

GAO Highlights

Highlights of [GAO-16-699](#), a report to the Chairman, Committee on Energy and Natural Resources, U.S. Senate

Why GAO Did This Study

Certain metals, minerals, and other “critical” raw materials play an important role in the production of advanced technologies across a range of industrial sectors and defense applications. Recently, concentration of the supply of some critical materials under foreign control has renewed questions about the U.S. government’s and industry’s ability to address potential supply disruptions.

GAO was asked to examine U.S. efforts to identify and strategically plan for critical materials supply issues. Among other objectives, this report (1) describes federal agencies’ activities related to the supply of critical materials and (2) evaluates the federal government’s approach to addressing critical materials supply issues. GAO reviewed relevant laws, agency documents, and academic studies; interviewed federal officials; and conducted a two-stage web-based survey of a nongeneralizable sample of critical materials experts selected to cover a range of subject matter areas.

What GAO Recommends

GAO is making six recommendations, including that OSTP take steps to improve interagency collaboration by, for example, defining Subcommittee member roles and responsibilities and that Commerce engage with stakeholders to continually identify and assess critical materials needs across industrial sectors. Commerce agreed. OSTP agreed with one and neither agreed nor disagreed with the other four recommendations but discussed how roles and responsibilities are defined, among other things. GAO continues to believe these steps are needed, as discussed in the report.

View [GAO-16-699](#). For more information, contact John Neumann at (202) 512-3841 or neumannj@gao.gov.

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ADVANCED TECHNOLOGIES

Strengthened Federal Approach Needed to Help Identify and Mitigate Supply Risks for Critical Raw Materials

What GAO Found

Federal agencies are primarily focused on two areas of activity related to critical materials supply—assessing risk and supporting research. For example, the Department of Energy (DOE) has conducted two criticality assessments on materials important to clean energy applications and manages the Critical Materials Institute—a 5-year, \$120 million investment aimed at mitigating risks by diversifying supply, providing alternatives to existing materials, and improving recycling and reuse. In addition, agencies conduct a range of other critical materials related activities, including stockpiling or producing materials, and reviewing and approving resource extraction projects, among other efforts.

The federal approach to addressing critical materials supply has areas of strength but is not consistent with selected key practices for interagency collaboration and faces other limitations, as shown below.

Selected Strengths and Limitations of Federal Critical Materials Activities

| Strengths | Limitations |
|---|--|
| <ul style="list-style-type: none">• Existence of an interagency subcommittee to support interagency collaboration• U.S. Geological Survey information on mineral resources• Department of Energy’s Critical Materials Institute | <ul style="list-style-type: none">• Interagency collaboration is not consistent with selected key practices• Federal focus on only a subset of materials for assessing critical materials supply issues• Limited focus on developing domestic resources• Limited federal government engagement with industry stakeholders |

Source: GAO analysis of expert survey and information collected from agency officials. | GAO-16-699

- According to its charter, the Subcommittee on Critical and Strategic Mineral Supply Chains (Subcommittee)—co-chaired by the Office of Science and Technology Policy (OSTP), DOE, and the Department of the Interior—is to facilitate a strong, coordinated effort across its member agencies on critical materials activities. However, the Subcommittee’s efforts have not been consistent with selected key practices for interagency collaboration, including agreeing on roles and responsibilities; establishing mutually reinforcing or joint strategies; and developing mechanisms to monitor, evaluate, and report on results. For example, some member agencies do not have a clear role in the Subcommittee’s efforts and have had limited or no involvement in its work. By taking steps to actively engage all member agencies in its efforts and clearly define roles and responsibilities, the Subcommittee would have more reasonable assurance that it can effectively marshal the potential contributions of all member agencies to help identify and mitigate critical materials supply risks.
- Other limitations to the federal approach to addressing critical materials supply include limited engagement with industry and a limited focus on domestic production. For example, the Department of Commerce (Commerce) is required by law to identify and assess cases of materials needs. However, Commerce does not solicit information from stakeholders across a range of industrial sectors. As a result, Commerce may not have comprehensive, current information across a range of industrial sectors to help it identify and assess materials needs.