



Critical Minerals Key to India's Energy Security, Industrial Competitiveness and National Security: Union Minister Dr Jitendra Singh

Dr Jitendra Singh Says India Moves from Technology Follower to Confident Global Player; Calls for Stronger Industry-Research Partnerships and Domestic Capabilities

Dr Jitendra Singh Says India Must Combine Domestic Resources with Global Partnerships to Build Resilient Value Chains

Dr Jitendra Singh Calls for Whole-of-Nation Approach to Secure India's Strategic Materials and Technology Future

Dr Jitendra Singh Pushes for Early Industry Linkages to Turn Research and Innovation into Commercial Success

Posted On: 11 SEP 2026 3:53PM by PIB Delhi

India is no longer a country that waits for others to experiment and then follows their success; it is now confident of shaping its own global role in emerging technologies, Union Minister of State (Independent Charge) for Science & Technology, Earth Sciences, and MoS in the Prime Minister's Office, Personnel, Public Grievances and Pensions, Atomic Energy and Space, Dr. Jitendra Singh said today. Critical minerals are key to India's Energy security, Industrial competitiveness and national security, he asserted.

The Minister said critical minerals and metals will be a driving component of the next phase of technological development, with their importance extending beyond mining to energy security, industrial competitiveness and national security.

Dr. Jitendra Singh was delivering the keynote address at the Special Plenary of the 3rd Global Summit on Advanced Materials, Critical Minerals, & Metals, organised by the Confederation of Indian Industry (CII) at Silver Oak Hall, India Habitat Centre, New Delhi. The summit, themed "Building Resilient Value Chains for a Sustainable and Competitive Future," brought together government, industry, research and international stakeholders.

Dr. Jitendra Singh said the global economy is undergoing a paradigm shift, with clean energy, electric mobility, semiconductors, telecommunications, aerospace, defence and nuclear energy emerging as major drivers of technological and industrial transformation. India, he said, is now participating in this global discourse with much greater confidence and is preparing to assume a larger global role.

He said the changing technological landscape makes it imperative for India to build capabilities across the entire value chain of critical minerals and advanced materials—from exploration and extraction to refining, processing, engineering and manufacturing. Domestic resources will have to be combined optimally with international resources, while indigenous technologies and globally competitive benchmarks are developed simultaneously.

Dr. Jitendra Singh said advanced materials and critical minerals require a whole-of-government and whole-of-nation approach, with industry being an integral partner. India has to pursue global strategies and international partnerships while strengthening its domestic technological capabilities, he said.

Referring to the government's approach towards strategic sectors, the Minister said India has taken significant steps to bring private industry into areas that were traditionally considered beyond its reach. He referred particularly to the opening up of the nuclear sector to private players, describing it as an important change in India's approach to strategic technology and investment.

He invited international investors and industry, including from Canada and other countries, to participate in the opportunities emerging from India's opening up of the nuclear sector. He said the new framework provides room for foreign collaboration and investment along with greater domestic participation.

The Minister also referred to the RDI Fund, saying that the initiative announced by the Prime Minister has now moved into implementation. Such initiatives, he said, can help accelerate private-sector participation in strategic areas where industry has traditionally been hesitant to invest.

Dr. Jitendra Singh called for early industry linkage with research and innovation, saying potential industry partners should be brought on board right from the beginning. This would enable research initiatives to remain aligned with market requirements and improve their prospects of becoming commercially viable. He said a healthy synergy among research, industry, government and the non-government sector is essential for sustaining startups and entrepreneurs.

He said India needs to invest heavily in research and innovation and develop a stronger culture of financial support for knowledge creation. Philanthropy for research is an area where India can do much more, he said, urging industry and leading business houses to recognise research as an important form of philanthropy that contributes to the larger welfare of humanity.

Dr. Jitendra Singh also referred to India's experience of using steel slag for road construction as an example of how collaboration between government and industry can turn what was earlier regarded as waste into a productive resource. He said the experience reinforces the principle that there is virtually no waste when materials are approached through innovation and appropriate technology.

The Minister set out five broad priorities for India's strategic technology and materials ecosystem: heavy investment in research and innovation; building domestic capabilities to strengthen energy security; deeper partnerships among stakeholders; global and recycling models; and a stronger culture of philanthropy for research.

He said building domestic capabilities is particularly important for energy security as the world moves towards cleaner and greener sources of energy. India must reduce vulnerabilities arising from external dependence while preparing its industries and technologies for the requirements of a changing global energy landscape.

Dr. Jitendra Singh said India is at an important stage in its technological journey, with opportunities emerging across advanced materials, critical minerals, nuclear energy, space and other strategic sectors. "We are now much, much more confident" about India's ability to assume a global role, he said, adding that the best is yet to come.

Calling for partnerships built with the highest degree of integrity, Dr. Jitendra Singh said India's next phase of growth in strategic technologies and materials will depend on government, industry, researchers, startups, investors and international partners working together as equal stakeholders in the country's technological journey.





NKR/AK/NM

(Release ID: 2309144) Visitor Counter : 968
Read this release in: Urdu , हिन्दी , Tamil