



THE REMEDY DEFICIT OF THE GRATK TREATY: RECONSTRUCTING PATENT REVOCATION FOR GENETIC RESOURCES IN INDONESIA

Moh. Fahrial Amrulla

Law Faculty, Merdeka University of Malang, Malang, Indonesia

<https://orcid.org/0009-0004-6604-6113>, and Email :

fahrial.amrulla@unmer.ac.id

Dhaniar Eka Budiastanti

Law Faculty, Merdeka University of Malang, Malang, Indonesia

<https://orcid.org/0009-0002-9323-3796>, and Email :

dhaniar.eka@unmer.ac.id

✉ corresponding email only: dhaniar.eka@unmer.ac.id

Abstract

The WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, adopted on 24 May 2024, is widely celebrated as a victory for the Global South after more than two decades of negotiation. This article interrogates that celebration. It argues that the Treaty embodies a remedy deficit: while it imposes a mandatory disclosure obligation on patent applicants, Article 5.3 prohibits Contracting Parties from revoking, invalidating, or rendering a patent unenforceable solely on the basis of a failure to disclose. Every landmark victory previously won by resource-holding states, from turmeric and neem in India to the brotowali dispute involving Indonesia, was secured through patent revocation rather than through procedural transparency. The Treaty therefore substitutes a strong

remedy with a weak one. This study asks how patent revocation grounded in disclosure failure should be constructed within Indonesian law given that prohibition. Employing juridical-normative research with statutory, conceptual, and comparative approaches, it analyses Law Number 65 of 2024 on Patents, the Treaty text, and the revocation regimes of India, Brazil, and Switzerland. The study finds that the prohibition in Article 5.3 is narrower than commonly assumed because it is qualified by the word solely and by the freedom of implementation granted in Article 9.2. Indonesia may lawfully preserve revocation by routing disclosure information into the substantive examination of novelty and inventive step, and by treating deliberate concealment as a species of bad faith. The article proposes a three-tier remedy architecture and argues that ratification without prior reconstruction of Articles 130 and 132 of the Patent Law would leave Indonesia with a transparency obligation unaccompanied by any enforceable consequence.

Keywords

Gratk treaty; patent revocation; genetic resources; remedy deficit; disclosure requirement

Introduction

On 24 May 2024, after twenty-five years of intermittent and frequently deadlocked negotiation within the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, the Member States of the World Intellectual Property Organization adopted the Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.¹ The adoption was received across the Global South as a historic correction of an asymmetry that had persisted since the Agreement on Trade-Related Aspects of Intellectual Property Rights entered into force in 1995. For the first time, an instrument administered by the principal international intellectual property organisation obliges patent applicants to disclose the country of origin of the genetic resources on which a

¹ WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, adopted by the Diplomatic Conference on May 24, 2024, WIPO Doc. GRATK/DC/7, https://www.wipo.int/edocs/mdocs/tk/en/gratk_dc/gratk_dc_7.pdf. All references to Treaty text in this article are to this authentic instrument. The reader should note that several commentaries cite the provision discussed here as Article 5(4); the correct designation in the adopted text is Article 5.3, with Article 5.4 governing post-grant sanctions in cases of fraudulent intent.

claimed invention is based, and to identify the Indigenous Peoples or local community that provided the associated traditional knowledge. Indonesia, a megadiverse state that has repeatedly found its biological wealth appropriated abroad, signed the Treaty in Geneva on 9 July 2024.²

This article does not dispute that the Treaty represents an achievement. It disputes the assumption that the achievement translates into enforceable protection. The argument advanced here is that the Treaty carries a structural defect which the prevailing Indonesian scholarship has not examined, and which becomes visible only when the Treaty is read against the history of the disputes it purports to resolve. That defect is a remedy deficit.³ Article 5.3 of the Treaty provides that, fraud aside, no Contracting Party shall revoke, invalidate, or render unenforceable a patent solely on the basis of an applicant's failure to disclose the required information.⁴ The Treaty thus creates an obligation of transparency while simultaneously withdrawing the sanction that has historically given effect to such obligations.

The significance of this withdrawal becomes apparent when one recalls how resource-holding states have actually prevailed in the past. The revocation of the United States patent on the wound-healing properties of turmeric in 1997, the revocation of the European patent on the fungicidal properties of neem oil in 2000, and the invalidation of the patent claimed over an anti-ageing preparation derived from brotowali, were not achieved by compelling the applicants to be transparent about where the material came from. They were achieved by destroying the patents.⁵ Disclosure functioned, at most, as an evidentiary route toward that destruction. The Treaty inverts this

² It is important to distinguish signature from ratification, a distinction that some of the Indonesian commentary has elided. Under Article 13.1 of the Treaty, a signatory State becomes a Contracting Party only upon depositing an instrument of ratification, and under Article 17 the Treaty enters into force three months after fifteen such deposits. Indonesia has signed but has not ratified, and the Treaty has therefore not entered into force for Indonesia or at all.

³ The term is used here in a specific sense, elaborated in Part A below: not the absence of any sanction, since Article 5.1 requires that measures be provided, but the mismatch between the gravity of the conduct addressed and the range of sanctions that remains available once the most serious has been foreclosed.

⁴ GRATK Treaty, art. 5.3: "Subject to Article 5.4, no Contracting Party shall revoke, invalidate, or render unenforceable the conferred patent rights solely on the basis of an applicant's failure to disclose the information specified in Article 3 of this Treaty." The qualifier "solely" is the textual hinge on which the argument of Part B turns.

⁵ The point is developed at length in Part A. For the general history see Daniel F. Robinson, *Confronting Biopiracy: Challenges, Cases and International Debates* (London: Earthscan, 2010); and Vandana Shiva, *Protect or Plunder: Understanding Intellectual Property Rights* (London: Zed Books, 2001).

relationship: it elevates disclosure into an autonomous obligation while insulating the patent from the consequence that made disclosure worth demanding. A resource-holding state that ratifies the Treaty and implements it literally may find that it has traded a remedy which worked for a procedure which does not.

The urgency of examining this problem in the Indonesian context arises from a specific and time-sensitive circumstance. Indonesia has signed the Treaty but has not ratified it. As of the time of writing, only two states, Malawi and Uganda, have deposited instruments of ratification, and the Treaty requires fifteen such deposits before it enters into force.⁶ Indonesia therefore stands in the narrow interval between signature and ratification, a window in which the architecture of national implementation can still be designed rather than merely retrofitted. Once the instrument of ratification is deposited, the interpretive constraints of Article 5.3 attach, and they attach without the possibility of qualification, because the Treaty expressly forbids reservations.⁷ Any accommodation between Indonesia's national interest in revocation and the Treaty's prohibition must therefore be constructed before ratification, through the domestic law itself, rather than afterwards through unilateral declaration.

A further consideration sharpens the urgency. Law Number 65 of 2024 concerning the Third Amendment to Law Number 13 of 2016 concerning Patents was enacted in the same year the Treaty was adopted, but its drafting did not anticipate the Treaty's constraints. Article 26 of that Law imposes an obligation to state the origin of genetic resources and traditional knowledge clearly and accurately, and it directs that such information be recorded, published, and taken into account in benefit sharing. What Article 26 does not do is specify what happens when the obligation is breached.⁸ The provision creates a duty

⁶ Malawi deposited its instrument on 5 December 2024 and Uganda on 9 July 2025. Authors should verify the current figure at the date of submission, since the analysis of Indonesia's remaining window depends upon it. [AUTHOR: verify at WIPO Lex, <https://www.wipo.int/wipolex/en/treaties/>, and update.]

⁷ GRATK Treaty, art. 20: "No reservations to this Treaty shall be permitted." This is a consequential feature for the argument advanced here, since it forecloses the possibility of Indonesia ratifying subject to a declaration preserving its revocation powers. Any accommodation must therefore be constructed in national law rather than at the point of ratification. Article 19 provides for denunciation taking effect one year after notification, but denunciation is a blunt instrument and does not affect patents already in force.

⁸ Undang-Undang Nomor 65 Tahun 2024 tentang Perubahan Ketiga atas Undang-Undang Nomor 13 Tahun 2016 tentang Paten, art. 26. [AUTHOR: supply State Gazette number and verify the article numbering, which may differ from Law 13/2016.]

without a sanction. Meanwhile, Articles 130 and 132, which govern the revocation of patents by judicial action before the Commercial Court, contain no reference whatever to genetic resources or disclosure. The Indonesian patent statute consequently exhibits, on its face, precisely the deficit that the Treaty would entrench: an obligation to disclose that is unaccompanied by a consequence for non-disclosure, and a revocation regime that is unconnected to the disclosure obligation.

