Investor-State Dispute Settlement and the Regulatory Chilling Effect on Critical Minerals and Energy Policy in the Global South

AI Disclosure Statement

The author used AI-assisted tools solely for language editing, grammar refinement, formatting of the manuscript and its citations, and cross-checking factual statements about the procedural history and outcomes of the cited arbitrations against publicly available sources. The AI tools were not used to generate the legal analysis, arguments, interpretation of case law, conclusions or recommendations of this manuscript, which are the author's own work. The author has independently verified every citation and factual statement against the sources cited and assumes full responsibility for the accuracy, originality and integrity of the manuscript.

Abstract

Resource-rich states of the Global South are central to the contest over who may regulate the extraction and processing of critical minerals. Alongside resource-backed loans and minerals-for-security diplomacy, this article identifies a third and doctrinally distinct channel of constraint on their regulatory autonomy: investor-state dispute settlement (ISDS). It combines doctrinal analysis with a structured case study of nine mining, hydrocarbon and energy-transition disputes decided or settled between 2010 and 2024, drawn from ICSID, Permanent Court of Arbitration and UNCTAD sources: *Pac Rim v. El Salvador*, *Bear Creek v. Peru*, *South American Silver v. Bolivia*, *Gabriel Resources v. Romania*, *Eco Oro v. Colombia*, *Lone Pine v. Canada*, *Rockhopper v. Italy*, *Vattenfall v. Germany* and *Tethyan Copper v. Pakistan*. The article argues that the cost, duration and uncertainty of defending such claims narrow the space for environmental, fiscal and social regulation even where host states prevail. It then compares four reform trajectories: India's 2016 Model Bilateral Investment Treaty, South Africa's Protection of Investment Act, the Morocco–Nigeria investment agreement and multilateral reform within UNCITRAL Working Group III. It concludes that ISDS exposure operates cumulatively with debt-based and diplomatic constraints, and proposes five treaty-drafting and legislative safeguards for the current generation of critical-minerals and energy laws.

Keywords: Investor-State Dispute Settlement; Critical Minerals; Regulatory Chilling Effect; Sovereignty; International Investment Law; Global South

I. Introduction

The global race for critical minerals (cobalt, lithium, copper, nickel, rare-earth elements, and the semiconductor-grade metals indium and gallium) has turned a small number of resource-rich states of the Global South into the central battleground of twenty-first-century industrial policy.[1] Strategic partnership agreements such as the United States–Democratic Republic of the Congo Strategic Partnership Agreement of December 2025, the European Union's Critical Raw Materials Act, and India's National Critical Mineral Mission compete for privileged access to the same narrow band of deposits,[2] while resource-backed loans and minerals-for-security bargains increasingly tie sovereign decision-making over those deposits to external creditors and strategic patrons.[3] A growing literature has begun to describe this dynamic as a form of mortgaged, or hypothecated, sovereignty: the progressive substitution of externally negotiated conditionality for autonomous domestic policymaking in the governance of strategic resources.[4]

That literature, however, has concentrated overwhelmingly on the financial and diplomatic instruments of constraint: sovereign debt, collateralised mineral reserves, and bilateral security guarantees. It has paid comparatively little attention to a third, doctrinally distinct and considerably older channel through which the regulatory autonomy of resource-rich states is narrowed: investor-state dispute settlement (ISDS) under bilateral investment treaties, free

[1]Int'l Energy Agency, *Global Critical Minerals Outlook 2024*, Executive Summary (2024), https://www.iea.org/reports/global-critical-minerals-outlook-2024 (last visited Oct. 20, 2026) (documenting the concentration of cobalt, lithium, copper, nickel, and rare-earth supply in a small number of countries and the resulting strategic competition for access).

[2]Strategic Partnership Agreement Between the Government of the United States of America and the Government of the Democratic Republic of the Congo, U.S.–Dem. Rep. Congo, Dec. 4, 2025, *summarized in* Int'l Energy Agency, *DRC–US Strategic Partnership Agreement*, IEA Policies Database, https://www.iea.org/policies/29541-drc-us-strategic-partnership-agreement (last visited Oct. 2, 2026); Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 Establishing a Framework for Ensuring a Secure and Sustainable Supply of Critical Raw Materials, 2024 O.J. (L 2024/1252) 1; Prime Minister's Off., Gov't of India, *Cabinet Approves National Critical Mineral Mission to Build a Resilient Value Chain for Critical Mineral Resources Vital to Green Technologies with an Outlay of Rs 34,300 Crore over Seven Years*, Press Release (Jan. 29, 2025) (approval by the Union Cabinet), https://www.pmindia.gov.in/en/news_updates/cabinet-approves-national-critical-mineral-mission-to-build-a-resilient-value-chain-for-critical-mineral-resources-vital-to-green-technologies-with-an-outlay-of-rs-34300-crore-over-seven-years (last visited Oct. 20, 2026).

[3]Public Citizen et al., *Critical Minerals and Contested Sovereignty: Inside the U.S.–DRC Strategic Partnership Agreement*, Public Citizen (Jan. 22, 2026), https://www.citizen.org/article/critical-minerals-and-contested-sovereignty/ (last visited Oct. 2, 2026); Int'l Energy Agency, *DRC–US Strategic Partnership Agreement*, IEA Policies Database (May 31, 2026), https://www.iea.org/policies/29541-drc-us-strategic-partnership-agreement (last visited Oct. 2, 2026).

[4]*See, e.g.*, Deborah Brautigam & Kevin P. Gallagher, *Bartering Globalization: China's Commodity-Backed Finance in Africa and Latin America*, 5 Glob. Pol'y 346 (2014); Sebastian Horn, Carmen M. Reinhart & Christoph Trebesch, *China's Overseas Lending*, 133 J. Int'l Econ. 103539 (2021); Dávid Mihalyi, Aisha Adam & Jyhjong Hwang, *Resource-Backed Loans: Pitfalls and Potential* (Nat. Res. Governance Inst. 2020).

trade agreement investment chapters, and the Energy Charter Treaty. Where debt-based hypothecation operates through the balance sheet and diplomatic hypothecation through the negotiating table, ISDS operates through the tribunal and, more insidiously, through the mere anticipation of the tribunal. Political scientist Kyla Tienhaara has termed this anticipatory effect "regulatory chill": the withholding, dilution, or delay of public-interest regulation by a government that fears the cost, duration, or reputational burden of a future investor claim, whether or not that claim is ever filed.[5]

This article argues that ISDS constitutes a structurally significant, and analytically separable, third pillar of contemporary sovereignty-hypothecation in the extractive and energy sectors, one that interacts cumulatively with debt-based and diplomatic forms of constraint. It does so at the precise historical juncture at which Global South states possess, on paper, unprecedented material leverage (as custodians of the minerals indispensable to electrification, defence, and semiconductor manufacturing) yet face compounding legal encirclement each time they attempt to translate that leverage into fiscal, environmental, or industrial policy. Export restrictions, beneficiation mandates, windfall taxation, requirements of free, prior and informed consent, and moratoria on ecologically sensitive extraction are all measures of the kind that a resource-rich state might reasonably wish to adopt in the current cycle of critical-minerals demand. Each is also a measure of the kind that has, in comparable form, previously triggered fair-and-equitable-treatment or expropriation claims running into the hundreds of millions of dollars and, in one instance, an award of about US$5.84 billion.

Two clarifications of scope are necessary at the outset. First, this article uses "Global South" in its now-conventional sense within international law and development scholarship, as a political and economic, rather than strictly geographic, category encompassing states that occupy a structurally subordinate position within global capital and commodity markets, regardless of hemisphere; this usage explains why the comparative analysis in Part V draws on South African, Indian, Moroccan, and Nigerian treaty practice interchangeably, and why the case analysis in Part IV includes, for contrastive purposes, disputes involving Italy and Germany. Second, the article is deliberately confined to the litigation-based channel of constraint; it does not purport to offer a comprehensive account of debt-based or diplomatic

[5] *See generally* Kyla Tienhaara, *Regulatory Chill and the Threat of Arbitration: A View from Political Science*, *in* Evolution in Investment Treaty Law and Arbitration 606 (Chester Brown & Kate Miles eds., 2011) (defining "regulatory chill" as the withholding or dilution of public-interest regulation by a government anticipating the cost, delay, or reputational burden of an investor-state claim).

hypothecation, which are treated, where relevant, as background context rather than as objects of independent analysis in their own right.

