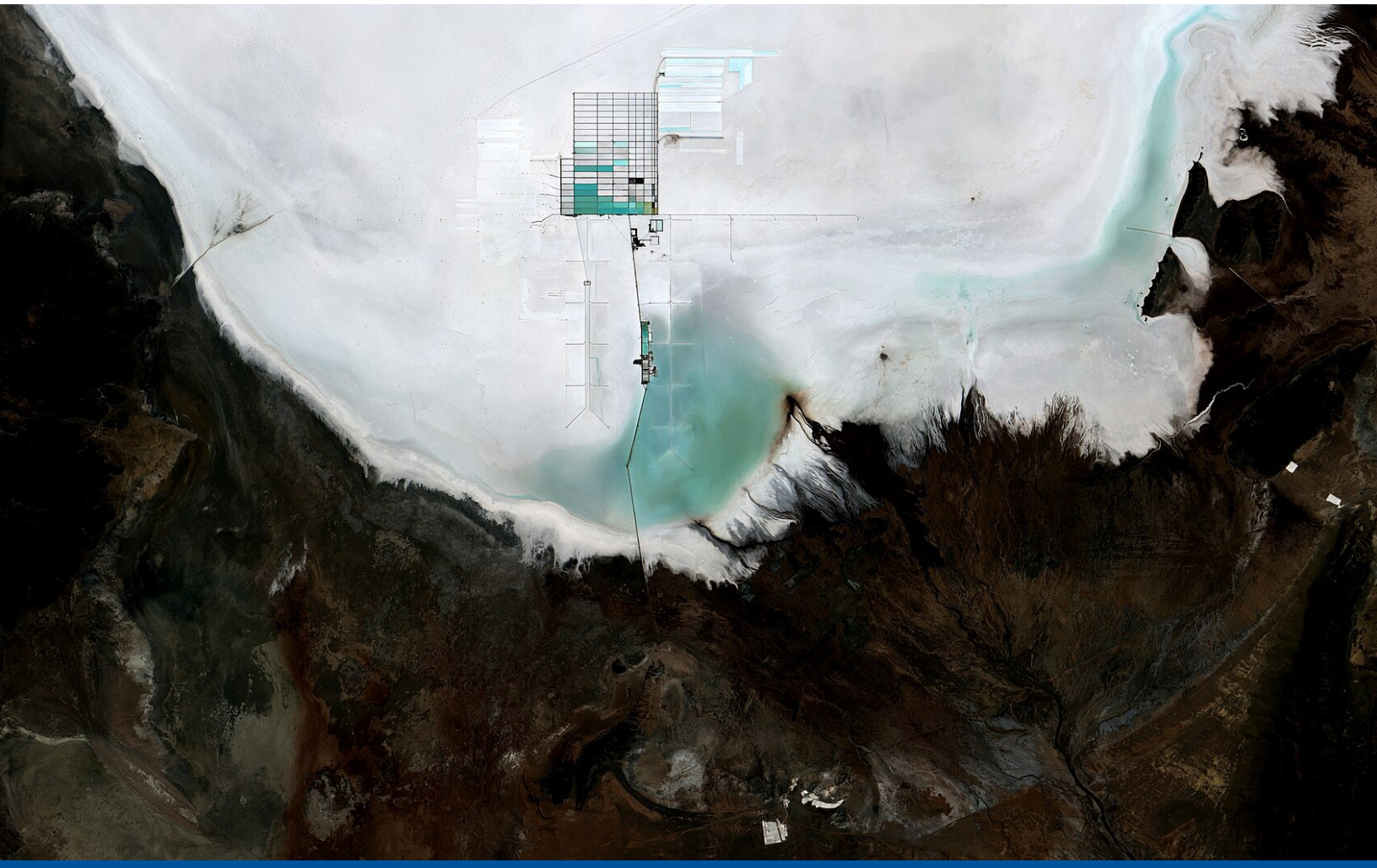
PERRY CENTER OCCASIONAL PAPER
OCTOBER 2026

Critical Minerals in Bolivia – Opportunities and Implications for U.S. National Security

By Ryan Cristiano



WILLIAM J. PERRY CENTER FOR HEMISPHERIC DEFENSE STUDIES
National Defense University

Cover concept: This satellite image of lithium extraction ponds at Bolivia's Salar de Uyuni illustrates the strategic importance of critical minerals in the global energy transition. The geometric evaporation pools and vast salt flats highlight the intersection of natural resources, technology, economic development, and resource security.

Credit: Oton Barros (DSR/OBT/INPE), Coordenação-Geral de Observação da Terra/INPE, via Wikimedia Commons (CC BY-SA 2.0)

NDU Clearance Case DOPSR 26-P-1127 Dated August 31, 2026

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Introduction

Bolivia presents a strategic opportunity for U.S. economic and national security interests: it has abundant critical minerals,[1] a new pro-U.S. government, and ties to China worth challenging. The United States can enact meaningful steps to meet National Security Strategy (NSS) and National Defense Strategy (NDS) imperatives—particularly around critical minerals—through engagement with Bolivia across the diplomatic, informational, military, and economic spheres.

The United States is dangerously dependent on China for many critical minerals. In April 2025, China announced export controls on seven rare earth elements (REEs) and all related compounds, metals, and magnets.[2] The restrictions led to supply shocks that elevated prices and disrupted production, especially in the automobile sector in the United States, Japan, and allied European nations.[3] Without a coordinated effort, the United States risks further Chinese dominance of critical minerals with devastating possibilities for national and economic security.