Existing scholarship has approached the protection of genetic resources and traditional knowledge from several directions, none of which addresses the question posed here. Wijaya, Kusnadi, Purwaningtyas, and Darmawan examined the case for a sui generis legal framework for traditional knowledge in Indonesia, concluding that a dedicated statute is required to distribute rights and obligations between holders and users more evenly.⁹ Their study is valuable for its identification of the inadequacy of conventional intellectual property categories, but it predates the Treaty and does not consider remedies at all. Medina and Azmi mapped the disharmony among international instruments governing genetic resources and traced its origins to the paradigmatic divergence between the Northern and Southern blocs; their contribution is diagnostic rather than prescriptive, and it stops short of the revocation question.¹⁰ Tiara Putri, Zainul, and Ledy explored the potential of the Treaty to strengthen traditional knowledge protection in Indonesia, but their analysis proceeds from the assumption that the Treaty enhances protection, an assumption this article contests.¹¹ Schüssler and colleagues, writing from a German and European perspective, analysed the harmonisation of disclosure requirements and identified the tension between legal certainty for

⁹ Andy Usmina Wijaya, Sekaring Ayumeida Kusnadi, Fifin Dwi Purwaningtyas, and Dwiki Arief Darmawan, "Perlindungan Pengetahuan Tradisional di Indonesia dengan Hukum Sui Generis," *Kajian Hasil Penelitian Hukum* 6, no. 2 (2023): 165–81, <https://doi.org/10.37159/jmih.v6i2.2383>. Their argument for a dedicated statute remains persuasive, but it is directed at the creation of a positive right rather than at the enforcement of an existing obligation, which is the question pursued here.

¹⁰ Dayu Medina and M. Rizqi Azmi, "Perlindungan Sumber Daya Genetik dan Pengetahuan Tradisional dalam Kerangka World Intellectual Property Organization (WIPO)," *Jurnal Hukum Das Sollen* 10, no. 1 (2024): 162–77, <https://doi.org/10.32520/das-sollen.v10i1.3404>.

¹¹ Adi Tiara Putri, Zainul Daulay, and Ledy Diana, "Menggali Potensi The WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge untuk Memperkuat Pelindungan Pengetahuan Tradisional," *Jurnal Ilmiah Hukum Kekayaan Intelektual* 8, no. 2 (2025), <https://doi.org/10.20885/jipro.vol8.iss2.art2>. The contest is not with their reading of the Treaty's disclosure provisions, which is accurate, but with the inference that a strengthened disclosure obligation necessarily strengthens protection where the corresponding remedy has been withdrawn.

applicants and effectiveness for providers, though their concern is the position of patent-holding jurisdictions rather than resource-holding ones.¹² Yu has documented the negotiating history of the Treaty and the compromises that produced its final text, providing the essential background against which Article 5.3 must be read, but without pursuing the domestic implementation consequences for any particular state.¹³

What is absent from this body of work is an analysis that takes the sanctions provision of the Treaty as its principal object rather than as a descriptive detail, and that asks what room remains for a resource-holding state to preserve revocation. The gap is not merely a gap in coverage. It is a gap with practical consequences, because Indonesian legislative drafting is currently proceeding on the assumption that harmonisation with the Treaty is unambiguously in the national interest. If the analysis offered here is correct, harmonisation requires more care than that assumption permits: it requires identifying which elements of the Treaty to implement directly, and which national mechanisms to preserve by locating them outside the scope of the prohibition.

The research question is accordingly formulated as follows: how should the legal construction of patent revocation on the ground of failure to disclose the origin of genetic resources be designed in Indonesian law, given the prohibition contained in Article 5.3 of the GRATK Treaty? Three subsidiary questions structure the analysis. First, what is the actual scope of the prohibition, and in particular what work is performed by the qualifier solely? Second, how have comparable resource-holding jurisdictions constructed revocation, and what lessons does their experience offer? Third, what remedy architecture would allow Indonesia to ratify the Treaty in good faith while retaining an enforceable consequence for concealment?

The novelty of this study lies in three respects. It reframes the Treaty as a source of constraint rather than only as a source of protection, which reverses the dominant framing in Indonesian scholarship. It shifts the object of analysis from the disclosure obligation in Article 26 of the Patent Law, which is well covered, to the

¹² Andrea Schüssler et al., “AIPPI-Q289: Asking for Harmonization of Disclosure Requirements — Analysis and Opinion from a German and European Perspective,” *GRUR International* 74, no. 2 (2025): 103–18, <https://doi.org/10.1093/grurint/ikae158>. Their perspective is valuable precisely because it articulates the countervailing interest that produced Article 5.3, and the argument in Part B does not dispute that interest but disputes the point at which the line has been drawn.

¹³ Peter K. Yu, “WIPO Negotiations on Intellectual Property, Genetic Resources and Associated Traditional Knowledge,” *Akron Law Review*.

revocation regime in Articles 130 and 132, which has not been connected to genetic resources at all. And it offers a concrete drafting proposal rather than a general exhortation toward harmonisation, which is the characteristic conclusion of the existing literature.

This research employs the juridical-normative method, treating law as a system of norms and seeking to resolve a problem of legal construction rather than to describe social facts. Three approaches are combined. The statutory approach examines Law Number 65 of 2024 on Patents, with particular attention to Article 26 and to Articles 130 through 133 governing revocation, together with Law Number 13 of 2016, Government Regulation Number 56 of 2022 on Communal Intellectual Property, and Law Number 24 of 2000 on International Treaties, which governs the domestic mechanism of ratification. The conceptual approach draws upon the theory of legal remedies, the distinction between procedural and substantive patentability requirements, and the doctrine of good faith in intellectual property acquisition, in order to construct the analytical framework within which the prohibition can be assessed. The comparative approach examines the disclosure and revocation regimes of India, Brazil, and Switzerland, selected because India represents the strongest revocation-based model among resource-holding states, Brazil represents an administrative sanctions model developed after a documented failure of an earlier revocation-based regime, and Switzerland represents a criminal sanctions model adopted by a state that is simultaneously a major patent jurisdiction.¹⁴ Legal materials are classified as primary, comprising treaties, statutes, regulations, and judicial decisions; secondary, comprising scholarly commentary; and tertiary, comprising reference works. Analysis proceeds by prescriptive legal reasoning, moving from the identification of the norm conflict, through comparative evaluation of available solutions, to the formulation of a proposed construction. The study is limited to the revocation remedy and does not address benefit sharing, the design of national databases, or the treatment of digital sequence information, each of which raises distinct questions warranting separate treatment. ## A. The Historical Primacy of Revocation in Biopiracy Disputes

Any assessment of what the GRATK Treaty gives to resource-holding states must begin with an accurate account of what those states

¹⁴ The selection follows the most-different-systems logic of comparative legal method, in which jurisdictions are chosen for the divergence of their solutions to a shared problem rather than for their institutional similarity. The purpose is to isolate the design variables rather than to identify a model for transplantation, an exercise that would require attention to institutional preconditions falling outside the scope of this study.

already possessed. The prevailing narrative treats the Treaty as filling a void, as though before May 2024 there existed no mechanism by which a wrongly granted patent over traditional knowledge could be challenged. That narrative is historically inaccurate, and its inaccuracy matters, because it obscures the possibility that the Treaty removes as much as it confers.

The controversy over the patent granted by the United States Patent and Trademark Office in 1995 to the University of Mississippi Medical Center for the use of turmeric in wound healing illustrates the point with unusual clarity. The Indian Council of Scientific and Industrial Research challenged the patent not by complaining that the applicants had concealed the Indian origin of the material, but by producing documentary evidence that the therapeutic use claimed as novel had been described in Sanskrit texts and in an article published in the *Journal of the Indian Medical Association* decades earlier. The challenge succeeded because the claims failed the requirement of novelty. The patent was revoked in 1997.¹⁵ The remedy was destruction of the exclusive right, and the legal ground was a substantive condition of patentability rather than a procedural irregularity.

The neem dispute reproduced the structure. The European Patent Office granted a patent in 1994 to the United States Department of Agriculture and W. R. Grace over a method for controlling fungi on plants using hydrophobic extracted neem oil. The opposition mounted by a coalition including the Research Foundation for Science, Technology and Ecology succeeded in 2000 because evidence established that the fungicidal properties of neem had been known and used in India, which defeated novelty and inventive step. Again the outcome was revocation, and again the operative ground was substantive.¹⁶

Indonesian experience follows the same pattern. The dispute concerning the patent claimed over an anti-ageing preparation derived from brotowali, *Tinospora crispa*, a plant long used in Indonesian traditional medicine, was resolved through invalidation rather than

¹⁵ United States Patent No. 5,401,504, "Use of Turmeric in Wound Healing," granted 28 March 1995 to the University of Mississippi Medical Center and revoked following re-examination initiated by the Indian Council of Scientific and Industrial Research. [AUTHOR: verify the patent number and the date of the re-examination certificate.] The significance of the case for the present argument lies not in the outcome but in the ground: the claims failed for want of novelty in light of documented prior use, not for any defect in the applicant's disclosure of origin.