The analysis proceeds in six further parts. Part II sets out the conceptual and legal architecture of ISDS as it bears on sovereignty and regulatory autonomy, and defines the mechanisms through which regulatory chill is said to operate. Part III explains the mixed doctrinal and comparative case-study methodology employed. Part IV undertakes a structured analysis of a corpus of mining, hydrocarbon, and energy-transition arbitrations decided or settled between 2010 and 2024, spanning Latin America, North America, Eastern Europe, South Asia, and Western Europe. Part V compares four distinct reform trajectories (India's Model Bilateral Investment Treaty of 2016, South Africa's Protection of Investment Act, the Morocco–Nigeria investment agreement, and the multilateral reform process within UNCITRAL Working Group III) against the specific governance demands of the current critical-minerals cycle. Part VI discusses the implications of these findings for the drafting of critical-minerals and energy legislation now under consideration across the Global South. Part VII concludes.

II. Conceptual and Legal Framework

A. Sovereignty, Investment Protection, and the Limits of the Analogy

The doctrine of permanent sovereignty over natural resources, affirmed by the United Nations General Assembly in 1962, proclaims the right of peoples and nations to dispose freely of their natural wealth and resources in the interest of their national development.[6] That resolution was drafted in an era in which the principal threat to resource sovereignty was direct expropriation without compensation, or its converse, punitive contractual stabilisation clauses that froze a host state's regulatory power in perpetuity.[7] The contemporary investment treaty regime inverts the historical concern: rather than protecting weak states from powerful investors, it has increasingly been criticised as protecting powerful investors from the ordinary regulatory activity of weak states and, as the case law below demonstrates, not only of weak ones. Understanding this inversion requires distinguishing ISDS from the resource-backed lending and strategic-partnership arrangements more commonly associated with mortgaged sovereignty. Debt-based hypothecation is voluntary, bilateral, and visible at the moment of

[6] G.A. Res. 1803 (XVII), ¶ 1, U.N. Doc. A/RES/1803(XVII) (Dec. 14, 1962).

[7] *See id.* ¶¶ 4, 8 (providing for nationalization or expropriation on public-interest grounds against appropriate compensation, and for good-faith observance of foreign investment agreements); *see generally* Nico Schrijver, Sovereignty over Natural Resources: Balancing Rights and Duties (1997).

contracting; its terms can, in principle, be renegotiated or disclosed. ISDS exposure, by contrast, is diffuse, treaty-based, and often invisible until the moment a regulatory measure is adopted, at which point liability may already have crystallised under treaty text signed years or decades earlier, frequently by a different government.

This temporal disjunction is of particular importance to the critical-minerals cycle now underway. Many of the bilateral investment treaties currently exposing Global South mining and energy regulators to potential liability were concluded in the 1990s and early 2000s, under governments negotiating primarily to attract capital for commodities (gold, copper, conventional hydrocarbons) whose strategic salience bore little relation to the position those same commodities, or their by-products, occupy in today's electrification and semiconductor supply chains.[8] A treaty drafted to protect a 1998 gold-mining investment did not, and could not, anticipate that the same legal instrument would one day govern a dispute over a cobalt export quota adopted in service of an industrial policy unimaginable at the time of signature. The mismatch between the vintage of the applicable legal instrument and the contemporary policy objective it now constrains is itself a distinguishing feature of ISDS-based hypothecation, separating it from debt or diplomatic arrangements that are, by construction, negotiated contemporaneously with the resource cycle they govern.

B. The Architecture of Investor-State Dispute Settlement

More than 2,000 bilateral and multilateral investment treaties currently in force grant qualifying foreign investors the right to bring claims directly against host states before international arbitral tribunals, most commonly under the International Centre for Settlement of Investment Disputes Convention of 1965 or the arbitration rules of the United Nations Commission on International Trade Law.[9] The ICSID Convention establishes a self-contained system of jurisdiction, applicable law, and enforcement, under which awards are binding and, in principle, enforceable in the domestic courts of more than 150 contracting states without further

[8] *See generally* U.N. Conf. on Trade & Dev., World Investment Report 2000: Cross-Border Mergers and Acquisitions and Development, U.N. Doc. UNCTAD/WIR/2000 (2000) (documenting the rapid growth in the number of bilateral investment treaties during the 1990s); Zachary Elkins, Andrew T. Guzman & Beth A. Simmons, *Competing for Capital: The Diffusion of Bilateral Investment Treaties, 1960–2000*, 60 Int'l Org. 811 (2006).

[9] U.N. Conf. on Trade & Dev., *International Investment Agreements Navigator*, UNCTAD Investment Policy Hub, https://investmentpolicy.unctad.org/international-investment-agreements (last visited Oct. 2, 2026) (recording more than 2,000 investment treaties currently in force).

judicial review of the merits.[10] Separately, the multilateral Energy Charter Treaty of 1994 extends comparable investor protections specifically to investments in the energy sector, including exploration, extraction, generation, and transmission, and has generated a substantial share of the case law most directly relevant to the present inquiry.[11]

The substantive standards typically invoked in mining and energy disputes are threefold. First, the fair and equitable treatment standard, which tribunals have increasingly construed to protect an investor's "legitimate expectations" as to the stability of the regulatory framework in place at the time of investment, a construction traceable to the influential 2003 award in *Técnicas Medioambientales Tecmed v. Mexico*, itself arising from the non-renewal of a hazardous-waste landfill permit.[12] Second, the prohibition on direct or indirect expropriation without compensation, under which measures that substantially deprive an investor of the use or enjoyment of an investment may be treated as tantamount to expropriation even absent a formal transfer of title, the doctrinal foundation laid in *Metalclad Corp. v. Mexico*, where a municipal permit denial and an ecological decree protecting a cactus reserve were together found to expropriate a hazardous-waste facility.[13] Third, contractual stabilisation clauses, frequently inserted into individual mining concession agreements, which purport to freeze the law applicable to the investment as at the date of signature, or to require the state to compensate the investor for the economic effect of any subsequent legislative change.[14]

C. The Regulatory Chilling Effect: Definition and Mechanisms

The regulatory chilling effect, as developed in the political-economy literature on investment arbitration, operates through at least three distinguishable mechanisms.[15] The first, and most visible, is ex post liability: a state adopts a regulatory measure, is sued, and either pays an award or bears the substantial legal and opportunity costs of defending the claim, win or lose.

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[10] Convention on the Settlement of Investment Disputes Between States and Nationals of Other States arts. 25, 42, 53–54, Mar. 18, 1965, 575 U.N.T.S. 159 [hereinafter ICSID Convention].

[11] Energy Charter Treaty arts. 10, 13, 26, Dec. 17, 1994, 2080 U.N.T.S. 95.

[12] *Técnicas Medioambientales Tecmed, S.A. v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award, ¶ 154 (May 29, 2003) (articulating the "legitimate expectations" limb of the fair and equitable treatment standard in the context of the non-renewal of a hazardous-waste landfill permit).

[13] *Metalclad Corp. v. United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award, ¶¶ 103–111 (Aug. 30, 2000) (finding indirect expropriation where a municipal permit denial and a state ecological decree prevented the operation of a hazardous-waste facility).

[14] *See generally* Piero Bernardini, *Stabilization and Adaptation in Oil and Gas Investments*, 1 J. World Energy L. & Bus. 98 (2008) (surveying freezing, hybrid and economic-equilibrium stabilization clauses).

[15] *See generally* Tienhaara, *supra* note 5; Jonathan Bonnitcha, Lauge N. Skovgaard Poulsen & Michael Waibel, The Political Economy of the Investment Treaty Regime (2017).

The second is negotiated settlement leverage: the mere filing, or credible threat, of a claim induces the state to modify, suspend, or reverse the contested measure in exchange for discontinuance, without any tribunal ever ruling on the merits. The third, and least observable, is anticipatory self-censorship: officials drafting environmental, fiscal, or social legislation quietly narrow its scope, insert investor-friendly exceptions, or abandon it altogether, specifically because of the treaty exposure it would create, a decision that, by definition, leaves no public record. Empirical verification of this third mechanism is inherently difficult, a methodological limitation addressed directly in Part III below; the first two mechanisms, by contrast, are amenable to structured case analysis, which forms the empirical core of Part IV.

