IGARAPÉ INSTITUTE
a think and do tank

Global Futures Bulletin

THE AMAZON AND THE NEW MINERAL RESOURCE ORDER: WHY THE WORLD'S LARGEST RAINFOREST IS BECOMING A STRATEGIC MINERAL FRONTIER

Table of Contents

Introduction 1

The Mineral Foundations of Decarbonization and Defense 2

The Great Power Scramble in the Amazon 5

When Crime Enters the Value Chain 7

The Politics of Accelerating Mining..... 8

Derisking Mining in the Amazon 9

A Test of Governance, not Geology 9

References 10

Endnotes..... 14

Global Futures Bulletin

THE AMAZON AND THE NEW MINERAL RESOURCE ORDER: WHY THE WORLD'S LARGEST RAINFOREST IS BECOMING A STRATEGIC MINERAL FRONTIER[1]

Introduction

The Amazon is an object of global attention not just for forests, but minerals. For decades it has been treated as a climate and biodiversity keystone — a forest whose value lies in what it keeps out of the atmosphere and what it keeps alive. Now it is being described with a different nomenclature: "strategic," "critical," "supply-chain." Under parts of the basin and along its geological fissures sit deposits of copper, bauxite, cobalt, copper, iron, gold, graphite, lithium, manganese, nickel, niobium, tantalum and, in a handful of belts, rare earth elements.[2] In an era of renewed great power competition, those endowments are becoming harder for governments and companies to ignore.

The Mineral Foundations of Decarbonization and Defense

At least two megatrends are driving increased demand for Amazonian minerals.[3] First, the energy transition is, among other things, a materials transition. Deep decarbonization implies sharp increases in demand for minerals used in grids, batteries, renewables and electric vehicles. Yet supply development and processing capacity are struggling to keep pace. Second, defense establishments have been unusually explicit about their dependence on specialized materials. Critical minerals and rare earths are embedded across modern weapons systems (including those enabled by AI) and that concentrated supply chains can pose national-security risks. This dual demand — clean energy and hard security — has elevated mining policy from an industrial concern to an instrument of statecraft.

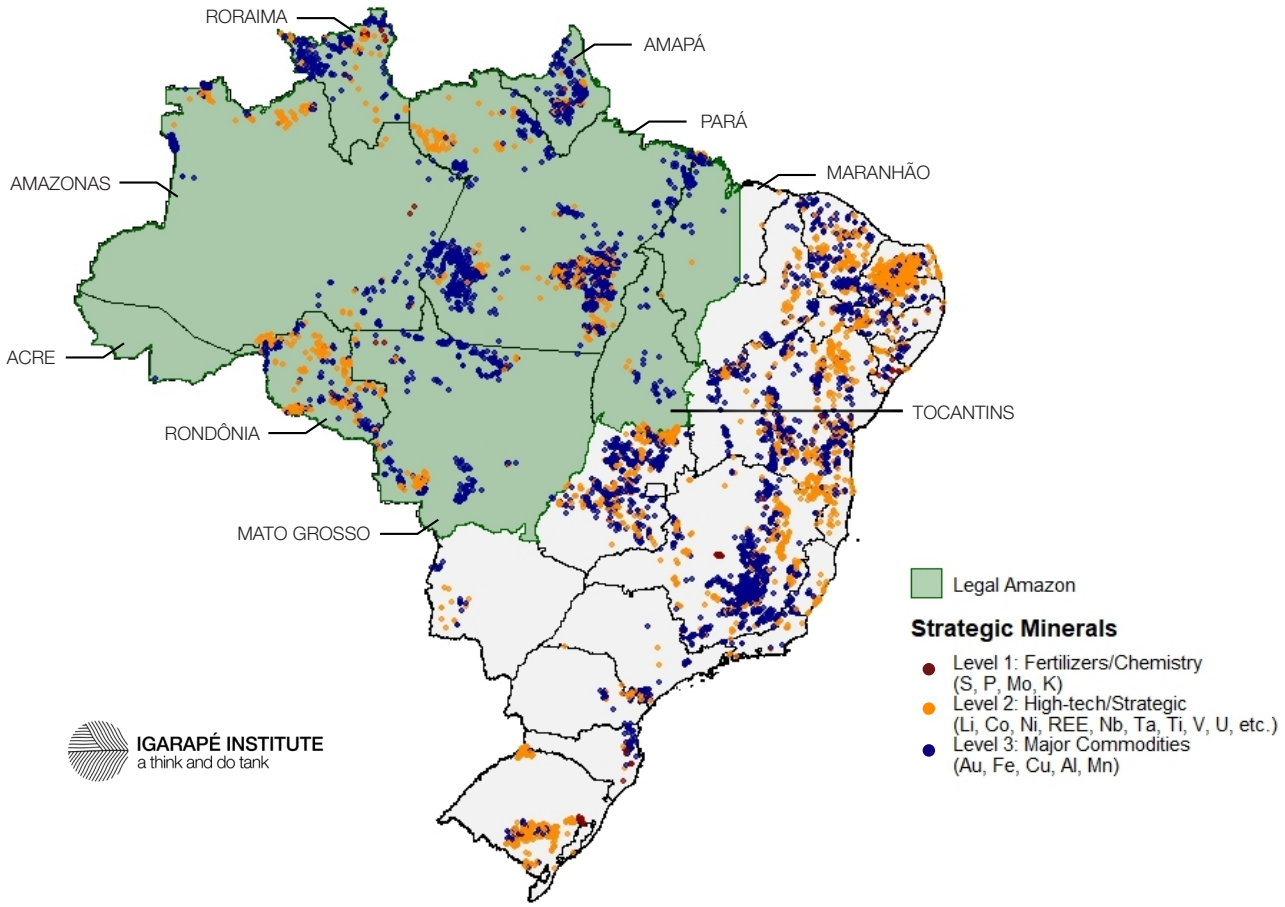
Figure 1. Critical mineral profile in the Amazon Basin

The Amazon Basin is increasingly viewed as an object of interest precisely because it spans eight countries with sizable mining prospects — Brazil, Bolivia, Peru, Ecuador, Colombia, Venezuela, Guyana and Suriname, plus French Guiana, a French territory. Each has a distinct mineral profile and a different capacity to regulate extraction at scale. Even so, the basin shares certain physical, political, and social features that make any mineral boom unusually fraught. For one, transport corridors built for ore quickly become corridors for settlement, land-grabbing and illicit trade. Many of the most prospective zones for mining overlap Indigenous territories and protected areas, where the costs of disruption are measured in sovereignty, culture and health.[4]