¹⁶ European Patent No. 0436257, revoked by the Opposition Division of the European Patent Office in 2000 and upheld on appeal. [AUTHOR: verify the patent number, the decision reference, and the date of the appeal decision.]

through the imposition of a disclosure duty.¹⁷ Comparable disputes involving the Bintangor tree in Malaysia, ylang-ylang in the Philippines, basmati rice in Pakistan, jasmine rice in Thailand, and cunani and bibiru in Brazil each followed a similar trajectory, in which the resource-holding party sought and in several instances obtained the annulment of the granted right.¹⁸

Two propositions follow from this history. The first is that revocation, not disclosure, has been the operative remedy in every documented victory of a resource-holding state. The second, and more subtle, is that disclosure has functioned historically as an evidentiary instrument in service of revocation rather than as an end in itself. Knowing where the material came from mattered because it enabled the identification of prior art capable of defeating the claim. Detached from revocation, disclosure yields information without consequence.

It is against this history that the architecture of the Treaty must be evaluated. The Treaty makes disclosure mandatory, which the earlier regime did not, and to that extent it advances the position of resource-holding states. But it simultaneously severs the link between disclosure and the remedy that gave disclosure its point. The applicant who conceals the Indonesian origin of a genetic resource now breaches an international obligation, but the patent that resulted from the concealment cannot be revoked on that ground. A resource-holder possessing information about concealment finds that the information leads nowhere.

The severance is not accidental. The negotiating history discloses that the prohibition on revocation was the price demanded by patent-holding states, principally Japan, the United States, and members of the European Union, in exchange for accepting mandatory disclosure at all.¹⁹ Their objection was framed in terms of legal certainty: an invention

¹⁷ [AUTHOR: this claim requires primary verification before submission. The assertion that the patent was invalidated circulates widely in the Indonesian literature without citation to a decision. If a decision cannot be located, the sentence should be recast as a reported dispute rather than as a determined outcome, or removed. A fabricated or unverifiable claim at this point would undermine the historical argument on which Part A rests.]

¹⁸ Robinson, *Confronting Biopiracy*, surveys these disputes. The qualification “in several instances” is deliberate: not every challenge succeeded, and the pattern asserted here concerns the remedy sought rather than the uniformity of outcomes.

¹⁹ [AUTHOR: this proposition should be supported by reference to the travaux préparatoires of the Diplomatic Conference or to a documented account of the negotiations. Ian Goss, *25 Years in the Making: The WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge* (Geneva: WIPO, 2024) and Yu, above, are the likely sources. Verify before submission; a claim about negotiating intent is precisely the kind a reviewer will check.]

that satisfies novelty, inventive step, and industrial applicability should not lose protection because of a defect in the paperwork accompanying the application, particularly where the defect may be inadvertent and where the applicant may be several transactions removed from the original collection of the material. The objection is not without force, and this article does not contend that revocation should follow automatically from every disclosure failure. What it contends is that the compromise struck in Article 5 has been reported in the Indonesian literature without acknowledgment that it is a compromise, and that its costs to resource-holding states have not been counted.

The costs are asymmetric in a specific way. Under the previous regime, a resource-holding state possessed a remedy that was difficult to invoke because it required assembling prior art evidence, but which, once invoked successfully, extinguished the right. Under the Treaty, the state acquires a right to information that is easy to invoke but that terminates in a sanction the Treaty itself declines to specify beyond requiring that it be appropriate, effective, and proportionate. The exchange favours the party whose interest lies in the stability of granted rights.

Two further elements of the Treaty's design deepen the deficit, and both are more severe than the secondary literature has generally reported.

The first is Article 3.5, which provides that Contracting Parties shall not place an obligation on Offices to verify the authenticity of the disclosure.²⁰ The formulation is prohibitory rather than merely permissive. It is not that patent offices are left free to verify or not; Contracting Parties are directed not to impose a verification duty upon them. The disclosure obligation is therefore satisfied by declaration rather than by proof, and an applicant who states an origin, whether or not the statement corresponds to reality, has complied with Article 3. Verification, if it is to occur, must be constructed outside the Treaty framework and cannot be made a function of the examining office. When a declaratory obligation immune from official verification is combined with a prohibition on the strongest remedy for its breach, the resulting regime is transparent in form and hollow in operation.

The second is the threshold at which the disclosure obligation is triggered. Article 2 defines an invention as based on genetic resources

²⁰ GRATK Treaty, art. 3.5: "Contracting Parties shall not place an obligation on Offices to verify the authenticity of the disclosure." The prohibitory form of this provision deserves emphasis. It is frequently reported in the secondary literature as an absence of any verification duty, which understates its effect: the Treaty directs Contracting Parties not to impose such a duty, rather than merely declining to create one.

only where two conditions are cumulatively satisfied: the genetic resources must have been necessary for the claimed invention, and the claimed invention must depend on the specific properties of those resources.²¹ Neither limb is self-applying. An applicant whose invention drew upon Indonesian material at an early stage of research, but whose claims are directed to a synthesised analogue, may contend with some force that the resources were not necessary to the invention as claimed and that the claims do not depend upon their specific properties. The threshold is therefore high, and it is the applicant who is best positioned to characterise the relationship between the material and the claims. Combined with Article 3.5, the effect is that the applicant determines both whether the obligation applies and what is declared under it, with no official verification of either judgment.

This is the sense in which the phrase remedy deficit is used throughout this article. The deficit is not the absence of any sanction, since the Treaty requires that measures be provided. It is the mismatch between the gravity of the conduct at issue, namely the appropriation of a community's biological and knowledge heritage, and the sanctions that remain available once the most serious one has been foreclosed. A monetary penalty imposed on a corporation that has obtained a patent of substantial commercial value is unlikely to be proportionate in any meaningful sense to the value of the right retained.

A theoretical framing assists in locating the deficit precisely. Legal theory distinguishes between the primary rule, which states what a person must or must not do, and the secondary rule, which states what follows when the primary rule is breached. A primary rule unaccompanied by a secondary rule is, in the analytical tradition, an imperfect norm: it declares a duty without providing the machinery by which the duty is enforced.²² The distinction is familiar in Indonesian legal scholarship through the concept of the norm without sanction, which is generally treated as an incomplete legal norm rather than as a legal norm of a distinctive type.

²¹ GRATK Treaty, art. 2, defining "based on." The cumulative structure of the definition has received little attention in the Indonesian commentary, but it is consequential: an applicant contesting the application of the disclosure obligation need only defeat one limb.

²² The distinction between primary and secondary rules is drawn from H. L. A. Hart, *The Concept of Law*, 3rd ed. (Oxford: Oxford University Press, 2012), ch. 5. The characterisation of a norm without sanction as an incomplete legal norm rather than as a distinct species of norm is associated with Hans Kelsen, *Pure Theory of Law*, trans. Max Knight (Berkeley: University of California Press, 1967). [AUTHOR: verify pagination if quoting directly.]

The Treaty is not wholly imperfect in this sense, since Article 5 does require that measures be provided. But it operates as a ceiling upon the secondary rule rather than as a floor. Contracting Parties are directed to provide consequences while being told which consequence they may not provide. The effect is to invert the ordinary relationship between international obligation and national enforcement, in which international law establishes a minimum and leaves states free to exceed it. Here international law establishes a minimum for the primary rule and a maximum for the secondary one.

The consequences of this inversion are best assessed through the concept of remedial adequacy, which asks whether the consequence attached to a breach is capable of restoring the position of the injured party or of deterring repetition. Remedial adequacy has both a corrective and a preventive dimension. In its corrective dimension, a remedy is adequate if it restores the injured party to the position occupied before the wrong; in its preventive dimension, it is adequate if the prospect of its imposition renders the wrong unattractive to a rational actor. Revocation satisfies both dimensions in the biopiracy context. Corrective, because extinguishing the patent removes the exclusivity obtained through appropriation and restores the resource to the position of unencumbered availability. Preventive, because the risk of losing a patent of substantial value is a consideration a rational applicant must weigh.

An administrative fine satisfies neither dimension well. It does not restore, because the patent survives and the exclusivity continues; the appropriating party retains the fruits of the appropriation and pays a sum for the privilege. Its preventive force depends entirely upon calibration, and a fine of any realistic magnitude will fall short of the expected value of a pharmaceutical patent. The remedial architecture the Treaty leaves available is therefore systematically weaker in both dimensions than the architecture it forecloses.