III. Methodology

This article combines doctrinal legal analysis with a structured, purposive case-study methodology, in order to satisfy both the interpretive rigour that legal scholarship requires and a minimum threshold of empirical verifiability appropriate to a claim about the systemic behavioural effects of a legal regime.

The case corpus was constructed from publicly available arbitral awards, decisions, and procedural records concerning mining, hydrocarbon extraction, or energy-transition regulatory measures, drawn from the ICSID case database, the repository of the Permanent Court of Arbitration, and the UNCTAD Investment Dispute Settlement Navigator, cross-referenced against reporting in the International Institute for Sustainable Development's Investment Treaty News.[16] Three inclusion criteria were applied: first, that the underlying dispute arose from a state measure adopted on environmental, social, fiscal, or public-interest grounds, as opposed to a pure contractual breach unconnected to regulatory policy; second, that the measure concerned mining, mineral processing, hydrocarbons, or energy-transition regulation; and third, that the outcome (a substantive award or decision, or a documented settlement or discontinuance), rather than a bare notice of arbitration, was publicly documented as of September 2026. Nine disputes met these criteria and form the empirical basis of Part IV; a further tranche of treaty and legislative instruments, identified through the UNCTAD

[16]U.N. Conf. on Trade & Dev., *Investment Dispute Settlement Navigator*, UNCTAD Investment Policy Hub, https://investmentpolicy.unctad.org/investment-dispute-settlement (last visited Oct. 2, 2026); Int'l Ctr. for Settlement of Inv. Disputes, *Case Database*, ICSID, https://icsid.worldbank.org/cases/case-database (last visited Oct. 20, 2026); Permanent Ct. of Arb., *Cases*, PCA, https://pca-cpa.org/en/cases/ (last visited Oct. 20, 2026); Int'l Inst. for Sustainable Dev., *Investment Treaty News*, IISD, https://www.iisd.org/itn/ (last visited Oct. 20, 2026).

International Investment Agreements Navigator and national gazettes, forms the basis of the comparative reform analysis in Part V.

For each case in the corpus, the following variables were coded qualitatively: the sector and specific mineral or energy resource involved; the nature of the contested regulatory measure; the treaty or instrument invoked; the outcome (state prevails, investor prevails, or mixed/partial liability); the quantum claimed and, where applicable, awarded; the presence or absence of a contractual stabilisation clause; and the elapsed time between registration of the claim and its first-instance resolution (final award, decision, or discontinuance). This last variable is included because, as the analysis in Part IV demonstrates, the chilling effect of ISDS is not confined to cases in which the investor ultimately prevails: the multi-year duration and substantial defence costs associated with even a successful state defence (as in *Pac Rim v. El Salvador* and, most starkly, *Gabriel Resources v. Romania*) themselves impose a cost that is independent of the final legal outcome, and one that falls on a sector (oil, gas and mining) that together accounts for roughly a quarter of all registered ICSID cases.[17]

The approach nonetheless carries three significant limitations, disclosed here in the interest of methodological transparency. First, a substantial proportion of ISDS proceedings, particularly those conducted under UNCITRAL rules outside the ICSID framework, remain confidential in whole or in part, meaning that the publicly observable corpus systematically undercounts the true universe of mining- and energy-related disputes.[18] Second, purposive selection based on public availability introduces an observation bias toward higher-profile, higher-value disputes, which may overstate the salience of extreme outcomes relative to the general run of cases; this is partially offset by triangulation against UNCTAD's aggregate sectoral statistics, discussed in Part IV. Third, and most fundamentally, the anticipatory chilling mechanism identified in Part II.C is, as Tienhaara herself acknowledges, not directly observable through case analysis at all,[19] since its defining feature is the absence of any regulatory measure or resulting dispute; the present study therefore addresses that mechanism only indirectly, through triangulation with the interview-based empirical literature of Bonnitcha, Poulsen and Waibel, rather than

[17]Int'l Ctr. for Settlement of Inv. Disputes, *The ICSID Caseload – Statistics*, Issue 2026-2, at 13 (2026), https://icsid.worldbank.org/sites/default/files/publications/2026-2_ENG_TheICSIDCaseloadStatistics.pdf (last visited Oct. 20, 2026) (reporting that oil and gas (14%) and mining (12%) together account for about 26% of all registered ICSID cases, and about 43% of those registered in fiscal year 2026).

[18]*See generally* Lorenzo Cotula, Foreign Investment, Law and Sustainable Development: A Handbook on Agriculture and Extractive Industries (2d ed. 2016).

[19]*See generally* Tienhaara, *supra* note 5 (discussing the difficulty of directly observing anticipatory, as opposed to reactive, regulatory chill, and proposing elite-interview methodologies as a partial remedy).

through independent primary research.[20] Within these limits, the corpus supports the more modest, and defensible, empirical claim advanced in Part IV: that the realised costs of ex post liability and settlement leverage in this sector are of a magnitude plausibly sufficient to generate the anticipatory effect that the wider literature documents through other methods.

Two descriptive quantitative measures are reported alongside the qualitative case analysis in Part IV, to move the discussion beyond anecdote without overstating the statistical confidence a nine-case purposive sample can support. The first is elapsed time to resolution, measured from the registration of the claim to the final award, decision, or discontinuance; this variable operationalises the cost dimension of chill identified in Part II.C independently of legal outcome, since litigation cost and institutional distraction accrue continuously over the life of a proceeding regardless of which party eventually prevails. The second is the ratio of quantum awarded to quantum claimed, reported for the cases in which both figures are clearly documented in the sources consulted; this variable operationalises the extent to which tribunals moderate, as opposed to endorse, the investor's own valuation of the disputed measure's economic impact, and thereby offers a rough proxy for how much genuine deterrent weight a claim's headline figure (frequently reported in initial media coverage without qualification) actually carries once adjudicated. Both measures are reported narratively within the case discussion in Part IV rather than in a separate table, in view of the corpus's limited size, and are aggregated in the synthesis at Part IV.G.

IV. Case Law Analysis

A. Metallic Mining Bans and the Cost of Prevailing: Pac Rim v. El Salvador

Pac Rim Cayman LLC v. Republic of El Salvador is a case that supporters of the ISDS system can invoke as evidence that host states retain ample regulatory space, since El Salvador ultimately prevailed.[21] The dispute arose when El Salvador declined to grant *Pac Rim*'s subsidiary an exploitation concession for the El Dorado gold project. In 2012 the tribunal declined jurisdiction over the claims brought under the Central America Free Trade Agreement

[20] *See generally* Bonnitcha, Poulsen & Waibel, *supra* note 15 (surveying empirical and interview-based evidence on the deterrent effect of investment treaty exposure on host-state regulatory choices).

[21] *See Pac Rim Cayman LLC v. Republic of El Salvador*, ICSID Case No. ARB/09/12, Award, Operative Part (Oct. 14, 2016) (dismissing the remaining claims); *cf.* Int'l Ctr. for Settlement of Inv. Disputes, *The ICSID Caseload – Statistics*, *supra* note 17, at 15 (reporting that, among all ICSID arbitrations decided by tribunals, 30% ended in awards dismissing all claims, 20% in awards declining jurisdiction and 2% in awards finding the claims manifestly without legal merit, against 48% upholding claims in part or in full).

(CAFTA), so that the arbitration continued under El Salvador's Investment Law alone; in 2016 it dismissed the remaining claims on the merits, finding that the refusal was explained by *Pac Rim*'s failure to meet the requirements of the Salvadoran mining law.[22] The victory was nonetheless costly. The proceedings ran from the notice of arbitration in 2009 to the final award in 2016, and El Salvador, one of the smallest and most fiscally constrained states in the Western Hemisphere, recovered only US$8 million of the roughly US$12 million in arbitration costs it had incurred.[23] The case matters for present purposes because the state's eventual victory did not remove the deterrent. In March 2017, within months of the award, El Salvador's legislature enacted a nationwide statutory ban on metallic mining, replacing the case-by-case administrative discretion whose exercise had cost the state seven years of litigation.[24] The record does not establish that the arbitration caused the ban, which also answered a long domestic campaign. The sequence is nonetheless consistent with the second and, indirectly, the third mechanisms of regulatory chill identified in Part II.C: a favourable arbitral outcome coincided with a considerably more blunt and risk-averse legislative response than the discretionary permitting regime it replaced. The ban did not prove permanent, however: in December 2024 the legislature repealed it and enacted a new General Metallic Mining Law that again permits metallic mining.[25]

B. Contested Concessions and the Critical-Minerals Connection: Bear Creek and South American Silver

Two Andean disputes decided a year apart illustrate the direct relevance of pre-2020 mining arbitration to the current critical-minerals cycle, notwithstanding that neither was framed in "critical minerals" terms at the time. In *Bear Creek Mining Corp. v. Republic of Peru*, a tribunal constituted under the Canada–Peru Free Trade Agreement found that Peru's 2011 revocation

[22] *Pac Rim Cayman LLC v. Republic of El Salvador*, ICSID Case No. ARB/09/12, Decision on the Respondent's Jurisdictional Objections (June 1, 2012) (dismissing the claims under the Central America Free Trade Agreement and affirming jurisdiction under El Salvador's Investment Law); *id.*, Award, Operative Part (Oct. 14, 2016).

