



DEFENSE LOGISTICS AGENCY

AMERICA'S COMBAT LOGISTICS SUPPORT AGENCY



DLA Strategic Materials Stockpiling

May 5, 2011

WARFIGHTER SUPPORT ENHANCEMENT

STEWARDSHIP EXCELLENCE

WORKFORCE DEVELOPMENT



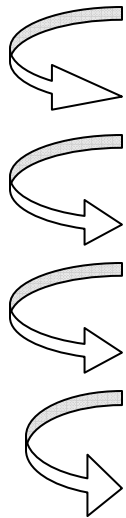
Agenda

- Programs Responsibilities and Delegations
- Enabling Legislation and Funding
- Recurring Congressional Reports
- Current Stockpile and Storage Operations
- NDS Commodities and Excess Material
- Stockpile Program Review and Reconfiguration
- Why the Interest in Strategic Materials
- Vision for New Stockpile
- Congressional Interest



Program Responsibilities and Delegations

- **National Defense Stockpile Policy set by statute**
 - Strategic & Critical Materials Stock Piling Acts
 - National Defense Authorization Acts
- **Management Oversight/Policy Implementation**



Secretary of Defense

Under Secretary of Defense

(Acquisition, Technology & Logistics)

Deputy Under Secretary of Defense

(Logistics & Material Readiness)

Defense Logistics Agency

(DLA Acquisition)

DLA Strategic Materials

Operational Issues: DLA Strategic Materials



Enabling Legislation and Funding

- **Strategic & Critical Materials Stockpiling Act**

- Requirements report to determine what strategic materials need to be bought or sold
- Annual Materials Plan to receive congressional approval for actions
- Operations Report to recap annual actions
- Establishes Market Impact Committee
- Identifies sales constraints
- Provides for special release authority

- **National Defense Authorization Acts**

- Authority to buy or sell specific materials
- Sets quantities and revenue levels
- Mandates programs to receive revenues from material sales

- **Funding**

- DLA Strategic Materials operations are funded through National Defense Stockpile (NDS) Transaction Fund
- Not part of Defense Working Capital Fund
- Self-sustaining



Recurring Congressional Reports

- Biennial NDS Requirements Report
 - Determines what should be bought, held or sold
 - OSD sets planning assumptions
 - Due on January 15
- Annual Materials Plan (AMP)
 - Annual business plan
 - Based in part on NDS Requirements Report
 - Authority expires annually
 - Coordinated with Presidential-appointed interagency Market Impact Committee
 - Due February 15
- Annual Operations Report
 - Summary of acquisitions, sales, inventory and financial reports
 - Due January 15



Current Stockpile

- Currently, DLA Strategic Materials stores 21 commodities at 10 locations.
- Low carbon ferrochrome is one of the 10 materials stored at Warren Depot, Warren, Ohio.



•DLA Strategic Materials marketing analyst Andrew Green (left) and procurement analyst Martha Hochberg are shown getting an up-close look at the material that is readily offered for sale.