A defender of the Treaty would respond that this analysis attends only to the interests of the resource-holding party and neglects the countervailing interest in the stability of granted rights. That response has force, and it identifies the genuine policy question, which is not whether revocation should be available but under what conditions. An invention that is genuinely novel and inventive, and that was developed in good faith by an applicant who failed to appreciate the scope of a disclosure obligation, presents a weak case for extinguishing the right. An invention that lacks novelty in light of community knowledge deliberately concealed presents a strong one. The defect in Article 5.3 is not that it protects granted rights but that it draws the line in a single place for both cases, foreclosing revocation in the strong case in order

to protect the weak one. The architecture proposed later in this article is an attempt to redraw the line according to culpability while remaining within the text.

Result & Discussion

A. What the Prohibition Does Not Prohibit

The argument to this point may appear to counsel against ratification. It does not, and the reason lies in a close reading of the prohibition itself. Article 5.3 provides that, subject to the fraud exception, no Contracting Party shall revoke, invalidate, or render unenforceable a patent solely on the basis of an applicant's failure to disclose the required information. Three elements of that formulation restrict its reach, and together they leave considerably more room than the Indonesian literature has recognised.

The first and most important is the qualifier solely.²³ The prohibition is directed at revocation for which the disclosure failure is the sole ground. It does not address, and on its plain terms does not prohibit, revocation on a ground that is independently sufficient, even where information derived from the disclosure process supplied the evidence. This distinction is familiar in legal reasoning and corresponds to the difference between a fact operating as an element of the cause of action and the same fact operating as evidence of a different element. If a patent is revoked because the claimed invention lacks novelty, the ground of revocation is the absence of novelty. That the absence of novelty was discovered through an inquiry prompted by an inaccurate declaration of origin does not convert the ground into a disclosure failure. The revocation is not made solely on the basis of the failure to disclose; it is made on the basis of a substantive defect in patentability.

This reading is not a strained construction adopted to evade an inconvenient obligation. It is consistent with the object and purpose of the Treaty as the Treaty itself declares them. The stated aim is to enhance the efficacy, transparency, and quality of the patent system and to prevent patents from being granted erroneously for inventions that are not novel or inventive with regard to genetic resources and

²³ The interpretive room created by “solely” has been noticed in the international commentary, though not pursued to the construction proposed here. See Sean Flynn, “WIPO Treaty on Genetic Resources and Associated Traditional Knowledge Harmonizes Disclosure and Remedies,” InfoJustice, 27 May 2024, <https://infojustice.org/archives/45782>, observing that Article 5.3 appears to define a class of cases in which revocation remains available provided it is not imposed solely for a failure to disclose.

associated traditional knowledge.²⁴ A construction under which disclosure information could be used to detect and correct erroneous grants would advance that purpose. A construction under which such information must be quarantined from the assessment of novelty would defeat it, producing the absurd result that the Treaty requires the collection of precisely the information most useful for identifying wrongly granted patents while forbidding its use for that purpose. Article 31 of the Vienna Convention on the Law of Treaties directs interpretation in good faith in accordance with the ordinary meaning of the terms in their context and in the light of the object and purpose of the treaty.²⁵ The narrower reading of the prohibition is the reading that ordinary meaning and purpose jointly support.

The second restriction is the fraud exception. The prohibition operates subject to fraudulent conduct or intent, and where such intent is established in relation to the disclosure requirement, post-grant sanctions or remedies may be provided.²⁶ The Treaty does not define fraudulent conduct, nor does it specify which post-grant remedies become available once fraud is established. Both omissions fall within the discretion that Article 9.2 confers on Contracting Parties to determine the appropriate method of implementing the Treaty within their national legal systems and practices.²⁷ It is therefore open to Indonesia to define, in its national law, the circumstances constituting fraudulent intent in relation to disclosure, and to specify that revocation is among the remedies available where those circumstances are

²⁴ GRATK Treaty, art. 1(a)–(b). The second objective is reinforced in the Preamble, which emphasises the importance of patent offices having access to appropriate information in order to prevent erroneous grants. The teleological argument advanced here rests on the proximity between that stated objective and the substantive route to revocation proposed in Part E.

²⁵ Vienna Convention on the Law of Treaties, opened for signature 23 May 1969, 1155 UNTS 331, art. 31(1). Indonesia is not a party to the Vienna Convention, but the interpretive rules in Articles 31 and 32 are widely regarded as reflecting customary international law and are applied as such. [AUTHOR: confirm Indonesia's status and consider adding a supporting citation on the customary character of art. 31.]

²⁶ GRATK Treaty, art. 5.4: "Each Contracting Party may provide for post grant sanctions or remedies where there has been fraudulent intent in regard to the disclosure requirement in Article 3 of this Treaty, in accordance with its national law." Note the permissive "may" and the closing qualifier "in accordance with its national law," both of which support the construction advanced in Part E.

²⁷ GRATK Treaty, art. 9.2: "Nothing shall prevent Contracting Parties from determining the appropriate method of implementing the provisions of this Treaty within their own legal systems and practices." Article 5.2(bis) is more explicit still, referring to "fraudulent conduct or intent as prescribed by national law," which is a direct textual delegation of the definitional question.

established. This is not circumvention. It is the exercise of an implementation discretion the Treaty expressly grants.

The definitional question is nonetheless consequential, because a definition set too high would render the exception nugatory. If fraud required proof of subjective intent to deceive to a criminal standard, few cases would qualify, and the exception would exist on paper only. A workable definition should attach to conduct rather than to states of mind that are inaccessible to proof. Deliberate misstatement of a country of origin known to the applicant, systematic omission across a portfolio of related applications, and the submission of documentation the applicant knows to be false are each identifiable through objective indicators. Where an applicant has entered into an access agreement in one jurisdiction and declared a different origin in the patent application, the discrepancy is documentary and does not require inquiry into mental states.

The third restriction is temporal and jurisdictional in nature. The Treaty binds only Contracting Parties, and only in respect of applications filed after its entry into force for the state concerned. Article 4 preserves the entire body of existing national law on disclosure as applied to applications already filed, providing that the obligations of the Treaty shall not be imposed in relation to applications filed before entry into force, without prejudice to existing national laws on disclosure applying to such applications. More significantly for present purposes, the Treaty does not purport to regulate grounds of revocation that exist independently of the disclosure obligation. Grounds such as lack of novelty, absence of inventive step, insufficiency of description, and invalidity arising from the patent having been granted to a person not entitled to it are governed by national law and by the TRIPS Agreement, and the Treaty leaves them untouched. Article 7 confirms this by directing that the Treaty be implemented in a mutually supportive manner with other relevant international agreements.²⁸

Taken together, these three restrictions yield a conclusion at odds with the prevailing reading. The prohibition in Article 5.3 is narrow. It forecloses one specific construction, namely a national rule providing that a patent shall be revoked if the applicant failed to disclose the origin of genetic resources. It does not foreclose a national rule providing that information obtained through the disclosure process may be used in proceedings to revoke a patent for lack of novelty. It does not foreclose a national rule defining fraudulent disclosure conduct and attaching

²⁸ GRATK Treaty, art. 7, together with the accompanying footnote to that article: "Nothing in this Treaty shall derogate from or modify any other international agreement."

revocation as a consequence. And it does not foreclose the strengthening of substantive examination so that erroneous grants are prevented before they occur.

The distinction between what is prohibited and what is permitted may be expressed as the difference between disclosure as a ground and disclosure as a gateway. As a ground, disclosure failure is foreclosed by the Treaty. As a gateway, it channels information into the substantive assessment that remains fully available. The drafting task for Indonesia is to construct the gateway without constructing the ground.

One caveat must be entered. The reading advanced here is a reading, and treaty interpretation is contestable. A patent holder resisting revocation would argue that a revocation proceeding initiated solely because of a disclosure discrepancy is in substance a revocation on the basis of that discrepancy, whatever the formal ground pleaded, and that the qualifier solely should be read as directed at substance rather than form. That argument is respectable and cannot be dismissed. Its answer lies in the evidentiary posture of the proceeding: if the party seeking revocation must independently establish lack of novelty, and if the patent survives where novelty is made out notwithstanding a defective disclosure, then the substantive ground is doing the work and the formal characterisation reflects reality. A regime in which disclosure discrepancies invariably produce revocation would be vulnerable to the objection. A regime in which they produce only an inquiry would not.

Comparative Constructions of the Disclosure Sanction

Three jurisdictions offer instructive models for the construction of sanctions attaching to disclosure obligations, each having resolved differently the tension between deterrence and legal certainty. The comparison is undertaken not to identify a model for wholesale transplantation, an exercise that ignores the institutional preconditions of legal borrowing, but to isolate the design variables that Indonesian drafters must settle.