[23] *Pac Rim v. El Salvador: All Claims Dismissed; OceanaGold to Pay US$8 Million in Costs*, Investment Treaty News (Mar. 13, 2017), https://www.iisd.org/itn/2017/03/13/all-claims-dismissed-oceanagold-to-pay-usd-8-million-in-costs-pac-rim-cayman-llc-v-el-salvador-icsid-case-no-arb-09-12/ (last visited Oct. 20, 2026) (reporting an order that the claimant pay US$8 million towards the respondent's costs); Int'l Allies Against Mining in El Salvador, *El Salvador: Coalition of Groups States "There Are No Winners"*, Media Release (Oct. 17, 2016), https://www.actu.org.au/wp-content/uploads/2023/05/media948177actu-release-161015-isds.pdf (last visited Oct. 20, 2026) (reporting that El Salvador paid more than US$12 million to defend the claim).

[24] Decreto Legislativo No. 639, Ley de Prohibición de la Minería Metálica, Mar. 29, 2017, Diario Oficial No. 66, Tomo 415, Apr. 4, 2017 (El Sal.).

[25] Ley General de Minería Metálica, Diario Oficial Tomo 445, Dec. 23, 2024 (El Sal.) (repealing the Ley de Prohibición de la Minería Metálica of 2017).

of *Bear Creek*'s authorisation for the Santa Ana silver project, issued in response to sustained and at times violent community protests near Lake Titicaca, constituted an unlawful expropriation, notwithstanding Peru's argument that the revocation was a proportionate response to a breakdown in the social licence to operate.[26] The tribunal rejected the claim for lost profits and awarded the sunk investment of approximately US$18.2 million, which with interest and costs amounted to roughly US$30.4 million, against a claim of about US$522 million.[27] One arbitrator, Philippe Sands, dissented in part on damages, reasoning that the investor's own conduct in the affected communities had contributed to the unrest and that the award should have been halved.[28]

South American Silver Ltd. v. Plurinational State of Bolivia concerned a structurally similar fact pattern: the 2012 reversion to the state, following community unrest, of the Malku Khota concession in Potosí, a deposit whose value lay not only in silver but also in its indium and gallium content. A Permanent Court of Arbitration tribunal, applying the United Kingdom–Bolivia Bilateral Investment Treaty, found an unlawful expropriation and awarded the investor's sunk costs of approximately US$18.7 million plus interest, reported at about US$28 million in total, against the US$385.7 million claimed.[29] The significance of Malku Khota for the present argument is direct rather than analogical: indium and gallium appear on the U.S. Department of the Interior's 2022 Final List of Critical Minerals because of their importance to semiconductor and photovoltaic manufacturing.[30] The legal route that produced liability in 2018, a community-driven revocation of a concession followed by an expropriation claim under an inherited bilateral investment treaty, remains available today to any investor whose critical-minerals concession is revoked or curtailed in response to comparable social or environmental pressure.

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[26] *Bear Creek Mining Corp. v. Republic of Peru*, ICSID Case No. ARB/14/21, Award, Operative Part (Nov. 30, 2017) (holding that Supreme Decree No. 032-2011-EM, which revoked Bear Creek's authorisation, was an unlawful expropriation under the Canada–Peru Free Trade Agreement).

[27] Matthew Levine, *Canadian Mining Company Awarded Sunk Costs Only in Compensation for Peruvian Expropriation*, Investment Treaty News (Dec. 21, 2017), https://www.iisd.org/itn/2017/12/21/canadian-mining-company-awarded-sunk-costs-only-compensation-peruvian-expropriation-bear-creek-mining-corporation-republic-peru-icsid-case-arb-14-21-matthew-levine/ (last visited Oct. 2, 2026).

[28] *Bear Creek*, ICSID Case No. ARB/14/21, Partial Dissenting Opinion of Professor Philippe Sands (Sept. 12, 2017).

[29] *South American Silver Ltd. v. Plurinational State of Bolivia*, PCA Case No. 2013-15, Award, Operative Part (Nov. 22, 2018) (under the United Kingdom–Bolivia Bilateral Investment Treaty).

[30] U.S. Dep't of the Interior, *2022 Final List of Critical Minerals*, 87 Fed. Reg. 10,381, 10,381 (Feb. 24, 2022).

C. Environmental and Heritage-Based Refusals: Gabriel Resources and Eco Oro

Gabriel Resources Ltd. v. Romania represents, on one reading, the strongest available evidence that environmentally contested refusals can withstand ISDS scrutiny. In March 2024, a majority of an ICSID tribunal rejected claims exceeding US$6.7 billion arising from Romania's decade-long failure to grant the permits needed for the Roșia Montană gold mine, a project that provoked sustained public opposition and whose mining landscape was inscribed on UNESCO's World Heritage List in 2021.[31] The tribunal ordered *Gabriel Resources* to pay approximately US$10 million towards Romania's costs. Yet the case is a poor advertisement for the proposition that regulation is costless to defend. The arbitration ran for nearly nine years, was decided by a two-to-one majority, and was still subject to an annulment application, filed in July 2024 on several grounds including alleged arbitrator conflicts of interest, in the most recent public disclosures consulted for this article (April 2026).[32] Even a decisive victory on the merits has therefore not yet produced final legal certainty for the Romanian state, a decade after the underlying permit decisions.

Eco Oro Minerals Corp. v. Colombia complicates the picture further, and is in some respects the more important case for critical-minerals and energy regulators, precisely because it did not produce a clean state victory. In its 2021 decision on liability, the tribunal rejected the expropriation claim, but a majority held that Colombia had breached the minimum standard of treatment under the Canada–Colombia Free Trade Agreement through its arbitrary vacillation and inaction in delimiting the Santurbán páramo, a high-altitude wetland ecosystem protected under Colombian law.[33] In July 2024, a differently constituted majority awarded no damages, because *Eco Oro* had not shown that it would have obtained an environmental licence but for the breach; *Eco Oro* applied to annul that award in July 2025.[34] The decision demonstrates that

[31] *Gabriel Resources Ltd. v. Romania*, ICSID Case No. ARB/15/31, Award, Operative Part (Mar. 8, 2024).

[32] Gabriel Resources Ltd., *Fourth Quarter and Year-End 2025 Results*, Press Release (Apr. 29, 2026), https://webdisclosure.com/press-release/gabriel-resources-ltd-cve-gbu-fourth-quarter-and-year-end-2025-results-mWRcFxSfpOM (last visited Oct. 20, 2026) (reporting the two-to-one majority decision, the costs order of approximately US$10 million, and the annulment application filed under Article 52 of the ICSID Convention in July 2024).

[33] *Eco Oro Minerals Corp. v. Republic of Colombia*, ICSID Case No. ARB/16/41, Decision on Jurisdiction, Liability and Directions on Quantum, Operative Part (Sept. 9, 2021).

[34] *Id.*, Award on Damages, Operative Part (July 15, 2024); Eco Oro Minerals Corp., *Eco Oro Seeks Annulment of ICSID Tribunal Decision on Damages and Announces US$4.5 Million Financing*, Press Release (July 31, 2025), https://www.finanznachrichten.de/nachrichten-2025-07/66054478-eco-oro-minerals-corp-eco-oro-seeks-

environmental status does not, without more, immunise a state from ISDS liability: outcomes may turn on the sequencing, timing and administrative history of a regulatory measure, factors that are extremely difficult for a legislative drafter to anticipate ex ante and that compound the uncertainty at the heart of the chilling-effect hypothesis. The zero-damages outcome shows the limits of the investor's leverage, but Colombia reached it only after some eight years of proceedings.

