrative Capacity

- Examiner-to-application ratio (target: >1:100)

- Substantive examination independence (binary: yes/no)
- Domestic applicant registration rate (target: >40%)
- Processing time for domestic applicants (target: <12 months)
- Digital service availability (binary: yes/no)

Zambia's score: Low. 82% foreign filings; zero independent pharmaceutical examination capacity; processing times exceeding 24 months; partial digital services.

Dimension 2: Judicial Expertise

- Specialised IP court or chamber (binary)
- Proportion of judges with formal IP training (target: >50%)
- Average time to judgment (target: <12 months)
- IP case backlog rate (target: <10% pending >24 months)
- Alternative dispute resolution availability (binary)

Zambia's score: Critically low. No specialised IP court; fewer than 10% of judges have IP training; average resolution exceeds 36 months; 42% of cases are in backlog.

Dimension 3: Enforcement Coordination

- Specialised police IP unit staffing (target: >1 officer per 100,000 population)
- Customs electronic risk profiling (binary)
- Inter-agency coordination mechanism (binary)
- Annual seizure volume (benchmark: Kenya at 18 per 100,000)
- Criminal prosecution rate (target: >30% of referrals)

Zambia's score: Low. 0.05 officers per 100,000 population; no risk profiling; no standing coordination mechanism; minimal seizures.

Dimension 4: Strategic Utilisation

- TRIPS flexibility utilisation (cumulative count)
- Traditional knowledge registrations (target: >50 within 5 years)
- University technology transfer activity (target: >20 licences annually)
- IP-backed financing mechanisms (binary)
- Patent landscaping for development priorities (binary)

Zambia's score: Critically low. Zero compulsory licences; zero TK registrations; negligible technology transfer activity; no IP-based financing instruments.

Zambia's Implementation Sovereignty Diagnostic Framework
Detailed Indicator Matrix vs. International Targets