1. The Indian model: revocation as an express ground

India provides the most robust construction available among resource-holding states, and it is the model closest to what the Treaty now constrains. Section 10(4)(d)(ii)(D) of the Patents Act 1970 requires an applicant to disclose the source and geographical origin of any biological material used in an invention.²⁹ The obligation is reinforced by Section 6 of the Biological Diversity Act 2002, which requires prior approval from the National Biodiversity Authority before any

²⁹ The Patents Act, 1970 (India), s. 10(4)(d)(ii)(D). [AUTHOR: verify the provision at <https://www.indiacode.nic.in> and confirm the current amended text.]

application for intellectual property rights based on research on biological resources obtained from India is made.³⁰

The sanction is what distinguishes the Indian construction. Section 25 provides for opposition to the grant of a patent, and Section 64 provides for revocation of a granted patent, in each case on grounds that expressly include non-disclosure or wrongful mention of the source and geographical origin of biological material, and anticipation having regard to knowledge, whether oral or otherwise, available within any local or Indigenous community in India or elsewhere.³¹ India thus links disclosure failure directly to revocation as an autonomous ground, and separately recognises traditional knowledge as prior art capable of defeating novelty.

The Indian regime is a partial model rather than a complete one. Its first limb, revocation for non-disclosure as such, is precisely the construction that Article 5.3 forecloses, and India would be obliged to modify it upon ratification. Its second limb, however, is untouched by the Treaty and is arguably the more significant of the two. By recognising orally transmitted community knowledge as prior art capable of anticipating a claim, India resolved a doctrinal obstacle that had frustrated resource-holding states for decades, namely the tendency of patent offices to treat undocumented knowledge as non-existent for novelty purposes. Coupled with the Traditional Knowledge Digital Library, which converts orally transmitted knowledge into a searchable form accessible to foreign patent offices, this limb has produced measurable results in the prevention of erroneous grants.³²

The Indian experience yields the central comparative lesson of this study. The revocation power that survives Treaty ratification is the power grounded in anticipation by traditional knowledge, not the power grounded in disclosure failure. A resource-holding state that invests in making its traditional knowledge legally cognisable as prior art retains an effective remedy. A state that relies on the disclosure ground alone will lose it.

³⁰ The Biological Diversity Act, 2002 (India), s. 6. [AUTHOR: verify, and note that the Act was amended in 2023; confirm whether s. 6 was affected.]

³¹ Patents Act, 1970 (India), ss. 25(1)(j)–(k), 25(2)(j)–(k), and 64(1)(p)–(q). [AUTHOR: verify the sub-clause designations.] The second limb, concerning anticipation by orally transmitted community knowledge, is the more significant for present purposes, since it survives Treaty ratification while the first does not.

³² [AUTHOR: a citation is required here to a study documenting the operation and results of the Traditional Knowledge Digital Library. This is a well-covered subject and a suitable source should be readily located; the claim of “measurable results” should not stand without one.]

2. The Brazilian model: administrative sanctions after retreat from revocation

Brazil arrived at its present position by a different route, and its trajectory is cautionary. Provisional Measure 2.186-16 of 2001 established a requirement of prior authorisation for access to genetic heritage and associated traditional knowledge, and non-compliance carried consequences for the validity of resulting rights.³³ The regime proved administratively unworkable. Authorisation procedures were slow, the boundary of the requirement was uncertain, and the practical effect was to impede domestic research without demonstrably deterring foreign appropriation.

Law 13.123 of 2015 reconstructed the regime along different lines.³⁴ Prior authorisation was replaced by electronic registration through the SisGen system, converting an *ex ante* control into an *ex post* declaratory obligation. The sanction structure was correspondingly reoriented toward administrative penalties, principally fines calibrated to the gravity of the infraction and to the economic capacity of the offender, alongside suspension of the sale of products developed from the material. Patent revocation was withdrawn as an automatic consequence of access irregularities, although Article 47 provides that the grant of intellectual property rights over a product or process derived from access to genetic heritage is conditional upon prior registration.³⁵

Brazil's experience carries two lessons in opposite directions. It demonstrates that a compliance system can be constructed which is administratively tractable and which generates usable data, a demonstration relevant to Indonesia given the acknowledged capacity constraints of Indonesian regulatory institutions. It also demonstrates the cost of that tractability: a fine, however calibrated, does not restore the appropriated resource nor extinguish the exclusive right obtained through appropriation, and for a well-resourced applicant it may be internalised as a cost of doing business. Brazil moved toward the model the Treaty now prescribes, and did so before the Treaty existed, which

³³ Medida Provisória No. 2.186-16, de 23 de agosto de 2001 (Brazil). [AUTHOR: verify at <http://www.planalto.gov.br> and confirm the characterisation of the validity consequences, which this article states in general terms.]

³⁴ Lei No. 13.123, de 20 de maio de 2015 (Brazil). [AUTHOR: verify at <http://www.planalto.gov.br>. If the authentic Portuguese text cannot be consulted, consider substituting Peru or Norway, whose disclosure regimes are documented in English, rather than relying on secondary characterisations of Brazilian law.]

³⁵ Lei No. 13.123/2015 (Brazil), art. 47. [AUTHOR: verify the article number and the precise conditionality it establishes, which is material to the comparison drawn in Table 1.]

makes its regime a useful preview of the Treaty regime's likely operation.

3. The Swiss model: criminal sanction without patent consequence

Switzerland occupies an unusual position, being simultaneously a state with significant biodiversity interests and the home jurisdiction of major pharmaceutical patent holders, and its construction reflects that duality. Article 49a of the Federal Act on Patents for Inventions requires that a patent application indicate the source of the genetic resource or traditional knowledge to which the inventor had access, where the invention is directly based on such a resource.³⁶ Where the source is unknown to the applicant, that fact must be declared.

The sanction is located outside patent law. Article 81a provides that intentionally false statements regarding the source constitute a criminal offence punishable by fine.³⁷ The validity of the patent is unaffected. Switzerland thus achieves an unambiguous separation between the disclosure obligation and the patent right: breach engages the personal liability of the declarant while leaving the exclusive right undisturbed.

The Swiss model is fully compatible with Article 5.3 and requires no adjustment upon ratification, which is itself instructive as to the identity of the states whose preferences shaped the Treaty text. Its transferability to Indonesia is nonetheless limited. A criminal sanction requires prosecutorial capacity, and prosecution of a foreign applicant for a false declaration filed in Indonesia raises jurisdictional difficulties that Switzerland, operating within a dense network of European mutual legal assistance arrangements, does not face to the same degree. More fundamentally, a fine imposed on an individual declarant is unlikely to influence the conduct of a corporate applicant for whom the patent's value substantially exceeds any realistic penalty.

³⁶ Bundesgesetz über die Erfindungspatente (Patentgesetz, PatG) of 25 June 1954, art. 49a (Switzerland). [AUTHOR: verify at <https://www.fedlex.admin.ch>. Note that the Swiss threshold uses “directly based on,” which differs from the GRATK formulation discussed in Part A; the divergence is worth a sentence in the text.]

³⁷ PatG (Switzerland), art. 81a. [AUTHOR: verify the article and the maximum penalty, which this article does not state and which would strengthen the comparison if supplied.]

Comparative synthesis

TABLE 1. Comparison of Disclosure Sanction Regimes

Jurisdiction	Legal basis of disclosure duty	Principal sanction	Patent revocation available for non-disclosure	Compatibility with Article 5.3 GRATK
India	Patents Act 1970 s.10(4)(d)(ii)(D); Biological Diversity Act 2002 s.6	Refusal of grant; revocation	Yes, as an express and autonomous ground	Requires amendment of the autonomous ground; the anticipation ground survives
Brazil	Law 13.123/2015; SisGen registration	Administrative fines; suspension of product sales	No, withdrawn in the 2015 reform	Compatible
Switzerland	Federal Act on Patents art. 49a	Criminal fine for intentional false statement	No, expressly excluded	Compatible
Indonesia (current)	Law 65/2024 art. 26	None specified	Not regulated	Compatible by default, owing to the absence of any sanction

Source: Authors, compiled from the cited legal instruments

The table exposes the Indonesian position starkly. Indonesia is compatible with Article 5.3 not because it has struck a considered balance but because it has provided no sanction at all. Compatibility achieved through omission is not a policy achievement. It means that Indonesia currently possesses the weakest construction among the

jurisdictions compared, and that ratification would add an international obligation to a domestic framework incapable of giving it effect.

The comparison also isolates the design variables. The first is the location of the sanction: within patent law, as in India, or outside it, as in Switzerland. The second is the sanction's addressee: the patent right itself, the declarant personally, or the commercial exploitation of the product. The third is the standard of fault: strict liability, negligence, or intentional deception. The fourth, and least examined in the literature, is the availability of a substantive route to revocation that operates independently of the disclosure obligation. It is the fourth variable that determines whether a state retains an effective remedy after ratification, and it is the variable on which Indonesian legislative attention has so far not focused.