Nevertheless, the United States' renewed focus on the Western Hemisphere, reflected in the NSS and NDS, serves as a potential antidote to the threat of Chinese control of critical minerals. This is particularly true in Bolivia, a country rich in several critical minerals that have been underexploited for

[1] According to the Energy Act of 2020, a mineral is critical if it is essential to the national or economic security of the United States, essential to manufacturing a product the absence of which would have significant consequences for economic and national security, and if it has a supply chain that is vulnerable to disruptions. Given these criteria, the United States Geological Survey (USGS) included 60 items in its latest List of Critical Minerals (LCM) in November 2025: aluminum, antimony, arsenic, barite, beryllium, bismuth, boron, cerium, cesium, chromium, cobalt, copper, dysprosium, erbium, europium, fluorspar, gadolinium, gallium, germanium, graphite, hafnium, holmium, indium, iridium, lanthanum, lead, lithium, lutetium, magnesium, manganese, metallurgical coal, nickel, niobium, palladium, phosphate, platinum, potash, praseodymium, rhenium, rhodium, rubidium, ruthenium, samarium, scandium, silicon, silver, tantalum, tellurium, terbium, thulium, tin, titanium, tungsten, uranium, vanadium, ytterbium, yttrium, zinc, and zirconium. U.S. Geological Survey, "What Are Critical Minerals?," (Mineral Resources Program, November 6, 2025), accessed June 8, 2026, https://www.usgs.gov/programs/mineral-resources-program/science/what-are-critical-minerals-0.

[2] Tae-Yoon Kim et al., "With New Export Controls on Critical Minerals, Supply Concentration Risks Become Reality," (International Energy Agency, October 23, 2025), accessed May 20, 2026, https://www.iea.org/commentaries/with-new-export-controls-on-critical-minerals-supply-concentration-risks-become-reality.

[3] Gracelin Baskaran and Meredith Schwartz, "Rare Earth Export Restrictions One Year Later," (Center for Strategic and International Studies, April 27, 2026), accessed May 20, 2026, https://www.csis.org/analysis/rare-earth-export-restrictions-one-year-later.

the last two decades under Evo Morales' Movimiento al Socialismo (MAS) party. Under Morales and his successor Luis Arce, state-owned enterprises (SOEs) in the mining sector lacked the expertise and capacity to capitalize on Bolivia's rich critical mineral resources. Meanwhile, its government partnered with U.S. adversaries, especially China. The election of pro-U.S. Rodrigo Paz to the Bolivian presidency in October 2025 is a unique opportunity for the United States to advance its critical mineral goals. The Paz Administration offers the potential for the United States to gain a foothold in a country of increasing geopolitical relevance.

This report aims to provide U.S. policymakers with an actionable assessment of this strategic opportunity to compete with and win against China in the Western Hemisphere, particularly with respect to the critical minerals lithium and antimony. It is divided into four sections. First, it analyzes NSS and NDS policy imperatives related to critical minerals in the Western Hemisphere. Second, it discusses the current position of China and the United States within the critical minerals sector generally, and in the Western Hemisphere specifically, emphasizing Chinese control of lithium refining and U.S. dependance on Chinese antimony to highlight Bolivia's strategic significance. Third, it highlights the broader efforts of the U.S. government (USG) to break the dependance on Chinese critical minerals. Fourth, it examines the political and economic situation in Bolivia to demonstrate the opportunity for a strategic win there. It concludes with several recommendations that U.S. policymakers can implement today to take advantage of this opportunity. While the process of changing critical mineral supply chains can be measured in decades, steps taken today can lay the necessary groundwork for long-term change.

1. The NSS and NDS Imperative to Secure Critical Minerals in the Western Hemisphere

The NSS and NDS overlap to form an important part of U.S. policy on critical minerals and the Western Hemisphere. NDS lines of effort act to achieve NSS policy ends. This approach ensures U.S. Department of War (DoW) efforts are nested within the overall policy of the Trump Administration.

The NSS prioritizes "Economic Security" with a special emphasis placed on "Securing Access to Critical Supply Chains and Materials."[4] To achieve this end, the NDS's first line of effort is "Defend the U.S. Homeland" by securing "Key Terrain in the Western Hemisphere."[5] The Western Hemisphere is rich in critical minerals, as evidenced by regions such as the Lithium Triangle (Argentina, Bolivia, and Chile), the Bolivian Antimony Belt, and the Andean Copper Belt (Colombia, Ecuador, Peru, Chile). Expanding access to critical minerals is impossible without obtaining access to key terrain, either directly or via partner nations with interests aligned with the United States. To do this, the DoW will prioritize accessing key terrain in the Western Hemisphere.[6]

[4] White House, National Security Strategy of the United States of America, (Washington, DC: White House, December 2025), accessed May 20, 2026, https://www.whitehouse.gov/wp-content/uploads/2025/12/2025-National-Security-Strategy.pdf., 13.

[5] U.S. Department of War, 2026 National Defense Strategy, (Washington, DC: Department of War, January 2026), accessed May 20, 2026, https://media.defense.gov/2026/Jan/23/2003864773/-1/-1/0/2026-NATIONAL-DEFENSE-STRATEGY.PDF, 16.