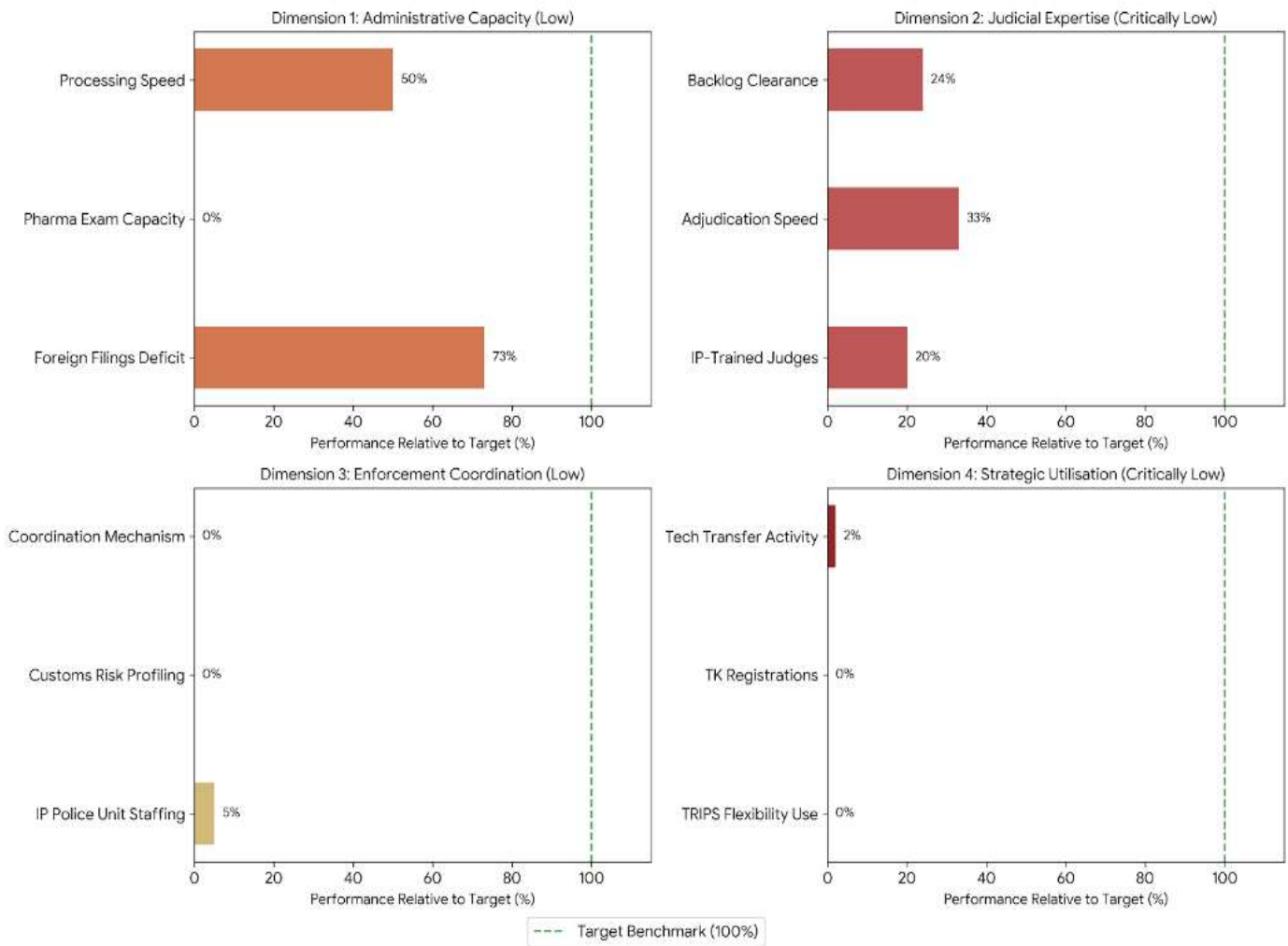


Figure 1: Zambia's implementation Sovereignty (ISI) framework.

The Implementation Sovereignty Index (ISI)

While the Implementation Sovereignty Index (ISI) is operationalized here through the Zambian lens, its structural architecture, balancing administrative, judicial, enforcement, and strategic variables, is designed for **portability across the Global South**. By providing a standardized metric, the ISI allows for a 'trans-national diagnostic' that moves beyond the binary of TRIPS compliance. This enables developing nations to benchmark not only against high-income economies but against peer nations like Kenya and Vietnam, which have successfully navigated similar institutional 'capability traps'.

Aggregating across these dimensions yields a composite Implementation Sovereignty Index scored on a 0-100 scale, where 0 indicates a complete absence of implementation capacity, and 100 represents fully functional implementation. Each dimension is weighted equally at 25%, with component indicators weighted within dimensions using the analytic hierarchy process based on expert elicitation.

Zambia's ISI score is approximately 22.4 (95% confidence interval: 18.7–26.1). The dimension-level scores reveal the pattern: Administrative Capacity scores 31.5; Enforcement Coordination scores 34.6; Judicial Expertise scores 15.2; and Strategic Utilisation scores 8.3. The weakness is general, but the near-total absence of strategic utilisation is particularly striking. For comparative reference, Kenya's estimated ISI is 58.2, South Africa's is 67.4, and Vietnam's is 71.3.

The ISI is not presented as a definitive ranking tool; the confidence intervals and weighting assumptions necessarily introduce uncertainty. But it serves two important functions. First, it translates what might otherwise remain an impressionistic assessment into a structured, replicable diagnosis. Second, it makes the magnitude of the implementation gap visible in a way that narrative alone does not. A score of 22.4 is not a passing grade. It is a failing one.