B. The Indonesian Framework: An Obligation Without Consequence

Article 26 of Law Number 65 of 2024 requires that, where an invention relates to or derives from genetic resources or traditional knowledge, information on the origin of those resources be stated clearly and accurately; that such information be recorded and published in electronic or non-electronic form; that it be taken into consideration in the sharing of results and in the granting of access to utilisation; and that such sharing and access be conducted in accordance with applicable laws and international agreements.³⁸

Assessed against the Treaty's requirements, the provision performs creditably in one respect and fails in another. It establishes the disclosure duty and thereby satisfies the core obligation the Treaty imposes, and its third and fourth paragraphs connect disclosure to benefit sharing, which goes beyond what the Treaty requires and aligns Indonesian law with the Nagoya Protocol. What it does not do is attach any consequence to breach. The provision does not state what follows if the origin is not stated, or is stated inaccurately, or is stated in terms so general as to convey nothing. The Treaty requires that measures be appropriate, effective, and proportionate; a measure that does not exist satisfies none of these criteria.³⁹

³⁸ Undang-Undang Nomor 65 Tahun 2024, art. 26(1)–(4). The predecessor provision, Undang-Undang Nomor 13 Tahun 2016 tentang Paten, art. 26(1), Lembaran Negara Republik Indonesia Tahun 2016 Nomor 176, contained only the first of these four obligations. [AUTHOR: verify the article numbering in Law 65/2024 and supply its State Gazette number.]

³⁹ GRATK Treaty, art. 5.1. It is worth observing that Indonesia's present non-compliance runs in the opposite direction from the concern that animates most of

The deficiency is compounded by an ambiguity in the operative phrase. The requirement that origin be stated clearly and accurately does not identify the referent of origin. Article 26 does not indicate whether what must be stated is the country of origin, the geographical locality within Indonesia, the ecosystem or in situ conditions from which the material was collected, the community that holds the associated knowledge, or the institutional intermediary through which the applicant obtained the material. Each of these is a plausible reading, and they differ substantially in the burden they impose and in the utility of the resulting information. A declaration naming Indonesia as the country of origin is clear and accurate on one reading and useless for identifying the affected community on another.

This ambiguity is not merely a drafting infelicity. It interacts with the remedy question, because a sanction cannot attach to the breach of an obligation whose content is undetermined. An applicant charged with inaccurate disclosure would answer that the declaration made was accurate at the level of specificity the provision requires, and in the absence of a specified level, the answer would be difficult to meet. Any sanctions regime must therefore be preceded by an implementing regulation that fixes the minimum content of the declaration.

The more consequential gap lies elsewhere in the statute. Articles 130 through 133 govern the revocation of patents.⁴⁰ Revocation may occur at the request of the patent holder, by judicial decision, or by operation of law where maintenance fees remain unpaid. Judicial revocation proceeds by a claim filed before the Commercial Court, and the grounds available are those arising from the substantive conditions of patentability and from the statutory exclusions from patentability. Nowhere in these provisions is there any reference to genetic resources, to traditional knowledge, or to the disclosure obligation created by Article 26.

The absence produces a disconnection within the statute itself. Article 26 creates an obligation situated in the chapter governing applications, and it is enforced, if at all, through the administrative processing of applications. Articles 130 through 133 create a revocation mechanism situated in a different chapter and connected to a different set of grounds. No provision links them. An interested party who

the commentary: the difficulty is not that Indonesian sanctions would exceed what Article 5.3 permits, but that there are none.

⁴⁰ [AUTHOR: this is the single most important verification task in the article. The article numbering is stated on the basis of the structure of Law 13/2016 and has not been confirmed against Law 65/2024, whose amendments may have shifted it. Every reference to Articles 130, 132, and 133 in Parts D, E, and the Conclusion must be checked and corrected against the enacted text before submission.]

discovers that a granted patent rests on Indonesian genetic material whose origin was concealed has no cause of action founded on the concealment. Such a party may bring a revocation claim for lack of novelty if the necessary prior art can be assembled, but that possibility exists independently of Article 26 and would exist if Article 26 had never been enacted.

This is the remedy deficit in its domestic form, and it is important to recognise that it precedes the Treaty. Indonesia did not acquire the deficit by signing in Geneva; it possessed the deficit already, and the Treaty would consolidate it by adding an international obligation while foreclosing the most direct means of repair. The point bears emphasis because it identifies where reform effort should be directed. The problem is not principally that the Treaty prohibits something Indonesia wishes to do. The problem is that Indonesia has not done the thing the Treaty does not prohibit.

Two further features of the Indonesian framework require attention. The first concerns the standing of traditional knowledge as prior art. Article 5 of Law Number 65 of 2024 defines novelty by reference to whether the invention differs from technology disclosed previously, and disclosure encompasses written and oral description and other means enabling a skilled person to implement the invention.⁴¹ The formulation appears wide enough to accommodate orally transmitted community knowledge, but Indonesian law lacks the express provision, found in the Indian statute, confirming that knowledge available within a local or Indigenous community constitutes anticipating prior art. The absence introduces uncertainty at precisely the point where certainty matters most, since the substantive route to revocation that survives the Treaty depends upon it. A patent examiner or a Commercial Court judge asked to treat undocumented community practice as anticipating a claim would find no express statutory warrant for doing so.

The second concerns institutional capacity. Government Regulation Number 56 of 2022 on Communal Intellectual Property establishes an inventory function for genetic resources and traditional knowledge, and the Directorate General of Intellectual Property maintains data collection under it.⁴² But the inventory is not integrated into patent examination, is not structured for prior art searching, and is

⁴¹ [AUTHOR: verify the article number and the precise formulation. The argument in Part E depends on whether the existing definition is capacious enough to accommodate orally transmitted community knowledge, and the answer turns on this text.]

⁴² Peraturan Pemerintah Nomor 56 Tahun 2022 tentang Kekayaan Intelektual Komunal. [AUTHOR: supply the State Gazette number and verify the scope of the inventory function described.]

not accessible to foreign patent offices in the manner that would enable it to prevent erroneous grants abroad. Article 6.1 of the Treaty addresses information systems, but it does so permissively: Contracting Parties may establish such systems. The provision confers no obligation. Indonesia therefore possesses the institutional shell without the function, and the Treaty supplies no external pressure to complete it. This is a further dimension of the remedy deficit, since the substantive route to revocation identified below depends upon precisely the evidentiary infrastructure the Treaty declines to require.

The convergence of these features defines the reform task. Indonesia requires a specification of the content of the disclosure obligation, a statutory linkage between disclosure and revocation constructed so as to fall outside the Treaty's prohibition, an express recognition of traditional knowledge as prior art, and an information system capable of supplying the evidence on which the substantive route to revocation depends. None of these requires derogation from the Treaty. All of them are presently absent. ## E. A Three-Tier Remedy Architecture

The analysis to this point supports a construction that preserves an effective remedy while remaining within the Treaty. The proposal advanced here is a graduated architecture in which the severity of the consequence corresponds to the culpability of the conduct, and in which revocation is available only through routes the Treaty leaves open. Three tiers are proposed.

1. First tier: rectification during examination

The lowest tier addresses non-disclosure or defective disclosure detected before grant, in circumstances disclosing no indication of concealment. Articles 3.4 and 5.2 require that applicants be afforded an opportunity to rectify a failure to disclose or to correct an erroneous disclosure before sanctions are implemented, and Indonesian law should provide for this expressly. Article 5.2(bis) permits that opportunity to be withheld where there has been fraudulent conduct or intent as prescribed by national law, which is the textual hinge on which the third tier proposed below turns. Upon detecting an omission or an insufficiently specific declaration, the Directorate General of Intellectual Property should issue a notice specifying the deficiency and setting a period for correction. Failure to correct within the period should result in the application being deemed withdrawn, a consequence already familiar in Indonesian patent procedure for other

formal deficiencies and one that operates on the application rather than on a granted right.⁴³

This tier resolves the majority of cases, since most disclosure failures are likely to reflect uncertainty about the requirement rather than concealment. Its efficacy depends upon two conditions. The first is the specification, by implementing regulation, of the minimum content of an adequate declaration, without which the examiner cannot determine whether the obligation has been met. The second is the availability of a searchable inventory against which declarations can be assessed, since an examiner without access to information about Indonesian genetic resources cannot identify a declaration as incomplete.

2. Second tier: administrative and civil consequences after grant

The middle tier addresses cases in which a defective disclosure is detected after grant but in which fraudulent intent cannot be established. Three consequences are proposed, none of which affects the validity of the patent and all of which are therefore compatible with the prohibition.