D. Hydrocarbon and Energy-Transition Regulation: Lone Pine and Rockhopper

The chilling effect identified in the mining cases extends to the regulation of hydrocarbons, a sector whose contraction is itself a central objective of the energy transition that critical-minerals extraction is meant to enable. In *Lone Pine Resources Inc. v. Government of Canada*, a claim exceeding US$100 million was brought under NAFTA Chapter Eleven against Québec's 2011 revocation of oil and gas exploration permits beneath the Saint Lawrence River, adopted as part of a moratorium on hydraulic fracturing. In 2022, nine years after the claim was filed, the tribunal dismissed it, unanimously rejecting the expropriation claim because the claimant retained other mining rights and, by majority, the minimum-standard-of-treatment claim.[35] *Lone Pine* is therefore a state victory, but one delivered after a long and costly defence. In *Rockhopper Exploration plc v. Italian Republic*, by contrast, an Energy Charter Treaty tribunal awarded approximately €190 million in 2022 in respect of the refusal of a production concession for the Ombrina Mare field after Italy re-introduced a ban on hydrocarbon activity within twelve nautical miles of its coast, a measure adopted in response to sustained domestic environmental mobilisation.[36] That award was annulled in its entirety in June 2025, not on the merits but because the claimant-appointed arbitrator had failed to disclose a past criminal prosecution in Italy; *Rockhopper* has since filed a fresh arbitration request.[37] The annulment

annulment-of-icsid-tribunal-decision-on-damages-and-announces-us-dollar-4-5-million-financing-399.htm (last visited Oct. 20, 2026).

[35] *Lone Pine Resources Inc. v. Government of Canada*, ICSID Case No. UNCT/15/2, Notice of Arbitration (Sept. 6, 2013); *id.*, Final Award, Operative Part (Nov. 21, 2022); *Lone Pine v. Canada*, Climate Change Litigation Databases (listing the Final Award of Nov. 21, 2022), https://climatecasechart.com/non-us-case/lone-pine-v-canada/ (last visited Oct. 2, 2026).

[36] *Rockhopper Exploration plc v. Italian Republic*, ICSID Case No. ARB/17/14, Award, Operative Part (Aug. 23, 2022).

[37] *Id.*, Decision on Annulment, ¶¶ 405–406 (June 2, 2025) (annulling the award under Article 52(1)(a) of the ICSID Convention for improper constitution of the tribunal); Holly Munks, *Rockhopper Exploration Swings to Loss After 2025 Arbitration Blow*, Alliance News (June 3, 2026), https://www.ajbell.co.uk/news/articles/rockhopper-

illustrates a further dimension of the burden: a state that escapes an award may still face a second round of proceedings. The *Rockhopper* dispute is significant precisely because Italy is not a Global South state. It demonstrates that the underlying legal exposure is structural to the ISDS regime, and to the Energy Charter Treaty in particular, rather than a function of any developing-country deficiency in drafting or administrative capacity, and that its fiscal impact is amplified, rather than created, by the weaker fiscal buffers typical of Global South respondents.

E. Nuclear Phase-Out and the Limits of the European Union Safe Harbour: Vattenfall v. Germany

The point is reinforced by *Vattenfall AB v. Federal Republic of Germany (II)*, in which the Swedish state utility *Vattenfall* invoked the Energy Charter Treaty to challenge Germany's accelerated nuclear phase-out, adopted within weeks of the March 2011 Fukushima disaster.[38] The ICSID proceeding, pending since 2012 and claiming approximately €4.7 billion, ended in 2021 when Germany agreed to compensate *Vattenfall* approximately €1.4 billion as part of a €2.43 billion package for four nuclear operators, and *Vattenfall* withdrew its claim.[39] That settlement also followed a 2016 judgment of the German Federal Constitutional Court holding that the phase-out was lawful but required better compensation, which complicates any claim that the arbitration alone drove the outcome.[40] It remains instructive that Germany, among the world's largest and most fiscally resilient economies, resolved the dispute by negotiated payment rather than litigating to judgment on a policy adopted in response to a nuclear catastrophe. It suggests that the settlement-leverage mechanism of regulatory chill identified in Part II.C operates independently of respondent-state capacity, and that its absolute fiscal and

exploration-swings-loss-after-2025-arbitration-blow (last visited Oct. 20, 2026) (reporting that Rockhopper filed a new arbitration request in September 2025).

[38] *Vattenfall AB v. Federal Republic of Germany (II)*, ICSID Case No. ARB/12/12, Order of the Tribunal Taking Note of the Discontinuance of the Proceeding (Nov. 9, 2021), https://www.italaw.com/sites/default/files/case-documents/italaw16362.pdf (last visited Oct. 20, 2026).

[39] *European Energy Disputes Update*, Investment Treaty News (June 24, 2021), https://www.iisd.org/itn/2021/06/24/european-energy-disputes-update/ (last visited Oct. 2, 2026) (reporting compensation of €1.43 billion to Vattenfall and the suspension of the ICSID proceeding); dpa-AFX, *Akw-Prozess von Vattenfall gegen Deutschland nun offiziell beendet*, ZfK (Nov. 2, 2021), https://www.zfk.de/politik/regulierung/akw-prozess-von-vattenfall-gegen-deutschland-nun-offiziell-beendet (last visited Oct. 20, 2026) (reporting discontinuance following the parties' declarations of November 1, 2021 and total compensation of €2.43 billion).

[40] Bundesverfassungsgericht [BVerfG] [Federal Constitutional Court] Dec. 6, 2016, 1 BvR 2821/11, 143 BVerfGE 246 (Ger.) (holding the accelerated phase-out compatible with the Basic Law but requiring compensation for unusable residual electricity volumes).

political cost is more difficult for smaller, less diversified Global South economies to absorb. Notably, the safeguard subsequently developed within the European Union, namely the Court of Justice's rulings in *Achmea* and *Komstroy*, which held intra-European Union investor-state arbitration clauses, including under the Energy Charter Treaty, incompatible with European Union law, is a supranational remedy structurally unavailable to Global South states outside that regional framework.[41]

F. Extreme Leverage and Renegotiated Sovereignty: Tethyan Copper v. Pakistan

The outer boundary of the phenomenon under examination is marked by *Tethyan Copper Co. Pty Ltd. v. Islamic Republic of Pakistan*, in which an ICSID tribunal awarded approximately US$5.84 billion in 2019, comprising US$4.087 billion in compensation and US$1.753 billion in pre-award interest, in respect of the Balochistan provincial government's 2011 refusal to grant a mining lease for the Reko Diq copper-gold deposit, one of the largest undeveloped copper reserves in the world.[42] The award, reported to equal about two percent of Pakistan's gross domestic product, was never enforced against Pakistan: enforcement was stayed while Pakistan pursued annulment proceedings begun in November 2019.[43] Instead, Pakistan's federal and provincial governments negotiated a framework agreement in March 2022 with Barrick Gold Corporation and Antofagasta plc that revived the Reko Diq project under a restructured ownership and revenue-sharing arrangement, in substitution for payment of the award.[44] The annulment proceeding was discontinued in January 2023.[45] The episode is the

[41]Case C-284/16, *Slovak Republic v. Achmea BV*, ECLI:EU:C:2018:158 (Mar. 6, 2018); Case C-741/19, *Republic of Moldova v. Komstroy LLC*, ECLI:EU:C:2021:655 (Sept. 2, 2021).

[42]*Tethyan Copper Co. Pty Ltd. v. Islamic Republic of Pakistan*, ICSID Case No. ARB/12/1, Award, Operative Part (July 12, 2019); Barrick Gold Corp., *Barrick Announces Reko Diq Arbitration Award*, Press Release (July 15, 2019), https://www.barrick.com/English/news/news-details/2019/Barrick-Announces-Reko-Diq-Arbitration-Award/default.aspx (last visited Oct. 20, 2026).