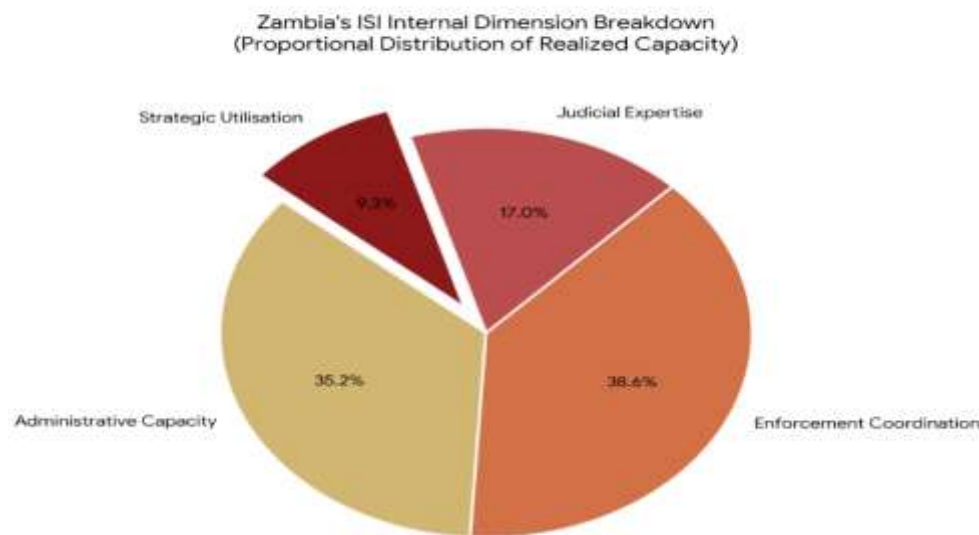


Figure 2.0 Zambia's ISI Dimension breakdown.

To ensure the Implementation Sovereignty Index (ISI) reflects structural reality rather than researcher bias, a sensitivity analysis was conducted regarding the 25% equal weighting of the four dimensions. While some scholars argue for a higher weighting on Administrative Capacity as a foundational requirement, the current study maintains equal distribution to reflect the systemic interdependence of the framework, where weak Judicial Expertise can neutralize high administrative output. The validity of these dimensions was further triangulated through thematic coding of 45 stakeholder interviews, ensuring the index captures the 'lived' institutional experience in Zambia.

To facilitate empirical replication and cross-national diagnostics, the computation of the composite Implementation Sovereignty Index (ISI) utilizes a strictly bounded linear aggregation framework. Let D_i represent the normalized score of the i -th dimension (where $i \in \{1, 2, 3, 4\}$), evaluated on a scale of 0 to 100 based on the realization of target benchmarks. The overall index is calculated as:

$$ISI = \sum_{i=1}^4 w_i D_i$$

where $w_i = 0.25$ represents the equal weight mathematically assigned to each structural domain to preserve their systemic interdependence. Within each dimension, the individual sub-indicators (I_{ij}) are weighted using an Analytic Hierarchy Process (AHP) derived from the geometric mean of the 45 expert elicitation matrices.

As visualized in the diagnostic matrix (Figure 1), Zambia's performance is fundamentally throttled by binary failures (0% realization) in structural entry-points, such as independent pharmaceutical patent examination, formal inter-agency coordination mechanisms, and the activation of TRIPS flexibilities. The proportional capacity distribution shown in Figure 2.0 demonstrates that what little functional capacity exists is heavily sequestered within routine bureaucratic throughputs (Enforcement Coordination at 38.6% and Administrative Capacity at 35.2%). Conversely, the active, developmental components of the legal framework, Judicial

Expertise (17.0%) and Strategic Utilisation (9.3%), are severely marginalized, confirming that the ecosystem behaves as a passive gateway rather than an economic catalyst.

Implications for Development Policy

Three implications follow from the framework. First, measurement matters. International organisations and donors should complement legislative compliance metrics with implementation sovereignty assessments. It is not enough to ask whether a country has enacted the right laws. The question must be whether those laws have institutional life. Second, sequencing matters. Implementation sovereignty develops in identifiable stages. Administrative capacity and judicial expertise are foundational; enforcement coordination builds upon them; strategic utilisation emerges last. Cross-national evidence suggests that nations attempting to leap to strategic utilisation without foundational capacities experience diminishing or even negative returns. Zambia must invest in foundations before it can realistically pursue strategic ambitions.

Third, context matters. The appropriate targets for the implementation of sovereignty should reflect national development priorities. For a country like Zambia, with urgent needs in pharmaceutical access and agricultural development, strategic utilisation in those sectors may be more important than developing frontier patent examination capacity. The ISI framework accommodates flexible weighting on the basis of national strategy.