A Mineral Boom Across Eight States

Brazil sits at the center of the story because it combines massive mining potential with existing industrial capacity.[5] The Carajás Mineral Province in Pará which spans Canaa dos Carajás, Marabá, and Parauepebas already produces large volumes of iron ore and hosts significant copper, nickel and manganese operations, a reminder that Amazon mining is already advanced.[6] What has changed is the framing. Critical minerals and rare earths are now discussed as strategic assets, and exploration interest has ballooned. There are already over 7,700 pending applications to exploit energy transition minerals in the Brazilian Amazon, with extensive overlap with Indigenous lands and conservation units.[7] Brazil's opportunity is to use this rich endowment to move up value chains, attracting processing and manufacturing alongside extraction. Its risk is that opaque regulations, weak enforcement or permissive licensing could amplify deforestation, conflict and contamination, undermining the environmental credentials that make Brazilian supply politically attractive abroad.

Figure 2. Brazil's critical mineral profile



Colombia's Amazon is a reminder that minerals and security frequently travel together. Monitoring groups have documented mercury contamination linked to illicit gold mining in the Colombian Amazon, with harms that spread through fish and food chains and with extraction acting as a revenue stream for organized crime in remote areas.[8] The strategic minerals agenda, in such contexts, is inseparable from state presence and border control. A government may announce ambitions for responsible exploration, but if it cannot police river corridors and airstrips, minerals will still move, only with violence and corruption embedded in the supply chain.[9]

Ecuador's experience shows how quickly strategic or critical mineral narratives collide with ecological constraints. Its large copper and gold ambitions sit on the Andean-Amazon interface, where heavy rainfall, steep terrain and dense hydrological networks raise the consequences of error. The country has been trying to bring order to a sector constrained by legal disputes and irregularities. For example, in mid-2025 it reopened its mining concessions registry after seven years, explicitly linking the reform to a desire to boost investment while countering illegal mining.[10] Yet Ecuador also illustrates the politics of consent and water. The government has shown a willingness to pull back where opposition and ecological sensitivity are high, including by revoking an environmental licence for a Canadian-backed gold project in a water-sensitive area after strong local resistance.[11]

Peru's position is shaped by geography. It is an Andean mining power, but infrastructure and watersheds tie highland mines to lowland rivers. As global demand for copper rises, Peru's ability to expand output while preventing downstream impacts will matter for the basin as much as for its fiscal accounts. Like in Brazil and Colombia, Peru's Amazon-facing regions are also a hotspot for artisanal and small-scale gold mining, much of it informal or illegal, which has driven deforestation and mercury pollution.[12] Political choices around formalization have been contentious: Peru's Congress has repeatedly extended temporary permits meant to bring informal miners into the legal system, amid criticism that such extensions can entrench illegality rather than resolve it.[13]

Bolivia's mineral reputation is dominated by lithium, much of it outside the rainforest in high-altitude salt flats. It is also home to close to 40 other critical minerals including chromium, cobalt, gold, nickel, niobium and rare earths.[14] Yet its Amazonian departments confront the same pressures as neighboring states: informal gold, deforestation and mercury exposure. Bolivia's dilemma is therefore split-screen. It seeks to position itself in a global battery economy while managing frontier extraction economies that can corrode institutions and degrade ecosystems regardless of what happens in its lithium sector.

Venezuela provides the basin's starkest warning. The Orinoco Mining Arc, opened in 2016, has been associated with criminal governance and severe environmental harm.[15] Human rights and media groups have described a situation in which armed and criminal groups control mining operations through extortion, exploitation and violence, with mercury poisoning affecting workers and Indigenous communities.[16] The "rush" for coltan, gold, tin, and other critical minerals in the region is linked with trafficking networks, guerrilla groups and coercive rule over communities, often with buyers and intermediaries able to launder origins once ores leave the forest.[17] Where the state's writ is weak, critical minerals can become a financing mechanism for predation rather than development.

Guyana and Suriname, smaller states on the Guiana Shield, are often overlooked in broad Amazon narratives, yet they are increasingly salient to supply diversification. The U.S. Geological Survey has noted Guyana's bauxite and gold exports and the country's identification of resources that include manganese, nickel, niobium, tantalum and rare earths.[18] In Guyana, the regulatory system is comparatively legible on paper: environmental permits should be issued within a maximum of three months (and operation permits within two), though

extensions are possible where compliance issues arise, illustrating the region's recurring tension between formal timelines and practical capacity.[19] Suriname has experienced rapid growth in mining-related forest loss over recent decades, much of it driven by artisanal activity. It has also become a theater for geopolitical capital. For example, China's state-linked Chinalco has expressed interest in a major bauxite investment, a reminder that the strategic contest is often mediated through state-backed firms and long-term offtake relationships.[20]

The Great Power Scramble in the Amazon

This is where the wider contest among powers comes in. China's dominance in several mineral processing chains and its role as investor and offtaker have catalyzed a recent counter-mobilization among the United States and its allies. In 2025 and early 2026, G7 finance ministers and partners including Australia openly discussed measures to reduce dependence on China for rare earths and strengthen alternative supply chains.[21] Canada and Australia matter in this contest as hubs of mining finance, technical expertise and corporate listings, while the European Union and Japan bring industrial demand and regulatory leverage.