[6] U.S. Department of War, 2026 National Defense Strategy, 16. ("As the NSS lays out, the United States no longer cedes

Obtaining access to key, resource-rich terrain can be pursued from a variety of angles. Diplomatic pressure was exerted on Panama concerning the Chinese company C.K. Hutchinson's port concessions at both ends of the Panama Canal.[7] Militarily, the United States removed Venezuelan President Nicolas Maduro from power in January 2026. Economically, U.S. federal investment agencies have invested $600 million in Brazilian critical mineral projects, and the U.S. corporation USA Rare Earth acquired Brazil's only rare earth production business in April 2026 for $2.8 billion.[8]

The NSS is clear in its goal for the Western Hemisphere: to defend the U.S. homeland through burden sharing by enlisting old friends and seizing opportunities to create partnerships with new ones. This includes economic engagement, which is crucial to securing critical minerals that U.S. defense and civilian businesses require for advanced technologies. In the words of the NSS, "[s]trengthening critical supply chains in this Hemisphere will reduce dependencies and increase American economic resilience"—a tacit reference to reducing U.S. dependence on China for these inputs.[9]

By expanding partnerships across the hemisphere, the United States aims to support its economic security, while enabling local prosperity, by near-shoring crucial supply chains. To accomplish this, the NSS calls upon the full power of U.S. private and public capital: "The U.S. Government will identify strategic acquisition and investment opportunities for American companies in the region and present these opportunities for assessment by every U.S. Government financing program… ."[10] In that vein, the U.S. International Development Finance Corporation (DFC) is actively aligning its projects with NSS and NDS priorities. For example, DFC is currently providing project development support to Aclara Resources, a vertically integrated Canadian mining company, to secure a reliable source of REEs in Brazil.[11]

On March 17, 2026, U.S. Southern Command (SOUTHCOM) Commander General Francis Donovan echoed NSS and NDS priorities when he presented SOUTHCOM's posture statement to the House Armed Services Committee. It highlighted China's operations, activities, and interests in the region, stating that "the United States will no longer cede access to or influence over key terrain in the Western Hemisphere. With varying degrees of influence, ownership and/or operational control, Chinese investment in critical infrastructure, key ports, and port facilities grant Beijing a foothold in the region… ."[12] In short, from the Pentagon down, the Trump Administration's policy for the Western Hemisphere

access to or influence over key terrain in the Western Hemisphere. The DoW will therefore provide the President with credible options to guarantee U.S. military and commercial access to key terrain from the Arctic to South America… .")

[7] Alma Solís. "2 Panama Canal Ports Have Dragged Panama into a Tussle Between Superpowers" (Associated Press, February 27, 2026), accessed May 20, 2026, https://apnews.com/article/panama-canal-china-us-ports-2c858331b744b3faa3202789d26c5bcf.

[8] Anne Barbosa. "US Pushes for Critical Minerals Pact in Brazil." (S&P Global Energy, May 5, 2026), video, accessed May 20, 2026, https://www.spglobal.com/energy/en/news-research/videos/metals/050526-us-pushes-for-critical-minerals-pact-in-brazil.

[9] White House, National Security Strategy, 17.

[10] White House, National Security Strategy, 18.

[11] U.S. International Development Finance Corporation, "Working with U.S. Partners to Build a Secure Supply Chain for Rare Earth Elements," (Investment Stories, 2026), accessed June 8, 2026, https://www.dfc.gov/investment-story/working-us-partners-build-secure-supply-chain-rare-earth-elements.

[12] Francis L. Donovan, Statement of General Francis L. Donovan, US Marine Corps Commander, United States Southern

and its critical minerals will be aggressive militarily, economically, and diplomatically to displace Chinese influence.

2. Chinese Dominance in Critical Minerals and U.S. Positioning

This paper focuses on lithium and antimony due to China's control over their supply chains, their importance to the U.S. defense industrial base, and their abundance in the Western Hemisphere, specifically in Bolivia.

Lithium is essential to important military and civilian technologies. Lithium-based batteries pack high energy density, power output, and long lifetimes into a small size when compared to legacy battery technology.[13] EVs, cellphones, and electric grid storage all rely on lithium-based batteries to store and deliver energy. For EVs and cellphones, lithium batteries can be recharged thousands of times without losing capacity, while for electric grids, lithium batteries can store hours of electricity for future use. [14]

For military use, a lithium battery lasts longer and reduces weight for operator-carried equipment like radios, GPS, and optics. In large scale combat operations, where soldiers are required to forgo constant resupply due to adversary targeting, the ability to carry more weight and provide more capability is paramount. A small unit gains a tactical advantage when it can reduce its battery weight to take more ammunition, food, and water. Similarly, lithium batteries provide drones with longer loiter times and increased payload as battery-life is prolonged and weight is reduced.

