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Comments: What happening there is a smaller loud group of anti-human so-called environmentalists that opposed Gas and clean coal, mining, precisely because it allowed for so much cheap and abundant power, they say, if we're going to stop the human cancer, we have to cut off its energy supplies. They turned out to be wrong about that too, because if you really want to reduce humankind's negative impact, then we need to live in cities. We use more energy in cities, we need more energy for our agriculture, for growing food, and it turns out that actually energy consumption is correlated very strongly with environmental protection. We just need a lot of energy to protect the natural world. You have to remember that there were genuine conservationists in the 1960sThe sometimes-tenuous nature of the mineral supply chain received world attention in 2010 when China suddenly drastically cut its export quota for the rare-earth elements. The move highlighted the fact that China had a virtual monopoly on the short-term supply of rare-earth elementselements that are essential to the renewable energy sector and many other high-tech applications globally. The rest of the world was left scrambling to find alternative and secure supplies. China is also the world's major producer of a number of other mineral commodities that are essential in high-tech applications, renewable energy, and national security, including antimony, bismuth, fluorspar, germanium, graphite, and indium (Price, 2013). These and other mineral commodities that are largely controlled by one country, such as cobalt (Democratic Republic of the Congo), niobium (Brazil), and platinum (South Africa), are also considered to be at high risk of supply disruption and would have high impact if supply restrictions should take placeThe United States was the world's leading producer of copper for much of the 20th century, but Chile became the leading copper-producing country in 1982 and has remained so. In 2014, China accounted for 20 percent or more of the world's mine production of more than 40 mineral commodities; these included the rare-earth elements, of which China accounted for 85 percent of world production; tungsten, 82 percent; antimony, 76 percent; germanium, 73 percent; mercury, 68 percent; graphite, 66 percent; fluorspar, 59 percent; and bismuth, 56 percent (U.S. Geological Survey, 2016).United States mineral production has greatly increased but has not kept pace with consumption. Self-sufficiency in minerals has declined, both overall and in numbers of minerals involved.The commodities or commodity groups included are antimony, barite, beryllium, cobalt, fluorine, gallium, germanium, graphite, hafnium, indium, lithium, manganese, niobium, platinum-group elements, rare-earth elements, rhenium, selenium, tantalum, tellurium, tin, titanium, vanadium, and zirconium. All these commodities have been listed as critical and (or) strategic in one or more of the recent studies based on assessed likelihood of supply interruption and the possible cost of such a disruption to the assessor. For some of the minerals, current production is limited to only one or a few countries.The economy and the national security of the United States are based directly or indirectly on minerals and, in the early 1970s, there was increasing recognition of and concern about the fact that the United States did not have adequate domestic supplies of many of the nonfuel minerals needed to sustain its economy
an increasing awareness and sensitivity to potential environmental and health issues caused by the mining and processing of many mineral commodities may place additional restrictions on mineral supplies. These factors have led a number of Governments, including the Government of the United States, to attempt to identify those mineral commodities that are viewed as most "critical" to the national economy and (or) security if supplies should be curtailed. The lists of critical minerals compiled by Governments and other organizations vary in the number and individual rankings of mineral commodities included on them, but many of the lists include several of the same commodities. Rare-earth elements and platinum-group elements particularly are broadly viewed as critical.