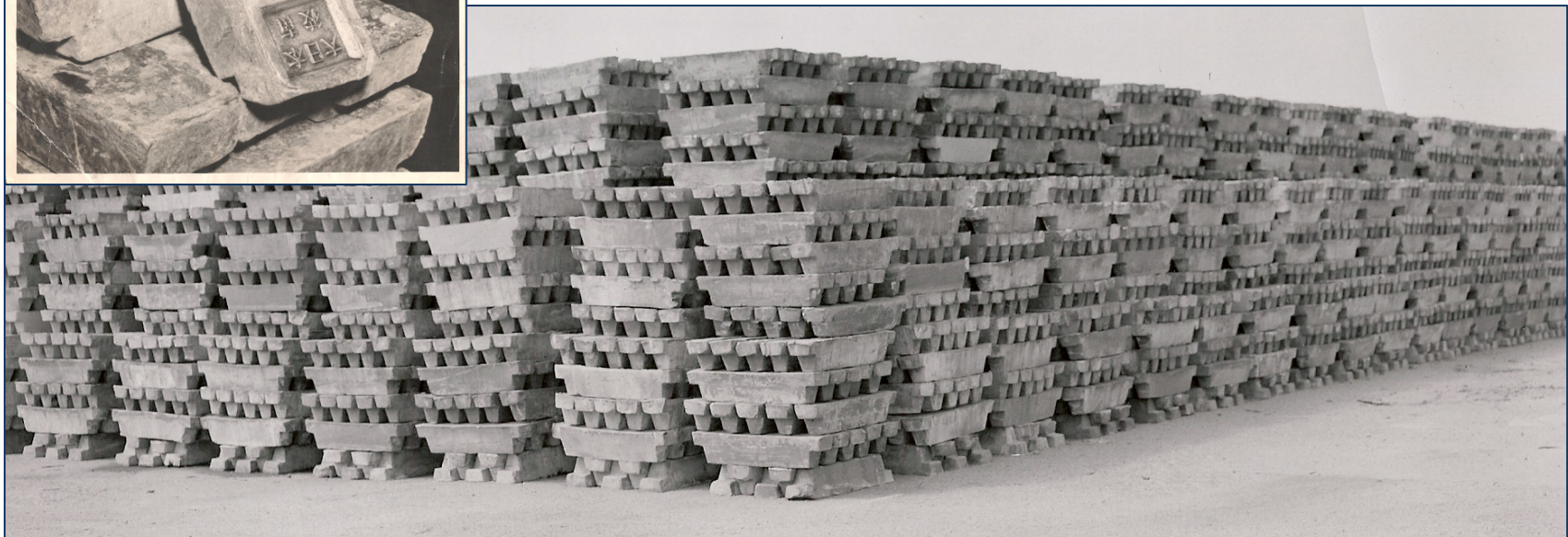


Current Storage Operations

- The early stockpile was formed using materials from a variety of sources, including foreign sources



Shipment of tin from Netherlands East Indies,
arrived per S.S. A.B. HAMMOND Jan. 25, 1946
Pier 4 Staten Island, weighed Feb. 14, 1946.





Current NDS Commodities

**Zinc
at Scotia, NY**



**Ferrochrome at
Warren, OH**



**Manganese
at Point
Pleasant, WV**



**Tungsten
at Hammond,
IN**





NDS Material Declared Excess

- The 1993 and 1994 Requirements Reports concluded that the bulk of the NDS inventory was excess to DoD needs
- Starting with the National Defense Authorization Act (NDAA) for FY1994, Congress began authorizing the sale of NDS inventory
- By 2000, virtually the entire inventory had been determined to be excess & authorized for sale or disposal