China is the world's largest refiner of lithium (73%)[15] while the United States imports over 50% of the lithium it consumes.[16] Although 97% of these imports come from Chile and Argentina,[17] this masks the scope of Chinese control. Initially, Chinese companies produce one-third of all lithium mined in the Lithium Triangle. They own or have substantial investments in four of the six most developed lithium projects in Argentina, and in Chile, a Chinese firm acquired a 24% stake in the world's second-largest lithium producer, Sociedad Química y Minera (SQM), in 2018.[18] In contrast, U.S. firms control only one-fourth of lithium mining there, and this relative share is expected to drop to 15% by 2035. (The Chinese share will hold comparatively steady, sliding only to 27% as the market expands and new companies enter.)[19] Moreover, even if U.S. firms expand their share of lithium mining operations, China

Command Before the 119th Congress House Armed Services Committee (Washington, DC: US Southern Command, March 17, 2026), accessed May 20, 2026, https://www.southcom.mil/Portals/7/Documents/Posture%20Statements/2026_SOUTHCOM_Posture_Statement_FINAL.pdf, 5.

[13] Eleanor Widdows, "Lithium Batteries for Defense & Military Applications," (Defense Advancement, April 25, 2026), accessed May 20, 2026, https://www.defenseadvancement.com/suppliers/lithium-batteries/.

[14] MIT Climate Portal and Yet-Ming Chiang, "Why are lithium-ion batteries, and not some other kind of battery, used for electric cars and the grid?," August 17, 2021, accessed May 20, 2026, https://climate.mit.edu/ask-mit/why-are-lithium-ion-batteries-and-not-some-other-kind-battery-used-electric-cars-and-grid.

[15] Awrad AlSubaiai et al., Who Owns the Future of Latin America's Lithium Deposits? (Americas Market Intelligence, July 2025), accessed May 20, 2026, https://americasmi.com/insights/future-latin-america-lithium-deposits-2025/.

[16] U.S. Geological Survey, Mineral Commodity Summaries 2026, ver. 1.2 (Reston, VA: U.S. Geological Survey, April 2026), accessed May 20, 2026, https://doi.org/10.3133/mcs2026, 11.

[17] U.S. Geological Survey, Mineral Commodity Summaries 2026, 118.

[18] AlSubaiai et al.

[19] AlSubaiai et al.

will still dominate the refining industry.

Lithium demand is also expected to triple from 2025 to 2035.[20] To meet this increase, the International Energy Agency estimates that an additional 55 average-sized lithium mines are required, and it projects an approximately 250 KT shortfall in lithium supply by 2035.[21] While supply will meet demand in the short-run, lithium scarcity will drive up prices and provides an impetus for the United States to invest in other sources in the next decade to divest from Chinese-owned or influenced supply chains. Today and in the future, China's control of refining will enable it to exercise leverage over lithium pricing. However, a vertically integrated or friend-shored lithium supply chain in Bolivia has the potential to meet future supply shortages and provide a diversified source of lithium that is insulated from nefarious forms of Chinese economic warfare.

More troubling still, China is the largest producer of antimony (36%) and the key supplier to the United States, which imports 91% of its net consumption.[22] Antimony is widely used to create alloys as it adds strength, hardness, and anti-corrosion properties when combined with other elements.[23] Antimony has many civilian applications, such as a flame retardant and as an anti-corrosive agent in lead-acid car batteries; however, it is an essential and irreplaceable input in defense technologies. In May 2025, McKinsey Lyon, Vice President of Idaho-based domestic mining company Perpetua Resources, stated to Congress: "In addition to numerous commercial applications, the Department of Defense uses a specialized form, antimony trisulfide, as a key, non-replaceable component in the primer of hundreds of munition types."[24] Antimony is used in 30% of all U.S. military ammunition in primers, in ammunition hardening, and to improve penetration capabilities of armor-piercing rounds.[25] Many military electronics also rely on antimony-based semiconductors, and infrared sensors and night vision goggles require antimony to function.[26]

Reliable sourcing of lithium and antimony is thus a national security imperative for which the United States currently has no viable short-term solutions in place. This leaves the United States vulnerable to Chinese economic warfare, which it often wages when it wishes to extract concessions by leveraging its export control and licensing regulations to deny U.S. defense manufacturers key inputs to irreplaceable defense technology.

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[20] International Energy Agency, Global Critical Minerals Outlook 2025 (Paris: International Energy Agency, 2025), accessed June 25, 2026, 120.
[21] International Energy Agency, Global Critical Minerals Outlook 2025, 119.
[22] U.S. Geological Survey, *Mineral Commodity Summaries* 2026, 30.
[23] R. R. Seal II, K. J. Schulz, and J. H. DeYoung Jr., "Antimony," in Critical Mineral Resources of the United States—Economic and Environmental Geology and Prospects for Future Supply, ed. K. J. Schulz et al., U.S. Geological Survey Professional Paper 1802 (Reston, VA: U.S. Geological Survey, 2017), C1–C17, accessed May 20, 2026, https://doi.org/10.3133/pp1802C.
[24] McKinsey Lyon, "In Defense of America's Industrial Base: Antimony and the Defense Production Act," (testimony before the U.S. Senate Committee on Banking, Housing, and Urban Affairs, Washington, DC, May 22, 2025), accessed May 20, 2026, https://www.banking.senate.gov/imo/media/doc/lyon_testimony_5-22-25.pdf.
[25] Daniel Flynn, "U.S. Army opens future domestic source of Antimony Sulfide,"(U.S. Army, August 13, 2025), accessed May 20, 2026, https://www.army.mil/article/288633/u_s_army_opens_future_domestic_source_of_antimony_sulfide
[26] Brian Daigle and Samantha DeCarlo, "Antimony: A Critical Material You've Probably Never Heard Of," (U.S. International Trade Commission, October 2021), accessed May 20, 2026, https://www.usitc.gov/publications/332/antimony_critical_material_you%E2%80%99ve_probably_never.htm.