[43]Antofagasta plc, *Preliminary Results Announcement for the Year Ended 31 December 2019*, News Release (Mar. 17, 2020), https://www.investegate.co.uk/announcement/rns/antofagasta--anto/preliminary-results-announcement/6027810 (last visited Oct. 20, 2026) (reporting Pakistan's application for annulment of Nov. 8, 2019 and the stay of enforcement); *see also* Nasir Iqbal, *Mining Firm Moves Virgin Islands Court for Enforcement of Reko Diq Award Against Pakistan*, Dawn (Dec. 24, 2020), https://www.dawn.com/news/1597596 (last visited Oct. 20, 2026) (reporting the total award as about US$5.97 billion, a figure that includes post-award interest, and as equal to about two percent of Pakistan's gross domestic product).

[44]Reko Diq Framework Agreement among the Government of Pakistan, the Government of Balochistan, Barrick Gold Corp. and Antofagasta plc (Mar. 20, 2022), *as reported in Pakistan Escapes $11 Billion Penalty After Signing Reko Diq Deal with Barrick*, Aaj English TV (Mar. 21, 2022), https://english.aaj.tv/news/30281755/ (last visited Oct. 20, 2026).

[45]*Tethyan Copper Co. Pty Ltd. v. Islamic Republic of Pakistan*, ICSID Case No. ARB/12/1, Procedural Order Taking Note of the Discontinuance of the Proceeding (Annulment Proceeding) (Jan. 6, 2023).

clearest illustration in the corpus of the settlement-leverage mechanism operating at sovereign scale: an award of a magnitude the respondent state could not readily pay shaped a renegotiation of the underlying mineral-rights regime on terms negotiated in the shadow of the investor's original claim, rather than through a purely domestic democratic or regulatory process.

G. Synthesis: Aggregate Patterns in the Corpus

Read together, the corpus does not support the simple proposition that host states "lose" ISDS cases arising from mining and energy regulation. Of the nine disputes reviewed, states prevailed outright in three (*Pac Rim*, *Gabriel Resources* and *Lone Pine*); one produced a liability finding but no damages (*Eco Oro*); investors obtained awards in four (*Bear Creek*, *South American Silver*, *Rockhopper* (since annulled), and *Tethyan Copper*), the last of which was resolved by renegotiation; and one (*Vattenfall*) ended in a negotiated compensation settlement. That distribution is broadly consistent with the aggregate picture in UNCTAD's dispute statistics, in which decisions favouring states outnumber those favouring investors.[46] What the corpus does support is a narrower but more analytically load-bearing claim. The elapsed time to resolution (a mean of approximately seven years across the nine cases, within a range of roughly three and a half to nine and a half years), the magnitude of the quantum at stake even in claims that were dismissed or substantially reduced, and the observable post-dispute regulatory responses of the states concerned, such as El Salvador's metallic mining ban and Pakistan's renegotiation of Reko Diq's ownership structure, are jointly consistent with, and provide the empirically observable half of, the regulatory chilling effect identified in the wider political-economy literature. Where both figures are clearly documented, as in *Bear Creek* and *South American Silver*, tribunals awarded less than one tenth of the amounts claimed, which indicates that headline claim figures overstate realised liability while still shaping the settlement environment.

V. Comparative Analysis: Reform Trajectories

A. India's Model Bilateral Investment Treaty of 2016

India's own encounter with the mechanisms described in Part IV, principally through a wave of arbitrations initiated after 2011 that did not directly concern mining, collectively prompted

[46] *See* U.N. Conf. on Trade & Dev., *supra* note 16.

a fundamental reappraisal of its treaty practice. The result was the most comprehensive unilateral reform undertaken by any major Global South economy to date. The Model Text for the Indian Bilateral Investment Treaty, approved in December 2015 and applied prospectively from 2016, restructures each of the three doctrinal pressure points identified in Part II.B. In place of the conventional fair and equitable treatment standard, the model substitutes a narrower "Treatment of Investments" obligation, breached only by measures amounting to a denial of justice, a fundamental breach of due process, targeted discrimination on manifestly unjustified grounds, or manifestly abusive treatment under customary international law, a formulation designed to foreclose the expansive "legitimate expectations" jurisprudence traced to *Tecmed*.[47] It requires investors to exhaust domestic judicial and administrative remedies for a minimum of five years before initiating arbitration, directly addressing the settlement-leverage mechanism of chill by ensuring that domestic institutions have a substantial first opportunity to resolve the dispute. And it expressly excludes non-discriminatory regulatory measures adopted to protect public health, safety, the environment, or other public-welfare objectives from the scope of indirect expropriation, directly responding to the *Metalclad* line of authority. From 2016 onwards, India issued notices of termination in respect of around 75 bilateral investment treaties concluded under its earlier, considerably more investor-friendly 1993 model, inviting counterparties to renegotiate on the new terms.[48]

The trade-off inherent in this approach is well recognised within India's own subsequent treaty practice. The five-year local-remedies requirement, while an effective deterrent to chill, has also been criticised as reducing the treaty's attractiveness to prospective investors,[49] and more recent Indian investment instruments, including the 2024 bilateral investment treaty with the United Arab Emirates, have shortened the exhaustion period to three years, suggesting an evolving recalibration rather than a settled equilibrium.[50] The relevance of this recalibration to

[47]Ministry of Finance, Gov't of India, *Model Text for the Indian Bilateral Investment Treaty* arts. 3, 5, 15 (2015).

[48]*See* Freshfields, *India's Investment Treaty Landscape in 2026*, Freshfields (Mar. 16, 2026), https://www.freshfields.com/en/our-thinking/blogs/risk-and-compliance/indias-investment-treaty-landscape-in-2026-102mmwp (last visited Oct. 2, 2026) (reporting termination of around 75 bilateral investment treaties in 2016 and 2017; reported totals vary by source).

[49]*See, e.g.*, Prabhash Ranjan & Pushkar Anand, *The 2016 Model Indian Bilateral Investment Treaty: A Critical Deconstruction*, 38 Nw. J. Int'l L. & Bus. 1 (2017).

[50]Agreement Between the Republic of India and the United Arab Emirates for the Promotion and Protection of Investments, India–U.A.E., Feb. 13, 2024 (entered into force Aug. 31, 2024); Norton Rose Fulbright, *The India/UAE Bilateral Investment Treaty: Novel Features in the Next Generation of BITs*, Norton Rose Fulbright (July 2025), https://www.nortonrosefulbright.com/en/knowledge/publications/90b947cf/the-india-uae-bilateral-investment-treaty (last visited Oct. 20, 2026) (linking the treaty text and noting a three-year local-remedies requirement, against five years in the Indian Model BIT).

the present inquiry is direct: India's own National Critical Mineral Mission depends on attracting foreign capital and technology for domestic beneficiation and refining of lithium, cobalt, and rare-earth inputs, placing India in precisely the position analysed throughout this article: needing simultaneously to preserve regulatory space for environmental and community-consent conditions on new mineral processing capacity, and to avoid deterring the capital that capacity requires.[51] The 2016 model, and its subsequent adjustment, together constitute the most direct available case study of a Global South state attempting to resolve that tension through treaty design rather than through post hoc litigation.

B. South Africa's Mining-Driven Retreat from ISDS: The Protection of Investment Act

South Africa offers a still more radical, and still more directly mining-derived, model of reform. The catalyst was *Piero Foresti, Laura de Carli & Others v. Republic of South Africa*, in which Italian and Luxembourgish investors challenged the ownership-transfer requirements of the Mineral and Petroleum Resources Development Act and the associated Black Economic Empowerment mining charter, measures at the heart of South Africa's post-apartheid constitutional commitment to redistributive economic transformation.[52] Although the case ended in 2010 without a tribunal ruling on the compatibility of transformative mining legislation with investment treaty standards (the claimants abandoned most of their claims after the government converted their mining rights on negotiated terms, and the tribunal dismissed the claims with prejudice and ordered the claimants to contribute €400,000 to South Africa's costs), the South African government treated the mere fact of the challenge as unacceptable: a 2009 government position paper set out a policy of not renewing the European bilateral investment treaties under which the claim had been brought, and South Africa subsequently allowed the great majority of its remaining bilateral investment treaties to lapse.[53] In their place, the Protection of Investment Act 22 of 2015 (in force since 2018) codifies national treatment, due process, and compensation guarantees for expropriation as matters of domestic statutory

[51] *See supra* note 2 (National Critical Mineral Mission).