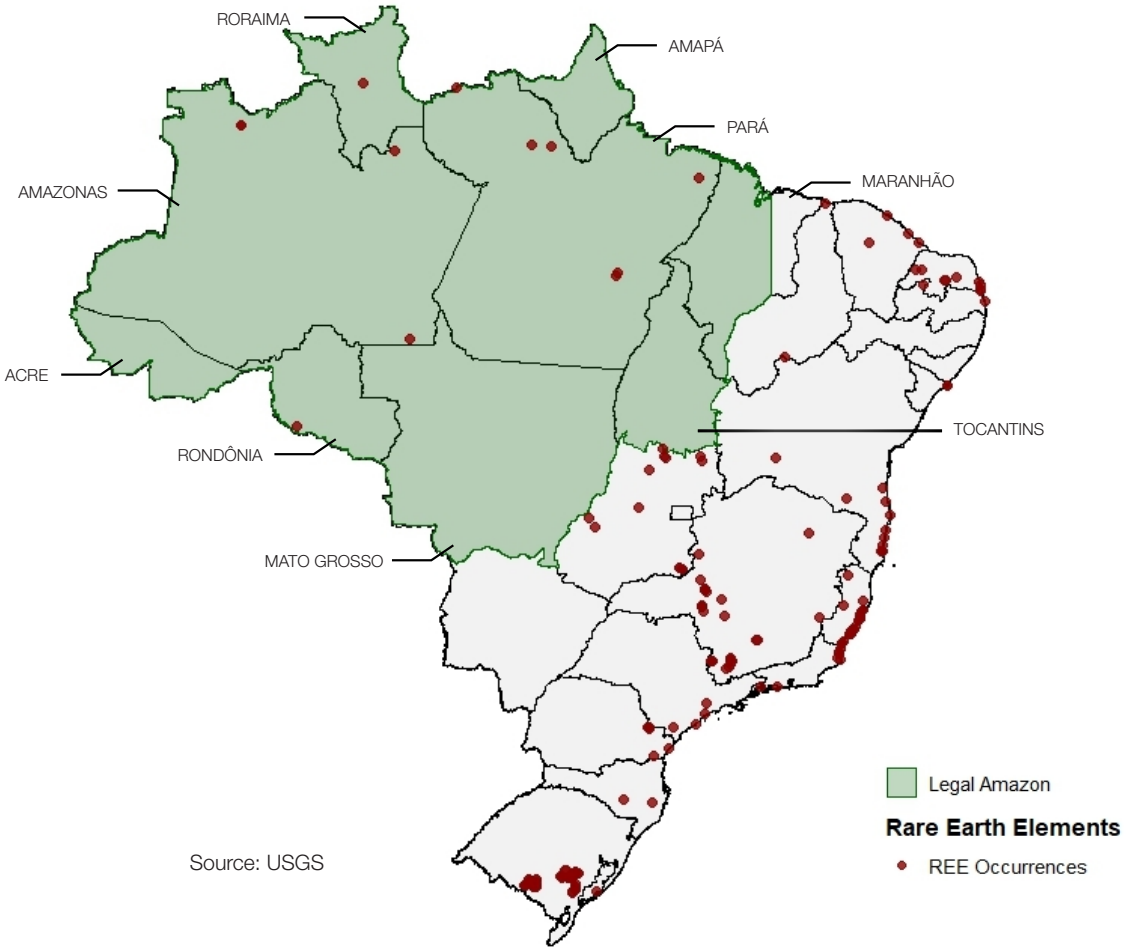
Over the past decade the United States has become more explicit about its desire to build resilient critical-mineral supply chains in its own hemisphere.[22] It is complementing increased domestic mining[23] with "near-shored" sources and processing partnerships.[24] Washington's approach increasingly blends industrial policy and trade. Previously, under the Inflation Reduction Act, eligibility for certain electric-vehicle tax credits depended in part on sourcing critical minerals from the United States or from countries treated as qualifying partners.[25] For example, the 2023 U.S.-Japan Critical Minerals Agreement was designated to serve this function despite not being a traditional free-trade agreement,[26] underscoring how "critical minerals agreements" are being used as targeted trade instruments. The broader message is that access to the American market — and to American subsidies — was conditioned on supply-chain alignment.

Since 2025, the United States approach to securing global critical mineral supply chains has been notably more forceful and more explicitly securitized.[27] Early in 2025 the US President issued an executive action aimed at accelerating domestic mineral production by tightening inter-agency timelines, elevating "priority" projects and more aggressively mobilizing federal tools such as the Defense Production Act and development-finance authorities.[28]

By late 2025 and into 2026, the United States posture had broadened into a whole-of-government procurement and finance effort, including Pentagon-backed investments to expand domestic production of strategic inputs and legislative allocations of billions of dollars for critical-mineral supply and stockpiling.[29] Diplomatically, the administration has pressed allies to accelerate diversification away from China, treating mineral supply resilience as a standing item of economic-security coordination.[30] In contrast to the Biden-era emphasis on subsidies and partner eligibility rules, this represents a sharper blend of emergency-style executive action, industrial mobilization, and overt trade leverage.

Brazil is a prime test case for this evolving U.S. posture. In 2020, the U.S. Department of State and Brazil's Ministry of Mines and Energy established a U.S.-Brazil Critical Minerals Working Group aimed at cooperation on minerals deemed essential for security, sustainable development, and future prosperity.[31] Business groups have pressed for co-financing and coordination that link Brazilian endowments to U.S. diversification goals and processing capacity. Faced with tariff threats in 2025, Brazilian officials also signalled that critical minerals and rare earths could be brought into tariff negotiations with the United States, a particularly clear example of minerals being folded into trade bargaining.[32]

