

INDIA'S NUCLEAR LAW REFORMS: INTERNATIONAL RELATION

NEWS: Should India amend its nuclear energy laws?

WHAT'S IN THE NEWS?

India is considering amending its nuclear liability laws to allow private and foreign participation in nuclear energy, aligning with global norms to attract investment. However, concerns remain over diluted safety standards, supplier liability, and erosion of strategic self-reliance.

India's Nuclear Liability Framework and Proposed Reforms

Context

- India is currently discussing amendments to its **nuclear liability framework** to allow **private companies** to build and operate nuclear power facilities.
- Objective: Scale up **clean energy capacity**, attract foreign investment, and accelerate nuclear power expansion.

What is a Nuclear Liability Law?

- A **nuclear liability law** defines:
 - Responsibilities of various parties in case of a **nuclear accident**.
 - **Compensation mechanisms** for victims.
 - **Financial security requirements** to cover potential damages.
- Purpose:
 - Ensure **timely compensation** for victims.
 - Clearly define **legal liability** and responsibilities for damages.

Current Nuclear Liability Framework in India

- **Civil Liability for Nuclear Damage Act (CLNDA), 2010:**
 - Enacted in response to **Bhopal Gas Tragedy** concerns.
 - Provides for **strict and no-fault liability** of nuclear plant operators.
 - Operator is liable for up to **₹1,500 crore**; beyond this, the **government steps in**.
 - **Supplier liability** introduced—suppliers can be held responsible for **defects or negligence**, unlike many international norms.
 - **Time limits:**
 - 10 years for **property damage** claims.
 - 20 years for **personal injury** claims.

- **Proposed Amendments to CLNDA:**
 - Cap supplier liability to **contract value**, not unlimited liability.
 - Align with **global norms** (e.g., CSC) to attract **foreign reactor vendors**.
- **Atomic Energy Act (AEA), 1962:**
 - Governs **nuclear energy development** in India.
 - Currently allows only **government-controlled operations**.
 - Private participation limited.
 - In 2019, an **insurance pool** of ₹1,500 crore was created, but it failed to attract foreign investment.
- **Proposed Amendments to AEA:**
 - Allow **private companies** to build, own, and operate nuclear reactors.
 - Establish an **independent Atomic Energy Regulatory Board (AERB)** separate from DAE.
 - Currently, only **NPCIL** and **BHAVINI** (both government-owned) can operate nuclear plants.

Need for Reforms in Nuclear Energy Laws

- **Clean Energy Goals:**
 - Aim to increase **nuclear power capacity from 8 GW to 100 GW by 2047** to meet growing demand.
 - Critical for powering **AI/data centers** and achieving **net-zero targets**.
- **Slow Progress in Nuclear Expansion:**
 - Despite the **2005 Indo-US nuclear deal**, India's nuclear sector has failed to attract expected foreign investment.
 - Strict liability laws have deterred companies like **Westinghouse, Areva, Rosatom**.
- **Government Monopoly:**
 - Limited **private sector participation** has constrained capacity growth.

Arguments Against Proposed Amendments

- **Undermining Self-Reliance:**
 - Diluting the **AEA and CLNDA** may make India dependent on **foreign technology**.

- Risks sidelining India's indigenous progress in **PHWRs** and **thorium research**.
- **Erosion of Supplier Liability:**
 - Current law ensures accountability of suppliers for **defects or negligence**.
 - Capping liability lets foreign firms **avoid full responsibility** in case of accidents.
- **Compromised Nuclear Safety:**
 - **AERB** lacks full independence; functions under **DAE**, creating a conflict of interest.
- **Lack of Technology Transfer:**
 - Foreign firms may sell reactors but retain **core technologies**.
 - Limited gains for India in terms of **indigenous capability building**.
- **Ethical and Legal Concerns:**
 - Weaker liability provisions may result in **lower compensation** for accident victims.

Impact of Proposed Amendments on Nuclear Sector

- **Boost to Foreign Investments:**
 - Aligning CLNDA with international standards will encourage **U.S. and French companies** to invest.
- **Breakthrough in Pending Deals:**
 - Will help revive long-stalled nuclear contracts signed over a decade ago.
- **Expansion of Nuclear Capacity:**
 - Key to reducing **fossil fuel dependence** and achieving **clean energy goals**.
- **Enhanced Private Sector Participation:**
 - Enables greater participation from **domestic and international private players**.

Atomic Energy Regulatory Board (AERB)

- Established in **1983** under the **Atomic Energy Act, 1962**.
- Mission: Ensure that **ionizing radiation and nuclear energy** are used without **undue risk** to human health and the environment.
- Regulates **industrial safety** in **DAE units**.
- Administers the **Factories Act, 1948**, for nuclear energy establishments.

Conclusion

- Amending India's nuclear laws can potentially unlock **private and foreign investment**.
- However, challenges remain regarding **liability structures, technology transfer, and economic feasibility**.
- The shift must balance **energy security, public safety, and strategic autonomy**.

International Conventions on Nuclear Liability

- **Vienna Convention on Civil Liability for Nuclear Damage (1963):**
 - Adopted under the **IAEA framework**.
 - Places **exclusive liability** on nuclear operators.
 - Ensures **swift compensation** and requires mandatory **financial security**.
 - India is **not a signatory**.
- **Convention on Supplementary Compensation for Nuclear Damage (CSC), 1997:**
 - Adopted in **1997**, came into force in **2015**.
 - Provides **additional compensation funds** beyond national limits.
 - Promotes **international cooperation** and **uniform liability rules**.
 - India **ratified CSC in 2016**, aligning CLNDA with global norms.

Source: <https://www.thehindu.com/opinion/op-ed/should-india-amend-its-nuclear-energy-laws/article69662033.ece>