

Nations wary of dependence on China's rare earths

October 4 2010, TOMOKO A. HOSAKA , Associated Press Writer



In this undated photo, 2-milimeter (0.79-inch) long mini magnets made from chemically processed rare earths are shown in Beijing. China's recent halt of exotic metal shipments to Japan amid a diplomatic spat has reverberated throughout the world's high-tech manufacturing hubs _ now on heightened alert to the risks of relying on one country for materials that do everything from helping hybrid engines run to creating the color red in televisions. (AP Photo/Kyodo News)

(AP) -- China's recent halt of exotic metal shipments to Japan amid a diplomatic spat has reverberated throughout the world's high-tech manufacturing hubs - now on heightened alert to the risks of relying on one country for materials that do everything from helping hybrid engines run to creating the color red in televisions.

Governments as far afield as Washington and Seoul are asking: What

happens if China cuts off our supply too?

Like the rest of the world, Japan depends almost entirely on shipments from China, which produces 97 percent of the global supply of the metals known as [rare earths](#).

As tensions over islands claimed by both Japan and China ran high last month, Japanese companies reported that China had halted shipments of rare earths - 17 exotic minerals critical for [advanced manufacturing](#). Hybrid car engines, like those in Toyota's Prius, need [lanthanum](#). Europium creates the color red in televisions. The electric generators in [wind turbines](#) use neodymium.

"Some countries have started taking steps to seek various options," Japan's new Foreign Minister Seiji Maehara said Friday. "I think it is quite a healthy development for each country to start resource diplomacy after developing a sense of crisis because of the latest incident."

China's virtual monopoly is no accident. Former Chinese leader Deng Xiaoping once famously quipped that while the Middle East had oil, China had rare earths. The U.S. led the world in rare earth production until the late 1980s. Since then, however, China has grown to dominate the market by undercutting other producers with lower prices.

Annual global production of [rare earth elements](#) totals about 124,000 tons, according to a July report by the U.S. Congressional Research Service. World demand is expected to rise to 180,000 tons a year by 2012. By 2014, global demand could exceed 200,000 tons per year, according to the report.

Concern about rare earth supply had been brewing long before September's restrictions to Japan, which Beijing still denies. To cope with growing demand at home, China has been reducing export quotas of

rare earths over the past several years. In the second half of this year, the government has capped overseas shipments at 7,976 tons, down 49 percent from the first half, according to figures from China's Ministry of Commerce.

Although shipments appear to have resumed, the issue has become a political priority in Japan, where the vital auto industry has invested heavily in hybrid and electric cars - among the biggest consumers of rare earths - to drive growth.

Jack Lifton, an independent consultant, speaker and author on rare earths, says Japan has the most to fear from Chinese import restrictions.

When it comes to high-tech goods, "anything that's not made in China is made in Japan," said the Michigan-based Lifton, who has advised the Japanese government on the issue.

On Friday, Tokyo released a set of "comprehensive rare earth measures" to ensure a stable supply for Japanese industry.

The Ministry of Economy, Trade and Industry outlined five main areas of focus, including speeding development of rare earth alternatives, turning Japan into a major global center for rare earth recycling and helping manufacturers install equipment to reduce rare earth consumption. The government will also support Japanese companies in acquiring concession rights to rare earth mines outside of China and study the possibility of stockpiling rare earth reserves.

Japan announced a new accord with Mongolia the following day. At a meeting between Prime Minister Naoto Kan and Mongolian Prime Minister Sukhbaatar Batbold, the two countries agreed to cooperate in developing rare earth mines in Mongolia.

The new partnership comes on top of ongoing projects launched recently by major Japanese companies seeking to diversify their rare earth sources.

Toyota Motor Corp. said last week it set up a rare earth task force. An affiliated trading company, Toyota Tsusho Corp., established a rare earth mining joint venture in Vietnam two years ago.

"There are many risks in depending on one nation," company spokesman Morimasa Konishi said.

The company expects the Vietnam mine to begin supplying minerals to Japan in 2012, he said. Toyota Tsusho has also invested in a similar project in India, which should begin operating next year.

Toshiba Corp. and Sumitomo Corp. have each launched rare earth joint ventures in Kazakhstan over the past year. Australia's Lynas Corp. said last week that it had signed a deal to supply a major Japanese company with rare earths from its Mount Weld project in western Australia. Lynas did not name the company and said it was in talks with other firms in the U.S., Japan and Europe.

South Korea - home of tech giants Samsung Electronics Co. and LG Electronics Inc. - has taken notice of its neighbors' dispute.

It plans to spend 17 billion won (\$15 million) by 2016 as part of a long-term plan that seeks to secure 1,200 metric tons in rare earths reserves, the Ministry of Knowledge Economy said in a statement.

Seoul expects prices to climb and supplies to become increasingly unstable, as its main supplier China consistently decreases exports, the statement said.

The policy plan, titled "Plans for Stable Procurement of Rare Metals," will be finalized in mid-October, after further consultations, the ministry said. The plan will include strategies on developing domestic mines and investing into research for alternative materials and recycling technologies.

And in the U.S., legislation to jump start domestic rare earth production appears to be gaining momentum.

At a Senate subcommittee hearing last week, lawmakers expressed concern that the U.S. was so reliant on China. David Sandalow, assistant secretary of energy for policy and international affairs, told the hearing there were "potentially very serious implications" if the U.S. lost access to rare earths.

"It could interrupt the development of clean energy technologies," Sandalow said. "It could interrupt commerce."

Lifton, the consultant from Michigan, believes the rare earths issue represents "the tip of the iceberg" as China's ambitions and economy grow rapidly. Similar supply worries could emerge about other high-tech metals that China sends to the world.

"The Chinese are pretty set on moving manufacturing to their country," he said. "They don't think that's sinister. That's just doing business."

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Citation: Nations wary of dependence on China's rare earths (2010, October 4) retrieved 3 May 2024 from <https://phys.org/news/2010-10-nations-wary-china-rare-earth.html>

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