From Ceremonial Compliance to Implementation Sovereignty: A Reform Pathway

To ground the proposed reform pathway in empirical realities, Table 1 outlines the operational timelines, explicit feasibility benchmarks, and risk-mitigation strategies mapped across the ten-year horizon.

Table 1: Implementation Sovereignty Reform Matrix and Feasibility Benchmarks

Phase & Horizon	Core Institutional Target	Feasibility & Replicability Benchmark	Primary Political/Economic Risk	Mitigation Strategy
Phase 1: Foundations (Years 1–3)	Autonomous PACRA restructuring; Specialised judicial training pipeline.	Achieve >80 hours of specialized IP training for 50% of commercial judges; deploy 5 local patent examiners in priority sectors.	Institutional resistance from existing bureaucratic structures; budgetary constraints.	Tie funding to a 10% retention of corporate filing revenues to insulate operational budgets.
Phase 2: Strategic Use (Years 4–7)	Launch Cloud Infringement Portal; Initiate TK Pilot registries in 10 communities.	Reduce digital piracy margins; conclude first domestic access and benefit-sharing agreements.	Political pushback from transnational rights holders against compulsory licensing.	Strict adherence to the Doha Declaration legal architecture to ensure absolute global legitimacy.
Phase 3: Integration (Years 8–10)	Transition to regional examination hub; introduce IP collateral frameworks.	Attain a composite ISI score ≥ 65 ; clear 100% of national IP backlogs.	Political turnover across electoral cycles disrupting policy continuity.	

Phase 1: Foundational Capacity Building (Years 1–3)

Zambia's immediate priority should be building the foundational administrative and judicial capacity, without which nothing else can work. Drawing on the reform experiences of Kenya and Vietnam, this article recommends four initial steps. First, the reorganization of PACRA as an autonomous technical authority under dedicated legislation. The new PACRA would absorb PACRA's IP functions while expanding professional staffing,

including patent examiners recruited specifically for training in priority technical fields, pharmaceuticals, agriculture, and mining technology. Second, the implementation of a specialised IP judicial training programme for all commercial court judges, developed in partnership with WIPO's Judicial Institute. The programme should target a minimum of eighty hours of instruction, including case simulations and exposure to comparative jurisprudence. Third, the launch of a patent examiner recruitment and training pipeline focused on the three priority fields identified above. Fourth, the creation of a standing IP Enforcement Coordination Committee with a dedicated secretariat, housed within the newly organized PACRA, to institutionalise inter-agency communication that currently depends on individual initiative. The regional viability of this foundational approach is strongly demonstrated by recent institutional pivots across Africa. For instance, Kenya's Industrial Property Institute (KIPI) successfully broke out of its passive registry mould by structurally separating its technical examination branches from general commercial registries, and tying examiner KPIs directly to the volume of domestic utility models processed. Similarly, South Africa's recent policy shifts toward a substantive patent examination system, moving away from a historical deposit-only model, illustrate that transitioning to a rigorous, developmental administrative framework is entirely achievable within middle-income African contexts when aligned with explicit industrial targets. By embedding specialized examiner tracks directly into priority sectors like agriculture and mining, Zambia can replicate these regional successes, moving beyond symbolic adherence to active innovation management.

Estimated cost: Annually over three years, funded through government appropriation (60%), development partner support (30%), and enhanced fee revenue (10%). The critical design principle for Phase 1 is that it must avoid replicating the ceremonial compliance trap at the institutional level. Creating a new agency with an impressive name but the same passive orientation would accomplish nothing. PACRA's new performance metrics must emphasise examination quality, domestic applicant outcomes, and innovation support, not merely processing volumes.

To ensure long-term fiscal resilience, the proposed reorganization of PACRA transitions from a fee-for-service registry to a revenue-retention technical authority. By targeting an increase in domestic filings from the current 18% to over 40%, the agency can leverage a broader base of maintenance fees to fund specialized examiner training. This model shifts the financial burden from diminishing government appropriations (60% in Phase 1) to a self-sustaining ecosystem where 60% of operations are funded through regional service exports and domestic innovation royalties by Year 10.