Figure 3. Rare earth deposits in Brazil

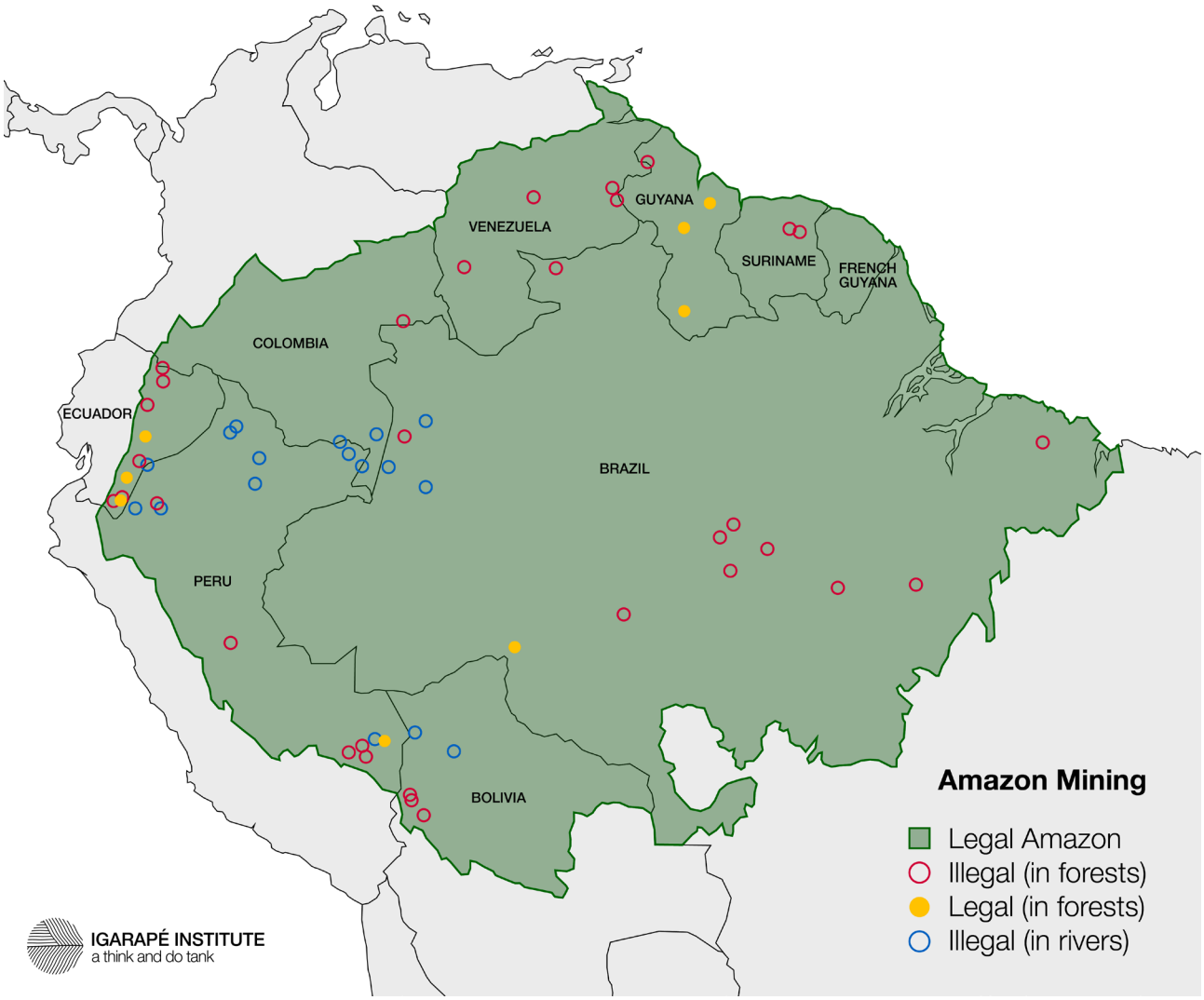


In the wake of U.S. military intervention in January 2026, Venezuela may soon become a more controversial arena for this hemispheric strategy. Discussions have increasingly connected the prospect of future engagement with Caracas to both energy and minerals, partly through the lens of competition with China.[33] Any move in this direction would confront two hard constraints: sanctions politics and governance realities. There are signs that Venezuela's mining economy has already become deeply enmeshed with armed groups, illicit finance and state-linked corruption, conditions that complicate any credible effort to integrate supply into "responsible" Western chains.[34]

When Crime Enters the Value Chain

The criminal penetration of mineral supply chains is not confined to Venezuela, nor to gold. The United Nations Office on Drugs and Crime (UNODC) has warned that rising mineral demand is heightening risks of crime, corruption and instability.[35] Organized crime groups are embedded in gold supply chains and drug-trafficking organizations in Latin America have expanded into illegal gold mining, often using existing smuggling routes and infrastructure.[36] In the Amazon this often begins upstream of the ore itself. Mercury, essential to much illegal alluvial gold mining, moves through transnational trafficking routes.[37] Authorities and investigators have described large seizures and smuggling pipelines that connect suppliers outside the basin to illegal mining sites inside it, helping explain why crackdowns at mine sites alone rarely collapse the underlying economy.[38]

Figure 4. A snapshot of illegal gold mining in the Amazon Basin



Once minerals enter commerce, laundering becomes the central challenge. This is because illicit producers may mix ore with legal output, intermediaries may falsify origin, and corrupt officials may sell paperwork. Investigations have linked organized crime to the logistics of illegal mining, from fuel and equipment to protection rackets and territorial control.[39] Armed groups can control extraction of materials associated with the energy transition and commit systematic abuses while plugging into international demand.[40] In short, the risk is no longer merely that illegal mining destroys forests; it is that strategic supply chains inherit criminal governance, with reputational and legal liabilities for downstream manufacturers and governments.

The Politics of Accelerating Mining

These pressures feed into a second, increasingly heated debate: whether environmental and social safeguards are obstacles to be streamlined or foundations to be strengthened. Across Amazon countries (and globally), mining advocates have pushed for "high priority" or "strategic" designations that fast-track approvals, reduce discretion for regulators and limit avenues for judicial challenge.[41] Opponents argue that such moves effectively transfer risk from companies to communities and ecosystems, while weakening the state's ability to prevent catastrophes.[42]

Brazil is currently the clearest example of this political collision. In 2025 Congress passed, and President Lula signed with vetoes, a major overhaul of environmental licensing that critics dubbed the "devastation bill."[43] The law was designed to ease licensing and decentralize authority, with the government simultaneously proposing a "Special Environmental License" to expedite strategic development projects.[44] Proposed mechanisms include faster-track "special" licensing and self-declared licensing pathways for certain categories of projects, changes framed as improving legal certainty and speed, but attacked by environmentalists and Indigenous advocates as a structural weakening of oversight.[45]

Parallel legislative currents have continued to test constitutional protections for Indigenous lands. Earlier proposals to open Indigenous territories to mining have exposed vast areas of Amazon forest and hundreds of Indigenous groups to heightened pressure.[46] More recent Brazilian debate has explicitly mobilized the language of "strategic minerals" and "relevant public interest" as a justification for expanding access to Indigenous lands, raising concerns that the energy-transition narrative is being repurposed to erode consent requirements.[47]

The ease-of-doing-business dimension is central to these disputes. Mining executives complain, often with some justification, that permitting is unpredictable and slow, subject to overlapping mandates and litigation risk. Regulators and communities counter that "speed" is frequently purchased by shifting environmental and social costs off balance sheets. In Brazil, licensing backlogs have been significant enough that firms have sought court orders to force environmental authorities to process applications more quickly.[48] Injunctions have been obtained by companies to expedite licensing evaluations amid disruptions affecting project approvals. In the Amazon, where hydrological complexity and social sensitivity demand robust review, shortening timelines without strengthening institutional capacity can simply turn due diligence into a paper exercise.

