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## U.S. Governance on Critical Minerals

*Hon. Sharon Burke and Claire Doyle\**

The United States is at a historic crossroads when it comes to some of the most important commodities of the 21st century: critical minerals. The 118th Congress has the opportunity to promote U.S. economic competitiveness and strengthen national security by increasing supplies of these minerals at home and abroad and managing demand. This policy brief offers an overview of key policy considerations in securing a reliable, sustainable, and affordable supply of critical and strategic materials.

### BACKGROUND

**Critical minerals**,<sup>1</sup> such as cobalt, lithium, nickel, and rare earth elements, undergird the digital economy—everything from **MRIs**<sup>2</sup> to **smart phones**<sup>3</sup>—but also modern **military technology**<sup>4</sup> and the **energy transition**.<sup>5</sup> Once the global economy recovers from the pandemic slowdown, commercial forecasts suggest **explosive demand growth**<sup>6</sup> for critical minerals in the coming decades. The world needs far more of these materials, but hardrock mining and refining take time and capital, and tend to be destructive to the environment and host communities. Recycling and reclamation from waste streams are feasible but are relatively expensive or technologically immature.

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*This policy brief was produced with the support of the United States Agency for International Development. It was prepared independently by the Wilson Center's Environmental Change & Security Program.*



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The United States and key allies, such as Australia and Canada, have significant mineral wealth and competitive international mining companies, but a number of other countries dominate critical mineral markets. China and Russia, in particular, are major producers at home and around the world, but they tend to approach mining in a way that encourages corruption, undermines the environment, runs roughshod over community rights, and uses non-market tools. Other important producers of specific minerals include (but are not limited to) Brazil, the Democratic Republic of the Congo, Indonesia, the Philippines, and South Africa.

While the current and previous administration and past Congresses have launched important initiatives to improve U.S. critical minerals policy—including landmark changes in the Bipartisan Infrastructure Law, Inflation Reduction Act, and CHIPS and Science Act—there is still room to adopt more policies for a better, smarter, cleaner, and fairer approach to mining.

## OPPORTUNITIES AND OPTIONS

As Congress considers how to continue improving the U.S. supply of critical and strategic materials, there is a baseline principle to take into account: any successful approach must include and ideally integrate both domestic and foreign policy. While increased mining and processing at home is essential to U.S. mineral security, so is

diversification. That means global engagement with other producer and consumer nations, including allies and trading partners. At the same time, not all the solutions can focus on supply; the United States needs to support policies that decrease the demand for these materials in order to reach a more sustainable balance. Options include:

### Grow the domestic supply of minerals

#### 1. Increase responsible and sustainable domestic exploration, production, processing, recycling and recovery from tailings and brines.

- Improve permitting, mining law, and other regulatory processes. It takes a long time to get a mine into production in the United States, and that is a significant barrier to meeting the mineral demands of the energy transition. This will only change if more Members of Congress focus on reform, including better, up-front community consultation and environmental review.
- Enhance cooperation between communities, environmental groups, and companies. Discord among these stakeholders and investors can both slow the pace of mining and processing of minerals and result in externalities for communities. The Wilson Center’s analysis of and dialogues with key U.S. environmental groups and mining





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companies suggest that it is possible—though admittedly not easy—to find common cause. Note that this stakeholder outreach cannot be exclusively at the national level; many of the most important negotiations are local.

- Invest in innovation. The U.S. government should invest strategically in R&D to improve mining and processing of materials, bring down the costs of recycling and reclaiming minerals from wastewater and mine tailings, and innovate institutions and practices.

## 2. Improve capacity.

- Strengthen governance. The U.S. government should formalize largely ad hoc interagency and federal cooperation mechanisms, build on and revise the [2019 federal strategy](#)<sup>7</sup>, and identify a policy lead that can manage the integration of domestic and foreign minerals policy. While Canada has circumstances that differ from those of the United States, including mineral ownership rights, the country's [national strategy](#)<sup>8</sup> may offer a guide.
- Facilitate information-gathering. Congress increased resources for the U.S. Geological Survey in 2022 to improve documentation of mineral reserves in the United States, horizon scan for future supply challenges, and characterize changing demand for minerals.

These are important investments in U.S. mineral security.

- Expand human resources. There are overall gaps in the U.S. technical workforce in mining, geology, and related STEM fields; the [Government Accountability Office](#)<sup>9</sup> cites this shortfall as a major reason for slow mine permitting in the United States. The Inflation Reduction Act's increase in resources for staffing are essential; more support for training and education would also be beneficial.

## Increase the global supply of minerals

Any failure to engage productively with other countries is ceding economic and strategic advantage to China (and Russia to a lesser extent), potentially with far-reaching effects. But that doesn't mean the United States should compete on China's terms. The reliability and credibility of U.S. companies, as well as those of allies and partners, have the potential to be a competitive advantage, particularly with the right U.S. government investments and other incentives.