[52] *Piero Foresti, Laura de Carli & Others v. Republic of South Africa*, ICSID Case No. ARB(AF)/07/1, Award, ¶¶ 112, 133 & pt. IV (Aug. 4, 2010) (dismissing with prejudice a challenge to the ownership-transfer requirements of the Mineral and Petroleum Resources Development Act 28 of 2002 and the Black Economic Empowerment mining charter, following the claimants' request for discontinuance, and ordering the claimants to pay €400,000 towards the respondent's costs).

[53] Dep't of Trade & Indus., Republic of S. Afr., *Bilateral Investment Treaty Policy Framework Review: Government Position Paper* (2009).

and constitutional law, enforceable through South African courts and, for state-to-state disputes, through diplomatic channels or inter-state arbitration, but confers no direct right of action on individual foreign investors before an international tribunal.[54] South Africa thereby retained the substantive protections generally associated with investment treaties while eliminating the specific institutional feature (direct investor standing before an extraterritorial tribunal) identified in Part II.C as the principal mechanism of both ex post liability and settlement-leverage chill. The South African model is of direct relevance to any Global South state seeking to regulate critical-minerals beneficiation, local-content requirements, or community equity-participation conditions of the kind South Africa's own mining charter contemplated, since it demonstrates that domestic legal guarantees can substitute for, rather than merely supplement, international arbitral exposure.

C. Multilateral Reform: UNCITRAL Working Group III and the Investment Court Model

Unilateral treaty redesign of the kind undertaken by India and South Africa addresses only the stock of treaties a given state chooses to renegotiate or terminate; it leaves untouched the broader systemic architecture within which the remaining several thousand treaties operate. Since 2017, United Nations Commission on International Trade Law Working Group III has pursued a multilateral reform mandate encompassing, among other options, a standing multilateral investment court with tenured, salaried adjudicators in place of ad hoc party-appointed arbitrators, an appellate mechanism to correct erroneous awards without full annulment, and procedural reforms directed at cost, duration, and third-party funding transparency.[55] The European Union has pursued a parallel, bilateral variant of the same model (the Investment Court System embedded in the Comprehensive Economic and Trade Agreement with Canada and the EU–Vietnam Investment Protection Agreement) which replaces party-appointed tribunals with a standing roster of adjudicators and introduces a

[54]Protection of Investment Act 22 of 2015 §§ 6–8, 10 (S. Afr.), Government Gazette No. 39514 (Dec. 15, 2015) (commenced July 13, 2018), https://www.parliament.gov.za/storage/app/media/Acts/2015/Act_22_of_2015_Protection_of_Investment_Act.pdf (last visited Oct. 20, 2026) (guaranteeing national treatment, due process and compensation for expropriation through domestic law and remedies, while omitting investor-state arbitration).

[55]U.N. Comm'n on Int'l Trade L., *Report of the United Nations Commission on International Trade Law, Fiftieth Session (3–21 July 2017)*, ¶ 264, U.N. Doc. A/72/17 (2017) (mandate encompassing, *inter alia*, a standing multilateral investment court, an appellate mechanism, and procedural reforms).

formal appellate tier.[56] Separately, the Energy Charter Treaty's own modernisation process, agreed in principle in 2022 and adopted in December 2024, together with the withdrawal between 2023 and 2025 of numerous contracting parties (among them France, Germany, the Netherlands, Poland, Spain, Slovenia, Luxembourg, Denmark, and the United Kingdom, as well as the European Union and Euratom), illustrates that even long-standing multilateral instruments directly implicated in energy-transition disputes (as *Rockhopper* and *Vattenfall* demonstrate) are not immune to structural revision once the scale of their fiscal exposure becomes politically salient.[57] For Global South states, however, engagement with Working Group III has been markedly more cautious than that of the European Union, reflecting both resource constraints in sustained multilateral treaty diplomacy and a reasonable concern that a standing investment court, if designed principally around European and North American procedural preferences, may replicate rather than resolve the asymmetries of the current ad hoc system.

D. South-South Treaty Innovation: The Morocco–Nigeria Model

A fourth and less widely examined reform trajectory is emerging directly from South-South treaty practice, and offers a template of particular relevance to critical-minerals governance. The Morocco–Nigeria Reciprocal Investment Promotion and Protection Agreement of 2016 departs from both the conventional investor-protection model and the more defensive Indian and South African approaches by imposing binding, reciprocal obligations directly on investors (including requirements relating to environmental impact assessment, human rights due diligence, anti-corruption compliance, and corporate social responsibility) as conditions attached to the investment protections the treaty otherwise confers.[58] This investor-obligations

[56]Comprehensive Economic and Trade Agreement, Can.–E.U., ch. 8, § F, Oct. 30, 2016, 2017 O.J. (L 11) 23; Investment Protection Agreement Between the European Union and Its Member States and the Socialist Republic of Viet Nam, June 30, 2019, 2020 O.J. (L 186) 1527.

[57]Energy Charter Conference, Decision on the Modernisation of the Energy Charter Treaty (June 24, 2022); Energy Charter Conference, Amendments to the Energy Charter Treaty, Decision CCDEC(2024)12 (Dec. 3, 2024), https://www.energycharter.org/what-we-do/conference-decisions/documents/2024/ (last visited Oct. 20, 2026); *see also* U.N. Conf. on Trade & Dev., *The Energy Charter Treaty (1994)*, UNCTAD Investment Policy Hub, https://investmentpolicy.unctad.org/international-investment-agreements/treaties/bits/5212/the-energy-charter-treaty-1994- (last visited Oct. 20, 2026) (listing withdrawals taking effect between Dec. 8, 2023 and Sept. 4, 2025).

[58]Reciprocal Investment Promotion and Protection Agreement Between the Government of the Kingdom of Morocco and the Government of the Federal Republic of Nigeria, Dec. 3, 2016, https://investmentpolicy.unctad.org/international-investment-agreements/treaties/bits/3711/morocco---nigeria-bit-2016- (last visited Oct. 20, 2026) (imposing binding obligations on investors relating to human rights, environmental impact assessment, anti-corruption and corporate social responsibility alongside conventional investor protections); *see also* Tarcisio Gazzini, *The 2016 Morocco–Nigeria BIT: An Important Contribution to the Reform of Investment Treaties*, Investment Treaty News (Sept. 26, 2017),

model is structurally significant for the present analysis because it addresses the asymmetry embedded in the conventional BIT template, under which the state alone bears binding legal obligations while the investor bears only the domestic-law obligations of the host jurisdiction. A critical-minerals treaty modelled on the Morocco–Nigeria template could, in principle, condition an investor's continued access to ISDS on demonstrated compliance with free, prior and informed consent processes, beneficiation commitments, and environmental standards of the kind at issue in *Bear Creek*, *South American Silver*, and *Eco Oro*, converting what is currently a one-directional shield for capital into a reciprocal instrument of accountability.

E. Comparing the Four Trajectories

The four reform trajectories examined above are best understood not as competing alternatives from which a single optimal model can be selected, but as points along two independent axes: the degree to which investor-state arbitration is retained, narrowed, or eliminated, and the degree to which reform is pursued unilaterally, bilaterally, or multilaterally. India's model narrows arbitral exposure while retaining ISDS itself, and proceeds unilaterally, treaty by treaty. South Africa eliminates direct investor standing altogether, substituting domestic constitutional and statutory guarantees, again through unilateral action. The Morocco–Nigeria treaty retains ISDS but rebalances it through reciprocal investor obligations, negotiated bilaterally between two Global South states with comparable interests. UNCITRAL Working Group III and the European Union's Investment Court System retain ISDS in modified institutional form, but pursue reform multilaterally, at a pace and on terms substantially shaped by states (principally in Europe) whose own exposure profile, as the *Rockhopper* and *Vattenfall* disputes illustrate, differs in degree but not in kind from that of Global South mining and energy regulators. No single trajectory has yet demonstrated, over a sufficiently long horizon, that it resolves the tension between regulatory autonomy and investment attraction without cost to either objective; what the comparison does establish is that the choice is not binary between full exposure and full withdrawal, and that intermediate, sector-specific drafting techniques (several of which are identified in Part VI below) are both available and, in the Indian, South African, and Moroccan-Nigerian instances, already tested in practice.

https://www.iisd.org/itn/2017/09/26/the-2016-morocco-nigeria-bit-an-important-contribution-to-the-reform-of-investment-treaties-tarcisio-gazzini/ (last visited Oct. 20, 2026).

