

# U.P.S.C.

Explain the various risks that need to be mitigated effectively for robust energy security in the country (200 words)

- The IEA defines energy security as the uninterrupted availability of energy resources at an affordable price

Challenges to build resilient mineral supply chains

1. Concentration of reserve in geopolitically sensitive regions or regions that fare poorly in ease of doing business
2. Production controlled by geostategic competitors  
example: China's dominance in cobalt mining in Democratic Republic of Congo
3. Offtake agreement in future mining.

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Steps taken by the Government

Establishment of Khanyi Bedesh India Ltd.  
(KABIL) in 2019.

- ↳ Mandated to ~~supply~~ secure mineral supply for domestic market
- ↳ sourcing of strategic minerals

Risk that need to mitigate to build Resilient mineral supply chain

- (1) figure out the mineral requirements of the domestic industry
  - 1.1 → Creating five-year road maps with clear targets for deployment
  - 1.2 → determine the quantities of minerals necessary to support indigenous manufacturing
2. Coordinate with domestic industries to determine govt. role
  - 2.1 KABIL could collaborate with industry for tracking global supply side developments
  - 2.2 Pvt. sectors should be encouraged

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(३) KABIL should pre-emptively sign offtake agreements with global minerals suppliers.

(४) The govt should jointly invest in mining assets with geo-strategic partners.

(५) Support technologies that utilize domestically available materials.

(६) Develop policies on urban mining aimed at recycling mineral inputs that have been used.

India must act immediately and decisively to mitigate the risks to its energy security.