



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)

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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