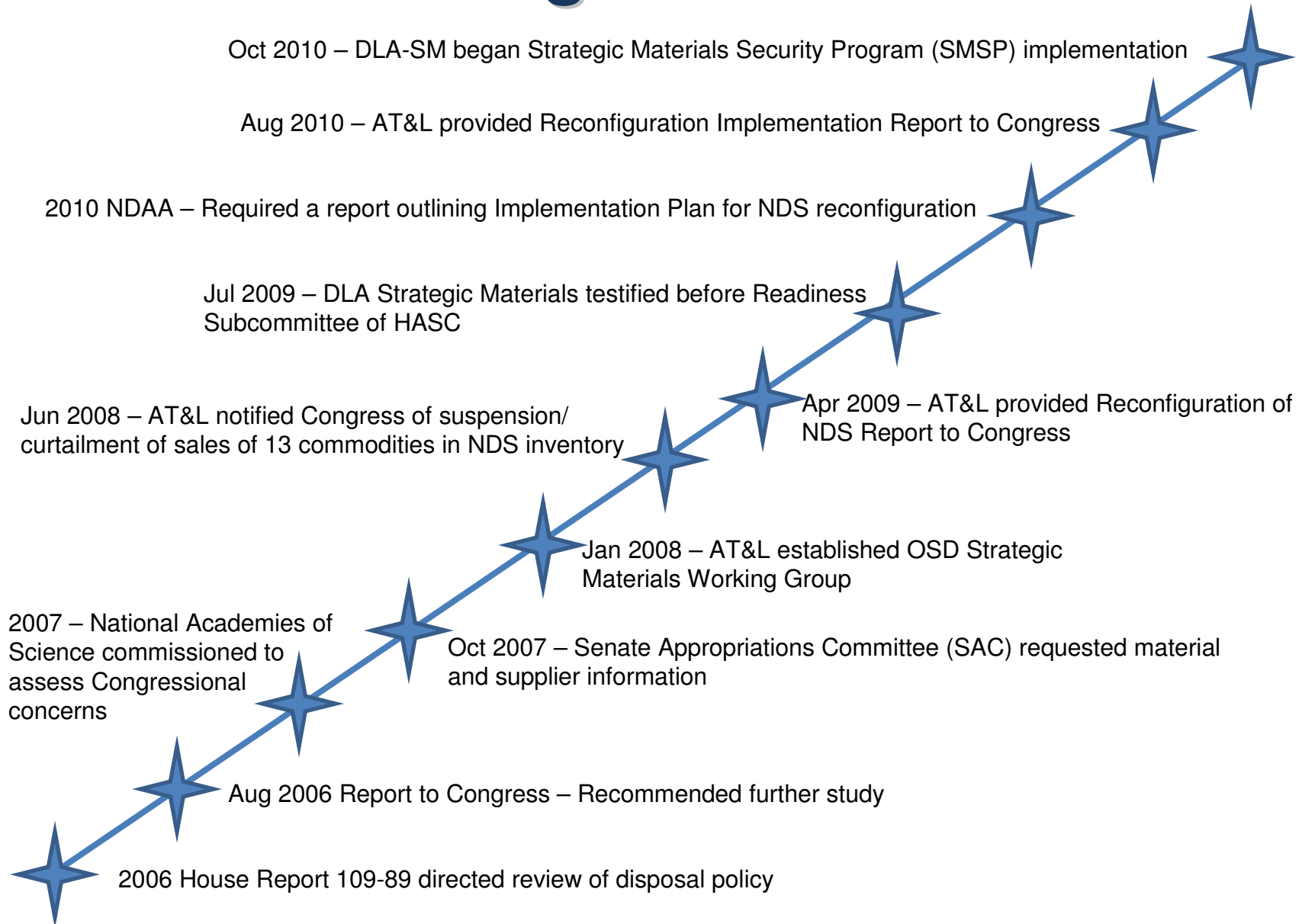


Review of Current Stockpile

- Reviews of U.S. stockpiling strategies began in 2006
 - In 2007, National Academies of Science completed reviews of the National Defense Stockpile program
 - NAS recommended a new Stockpile approach with improved planning
 - Suggested building of robust supply chains for essential materials to better reduce the impact of supply shortfalls or surges in demand.
 - A working group was convened in Jan. 2008 by Deputy Undersecretary of Defense for Industrial Policy.
 - Working group included representation from each of the military services, DoD Joint Staff, Department of Commerce, U.S. Geological Survey, and Defense Contract Management Agency.
 - **WG Conclusion: Stockpile Should Be Reconfigured!**



Reconfiguration to SMSP





Primary SMSP Benefits

- Improve ability to project material needs
- Improve response to emergent material needs
- Leverage buying power of the Department
- Enable planners to take advantage of world market conditions
- Use of mitigation tools to ensure timely availability of materials at a predictable cost
- Improve Department access to material demand and supply information by issuing “Alerts”



Why the Interest in Strategic and Critical Materials?



