

Date: 01 Oct 2024

## Having private participation in India's nuclear energy

(The Hindu, 01-10-24)

**Context:** Government announced expansion of the nuclear energy sector in July 2024 budget and proposed partnerships with private sector for research and development of small reactors

- Aimed at achieving 500 Gigawatts of non-fossil fuel-based energy generation by 2030

### What are the merits of having private partnerships in expansion of nuclear energy sector?

- Private partnerships could **attract significant capital** (estimated \$26 billion) to the sector,
- Private sector involvement could potentially **speed up project timelines**, helping India meet its ambitious clean energy goals more quickly.
- Private participation might improve operational efficiency and **potentially reduce costs** in the long run.
- Partnerships could lead to **knowledge transfer** and skill development in the nuclear energy sector, creating a more **robust workforce**
- Collaboration between public and private entities could **boost R&D efforts**, potentially leading to breakthroughs in nuclear technology.
- Private sector involvement might help India become more competitive in the global nuclear energy market.

### What are the key legal and regulatory challenges facing private participation in India's nuclear sector?

- Atomic Energy Act (AEA) 1962 restricts nuclear energy production to the central government
  - Supreme Court also dismissed a petition that had challenged restrictions on private involvement in nuclear energy production
- Pending litigation on Civil Liability for Nuclear Damage Act (CLNDA) 2010 constitutionality creating uncertainty
- Atomic Energy (Radiation Protection) Rules, 2004, grants Atomic Energy Regulatory Board (AERB) authority over radioactive technology. But concerns about its lack of independence persist
- Nuclear Safety Regulatory Authority Bill 2011 aimed to address AERB issues but was not enacted
- Significantly higher standards of liability with nuclear infrastructure.

### What potential solutions are proposed for enabling private sector participation?

- Public-private partnerships with 51% government ownership to align with existing laws
  - Such entities with a majority government stake would also be covered under Section 2(h) of the Right to Information Act (RTI) Act, ensuring transparency
- Reforms to AERB's structure and functions
- Programs by NPCIL and DAE to encourage private participation while maintaining oversight

*Can you answer the following question?*

*Critically examine the challenges and opportunities in expanding India's nuclear energy sector through private participation.*

## India's 'silver dividend', challenge to opportunity

(The Hindu, 01-10-24)

Context: India's aging population and the challenges and opportunities it presents.

### What are the key challenges facing India's elderly population?

- Rising health-care consumption, estimated at \$7 billion
- Three-quarters of the elderly have at least one chronic ailment
- A quarter have limitations in daily living
- A third display depressive symptoms and low life satisfaction
- Economic insecurities compound health issues

### What reforms are suggested to address the needs of the elderly?

- Multi-sectoral approach involving health, social, economic/financial, and digital domains
- Improving health literacy among the elderly and caregivers
- Expanding tele-consultation services and enhancing skilled workforce for elderly care
- Establishing peer support groups and sensitizing the community about elderly needs
- Introducing innovative financial schemes and insurance products for the elderly
- Promoting digital adaptation among the elderly

### How can the growing elderly population be viewed as an economic opportunity?

- The "silver economy" is estimated at ₹73,082 crore and expected to grow
- Elderly will constitute a major consumer segment, often characterized as wealthy
- Health-care consumption is about a third of their entire consumption
- Potential for innovation in health technology and utility infrastructure for age-related limitations
- Government initiatives like SACRED portal and SAGE program to support elderly employment and care products

*Can you answer the following question?*

*Discuss the challenges and opportunities presented by India's growing elderly population.*

తెలుగు