Elsewhere, variants of the same debate are playing out. In Peru, civil society watchdogs have criticized measures that would shift environmental-permitting power toward the Energy and Mines Ministry and accelerate timelines, warning that "automatic approvals" can weaken independent review.[49] In Ecuador, officials have argued that reopening the cadastre and updating rules will bring order and curb illegality, while parts of the private sector have worried about new costs and fees, an illustration of how "investment climate" disputes intersect with governance reforms.[50]

Derisking Mining in the Amazon

None of this means that mining in the Amazon is inherently incompatible with climate mitigation, biodiversity protection or inclusive development. But it does mean that outcomes depend less on geology than on institutions and incentives. In rainforest ecosystems, restoration can be uncertain and slow and avoidance is often more effective than rehabilitation. If critical minerals are to be extracted without turning the basin into a patchwork of frontier corridors, large areas must remain off-limits, particularly intact forests with high carbon stocks, critical habitats and Indigenous territories where free, prior and informed consent is absent.[51] Concentrating activity in already disturbed landscapes and existing mining districts can reduce marginal ecological damage, but only if accompanied by serious controls on secondary deforestation linked to roads and in-migration.

The highest near-term gains, in many Amazon settings, come from confronting illegality rather than authorizing new projects.[52] Reducing mercury use and trafficking, tightening traceability, and attacking the illicit finance driving illegal mining can potentially yield immediate benefits for biodiversity and public health. Here the supply-chain agenda can be useful: downstream manufacturers and governments that genuinely fear tainted inputs can demand verifiable provenance, independent audits, and stronger enforcement cooperation. The same logic applies, more controversially, to rare earths and associated "critical" inputs emerging from weakly governed zones. If these supply chains are allowed to form under criminal control, cleaning them later will be both expensive and politically fraught.

Mining will remain politically unstable unless it ceases to be an enclave. Participation and benefit-sharing are the crux. Indigenous and local communities need free and fair consent processes that are meaningful rather than performative, with accessible information and timeframes that reflect community decision-making rather than corporate schedules.[53] Beyond consent, durable benefit-sharing requires enforceable mechanisms including transparent royalties and local revenue allocation; community development agreements tied to measurable outcomes; procurement and supplier-development programs that build local enterprises; and, where appropriate, community trusts or structured participation in revenues. Without such provisions, strategic minerals will generate widespread resentment.

A Test of Governance, not Geology

The Amazon's new mineral significance is a governance test under geopolitical pressure. The basin is being tasked with two roles at once: to remain an ecological stabilizer and to become a strategic supplier for the energy transition and defense-industrial systems. If Amazon countries can use geopolitical competition — among the United States and its allies, China, and other players — to impose higher standards, constrain illegal economies and build inclusive value chains, they may secure both conservation and development gains. If they cannot, they risk absorbing the costs of the world's transition while exporting the benefits, with criminal networks and corruption as the most agile beneficiaries.

References

AInvest News Desk (2025) Peru mining permit policies: copper exploration opportunities navigating risks and rewards in a shifting landscape. AInvest, December. Available at: https://www.ainvest.com/news/peru-mining-permit-policies-copper-exploration-opportunities-navigating-risks-rewards-shifting-landscape-2512/

Amazon Underworld (2025) The price of progress: the dark side of Amazon critical minerals. Amazon Underworld. Available at: https://amazonunderworld.org/wp-content/uploads/2025/11/Critical-Minerals-ENG.pdf

Amazon Watch (n.d.) FPIC: the right to decide. Amazon Watch. Available at: https://amazonwatch.org/assets/files/fpic-the-right-to-decide.pdf

AP News (2025) Brazil's Lula vetoes parts of environmental licensing bill. AP News. Available at: https://apnews.com/article/brazil-lula-veto-environment-licensing-bill-ecfc20b67ce7b4fbaeb2f14ba9f787ee

Berti, L. (2025c) Critical minerals drive legalization of mining on Amazon Indigenous lands. Mongabay, November. Available at: https://news.mongabay.com/2025/11/critical-minerals-drive-legalization-of-mining-on-amazon-indigenous-lands/

Business & Human Rights Resource Centre (2025) Transition minerals in Brazil. Business & Human Rights Resource Centre. Available at: https://media.business-humanrights.org/media/documents/2025_Transition_minerals_in_Brazil.pdf

Cambridge University Press (2022) United States takes actions to secure supply chains for critical minerals. American Journal of International Law, 116(3). Available at: https://resolve.cambridge.org/core/journals/american-journal-of-international-law/article/united-states-takes-actions-to-secure-supply-chains-for-critical-minerals/2263D6B11130CAD62DB04FA33F3BDDB4

CNN (2026) Venezuela has a ton of oil. It also has something else America needs, CNN, 11 January. Available at: https://edition.cnn.com/2026/01/11/economy/minerals-rare-earths-oil-venezuela

Collyns, D. (2024) Smuggled mercury shows extent of illegal Amazon gold mining. Context. Available at: https://www.context.news/nature/smuggled-mercury-shows-extent-of-illegal-amazon-gold-mining

Ebus, B. (2025a) Drug trafficking, extortion and kidnapping: the lawless rush for rare earth minerals in Venezuela. The Guardian, 7 November. Available at: https://www.theguardian.com/global-development/2025/nov/07/drug-trafficking-extortion-kidnapping-the-lawless-rush-for-rare-earth-minerals-in-venezuela

Environmental Investigation Agency (2025) Toxic tons: the largest flow of illegal mercury to the Amazon exposed. Environmental Investigation Agency. Available at: https://eia.org/press-releases/toxic-tons-the-largest-flow-of-illegal-mercury-to-the-amazon-exposed/

Financial Times (2025) The gangs, goons and guerrillas running swaths of Venezuela, Financial Times. Available at: https://www.ft.com/content/795f5a52-5462-43cb-9f27-0cabf7170aaa

Governo do Brasil – Ministério de Minas e Energia (2020) Joint Statement on the establishment of the U.S.-Brazil critical minerals working group. Brasília: MME. Available at: https://www.gov.br/mme/pt-br/arquivos/declaracao-conjunta-ingles.pdf

