



## Reforming Civil Liability for Nuclear Damage Act, 2010

**For Prelims:** [Civil Liability for Nuclear Damage Act, 2010 \(CLNDA 2010\)](#), [Convention on Supplementary Compensation \(CSC, 1997\)](#), [International Atomic Energy Agency \(IAEA\)](#), [Small Modular Reactors \(SMRs\)](#), [Atomic Energy Regulatory Board \(AERB\)](#). —

**For Mains:** Provisions, challenges and need to reform India's Civil Liability for Nuclear Damage Act, 2010, Steps needed to reform CLNDA 2010.

[Source: TH](#)

### Why in News?

India is considering easing [Civil Liability for Nuclear Damage Act, 2010 \(CLNDA 2010\)](#) to reduce **accident-related penalties on suppliers**, addressing foreign firms' concerns over **unlimited liability**. The step aims to **revive stalled nuclear projects** and advance **India's clean energy targets**.

### What is Civil Liability for Nuclear Damage Act, 2010?

- **About:** The **Civil Liability for Nuclear Damage Act (CLNDA), 2010** is India's nuclear liability law ensuring **compensation for victims** and defining **responsibility for nuclear accidents**.
  - It aligns with the [Convention on Supplementary Compensation \(CSC, 1997\)](#), adopted post-**Chernobyl** to set global minimum compensation standards; **India ratified CSC in 2016**.
    - It follows the nuclear liability principles of the **Vienna Convention 1963**, **Paris Convention 1960**, and **Brussels Supplementary Convention 1963**.
  - The Act imposes **strict, no-fault liability** on operators, caps operator liability at **Rs 1,500 crore**.
    - If damage claims **exceed Rs 1,500 crore**, the CLNDA expects the government to intervene.
    - The **government's liability is capped** at the rupee equivalent of **300 million [Special Drawing Rights \(SDRs\)](#)**, roughly Rs 2,100 to Rs 2,300 crore.
  - The Act also establishes a **Nuclear Damage Claims Commission** to ensure fair compensation and **resolve conflicts**.
- **Supplier Liability:** India's **CLNDA is unique** as it introduces **supplier liability** under **Section 17(b)**, enabling operators to seek recourse against suppliers—unlike global frameworks like the **CSC**, which place liability solely on the operator.
  - Unlike **CSC**, which allows recourse only for **contractual breaches** or **intentional acts**, **CLNDA** broadens supplier accountability to cases where a **nuclear incident results from a supplier's or their employee's act**, including the **supply of defective equipment, materials, or sub-standard services**.

### What is the Convention on Supplementary Compensation for Nuclear Damage

## (CSC), 1997?

- **About:** The **Convention on Supplementary Compensation for Nuclear Damage (CSC)** is an **international treaty** established in **1997** under the [International Atomic Energy Agency \(IAEA\)](#) to create a **global liability regime** for **nuclear damage**.
  - It **supplements existing national and international compensation mechanisms** by providing **additional funds** in case of a **major nuclear accident**.
- **Eligibility for Membership:**
  - **Primary Eligibility Criteria:** The **CSC** is open to all **IAEA member states** and to countries that are parties to either the **Vienna Convention on Civil Liability for Nuclear Damage (1963)** or the **Paris Convention on Third Party Liability in the Field of Nuclear Energy (1960)**.
  - **Special Case (Non-Party States):** A country not party to the **Vienna** or **Paris Conventions** (e.g., **India**) can join the **CSC** if its **national nuclear liability laws align with CSC principles** and it **declares compliance at the time of ratification**.
- **India's Participation in the CSC:** India signed the **CSC** in 2010 based on its **Civil Liability for Nuclear Damage (CLND) Act, 2010**, and ratified it in **2016**, becoming a **State Party** despite not being part of the **Vienna** or **Paris Conventions**.

## What are the Key Concerns Regarding the Civil Liability for Nuclear Damage Act, 2010?

- **Supplier Liability Concerns:** Foreign and domestic suppliers fear **unlimited liability** due to **unclear insurance rules, ambiguous "nuclear damage" definition**, and the risk of **civil suits under Section 46 of CLNDA**.
  - While the government claims alignment with **CSC**, experts note that **Section 17(b)** still exposes suppliers to lawsuits for **defective equipment** or **intentional acts**, deepening liability concerns.
- **Deterring Foreign Investment in India's Nuclear Sector:** India's nuclear liability laws were initially seen as an **obstacle to the implementation of nuclear deals** with countries like the United States.
  - Critics argue that the **liability clauses and restrictions** may hinder foreign investments and collaborations in the nuclear energy sector, especially when compared to **international frameworks** like the Convention on Supplementary Compensation for Nuclear Damage (CSC), which has **broader provisions**.
- **Challenges to India's Clean Energy Goals:** The **CLNDA 2010 liability clause** has hurt **investor confidence**, created **uncertainty**, and slowed **nuclear energy growth** in India, crucial for the **500 GW non-fossil fuel target by 2030**.
  - With nuclear power contributing just **3% of total power**, delays in projects like **Jaitapur (9.6 GW)** are hindering **decarbonization efforts**.