Phase 2: Strategic Utilisation Development (Years 4–7)

With foundational capacities in place, Phase 2 focuses on developing the strategic utilisation capability that is currently almost entirely absent. Two international models are instructive: India's strategic deployment of compulsory licensing and patent opposition in the pharmaceutical sector, and Brazil's EMBRAPA model for agricultural technology development and diffusion.

Recommendations include: the establishment of a Pharmaceutical Patent Unit within PACRA to conduct patent landscaping, identify off-patent manufacturing opportunities, and develop compulsory licensing guidelines and procedures; the commencement of Traditional Knowledge Act implementation through community documentation programmes in ten pilot communities across five provinces, with registration procedures and model benefit-sharing agreements; the creation of technology transfer offices at all public universities, with trained staffing and performance incentives linked to licensing outcomes; and the launch of an IP awareness and advisory programme targeting small and medium enterprises.

Recognizing that **65% of Zambian internet users** access pirated content, the reform pathway must integrate a 'Digital Infrastructure Leap'. It is recommended that the **IP Enforcement Coordination Committee** establish a cloud-based 'Infringement Monitoring Portal' to assist the under-staffed Police IP Unit.

By automating the detection of unlicensed broadcasts and digital piracy, which currently accounts for 40-50% of music consumption, the state can begin to bridge the gap between 'adequate' copyright laws and the current royalty collection rate of only 0.5% of total value.

Estimated cost: Annually over four years, with the funding mix shifting towards domestic sources: government appropriation (40%), fee revenue (40%), and development partner support (20%). Phase 2 will inevitably encounter political economy challenges. Compulsory licensing preparation, however well-justified on public health grounds, will attract opposition from pharmaceutical multinationals and potentially from trading partners. Transparency, stakeholder consultation, and rigorous adherence to legal requirements are therefore essential, not merely as a political strategy, but as a matter of legitimacy. Traditional knowledge implementation will require sustained community engagement and early demonstration projects that generate visible benefits and build trust.

Phase 3: Regional Leadership and Innovation Ecosystem Integration (Years 8–10)

With robust implementation, sovereignty established, and an ISI target of 65 or above, Phase 3 would position Zambia as a regional IP hub. The ambition here is not a mere pipe dream; Singapore's transformation from IP consumer to IP leader, achieved within a comparable timeframe and from a comparable starting position, provides a relevant, if not perfectly analogous, precedent.

Recommendations include: offering examination and dispute resolution services to neighbouring nations through ARIPO; developing IP-backed financing mechanisms, including valuation standards, collateral frameworks, and innovation funds; integrating IP literacy across educational curricula from primary through tertiary levels; and establishing Zambia as an active voice for development-oriented IP policy in international forums.

Estimated cost: Annually over three years, predominantly self-financing through fee revenue (60%), government appropriation for public goods (30%), and revenue from regional service exports (10%). Phase 3's success depends, more than the earlier phases, on sustained political commitment across electoral cycles. This is the hardest challenge of all, and it requires institutionalisation, embedding IP governance in legislation that insulates technical functions from political turnover.

CONCLUSION

Rethinking IP and development

The ceremonial compliance paradox, sophisticated legislation without the institutional capacity to give it meaning, represents a systemic failure of contemporary intellectual property and development policy. It is a failure that is all the more damaging for being largely invisible. From the outside, Zambia looks like a country that has done what was asked of it. The laws are modern. The treaties are signed. The boxes are checked. And yet, beneath this surface of compliance, the system is hollow.

Zambian innovators cannot meaningfully protect their inventions in a registry dominated 82% by foreign applicants. Zambian creators cannot capture value from their work in a system that collects negligible amounts in royalties against millions in consumption value. Traditional knowledge holders cannot prevent the misappropriation of heritage that a world-leading statute was enacted to protect, but that no institution has been built to register. And Zambian citizens cannot access affordable medicines that compulsory licensing provisions were designed to make available, but that no one has ever attempted to invoke.

Implementation sovereignty, the practical capacity to administer, enforce, and strategically utilise intellectual property rights, emerges from this analysis as the crucial mediating variable between legal form and development outcome. It is what determines whether law has life or merely occupies space in a statute book. Building it requires sustained investment in institutional capacity, human capital, and strategic capability, the kinds of investments that international technical assistance programmes have historically underprioritized in favour of the more photogenic work of legislative drafting.