Metal Prices Recently Skyrocketed



<i>Electronics</i>	
Copper	> 500%
Tungsten	300%
Germanium	300%
Indium	300%

<i>Structure</i>	
Aluminum	250%
Titanium	600%
Chromium	500%
Manganese	350%

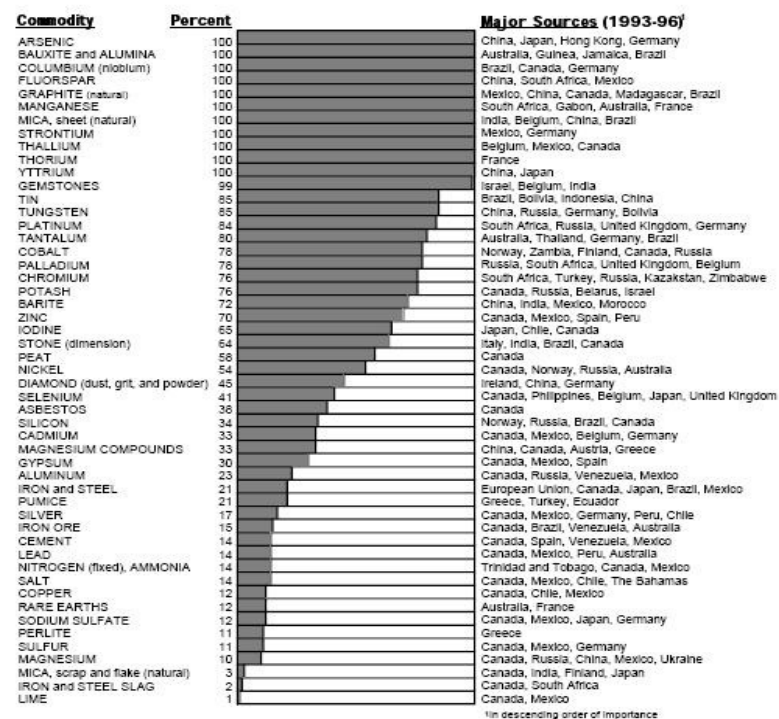
<i>Engine</i>	
Nickel	> 700%
Cobalt	325%
Molybdenum	500%
Rhenium	> 1000%