The first is a mandatory correction of the patent register, with publication. The register should record that the patent was granted on the basis of a declaration subsequently found to be inaccurate. This is not a sanction in the punitive sense but a measure of transparency, and it serves the purpose of informing third parties, including potential licensees and the affected community.

The second is an administrative fine, calibrated by reference to the gravity of the omission and the commercial value derived from the patent rather than by a fixed schedule. The Brazilian experience indicates that fixed penalties are readily internalised by well-resourced applicants and that calibration to economic benefit is necessary if deterrence is to be meaningful.

The third, and the most significant, is the triggering of a benefit-sharing obligation. Where a patent is found to rest on Indonesian genetic resources whose origin was not properly declared, the patent holder should be required to conclude a benefit-sharing agreement with the state or the affected community, on terms determined by an administrative authority if the parties fail to agree. This consequence has the advantage of being restorative rather than merely punitive, and it aligns with Article 26 paragraphs 3 and 4 of the Patent Law and with

⁴³ The distinction is doctrinally material. A consequence attaching to an application prior to grant does not revoke, invalidate, or render unenforceable any conferred patent right, and therefore falls outside Article 5.3 altogether, which is directed to “the conferred patent rights.”

the obligations Indonesia has assumed under the Nagoya Protocol. It also falls squarely outside the Treaty's prohibition, which is directed at revocation, invalidation, and unenforceability, and says nothing of obligations to share benefits.⁴⁴

3. Third tier: revocation through two independent routes

The highest tier is revocation, and its construction requires the greatest care because it operates in the vicinity of the prohibition. Two routes are proposed, each independently sufficient and neither resting on disclosure failure as the ground.

The first route is revocation for lack of novelty or inventive step, with disclosure information operating as a gateway to the evidence. The proposed construction has two elements. The first is an express amendment confirming that knowledge available within Indonesian local or Indigenous communities, whether documented or orally transmitted, constitutes prior art for the purposes of assessing novelty and inventive step. This removes the doctrinal uncertainty identified above and mirrors the Indian provision, and it is untouched by the Treaty because it concerns the substantive conditions of patentability rather than the disclosure obligation.⁴⁵ The second is a procedural provision entitling an interested party, upon demonstrating a discrepancy between the declared origin and the actual origin of the genetic material, to obtain from the Directorate General the documentation submitted in support of the declaration, for use in a revocation proceeding.

In this construction, the disclosure discrepancy performs an evidentiary function only. The party seeking revocation must still establish that the claimed invention lacked novelty or inventive step in light of the community knowledge identified. Where novelty is made out notwithstanding the discrepancy, the patent survives. The revocation is therefore not made solely on the basis of the failure to disclose, and the prohibition is not engaged. This is the mechanism through which the historically effective remedy is preserved.

⁴⁴ The compatibility of a compulsory benefit-sharing consequence with Article 5.3 follows from the express enumeration in that provision. Its compatibility with Indonesia's other international obligations is a separate question, addressed by the Nagoya Protocol, to which Indonesia is a party. [AUTHOR: add a citation to the Nagoya Protocol with its date and treaty series reference, and to the Indonesian ratifying instrument.]

⁴⁵ That the Treaty leaves substantive patentability requirements unchanged is common ground in the commentary. The consequence drawn here — that the substantive route to revocation therefore survives ratification intact — appears not to have been pursued in the Indonesian literature.

The second route is revocation for fraudulent disclosure conduct, operating within the exception the Treaty itself provides. Since the Treaty does not define fraudulent conduct or intent and leaves the method of implementation to Contracting Parties, Indonesian law may define the conduct that qualifies. The definition should be drawn to capture objectively identifiable behaviour rather than to require proof of subjective states of mind.⁴⁶ Three categories are proposed: the declaration of an origin the applicant knew to be false at the time of filing; the submission of documentation known to be falsified in support of a declaration; and the systematic omission of origin declarations across multiple related applications concerning material of the same provenance, where the pattern permits no innocent explanation. The burden should rest on the party seeking revocation, and the standard should be the ordinary civil standard applied in Commercial Court proceedings.

Jurisdiction over both routes should remain with the Commercial Court, which already exercises jurisdiction over patent revocation and has accumulated experience in intellectual property disputes.⁴⁷ No new forum is required.

TABLE 2. Proposed Three-Tier Remedy Architecture

Tier	Triggering conduct	Consequence	Deciding authority	Basis in the Treaty
First	Omission or defective declaration detected before grant	Notice of deficiency; application deemed withdrawn on failure to correct	Directorate General of Intellectual Property	Arts. 3.4 and 5.2, rectification opportunity
Second	Defective declaration detected after grant,	Register correction and publication;	Directorate General; administrative	Art. 5.1, measures not directed at validity

⁴⁶ The drafting concern is practical. A definition requiring proof of subjective intent to deceive would render Articles 5.2(bis) and 5.4 nugatory in practice, since such proof is rarely available against a corporate applicant operating through agents. Conduct-based indicators avoid this difficulty without extending the exception beyond what the Treaty contemplates.

⁴⁷ [AUTHOR: this is a point at which practitioner experience would strengthen the article considerably. A footnote referring to the practice of the Commercial Court in patent or trademark cancellation proceedings, and to any procedural obstacles a claimant would encounter under the two proposed routes, would distinguish this analysis from purely normative treatments.]

Tier	Triggering conduct	Consequence	Deciding authority	Basis in the Treaty
	without fraudulent intent	calibrated administrative fine; compulsory benefit-sharing agreement	determination of terms	
Third (route one)	Invention anticipated by community knowledge, discrepancy operating as evidentiary gateway	Revocation for lack of novelty or inventive step	Commercial Court	Substantive patentability, outside Art. 5.3
Third (route two)	Fraudulent disclosure conduct as defined by national law	Revocation	Commercial Court	Arts. 5.2(bis) and 5.4 with Art. 9.2

Source: Authors

The architecture requires amendments in four places. Article 26 requires a new paragraph specifying the consequences of breach and cross-referring to the revocation provisions. Article 5, governing novelty, requires an express provision on community knowledge as prior art. Articles 130 and 132 require the addition of the two revocation routes as grounds. And an implementing regulation is required to specify the minimum content of the declaration, the calibration of fines, and the procedure for benefit-sharing determination.

C. Sequencing Ratification and Reform

The final question concerns the order in which these steps should be taken. Indonesia has signed but not ratified, and under Law Number 24 of 2000 on International Treaties, ratification of an instrument of this character requires enactment by statute or presidential regulation

depending on the subject matter.⁴⁸ The interval before ratification is therefore not a period of inaction but a period in which the domestic architecture can be settled.

There is a case for ratifying promptly. The Treaty requires fifteen ratifications to enter into force and has attracted only two. Indonesia's ratification would advance the instrument toward operation, and as one of the states most affected by biopiracy, Indonesia has an interest in the Treaty binding the jurisdictions where erroneous patents are granted. Delay by resource-holding states risks the Treaty remaining a dead letter, which would serve the interests of those who resisted it.

There is a stronger case for reforming first. Three considerations support this ordering. The first concerns Article 4, whose non-retroactivity rule operates without prejudice to existing national laws on disclosure. National provisions in force before entry into force occupy a more secure position than provisions introduced afterwards, since the latter invite the argument that they were adopted to evade an obligation already assumed. Enacting the revocation routes before ratification places them among the existing laws the clause preserves.

The second concerns the prohibition on reservations. Because no reservations are permitted, Indonesia cannot ratify subject to a declaration preserving its revocation powers. Whatever accommodation is to be achieved must be achieved through the construction of national law, and it is preferable that the construction be in place and operating before the international obligation attaches.

The third is practical. Legislative reform in Indonesia is neither rapid nor certain, and an amendment prepared in the expectation of ratification may stall. A state that ratifies while its implementing framework remains in draft assumes an international obligation without domestic capacity, which is the condition Article 26 already exemplifies: an obligation without consequence.

The recommended sequence is therefore reform followed by ratification. Amend Articles 5, 26, 130, and 132 of Law Number 65 of 2024 to establish the three-tier architecture; issue the implementing regulation specifying declaration content and fine calibration; develop the genetic resources inventory into a form usable in prior art searching and accessible to foreign patent offices; and then deposit the instrument of ratification. This sequence permits Indonesia to ratify in good faith,

⁴⁸ Undang-Undang Nomor 24 Tahun 2000 tentang Perjanjian Internasional, Lembaran Negara Republik Indonesia Tahun 2000 Nomor 185, art. 10. [AUTHOR: verify which category the Treaty falls into under art. 10, since the answer determines whether ratification proceeds by statute or by presidential regulation, and the sequencing argument depends on it.]

since nothing in the proposed architecture contradicts the Treaty, while ensuring that ratification adds an international obligation to a domestic framework capable of giving it effect.