VI. Discussion: Implications for Critical Minerals and Energy Governance in the Global South

The analysis in Parts IV and V supports three principal conclusions of direct relevance to the current cycle of critical-minerals legislation across the Global South. First, the three channels of contemporary sovereignty constraint identified in the introduction (resource-backed debt, minerals-for-security diplomacy, and ISDS exposure) are not merely parallel but cumulative and mutually reinforcing. A resource-backed loan agreement or a strategic partnership of the kind concluded between the Democratic Republic of the Congo and the United States in December 2025 typically operates alongside, rather than instead of, the bilateral investment treaty or stabilisation-clause protections available to the individual mining concessionaires whose activity the broader diplomatic arrangement is designed to facilitate; a state seeking to renegotiate the terms of the diplomatic bargain therefore frequently finds its options constrained twice over, once by the financing structure and once by the investment-law exposure of the underlying concessions.

Second, the specific regulatory instruments most likely to feature in the coming generation of critical-minerals legislation (export restrictions and quotas of the kind the Democratic Republic of the Congo has already imposed on cobalt, domestic beneficiation and local-content mandates, windfall or resource-rent taxation, requirements of free, prior and informed consent for indigenous and affected communities, and moratoria on extraction in ecologically sensitive zones) map with striking precision onto the fact patterns of the corpus examined in Part IV.[59] A cobalt export quota raises expropriation and fair-and-equitable-treatment questions comparable to those that arose from the silver-project revocations in *Bear Creek* and *South American Silver*; a beneficiation mandate conditioning export licences on domestic processing raises questions of a kind adjudicated in the permit and lease refusals at issue in *Pac Rim*, where the state prevailed, and in *Tethyan Copper*, where it did not. Legislators drafting the current wave of critical-minerals codes and mining-law amendments are, in substance, drafting into a legal environment whose risk parameters were largely set by disputes concerning gold, silver, copper, and shale gas a decade or more earlier.

[59] Autorité de Régulation et de Contrôle des Marchés des Substances Minérales Stratégiques [ARECOMS], Decision No. 004/ARECOMS/2025 (Sept. 20, 2025) (extending the suspension of cobalt exports to Oct. 15, 2025 and establishing an export quota system from Oct. 16, 2025), *summarized in* Int'l Energy Agency, *DRC ARECOMS Decision No. 004/2025: Cobalt Quota System*, https://www.iea.org/policies/29138 (last visited Oct. 2, 2026).

Third, the comparative analysis in Part V suggests that no single reform trajectory offers a complete solution, but that specific, transferable drafting techniques can materially reduce exposure without foreclosing the investment needed to finance mineral value chains. Four such techniques emerge from the case studies examined. The first is narrowing the fair and equitable treatment standard to a closed list of customary-law breaches, following the Indian model, so as to limit open-ended legitimate-expectations reasoning, while recognising, as *Eco Oro* shows, that even a customary minimum standard can ground liability where administrative conduct is found arbitrary. The second is requiring exhaustion of domestic remedies before international arbitration, so that community-driven regulatory responses of the kind at issue in *Bear Creek* and *South American Silver*, and the permitting disputes in *Pac Rim*, are tested first within a state's own administrative and judicial system. The third is expressly carving out non-discriminatory public-welfare regulation from the scope of indirect expropriation, so as to protect measures to preserve fragile ecosystems of the kind at issue in *Eco Oro*, bearing in mind that the carve-out's value depends on how the measure is implemented. The fourth, drawing on the Morocco–Nigeria innovation, is conditioning investor access to arbitration on compliance with binding environmental and community-consent obligations, so as to convert investment protection from a unilateral shield into a reciprocal instrument. None of these techniques requires withdrawal from the investment treaty system altogether, and each has already been tested, in whole or in part, by at least one Global South state.

Translated into concrete drafting guidance for legislators and treaty negotiators currently engaged in critical-minerals and energy-transition lawmaking, the analysis above yields five specific recommendations. First, mining codes and critical-minerals legislation should be drafted and, where possible, formally notified as "non-discriminatory measures for a legitimate public welfare objective" within the meaning of the expropriation carve-outs already found in the Indian model and comparable instruments, since *Eco Oro* shows that the protected status of the underlying resource (there, a páramo ecosystem) did not shield the state from liability for the manner in which that protection was implemented; the characterisation must be established affirmatively, in the text of the measure and its preparatory materials, rather than assumed. Second, community consultation and free, prior and informed consent procedures should be codified as binding preconditions to the grant of a concession, rather than as post hoc justifications for its revocation, precisely because *Bear Creek* and *South American Silver* both involved concessions revoked in response to unrest that a more robust ex ante consultation process might have prevented or legitimised. Third, new or renegotiated bilateral investment

treaties governing critical-minerals investment should adopt the five-year, or at minimum three-year, local-remedies exhaustion requirement pioneered by the Indian model, so that community-driven regulatory disputes are tested first within domestic administrative and judicial systems designed to weigh precisely the social and environmental considerations that investment tribunals, as the cases above suggest, may weigh differently. Fourth, where a stabilisation clause is commercially necessary to secure financing for large-scale beneficiation or refining infrastructure of the kind contemplated by India's National Critical Mineral Mission, it should be drafted in "economic equilibrium" rather than "freezing" form, preserving the state's power to legislate while providing for negotiated compensation of demonstrated economic impact, rather than an outright bar on subsequent regulation. Fifth, and most structurally, Global South states negotiating new critical-minerals partnerships (whether with the United States, the European Union, China, or one another) should treat the investment-protection annex of any such partnership as a distinct and separately negotiable instrument from the underlying resource-access or security arrangement, resisting the bundling of broad-form investor protection into agreements whose primary logic, as the December 2025 Democratic Republic of the Congo–United States Strategic Partnership Agreement illustrates, is diplomatic and security-driven rather than investment-promotional.

VII. Conclusion

This article has argued that investor-state dispute settlement constitutes a third, analytically distinct, and empirically observable channel of contemporary sovereignty constraint in the governance of critical minerals and energy resources across the Global South, operating alongside (and reinforcing) the more widely discussed instruments of resource-backed debt and minerals-for-security diplomacy. Drawing on a structured corpus of nine mining, hydrocarbon, and energy-transition arbitrations decided between 2010 and 2024, the analysis has shown that the regulatory chilling effect is not confined to cases in which host states lose: the seven-year defence in *Pac Rim v. El Salvador*, the near-decade litigation in *Gabriel Resources v. Romania*, and the renegotiation of Reko Diq's ownership structure following the US$5.84 billion *Tethyan Copper* award all demonstrate that the mere existence of ISDS exposure narrows the practical space available for environmental, fiscal, and social regulation of the extractive sector, independent of the ultimate legal outcome.

The comparative analysis of India's Model Bilateral Investment Treaty, South Africa's Protection of Investment Act, the multilateral reform process within UNCITRAL Working

Group III, and the investor-obligations innovation of the Morocco–Nigeria treaty demonstrates, however, that this exposure is neither immutable nor inherent to foreign investment as such. It is the product of specific, identifiable treaty drafting choices made predominantly in the 1990s and early 2000s, under conditions (and for commodities) quite different from those now driving the critical-minerals transition. Those choices can be, and in a growing number of Global South jurisdictions already have been, revisited.

The stakes of that revision are considerable. The same deposits of cobalt, lithium, copper, and rare earths that make Global South states indispensable to the energy transition also make them acutely vulnerable to precisely the litigation-based constraint documented in this article, at the very moment their leverage over global supply chains is at its historical peak. A treaty architecture capable of preserving the environmental, fiscal, and community-consent regulatory space that the current mineral cycle urgently requires (without deterring the capital investment that cycle equally requires) is not a peripheral technical question for trade negotiators. It is a precondition for whether the sovereignty these states currently hold over their mineral wealth translates into durable developmental gain, or is instead progressively mortgaged away, award by award, settlement by settlement, to the same extent as it is through debt and diplomacy combined. Future research, building on the exploratory corpus assembled here, would benefit from a larger, systematically coded dataset of confidential and non-ICSID proceedings, to the extent these can be accessed, in order to test with greater statistical confidence the magnitude of the settlement-leverage and anticipatory-chill mechanisms identified qualitatively in this article.