For example, in 2024, the Chinese government enacted dual-use export licensing controls on several antimony products, causing antimony shipments to the United States to drop 97% in three months. Prices followed the supply shock as antimony went from $13,400 per metric ton in April 2024 to $40,000 by the end of 2024 and $59,750 by July 2025.[27] And in October 2025, China's Ministry of Commerce imposed export controls on any product related to lithium batteries, semiconductors, or REEs. Under these controls, there is a presumption of denial for export licensing applications if the end-user is a foreign military.[28]

3. Broader USG Efforts to Secure Critical Mineral Supplies: Good, but not Good Enough

Several U.S. departments and federal agencies have taken steps to enable actionable policy on critical minerals, including lithium and antimony. For example, the Department of Energy's Critical Minerals and Materials (CMM) program has narrowed focus to the "electric eighteen" materials (lithium and 17 others) critical to energy, national security, and U.S. competitiveness.[29] Also, in February 2026, the Export-Import Bank of the United States (EXIM) launched Project Vault – a $12 billion investment ($10 billion public, $2 billion private) that establishes the U.S. Strategic Critical Minerals Reserve.[30] The Critical Minerals Reserve is a resource stockpile, like the National Defense Stockpile, but its purpose is to insulate U.S. businesses from supply shocks to critical minerals.

Likewise, at the February 2026 Critical Minerals Ministerial, Vice President J.D. Vance, Secretary of State Marco Rubio, Treasury Secretary Scott Bessent, and Energy Secretary Chris Wright hosted 54 nations to discuss critical mineral supply chains. The Ministerial took implicit aim at Chinese control in this area by establishing the Forum on Resource Geostrategic Engagement (FORGE). FORGE is an attempt to protect the United States and allies from Chinese economic warfare by friend-shoring critical mineral supply chains, as evidenced by the eleven different bilateral frameworks and memoranda of understanding that the United States signed during the Ministerial.[31]

Nonetheless, these efforts are just the beginning of a necessary correction to the current and projected shortfalls in secure supplies outlined above. New opportunities in Bolivia, however, may provide significant help to the United States in this area.

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[27] Kamoa Capital, "Antimony: The Defence Metal Beijing Controls and America Cannot Make," n.d., accessed May 20, 2026, https://kamoacap.com/antimony-bejingcontrols.

[28] James Hsiao et al., "China Imposes Extraterritorial Jurisdiction and '50% Rule' Export Controls on Rare Earths," (White & Case Insight & Alert, October 13, 2025), accessed May 20, 2026, https://www.whitecase.com/insight-alert/china-imposes-extraterritorial-jurisdiction-and-50-rule-export-controls-rare-earth.

[29] U.S. Department of Energy, The U.S. Department of Energy's Critical Minerals and Materials Program: Building Secure Supply Chains for America's Energy Future (Washington, DC: U.S. Department of Energy, January 2025), accessed May 20, 2026, https://www.energy.gov/cmm/critical-minerals-and-materials-program.

[30] Export-Import Bank of the United States, "Week in Review: Project Vault and a Strategic Critical Mineral Reserve," May 2, 2025, accessed May 20, 2026, https://www.exim.gov/news/week-review-project-vault-and-strategic-critical-mineral-reserve.

[31] U.S. Department of State, "2026 Critical Minerals Ministerial," (Office of the Spokesperson, February 4, 2026), accessed May 20, 2026, https://www.state.gov/releases/office-of-the-spokesperson/2026/02/2026-critical-minerals-ministerial.

4. Bolivia: What Do We Have to Lose?

Under the rule of Evo Morales' MAS party from 2006 to 2025, Bolivia struggled with inefficient production and resource nationalism that greatly limited its ability to extract and sell its large lithium and antimony deposits. Despite having around 24% of global lithium resources, it produces less than one percent of world supply.[32] The MAS government also cultivated strategic ties to adversaries of the United States, most notably China. According to the Congressional Research Service, "In 2023, China announced investment projects with Bolivia, including a $1.4 billion deal for a consortium of three state-owned PRC companies to extract Bolivian lithium."[33] This means that China has been the largest investor in the Bolivian lithium sector to date.

MAS governments were correspondingly unfriendly to the United States. Morales expelled the U.S. ambassador in 2008, and there has been no replacement to this day. All told, during MAS rule, Bolivia was ripe for exploitation by U.S. adversaries who seized the opportunity to embed themselves across the critical minerals, nuclear, and industrial sectors due to cool U.S. – Bolivia relations.

The election of centrist and pro-U.S. President Rodrigo Paz in October 2025 signaled a shift in Bolivia's attitude towards the United States and opportunities for investment in the country. The U.S. immediately began to renew ties with the Bolivian government to position itself as the partner of choice in this new political context, consistent with the NSS. Significantly, Deputy Secretary of State Christopher Landau led the U.S. Presidential Delegation at Paz's inauguration,[34] and Secretary of State Marco Rubio has met with Bolivian Minister of Foreign Affairs Fernando Aramayo to discuss economic cooperation.[35] Likewise, DFC CEO Ben Black and EXIM President John Jovanovic have both stated that their organizations are open for business in Bolivia.[36]

These meetings between, and statements from, high-level U.S. and Bolivian officials signal a new chapter in U.S. – Bolivia diplomatic, security, and economic relations. With dedicated efforts to capitalize on this new opening, the United States can be better positioned to address the security of its critical supply chains, including lithium and antimony.