Igarapé Institute (2022) Stolen Amazon: the roots of environmental crime in five countries. Rio de Janeiro: Igarapé Institute. Available at: https://igarape.org.br/en/stolen-amazon-the-roots-of-environmental-crime-in-five-countries/

Igarapé Institute (2023) Brazil's critical and strategic minerals in a changing world. Rio de Janeiro: Igarapé Institute. Available at: https://igarape.org.br/wp-content/uploads/2023/10/Critical-and-Strategic-Minerals.pdf

Igarapé Institute (2025a) The global scramble to secure critical minerals. Global Futures Bulletin. Rio de Janeiro: Igarapé Institute. Available at: https://igarape.org.br/wp-content/uploads/2025/01/CI_EN_GFB-Strategic-Minerals.pdf

Igarapé Institute and AIC (2025) Under the radar: territorial and regulatory security risks in the Brazilian and Colombian Amazon. Rio de Janeiro: Igarapé Institute. Available at: https://igarape.org.br/en/under-the-radar-territorial-and-regulatory-security-risks-in-the-brazilian-and-colombian-amazon/

Igarapé Institute and United Nations Office on Drugs and Crime (2024) The drugs–crime nexus in the Amazon basin. Rio de Janeiro/Vienna: Igarapé Institute and UNODC. Available at: https://igarape.org.br/en/the-drugs-crime-nexus-in-the-amazon-basin/

Inside Climate News (2026) Trump Wants to Accelerate Extraction in Venezuela. So Do Drug Trafficking Organizations. Inside Climate News, 11 January. Available at: https://insideclimatenews.org/news/11012026/venezuela-illegal-mining-impacts-indigenous-people

Inter-American Dialogue (2021) Energy and mining in the Amazon. Washington, DC: Inter-American Dialogue. Available at: https://www.thedialogue.org/wp-content/uploads/2021/04/Energy-and-Mining-in-the-Amazon.pdf

International Crisis Group (2025) A Curse of Gold: Mining and Violence in Venezuela's South. Brussels: International Crisis Group. Available at: https://www.crisisgroup.org/latin-america-caribbean/andes/venezuela/b53-curse-gold-mining-and-violence-venezuelas-south

JURIST (2024) Peru Congress extends controversial temporary mining permits amid allegations of facilitating illegal activities. JURIST, December. Available at: https://www.jurist.org/news/2024/12/peru-congress-extends-controversial-temporary-mining-permits-amid-allegations-of-facilitating-illegal-activities/

Killeen,T. (2024) Industrial minerals in the pan-Amazon. Mongabay, July. Available at: https://news.mongabay.com/2024/07/more-industrial-minerals-on-brazils-borders-with-ecuador-venezuela-and-colombia/

Le Monde (2025) In Brazil, lawmakers pass a devastating environmental deregulation bill. Le Monde, 18 July. Available at: https://www.lemonde.fr/en/environment/article/2025/07/18/in-brazil-lawmakers-pass-a-devastating-environmental-deregulation-bill_6743507_114.html

MAAP (Monitoring of the Andean Amazon Project) (2025) Illegal Gold Mining in the Puré and Cotuhé Rivers in the Colombian Amazon. MAAP. Available at: https://www.maapprogram.org/mining-colombia-amazon/

Mayer Brown (2025) Brazil's general environmental licensing act: new provisions, presidential vetoes and regulatory implications. Mayer Brown. Available at: https://www.mayerbrown.com/en/insights/publications/2025/08/brazils-general-environmental-licensing-act-new-provisions-presidential-vetoes-provisional-measure-and-new-bill

Mining.com (2025) US urges partners and allies to increase critical minerals supply-chain resiliency. Mining.com. Available at: https://www.mining.com/web/us-urges-partners-and-allies-to-increase-critical-minerals-supply-chain-resiliency/

Muggah, R. (2023) How drugs are destroying the Amazon, Foreign Policy, 6 August. Available at: https://foreignpolicy.com/2023/08/06/amazon-drugs-coca-cocaine-deforestation-environment-biodiversity-climate-change-criminal-brazil-peru-colombia-bolivia-lula-logging/

National Institutes of Health (2022) Highly mercury-resistant strains from different Colombian Amazon ecosystems affected by artisanal gold mining activities. Environmental Research, 204. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC8990959/

Reuters (2024) Neoenergia and Sterlite obtain injunctions to speed up environmental licensing in Brazil. Reuters, 26 July. Available at: https://www.reuters.com/business/environment/neoenergia-sterlite-obtain-injunctions-speed-up-environmental-licensing-brazil-2024-07-26/

Reuters (2025a) Ecuador reopens mining concession registry after seven years. Reuters, 17 June. Available at: https://www.reuters.com/world/americas/ecuador-reopens-mining-concession-registry-after-seven-years-2025-06-17/

Reuters (2025b) Ecuador revokes environmental license for Canada's DPM to develop gold project. Reuters, 4 October. Available at: https://www.reuters.com/sustainability/climate-energy/ecuador-revokes-environmental-license-canadas-dpm-develop-gold-project-2025-10-04/

Reuters (2026) G7, other allies discuss ways to reduce dependence on Chinese rare earths. Reuters, 12 January. Available at: https://www.reuters.com/world/china/us-urges-partners-allies-increase-critical-minerals-supply-chain-resiliency-2026-01-12/

Schroder, A. (2025b) Copper rush pushes Vale to ramp up mining near Amazonian protected areas. Mongabay, October. Available at: https://news.mongabay.com/2025/10/copper-rush-pushes-vale-to-ramp-up-mining-near-amazonian-protected-areas/

United Nations Office on Drugs and Crime (2025) Mineral crime: global analysis on crimes that affect the environment. Vienna: UNODC. Available at: https://www.unodc.org/documents/data-and-analysis/Crimes%20on%20Environment/ECR25_P2b_Minerals_Crime.pdf

US Geological Survey (n.d.) South America: mineral resources. USGS National Minerals Information Center. Available at: https://www.usgs.gov/centers/national-minerals-information-center/south-america

Taylor, M and Milman, O. The (2025b) Global race to secure critical minerals for weapons threatens climate, warns report,The Guardian, 4 December. Available at: https://www.theguardian.com/environment/2025/dec/04/critical-minerals-military-us-pentagon-climate-crisis