## What Measures can be Adopted to Revamp Civil Liability for Nuclear Damage (CLND) Act, 2010?

- **Legislative Reforms:** Amend **Section 17(b)** to **limit supplier liability** to cases of **intentional wrongdoing or gross negligence**, aligning it more closely with international norms. This would help **alleviate concerns** over unlimited liability and **encourage foreign suppliers** to participate in the nuclear sector.
  - Also, amend the **Atomic Energy Act** to enable **private sector participation**, especially in [Small Modular Reactors \(SMRs\)](#).
- **Financial Safeguards:**, and create an **international insurance consortium** to address supplier liability concerns.
  - Additionally, explore **alternative funding models** like **nuclear risk-sharing funds** to reduce the burden on taxpayers.

- **Diplomatic & Bilateral Solutions:** India could **sign intergovernmental agreements (IGAs) with key partners (US, France, Japan)** to clarify liability terms and set up a **dispute resolution mechanism** for cross-border claims, while using **diplomatic assurances** to revive stalled projects like **Jaitapur** and **Kovvada**.
- **Strengthening Regulatory & Safety Framework:** Strengthen the role of independent regulatory bodies like the **Atomic Energy Regulatory Board (AERB)** to ensure rigorous oversight of **nuclear safety, operations, and adherence to standards** and mandate **third-party safety audits** for all nuclear plants to ensure stringent safety standards.
  - Fast-track **nuclear disaster response protocols** to strengthen **public confidence** in nuclear energy.
- **Offer Financial Incentives to Encourage Investment:** Provide **tax incentives** and **subsidies** for nuclear energy investments with **risk mitigation measures** to boost **private participation** and accelerate **nuclear power growth** in India.
  - Consider introducing **low-interest loans or grants** for nuclear power projects to ensure that the **costs of insurance and risk management** don't deter investments.

### Status of India's Nuclear Energy Sector:

- As of May 2023, nuclear energy contributes **1.6% to India's energy generation**, with plans to grow from **7.5 GW to 100 GW by 2047**, aiming to supply **25% of electricity by 2050**.
- Key developments like the **Fast Breeder Reactor** at Kalpakkam highlight India's growing nuclear capabilities. The **2025-26 Budget** allocates **Rs 20,000 crore for Small Modular Reactors (SMRs)**, with five indigenously designed SMRs planned by 2033.
  - India has **22 operational nuclear reactors**, all run by **NPCIL**, with over a dozen new projects planned, but key ventures like **Jaitapur (France's EDF)** and **Kovvada (US firms)** remain stalled due to liability concerns.

## Conclusion

It is high time that India must reform the **Civil Liability for Nuclear Damage (CLND) Act, 2010** to align with **global nuclear liability norms**, easing **supplier concerns** while ensuring **victim compensation**. By expanding **insurance pools**, and strengthening **bilateral agreements**, India can revive **stalled projects**, attract **foreign investment**, and advance its **clean energy goals** without compromising **safety** or **accountability**.

### Drishti Mains Question:

Examine the need to reform India's Civil Liability for Nuclear Damage Act, 2010. How can India balance supplier liability concerns with its nuclear energy expansion goals?

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### Prelims

#### Q. Consider the following statements: (2017)

1. The Nuclear Security Summits are periodically held under the aegis of the United Nations.
2. The International Panel on Fissile Materials is an organ of the International Atomic Energy Agency.

#### Which of the statements given above is/are correct?

(a) 1 only

- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

**Ans: (d)**

**Q. In India, why are some nuclear reactors kept under “IAEA safeguards” while others are not? (2020)**

- (a) Some use uranium and others use thorium
- (b) Some use imported uranium and others use domestic supplies
- (c) Some are operated by foreign enterprises and others are operated by domestic enterprises
- (d) Some are State-owned and others are privately owned

**Ans: (b)**

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### **Mains**

**Q.** With growing energy needs should India keep on expanding its nuclear energy programme? Discuss the facts and fears associated with nuclear energy. (2018)

**Q.** Give an account of the growth and development of nuclear science and technology in India. What is the advantage of the fast breeder reactor programme in India? (2017)

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