The hurdles—political and technical—are numerous, however. Foreign businesses face major obstacles when pursuing investment in critical minerals in Bolivia due to its economic system. The current 2009 Bolivian Constitution, inherited by the Paz government, establishes a plural economic model in which, "The State shall exercise total direction of economic development and the processes

[32] Jack Quinn, "Latin America's Lithium Sands Are Shifting," (Americas Quarterly, November 6, 2023), accessed July 16. 2026, https://www.americasquarterly.org/article/latin-americas-lithium-sands-are-shifting/.
[33] Joshua Klein, Bolivia: Country Overview and U.S. Relations, IF1274, (Washington, DC: Congressional Research Service, October 21, 2024), accessed May 20, 2026.
[34] U.S. Embassy La Paz, "U.S. Presidential Delegation to the Inauguration of Bolivian President Rodrigo Paz," (November 8, 2025), accessed May 20, 2026, https://bo.usembassy.gov/u-s-presidential-delegation-to-the-inauguration-of-bolivian-president-rodrigo-paz/.
[35] U.S. Department of State, "Secretary Rubio's Meeting with Bolivian Foreign Minister Aramayo," (Office of the Spokesperson, February 4, 2026), accessed May 20, 2026, https://www.state.gov/releases/office-of-the-spokesperson/2026/02/secretary-rubios-meeting-with-bolivian-foreign-minister-aramayo.
[36] U.S. Embassy La Paz, "U.S. Presidential Delegation."

of planning" and "The natural resources are the property of the Bolivian people and shall be managed by the State."[37] Resource sovereignty was the ideology that governed MAS policies and state-owned enterprises were the executors of natural resource extraction.

The Bolivian lithium sector provides an excellent example of the difficulties associated with critical mineral extraction in the country. Bolivia's lithium is found in high-altitude salt flats (*salares*) in Uyuni, Coipasa, and Pastos Grandes. Bolivia possesses the world's second largest lithium resources (23 million metric tons),[38] yet due to state mismanagement it does not even produce enough to factor into the USGS lithium production by country list. Bolivian Law 928 charges Yacimientos de Litios Bolivianos (YLB), the state-owned lithium company, with 100% ownership of the basic chemical processing of evaporative resources to produce and commercialize products like lithium carbonate and lithium hydroxide.[39] Law 928 allows for joint ventures with foreign companies in semi-industrial, industrial, and waste processing so long as YLB maintains majority control. This legal framework has concentrated risk in the public sector, stifling technological innovation and hampering the growth of lithium production to commercial levels.[40]



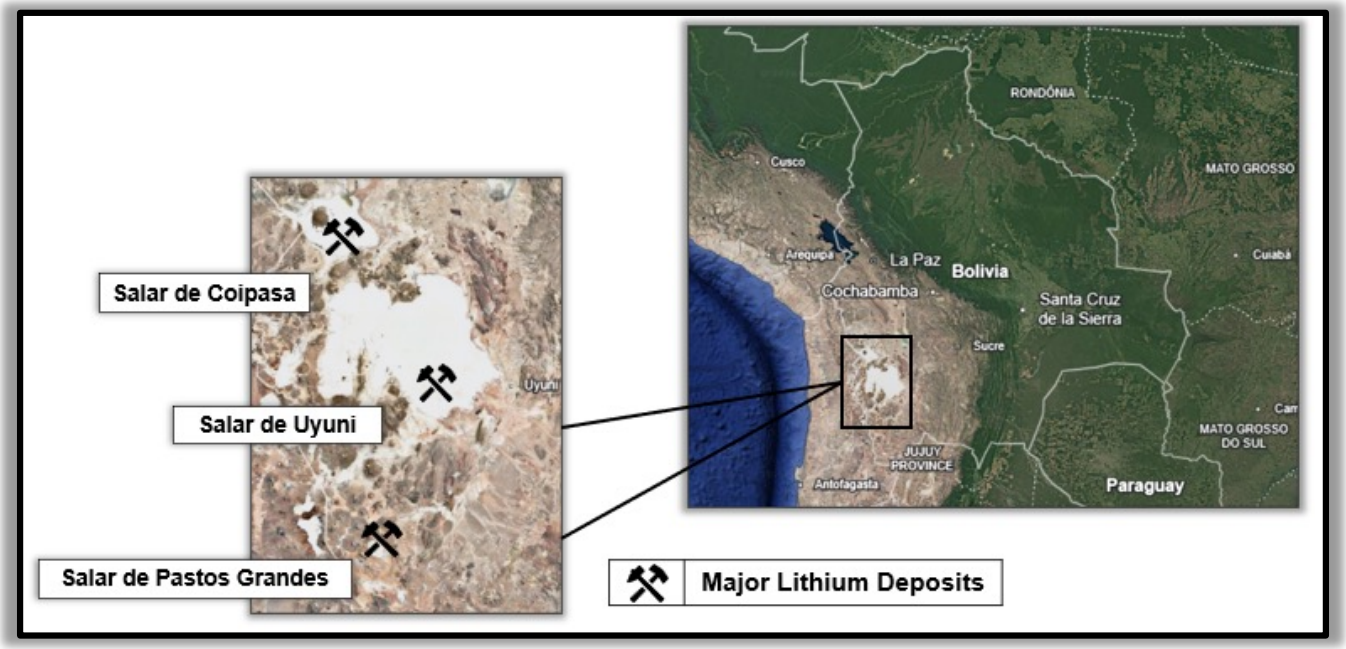
Photo concept: Bolivia's Salar de Uyuni.