Peak price increases since January 2003



US Reliance on Imports is Expanding at an Accelerated Rate

1997 U.S. NET IMPORT RELIANCE FOR SELECTED NONFUEL MINERAL MATERIALS

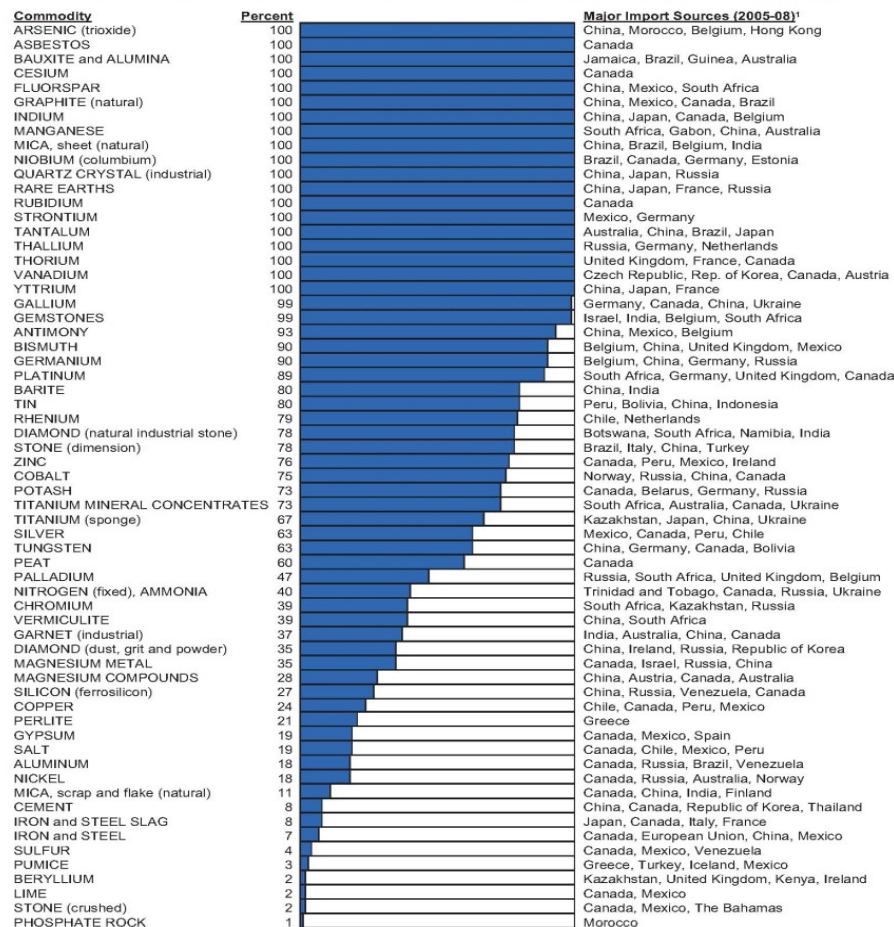


Additional commodities for which there is some import dependency but data are withheld or are insufficient to determine import-reliance levels:

Antimony	China, Mexico, Bolivia, South Africa	Mercury	Russia, Canada, Spain, Kyrgyzstan
Bismuth	Mexico, Belgium, China, United Kingdom, Canada	Rhenium	Chile, Germany, Netherlands, United Kingdom, Russia
Gallium	France, Russia, Canada, Germany, Hungary	Rutile	Australia, South Africa, Sierra Leone
Germanium	Russia, United Kingdom, China, Belgium, Ukraine	Titanium (sponge)	Russia, Japan, China, Kazakhstan
Ilmenite	South Africa, Australia, Canada	Vanadium (ferrovanadium)	Russia, Canada, Belgium, Austria
Indium	Canada, Russia, France, Italy, China	Vermiculite	South Africa, China
Kyanite	South Africa	Zirconium	Australia, South Africa

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2009 U.S. NET IMPORT RELIANCE FOR SELECTED NONFUEL MINERAL MATERIALS



¹In descending order of import share.

from USGS Mineral Commodity Summaries

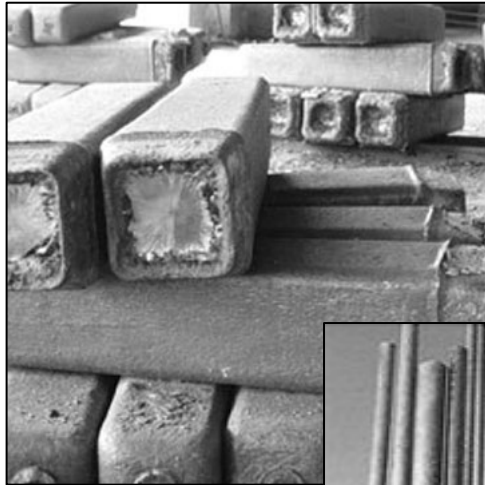


“Top Ten” Shortfall Materials

Strategic Material	Important Defense Uses
Aluminum Oxide	Abrasives
Antimony	Flame retardants; batteries
Bauxite, Refractory Grade	High temperature applications
Fluorspar, Acid Grade	Hydrofluoric acid
Manganese Metal	Wireless communications equipment
Neodymium	Magnets, lasers
Tantalum	Capacitors; super alloys
Tin	Solder, alloys
Tungsten	Cutting tools; super alloys
Yttrium	Displays and lighting



What is the Vision for the New Stockpile?





What is DLA Strategic Materials Doing?