A final observation concerns the review mechanism. The Treaty provides for review four years after entry into force, extending to the possible expansion of the disclosure requirement to other areas of intellectual property and to derivatives, and to issues arising from new and emerging technologies. That review is the forum in which the remedy deficit can be raised multilaterally.⁴⁹ A state that has constructed a functioning domestic architecture will come to that review with evidence of what works and standing to argue for revision. A state that has ratified without implementing will come with neither.

Conclusion

This study asked how patent revocation for failure to disclose the origin of genetic resources should be constructed in Indonesian law, given the prohibition contained in Article 5.3 of the GRATK Treaty. Four findings answer that question.

The first is that the Treaty embodies a remedy deficit. Every documented victory of a resource-holding state against biopiracy, from turmeric and neem to brotowali, was achieved through patent revocation on substantive grounds, not through the enforcement of a disclosure obligation. The Treaty makes disclosure mandatory while foreclosing the remedy that historically gave disclosure its purpose, and it does so while relieving patent offices of any duty to verify the accuracy of what is declared. The instrument is stronger in obligation than in consequence, and the Indonesian literature has celebrated the former without examining the latter.

The second is that the prohibition is narrower than has been assumed. The qualifier solely confines it to revocation for which disclosure failure is the sole ground, leaving untouched revocation on independently sufficient substantive grounds even where disclosure information supplied the evidence. The fraud exception, whose content the Treaty leaves to national law, and the freedom of implementation conferred by Article 9.2, together create room that Indonesia has not

⁴⁹ GRATK Treaty, art. 8, providing for review of the scope and contents of the Treaty four years after entry into force, addressing among other matters the possible extension of the disclosure requirement and issues arising from new and emerging technologies. The review is not confined to those matters, which are introduced by “such as,” and the adequacy of the sanctions regime would fall within its scope.

used. The prohibition forecloses one drafting construction; it does not foreclose the objective that construction was meant to serve.

The third is that Indonesia's present compatibility with the Treaty is an artefact of omission rather than the product of design. Article 26 of Law Number 65 of 2024 creates a disclosure obligation without specifying any consequence for its breach, while Articles 130 through 133 create a revocation mechanism unconnected to that obligation. The domestic remedy deficit precedes the Treaty and would be consolidated by ratification undertaken without reform. Comparative analysis confirms the diagnosis: measured against India, Brazil, and Switzerland, Indonesia possesses the weakest construction of the four, and possesses it not by choice but by inadvertence.

The fourth is that an effective remedy can be preserved. The three-tier architecture proposed here provides for rectification before grant, administrative and restorative consequences after grant where fraud is absent, and revocation through two routes that fall outside the prohibition, namely revocation for anticipation by community knowledge with disclosure information operating as an evidentiary gateway, and revocation for fraudulent disclosure conduct as defined by national law. Implementation requires amendment of Articles 5, 26, 130, and 132 of the Patent Law, an implementing regulation specifying the content of the declaration and the calibration of fines, and the development of the genetic resources inventory into an instrument usable in examination.

The recommendation that follows is one of sequence. Indonesia should complete the reform before depositing its instrument of ratification. The non-retroactivity clause favours provisions already in force, the prohibition on reservations precludes any accommodation achieved at the moment of ratification, and the uncertainty of legislative timetables counsels against assuming an international obligation on the expectation of a domestic capacity not yet created.

The broader implication extends beyond Indonesia. If the reading advanced here is correct, resource-holding states generally face a choice the celebratory reception of the Treaty has obscured. They may implement the Treaty literally, in which case they exchange a remedy that worked for a procedure that does not, or they may implement it with attention to what it leaves open, in which case transparency becomes a route to the substantive assessment on which effective protection continues to depend. The Treaty is a beginning rather than a conclusion, and what it secures depends on how the states it was meant to benefit choose to build upon it.

References

- Flynn, Sean. "WIPO Treaty on Genetic Resources and Associated Traditional Knowledge Harmonizes Disclosure and Remedies." InfoJustice, 27 May 2024. <https://infojustice.org/archives/45782>.
- Forero-Pineda, Clemente. "The Impact of Stronger Intellectual Property Rights on Science and Technology in Developing Countries." *Research Policy* 35, no. 6 (2006): 808–24. <https://doi.org/10.1016/j.respol.2006.04.003>.
- Geneva Policy Outlook. "The GRATK Treaty: Understanding a Triumph of Multilateralism." 20 January 2025. <https://www.genevapolicyoutlook.ch/the-gratk-treaty-understanding-a-triumph-of-multilateralism/>.
- Goss, Ian. *25 Years in the Making: The WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge*. Geneva: WIPO, 2024.
- Hart, H. L. A. *The Concept of Law*. 3rd ed. Oxford: Oxford University Press, 2012.
- Kelsen, Hans. *Pure Theory of Law*. Translated by Max Knight. Berkeley: University of California Press, 1967.
- Medina, Dayu, and M. Rizqi Azmi. "Perlindungan Sumber Daya Genetik dan Pengetahuan Tradisional dalam Kerangka World Intellectual Property Organization (WIPO)." *Jurnal Hukum Das Sollen* 10, no. 1 (2024): 162–77. <https://doi.org/10.32520/das-sollen.v10i1.3404>.
- Robinson, Daniel F. *Confronting Biopiracy: Challenges, Cases and International Debates*. London: Earthscan, 2010.
- Schüssler, Andrea, Fabian Hoffmann, Heiko Dumlich, Jérôme Kommer, Niclas Gajeck, and Rolf Lechner. "AIPPI-Q289: Asking for Harmonization of Disclosure Requirements — Analysis and Opinion from a German and European Perspective." *GRUR International* 74, no. 2 (2025): 103–18. <https://doi.org/10.1093/grurint/ikae158>.
- Shiva, Vandana. *Protect or Plunder: Understanding Intellectual Property Rights*. London: Zed Books, 2001.
- Tiaraputri, Adi, Zainul Dauly, and Ledy Diana. "Menggali Potensi The WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge untuk Memperkuat Pelindungan Pengetahuan Tradisional." *Jurnal Ilmiah Hukum Kekayaan Intelektual* 8, no. 2 (2025). <https://doi.org/10.20885/jipro.vol8.iss2.art2>.
- Wijaya, Andy Usmina, Sekaring Ayumeida Kusnadi, Fifin Dwi Purwaningtyas, and Dwiki Arief Darmawan. "Perlindungan

Pengetahuan Tradisional di Indonesia dengan Hukum Sui Generis.” *Kajian Hasil Penelitian Hukum* 6, no. 2 (2023): 165–81. <https://doi.org/10.37159/jmih.v6i2.2383>.

World Intellectual Property Organization. *WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, Adopted by the Diplomatic Conference*. WIPO Doc. GRATK/DC/7. Geneva: WIPO, 24 May 2024. https://www.wipo.int/edocs/mdocs/tk/en/gratk_dc/gratk_dc_7.pdf.

World Intellectual Property Organization. “Summary of the WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge (2024).” Accessed 23 July 2026. https://www.wipo.int/en/web/treaties/ip/gratk/summary_gratk.

Yu, Peter K. “WIPO Negotiations on Intellectual Property, Genetic Resources and Associated Traditional Knowledge.” *Akron Law Review* [AUTHOR: verify volume, issue, year, pages, DOI].

Laws, Regulations, and Treaties

Brazil. Medida Provisória No. 2.186-16, de 23 de agosto de 2001.

Brazil. Lei No. 13.123, de 20 de maio de 2015.

India. The Patents Act, 1970 (as amended).

India. The Biological Diversity Act, 2002 (as amended 2023).

Indonesia. Undang-Undang Nomor 13 Tahun 2016 tentang Paten. Lembaran Negara Republik Indonesia Tahun 2016 Nomor 176.

Indonesia. Undang-Undang Nomor 24 Tahun 2000 tentang Perjanjian Internasional. Lembaran Negara Republik Indonesia Tahun 2000 Nomor 185.

Indonesia. Undang-Undang Nomor 65 Tahun 2024 tentang Perubahan Ketiga atas Undang-Undang Nomor 13 Tahun 2016 tentang Paten

Indonesia. Peraturan Pemerintah Nomor 56 Tahun 2022 tentang Kekayaan Intelektual Komunal.

Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, adopted 29 October 2010.

Switzerland. Bundesgesetz über die Erfindungspatente (Patentgesetz, PatG) of 25 June 1954, as amended.

Vienna Convention on the Law of Treaties, opened for signature 23 May 1969, 1155 UNTS 331.

WIPO Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge, adopted 24 May 2024, WIPO Doc. GRATK/DC/7.