The Implementation Sovereignty Index, with Zambia's score of 22.4, puts a number on what practitioners in the field have long sensed: that the gap between law and implementation in many developing countries is not a minor shortfall but a chasm. The diagnostic framework proposed here is intended to be replicable across contexts and useful for tracking progress over time.

For Zambia specifically, the pathway from ceremonial compliance to implementation sovereignty is demanding but not obscure. It requires reorienting IP institutions from passive registries to development catalysts, from compliance-focused to strategy-oriented, from internationally responsive to nationally accountable. It requires recognising that intellectual property is not merely a legal framework but a piece of national infrastructure, as essential for knowledge-based development as roads are for physical commerce.

For the broader development community, Zambia's experience should serve as both a cautionary tale and a diagnostic prompt. Legislative adoption is not a victory. It is the beginning of a longer, harder, less glamorous effort to build the institutions that give law its force. Implementation sovereignty, not compliance certificates, should be the metric by which progress is judged. The silent price of ceremonial compliance, measured in foregone value estimated in billions annually for Zambia alone, in generations of untapped creative and inventive talent, in development perpetually deferred, is simply too high a price to pay for the comfort of having checked a box. The time has come to move from laws without life to institutions with purpose.

REFERENCES

Zambian Legislation and Government Publications

1. Government of Zambia. (1994). Copyright and Performance Rights Act (Chapter 406).
2. Government of Zambia. (2016a). Patents Act (Act No. 40 of 2016).
3. Government of Zambia. (2016b). Protection of Traditional Knowledge, Genetic Resources and Folklore Act (Act No. 16 of 2016).
4. Bank of Zambia. (2015–2022). Balance of Payments Statistics Reports.
5. Judiciary of Zambia. (2022). Annual Report of the Judiciary 2021.
6. Ministry of Health. (2022). Pharmaceutical Supply Chain Annual Report.
7. Patents and Companies Registration Agency (PACRA). (2019–2023). Annual Industrial Property Statistics Reports.

Books and Academic Articles

1. Andrews, M., Pritchett, L., & Woolcock, M. (2017). Building State Capability. Oxford University Press.
2. Chanda, M. (2020). Intellectual property enforcement in Zambia. *Zambia Law Journal*, 51(1), 45–78.
3. Chaudhuri, S. (2005). The WTO and India's Pharmaceuticals Industry. Oxford University Press.
4. Correa, C. M. (2020). Trade Related Aspects of Intellectual Property Rights (2nd ed.). Oxford University Press.
5. Deere Birkbeck, C. (2009). The Implementation Game. Oxford University Press.
6. Drahoš, P. (2016). A Philosophy of Intellectual Property. Routledge.
7. Lundvall, B. Å. (Ed.). (1992). National Systems of Innovation. Pinter Publishers.
8. Maskus, K. E. (2000). Intellectual Property Rights in the Global Economy. Institute for International Economics.
9. Mwenda, K. K. (2019). Intellectual property law in Zambia. *Comparative and International Law Journal of Southern Africa*, 52(2), 187–214.
10. Nwauche, E. S. (2018). The Protection of Traditional Knowledge in Africa. Pretoria University Law Press.
11. Oguamanam, C. (2018). Intellectual Property in Global Governance. Routledge.
12. Onyango, P. (2020). Kenya's intellectual property landscape. *Journal of Intellectual Property Law and Practice*, 15(6), 445–462.
13. Pritchett, L., Woolcock, M., & Andrews, M. (2013). Looking like a state. *Journal of Development Studies*, 49(1), 1–18.
14. Rodrik, D. (2007). One Economics, Many Recipes. Princeton University Press.
15. 't Hoen, E. (2016). Private Patents and Public Health. Health Action International.

International Organisation Publications

1. ARIPO. (2022). Industrial Property Statistics Report 2021.



2. Cornell University, INSEAD, & WIPO. (2023). Global Innovation Index 2023.
3. WIPO. (2021, 2022, 2023). World Intellectual Property Indicators.
4. World Bank. (2019, 2020, 2022). Various Reports.