Wenzel, F. (2025a) Organized crime and the gold trade are increasingly connected, report shows. Mongabay, June. Available at: https://news.mongabay.com/2025/06/organized-crime-gold-trade-are-increasingly-connected-report-shows/

White House (2025) Unleashing America's offshore critical minerals and resources. Presidential Action, April. Available at: https://www.whitehouse.gov/presidential-actions/2025/04/unleashing-americas-offshore-critical-minerals-and-resources/

EU (2026) Statement by President von der Leyen together with Brazilian President Lula, Press Release, January 16, Available at: https://ec.europa.eu/commission/presscorner/detail/de/statement_26_119

Pooler, M., Hodgson, C. and M. Stott. (2026) Brazil and US eye rare earths deal, Financial Times, January 17, Available at: https://www.ft.com/content/401a9e84-3034-4375-bf39-56b92500c7aa

Endnotes

1. This Global Futures Bulletin was authored by Dr. Robert Muggah, Co-founder of the Igarapé Institute.
2. See, for example, https://news.mongabay.com/2024/07/more-industrial-minerals-on-brazils-borders-with-ecuador-venezuela-and-colombia/ and https://www.thedialogue.org/wp-content/uploads/2021/04/Energy-and-Mining-in-the-Amazon.pdf.
3. See, for example, https://igarape.org.br/wp-content/uploads/2025/01/CI_EN_GFB-Strategic-Minerals.pdf.
4. See, for example, https://news.mongabay.com/2025/11/critical-minerals-drive-legalization-of-mining-on-amazon-indigenous-lands/.
5. See, for example, https://igarape.org.br/wp-content/uploads/2023/10/Critical-and-Strategic-Minerals.pdf.
6. See https://news.mongabay.com/2025/10/copper-rush-pushes-vale-to-ramp-up-mining-near-amazonian-protected-areas/.
7. See https://reporterbrasil.org.br/2025/12/anm-fails-on-multiple-fronts-prosecutor-says-amid-mining-expansion-and-licensing-failures/ and https://reporterbrasil.org.br/2025/10/critical-minerals-surround-45-isolated-indigenous-peoples-in-the-amazon/.
8. See, for example, https://igarape.org.br/en/the-roots-of-environmental-crime-in-the-colombian-amazon/, https://www.maapprogram.org/mining-colombia-amazon/ and https://pmc.ncbi.nlm.nih.gov/articles/PMC8990959/.
9. See, for example, https://infoamazonia.org/en/2025/11/27/the-price-of-progress-the-dark-side-of-critical-minerals-in-the-amazon/.
10. See https://www.reuters.com/world/americas/ecuador-reopens-mining-concession-registry-after-seven-years-2025-06-17.
11. See https://www.reuters.com/sustainability/climate-energy/ecuador-revokes-environmental-license-canadas-dpm-develop-gold-project-2025-10-04/.
12. See https://www.ainvest.com/news/peru-mining-permit-policies-copper-exploration-opportunities-navigating-risks-rewards-shifting-landscape-2512/.
13. See https://www.jurist.org/news/2024/12/peru-congress-extends-controversial-temporary-mining-permits-amid-allegations-of-facilitating-illegal-activities/ and https://discoveryalert.com.au/reinfo-mining-permits-2025-extension-peru/.
14. See https://rareearthexchanges.com/news/bolivias-rare-earth-quest-untapped-potential-meets-strategic-momentum/.
15. See, for example, https://igarape.org.br/en/stolen-amazon-the-roots-of-environmental-crime-in-five-countries/.
16. See, for example, https://www.theguardian.com/global-development/2025/nov/07/drug-trafficking-extortion-kidnapping-the-lawless-rush-for-rare-earth-minerals-in-venezuela, https://edition.cnn.com/2026/01/11/economy/minerals-rare-earths-oil-venezuela, https://www.state.gov/wp-content/uploads/2025/11/2025-Report-to-Congress-on-the-State-Sponsored-Extraction-and-Sale-of-Gold-from-Venezuelas-Orin.pdf, and https://www.crisisgroup.org/latin-america-caribbean/andes/venezuela/b53-curse-gold-mining-and-violence-venezuelas-south.
17. See https://www.theguardian.com/global-development/2025/nov/07/drug-trafficking-extortion-kidnapping-the-lawless-rush-for-rare-earth-minerals-in-venezuela.
18. See https://www.usgs.gov/centers/national-minerals-information-center/south-america.
19. See https://epaguyana.org/faq/ and https://epaguyana.org/download/environmental-authorisation-process/.
20. See https://www.reuters.com/world/china/rio-tinto-actively-working-with-chinas-chinalco-shareholding-constraints-2025-12-04/.
21. See, for example, https://www.reuters.com/world/china/us-urges-partners-allies-increase-critical-minerals-supply-chain-resiliency-2026-01-12/.
22. See, for example, https://www.csis.org/analysis/seven-recommendations-new-administration-and-congress-building-us-critical-minerals and https://resolve.cambridge.org/core/journals/american-journal-of-international-law/article/united-states-takes-actions-to-secure-supply-chains-for-critical-minerals/2263D6B11130CAD62DB04FA33F3BDDB4 for more details.
23. See, for example, https://www.whitehouse.gov/presidential-actions/2025/04/unleashing-americas-offshore-critical-minerals-and-resources/.
24. See, for example, https://www.mining.com/web/us-urges-partners-and-allies-to-increase-critical-minerals-supply-chain-resiliency/.
25. See https://home.treasury.gov/news/press-releases/jy1379.
26. See, for example, https://www.energypolicy.columbia.edu/how-the-us-japan-critical-minerals-partnership-is-a-long-overdue-step-toward-real-supply-chain-security/.
27. See, for example, https://www.jpolrisk.com/securitizing-the-critical-minerals-supply-chain/.
28. In parallel, he directed a Section 232 process focused on processed critical minerals and derivative products, signalling a readiness to use trade remedies such as tariffs, investigations and negotiated exemptions as leverage over supply-chain decisions.