Credit: Diego Delso, delso.photo, License CC BY-SA 4.0, via Wikimedia Commons.

Bureaucratic red tape combined with difficult logistics and local indigenous community concerns presents significant risk to U.S. businesses that want to invest in Bolivia's undeveloped but potentially lucrative and strategically significant lithium sector. Two of the main logistical problems with lithium extraction in Bolivia are the high magnesium content of the brine and the large amount of water required for evaporation ponds. Water is scarce in the *salares*, and the traditional method of using large evaporation ponds to extract lithium from brine strains limited local water resources. Direct Lithium Extraction (DLE) is a nascent but burgeoning technology that would extract purer lithium from the complex brine

[37] Bolivia (Plurinational State of), Constitution (2009), (trans. Max Planck Institute, Constitute Project, last modified 2009), accessed May 20, 2026, https://www.constituteproject.org/constitution/Bolivia_2009.
[38] U.S. Geological Survey, Mineral Commodity Summaries 2026, 119.
[39] Bolivia (Plurinational State of), *Ley No. 928: Ley de la Empresa Pública Nacional Estratégica de Yacimientos de Litio Bolivianos* – YLB (La Paz: Gaceta Oficial del Estado Plurinacional de Bolivia, April 27, 2017), accessed July 28, 2026, https://siip.produccion.gob.bo/repSIIP2/files/normativa_12345_0305201713d6.pdf.
[40] Lucas Lamby and Ricardo Hausmann, *Bolivia's Economic Pivot: Unlocking the Mining and Lithium Potential*, Growth Lab Working Paper no. 264 (Cambridge, MA: Growth Lab, Harvard Kennedy School, April 2026), accessed July 28, 2026, https://growthlab.hks.harvard.edu/wp-content/uploads/2026/05/2026-04-glwp-264-bolivia-economic-pivot-mining-english.pdf.

and utilize less water than traditional evaporation ponds.[41] Several U.S. startups, like EnergyX and Lilac Solutions, are pioneering DLE technology that could solve Bolivia's logistical hurdles, given enough time and access.



Map of major lithium deposits in Bolivia.
Map data: Google, Landsat / Copernicus, Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Antimony provides a second crucial example of a critical mineral in Bolivia ready for U.S. investment. According to the U.S. International Trade Commission, Bolivia has the world's third-largest reserves but produces a fraction of the output that China and Russia achieve.[42] With the United States importing most of its antimony needs, this is a significant opportunity.

The U.S. Army's Joint Program Executive Office for Armaments and Ammunition (JPEO A&A) partnered with Perpetua Resources Inc. to restart antimony mining at the Stibnite Gold Project in Idaho in September 2025.[43] While this is an important first step to onshoring antimony production, Stibnite has been closed since the 1990s, while Bolivia's antimony resources are currently being mined with the requisite infrastructure, albeit at a small scale. As Anna Gustafson points out, "… the Stibnite mine is only estimated to meet 35 percent of U.S. demand through the initial six years of production, and that won't begin for at least three years."[44] Gustafson suggests Tajikistan as the most logical source of non-Chinese antimony. While antimony imports from Tajikistan have increased, this is still fraught with risk as China is Tajikistan's largest trading partner and operates a People's Liberation Army base on Tajik

[41] Diego von Vacano, *Miracle or Mirage? Lithium Governance and Prospects in Bolivia*, (Washington, DC: Wilson Center Latin America Program, April 3, 2024), 4–5.
[42] Daigle and DeCarlo, "Antimony."
[43] Flynn, "Future Domestic Source of Antimony."
[44] Anna Gustafson, "A Critical Mineral in a Critical Moment: The Antimony Crisis," (The Heritage Foundation, June 17, 2025), accessed May 20, 2026, https://www.heritage.org/trade/commentary/critical-mineral-critical-moment-the-antimony-crisis.

soil.[45] Bolivia's geographic separation and lack of integration with the Chinese military makes it the far more viable partner for the United States as it is less susceptible to Chinese pressure.

Conclusions and Policy Recommendations

The U.S. Government and U.S. businesses can take four concrete steps to leverage better relations with Bolivia to improve U.S. critical mineral supply chains.

First, the United States needs to exchange ambassadors with Bolivia. The lack of ambassadors during a period of opportunity will hamper efforts at lasting change and addressing the political and technical hurdles mentioned above. President Paz is in office until 2030, and while he can be reelected for another five-year term, there is no guarantee that a hostile party does not win in 2030. Only eight months into the Paz presidency, protests over economic issues like austerity measures ousted the defense minister and threatened the continued existence of the Paz Administration.[46] These protests were a combination of a traditionally strong social mobilization from farmers, miners, teachers, and laborers, mixed with nefarious influences among groups aligned with Morales.[47] Ambassadors in La Paz and Washington will enable faster action by placing decision-makers at the sources of policy to reduce time waiting for directives from respective capitals.