1. **Deepen partnerships with allies and the private sector. The United States should collaborate with like-minded partners to improve sustainable and fair production around the world – especially in developing countries.**





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- The State Department has two important, relatively new initiatives: the [Minerals Security Partnership](#)<sup>10</sup> and the [Energy Resource Governance Initiative](#).<sup>11</sup> The U.S. Agency for International Development works [extensively](#)<sup>12</sup> with key developing country producers to improve governance, environmental protection, and community welfare.
- Invest in initiatives like the multi-sectoral [Public-Private Alliance for Responsible Minerals Trade](#)<sup>13</sup> (PPA),\*\* which builds collaboration between civil society, industry, and government to ensure responsible sourcing.
- Learn from and support the initiatives of partners and allies, such as the [European Raw Materials Alliance](#).<sup>14</sup>
- Promote global cooperation and information-sharing regarding “best practices” and standards, including respect for the rule of law and anti-corruption practices, community engagement, environmental protection, and investments in innovation.
- In the U.S., define more clearly the standard for environmental protection, community rights, and good governance and ensure that

all of the instruments of U.S. foreign policy, aid, trade, and commerce mutually reinforce this standard. The [Responsible Minerals Initiative](#),<sup>15</sup> an initiative of the Responsible Business Alliance, offers a potential model, as do the [Initiative for Responsible Mining Assurance \(IRMA\)](#),<sup>16</sup> Canada’s Industry-led [Towards Sustainable Mining initiative](#),<sup>17</sup> OECD’s [Due Diligence program](#),<sup>18</sup> and the [Extractive Industries Transparency Initiative](#).<sup>19</sup>

## 2. Support programs and standards that deliver tangible benefits for mining communities in developing countries and help governments build capacity to invest mining revenue in accordance with best practices.

- Mining revenue can be an important driver of local and national development—including through investments in infrastructure, education, and agriculture—when governments are equipped to make sound investments and communities are involved in those decisions.
- Look for opportunities to partner in ways that create value-added processes within sourcing countries, from Australia to the Democratic Republic of the Congo. Producing countries will benefit from growing their own domestic

\*\* The PPA has expanded beyond the Democratic Republic of the Congo to have a global reach and include a wider range of minerals.





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manufacturing of components and finished products, and the United States will benefit from having a more diverse supply chain.

- Build on current policies and programs that seek to eliminate child labor in the mining industry and provide alternative income opportunities. Blanket bans on business in countries with a history of child labor might take a symbolic stand but do little to help communities that need the income—and cut the United States off from building strategic relationships.
- Support programs that invest in livelihood diversification to ensure that mining communities are resilient to market shocks and have sustained income once mining projects end.
- Promote regulatory regimes and policies that build cooperation between large-scale mining and [artisanal and small-scale mining](#) (ASM), which accounts for the majority of the mining workforce worldwide and is the primary livelihood activity for millions of people.<sup>20</sup> Governance schemes across the globe tend to [heavily favor large-scale mining](#).<sup>21</sup>
- Provide incentives for industries that depend on a steady supply of critical minerals to reinforce best practices around the world. At least six major automobile manufacturers,

for example, have [pledged](#) to include IRMA standards in their contracts for materials.<sup>22</sup>

**3. Ratify the United Nations Convention on the Law of the Sea (UNCLOS). New technologies are making deep ocean minerals commercially recoverable for the first time. Opportunities and concerns abound, but the United States does not even have a seat at the table.**

**4. Out-compete China, but don't close the door. The United States and China have a common interest in a steady, reliable, and affordable global supply of critical minerals to power the energy transition. The United States government should continue to look for ways to cooperate with China on minerals, including to raise global standards, even in a more competitive environment.**

#### Reduce Demand

Finally, increasing supply at home and around the world is not enough; these materials are inherently limited (or at least not always commercially viable) and mining and refining of materials will always have costs, especially for local communities and ecosystems. Furthermore, as more countries around the world join the digital economy and make a clean energy transition, the demand for these materials will continue to grow. Electric vehicles in particular



will sharply increase the demand for certain minerals, including cobalt and lithium.

Efforts to reduce mineral demand could include technological innovation and incentives that promote the substitution of rare materials for more available and sustainable materials and increase efficiency of energy and materials—including through smaller and lighter batteries for EVs and other end uses. But demand reduction efforts have to go beyond such innovations and improvements to address consumption patterns, such as more energy efficient commercial buildings and industrial processes, and better public transportation options.

The U.S. government, along with allies and partners, should engage in further work to develop concrete policies for a more sustainable, fairer, and smarter approach to mining. These policies require meaningful dialogue among the U.S. government, the private sector, non-governmental organizations, and civil society organizations working to protect the environment, Indigenous rights, and marginalized communities, as well as national and economic security. As the “nation’s think tank,” the Wilson Center will continue to lead a variety of multi-stakeholder initiatives on critical minerals and provide an independent forum for conversations among the sector’s many engaged actors.

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*The Woodrow Wilson Center for International Scholars, an independent policy research organization chartered by Congress, has a range of [research on critical minerals](#). These projects include a [Critical Minerals Working Group](#), a major convening with mining and related companies; the [Lithium Triangle Initiative](#), focused on South America; and extensive programming under the Environmental Change and Security Program, including this report. The Wilson Center supports the U.S. Congress and the Administration with subject matter expertise, global networks of scholars, and cutting edge policy research.*



## ENDNOTES

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NEW SECURITY BRIEF

No. 4 | February 2023