29. See, for example, https://www.reuters.com/business/autos-transportation/trump-administrations-investment-push-rare-earth-companies-chipmakers-2025-10-06/ and https://www.theguardian.com/environment/2025/dec/04/critical-minerals-military-us-pentagon-climate-crisis.
30. See https://www.mining.com/web/us-urges-partners-and-allies-to-increase-critical-minerals-supply-chain-resiliency/.
31. See https://www.gov.br/mme/pt-br/arquivos/declaracao-conjunta-ingles.pdf.
32. There are expectations that Brazil and the US could achieve a rare earth agreement in the first half of 2026. Indeed, the DFC has already provided financing of $465 million for the Serra Verde mine. The EU is also interested in signing critical minerals deals with Brasilia, including in relation to copper, graphite, lithium, nickel, niobium, and rare earths. See for example, https://www.ft.com/content/401a9e84-3034-4375-bf39-56b92500c7aa and https://ec.europa.eu/commission/presscorner/detail/de/statement_26_119. See also https://valorinternational.globo.com/energy-tech-forum-2025/news/2025/09/22/brazil-us-urged-tocooperate-on-critical-minerals.ghtml and https://discoveryalert.com.au/us-brazil-rare-earth-strategic-discussions-2025/.
33. See, for example, https://www.energy.gov/articles/fact-sheet-president-trump-restoring-prosperity-safety-and-security-united-states-and and https://www.csis.org/analysis/venezuela-critical-minerals-target.
34. See https://conven.org/venezuela/news/drug-trafficking-extortion-kidnapping-the-lawless-rush-for-rare-earth-minerals-in-venezuela-critical-minerals/, https://www.ft.com/content/795f5a52-5462-43cb-9f27-0cabf7170aaa and https://insideclimatenews.org/news/11012026/venezuela-illegal-mining-impacts-indigenous-people.
35. See https://unis.unvienna.org/unis/en/pressrels/2025/uniscp1188.html and https://www.unodc.org/documents/data-and-analysis/Crimes%20on%20Environment/ECR25_P2b_Minerals_Crime.pdf.
36. See https://foreignpolicy.com/2023/08/06/amazon-drugs-coca-cocaine-deforestation-environment-biodiversity-climate-change-criminal-brazil-peru-colombia-bolivia-lula-logging/.
37. See https://www.context.news/nature/smuggled-mercury-shows-extent-of-illegal-amazon-gold-mining.
38. See https://eia.org/press-releases/toxic-tons-the-largest-flow-of-illegal-mercury-to-the-amazon-exposed/.
39. See https://igarape.org.br/en/the-drugs-crime-nexus-in-the-amazon-basin/ and https://infoamazonia.org/en/2025/11/27/the-price-of-progress-the-dark-side-of-critical-minerals-in-the-amazon/.
40. See https://news.mongabay.com/2025/06/organized-crime-gold-trade-are-increasingly-connected-report-shows/.
41. See, for example, https://www.sciencedirect.com/science/article/pii/S2214629622001694, https://news.mongabay.com/2025/11/critical-minerals-drive-legalization-of-mining-on-amazon-indigenous-lands, and https://documents1.worldbank.org/curated/en/099051223180528189/pdf/P1734570eeae930e90bce9093c01a8427c3.pdf.
42. See, for example, https://amazonunderworld.org/wp-content/uploads/2025/11/Critical-Minerals-ENG.pdf and https://media.business-humanrights.org/media/documents/2025_Transition_minerals_in_Brazil.pdf.
43. See, for example, https://apnews.com/article/brazil-lula-veto-environment-licensing-bill-ecfc20b67ce7b4fbaeb2f14ba9f787ee.
44. See https://www.reuters.com/sustainability/climate-energy/lula-signs-bill-ease-brazil-environmental-licenses-vetoes-key-provisions-2025-08-08/.
45. See https://www.lemonde.fr/en/environment/article/2025/07/18/in-brazil-lawmakers-pass-a-devastating-environmental-deregulation-bill_6743507_114.html and https://www.mayerbrown.com/en/insights/publications/2025/08/brazils-general-environmental-licensing-act-new-provisions-presidential-vetoes-provisional-measure-and-new-bill.
46. See https://www.sciencedirect.com/science/article/pii/S2590332220304176.
47. See https://csr.ufmg.br/csr/wp-content/uploads/2025/03/observatoriodamineracao_strategic-minerals-for-the-energy-transition-become-argument-to-approve-mining-on-indigenous-lands.pdf.
48. See https://www.reuters.com/business/environment/neoenergia-sterlite-obtain-injunctions-speed-up-environmental-licensing-brazil-2024-07-26/.
49. See https://perusupportgroup.org.uk/2024/05/measures-underway-to-enhance-minems-powers-in-granting-environmental-permits/.
50. See https://www.reuters.com/world/americas/ecuador-reopens-mining-concession-registry-after-seven-years-2025-06-17/.
51. Indeed, mining groups pushed back against proposals in 2022 to proposals by the then Brazilian government to legalize mining on indigenous reservations, describing the legislation as “inappropriate”. See https://www.rfi.fr/en/firms-blast-bolsonaro-bill-on-mining-indigenous-lands.
52. See, for example, https://igarape.org.br/en/under-the-radar-territorial-and-regulatory-security-risks-in-the-brazilian-and-colombian-amazon/.
53. See, for example, https://amazonwatch.org/assets/files/fpic-the-right-to-decide.pdf.

IGARAPÉ INSTITUTE
a think and do tank

The Igarapé Institute is an independent think-and-do tank that conducts research, develops solutions, and establishes partnerships to influence public and corporate policies and practices, addressing key challenges related to nature, climate, and security in Brazil and worldwide. Igarapé is a nonprofit, nonpartisan organization based in Rio de Janeiro, operating at both local and global levels.

Rio de Janeiro - RJ - Brazil
Tel.: +55 (21) 3496-2114
contato@igarape.org.br
igarape.org.br

Press Office
press@igarape.org.br

Social Media
facebook.com/institutoigarape
x.com/igarape_org
linkedin.com/company/igarapeorg
youtube.com/user/InstitutoIgarape
instagram.com/igarape_org

How to cite:

IGARAPÉ INSTITUTE. The Amazon and the New Mineral Resource Order: Why the World's Largest Rainforest is Becoming a Strategic Mineral Frontier. Rio de Janeiro. Igarapé Institute, 2026. Available at: https://igarape.org.br/publicacoes

DOI Number:

10.5281/zenodo.18301663

igarape.org.br

IGARAPÉ INSTITUTE
a think and do tank