Second, SOUTHCOM should begin assessing opportunities for U.S. forces to engage with the Bolivian military in-country. While military-to-military relations are not directly related to critical mineral production, they will help facilitate the long-term dialogue needed to overcome the political barriers to diversifying production away from China. SOUTHCOM should pursue opportunities for the 98th Civil Affairs Battalion (Airborne) to conduct joint combined exchange training (JCET) in Bolivia, while simultaneously conducting civil reconnaissance and civil engagement in the salares to gain situational awareness of Chinese progress and highlight opportunities for U.S. critical mineral businesses. SOUTHCOM has taken the first step towards reestablishing security cooperation in Boliva by sending U.S. Army South (ARSOUTH, now replaced by U.S. Army Western Hemisphere Command) Commander Major General Philip J. Ryan to Bolivia, the highest-ranking military representative to travel to the country since 2006.[48]

Third, efforts at governance and security engagement should be pursued with an eye towards highlighting the benefits of critical mineral cooperation and assuaging fears of a loss of sovereignty

[45] Stephen Blank, "China's Military Base in Tajikistan: What Does It Mean?," (The Central Asia-Caucasus Analyst, April 18, 2019), accessed May 20, 2026, https://cacianalyst.org/publications/analytical-articles/item/13569-chinas-military-base-in-tajikistan-what-does-it-mean?.html

[46] Monica Machicao, "Bolivia's Defence Minister Resigns After Weeks of Mass Protests," (Reuters, June 2, 2026), accessed June 8, 2026, https://www.reuters.com/world/americas/bolivias-defence-minister-resigns-after-weeks-mass-protests-2026-06-03/.

[47] Carlos Valdez and Isabel DeBre, "Bolivia Protesters Allied with Ex-Leader Morales Clash with Police as Unrest Widens," (Associated Press, May 18, 2026), accessed June 8, 2026, https://apnews.com/article/bolivia-evo-morales-rodrigo-paz-protests-road-blocks-argentina-b314f835b1c074efa8073921c2f04360.

[48] Agencia EFE, "Alto jefe militar de EEUU visita Bolivia dentro de la nueva etapa en la relación bilateral,"(Unitel, April 30, 2026), accessed May 20, 2026, https://unitel.bo/noticias/politica/alto-jefe-militar-de-eeuu-visita-bolivia-dentro-de-la-nueva-etapa-en-la-relacion-bilateral-HG20376045

over Bolivian natural resources. The William J. Perry Center for Hemispheric Defense Studies should encourage Bolivian field-grade officers and civilian officials to participate in in-resident and asynchronous courses. Establishing familiarity between U.S. and Bolivian officials can reduce skepticism after two decades of hostility and work towards building relationships that will last over the long period of time needed to establish new critical mineral supply chains. The Perry Center's Ministerial Consultation Program could also aid Bolivia's development of a new national security or national defense strategy aligned with both U.S. and Bolivian interests and tailored to harmonize the two countries' need for secure critical mineral supply chains.

Finally, federal investment agencies like DFC, EXIM, and the DoW Office of Strategic Capital (OSC), should further expand nascent efforts at attracting U.S. investment in Bolivian lithium and antimony by underwriting investment risk, providing capital for production operations, and helping to navigate the tortuous Bolivian economic system. Puerto Rico-based EnergyX successfully deployed direct lithium extraction technology to the Salar de Uyuni in 2021, but it ultimately did not earn the contract to develop Bolivian lithium.[49] Similarly, United States Antimony, the only fully integrated antimony company outside China and Russia, announced in January 2026 that it intends to fund a hydrometallurgical processing facility for antimony in Bolivia.[50] These types of projects are perfect examples of where DFC, EXIM, or OSC can provide capital to alleviate starting costs and mitigate political risk. U.S. businesses recognize the untapped nature of Bolivia's resources, and with USG funding, U.S. enterprise and innovation can help solve the current critical mineral crisis and begin to alleviate the threat posed by Chinese dominance.

Critical minerals like lithium and antimony are irreplaceable inputs for manufacturing advanced technologies from nuclear submarines to modern batteries. China dominates the global supply chain of these minerals and weaponizes its near monopoly through production controls and export restrictions that threaten U.S. national and economic security. In this context, Bolivia is a vital alternative. With large but untapped reserves of lithium and antimony, Bolivia offers the U.S. a crucial opportunity to friend-shore supply chains and alleviate dependance on adversarial sources. Getting this right could be a strategic win for the United States and serve as a lever for deepening economic security and good governance in Bolivia. The United States should therefore take these necessary first steps now, while the political conditions are favorable.

[49] EnergyX, "LiTAS™ Lithium Extraction Pilot Plant Deployed to Bolivia, World's Largest Lithium Reserves," December 22, 2021, accessed May 20, 2026, https://energyx.com/press-release/litas-lithium-extraction-pilot-plant-deployed-to-bolivia-worlds-largest-lithium-reserves/.

[50] United States Antimony Corporation, "United States Antimony Corporation Announces New Hydromet Processing Advancement," (NASDAQ, January 28, 2026), accessed May 20, 2026, https://www.nasdaq.com/press-release/united-states-antimony-corporation-announces-new-hydromet-processing-advancement.

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