- Moving from traditional stockpiling to acquisition support and commodity/specialty metal expertise
- Performing commodity/specialty metal risk assessments and developing risk mitigation strategies
- Assessing global marketplace and analyzing geopolitical issues for impact on availability of materials
- Continuing to collect data and market intelligence
 - On individual elements
 - On downstream manufacturing into metals, alloys, and semi-fabricated products
- Establishing relationships with key military material experts
- Consolidating DoD material requirements



Congress Is More Than Willing to Help With Strategic Materials Issues (Especially Rare Earths)

- **H. R. 1314** Resource Assessment of Rare Earths Act of 2011 (Introduced April 1, 2011),
 - To direct the Secretary of the Interior to conduct a global rare earth element assessment, and for other purposes.
- **H.R.618:** Rare Earths and Critical Materials Revitalization Act of 2011 (February 10, 2011)
 - To develop a rare earth materials program, to amend the National Materials and Minerals Policy, Research and Development Act of 1980, and for other purposes.
- **H. R. 6523** Section. 843. Assessment and Plan for Critical Rare Earth Materials in Defense Applications (Passed in House, January 5, 2010)
 - The Secretary of Defense shall undertake an assessment of the supply and demand for rare earth materials in defense applications and identify which, if any, rare earth material meets both of the following criteria: (A) The rare earth material is critical to the production sustainment, or operation of significant United States military equipment. And (B) The rare earth material is subject to interruption of supply, based on actions or events outside the control of the Government of the United States.
- **H.R. 6160:** Rare Earths and Critical Materials Revitalization Act of 2010 (Passed House September 29, 2010)
 - Create an Energy Department research and development program aimed at ensuring a long-term domestic supply of the critical materials. assed in the 111th Congress by 325-98 vote,
- **H.R. 4866:** The Rare Earths Supply-Chain Technology and Resources Transformation Act of 2010 (RESTART)
 - Reestablish a competitive domestic rare earths minerals production industry; a domestic rare earth processing, refining, purification, and metals production industry; a domestic rare earth metals alloying industry; and a domestic rare earth based magnet production industry and supply chain in the United States. Includes establishment of RE Stockpile.
- **S. 3521:** Rare Earths Supply Technology and Resources Transformation Act of 2010 (RESTART)
 - Same as above. Includes establishment of RE Stockpile.
- **H.R. 5136:** Fiscal Year 2011 National Defense Authorization Act (Proposed)
 - Required the Secretary of Defense to assess the rare earth material supply chain to determine if any of the materials were strategic or critical to national security.
- **P.L. 111-84:** Fiscal Year 2010 National Defense Authorization Act
 - Tasked GAO to assess DoD rare earth usage and risk mitigation plans.



Other Countries Who Stockpile

JAPAN

- JOGMEC –
 - Japan Oil, Gas and Metals National Corporation
 - Have maintained a materials stockpile since 1983
 - NAS report cites JOGMEC as holding 7 strategic materials
 - Chromium, Cobalt, Manganese, Molybdenum, Nickel, Tungsten, Vanadium
 - Operates as an economic stockpile has transparency
- Japanese government has set aside \$1.25 billion to help solve the current rare earth market situation for its industries including:
 - \$38 million to promote recycling
 - \$390 million in capital investments to improve its domestic rare earth industry
 - \$370 million to be put towards mining projects
 - \$180 million to guarantee debt of mining projects and to build a strategic stockpile

KOREA

- KORES –
 - Korea Resources Corporation
 - Established in 1967
 - Business activities include:
 - Exploration & development of mineral resources
 - Technological & financial support
 - Mineral stockpiling of rare metals (NOT TO BE CONFUSED WITH RARE EARTH METALS) but they're inventory includes REEs, and materials to support their economy.
 - Research and development projects
 - Operates as an economic endeavor-- Has transparency
 - KORES is able to invest in a number of projects including copper, gold, lithium, and rare earth exploration and mining projects all over the world (E.G. Chile, Bolivia, Canada, & South Korea)

- It has been shown that other countries may be creating strategic stockpiles as well although accurate information on these projects is much less transparent, these countries include:
 - China
 - India
 - Russia

It is not clear the full extent of these stockpiles but there is evidence to support they are both strategic and economic in purpose.

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