India–Australia Uranium Deal

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Why in News?

Recently, India has secured a long-term uranium supply deal with Australia, nearly 12 years after the Civil Nuclear Cooperation Agreement.

Agreement Highlights

- **Nature –** Long-term supply of uranium oxide (yellowcake).
- **Comparative Deals –** Similar agreements signed with Canada and Kazakhstan earlier in 2026.
- **Objective –** Diversify and secure fuel supplies for India's expanding civil nuclear power capacity.

India's Nuclear Power Ambitions

- **Target –** Expand civil nuclear capacity to 100 GWe by 2047.
- **Current Capacity –** 8.7 GWe, of which domestic uranium reserves meet only 2.4 GWe.
- **Private Participation –** Civil nuclear sector opened to greater private involvement in 2025.

Domestic Uranium

- **Reserves –** 4.3 lakh tonnes across 47 deposits in Andhra Pradesh, Telangana, Jharkhand, Meghalaya, Rajasthan, Karnataka, Chhattisgarh, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Maharashtra.
- **Uranium Corporation of India Ltd (UCIL) Role –** UCIL mines and processes ore
- **Major mines –** Jaduguda, Turamdih – Jharkhand and Tummalapalle – Andhra Pradesh.
- **Challenge –** Domestic ore is poor grade and processing costs 3–4 times higher than imports.
- **Imports –** Since NSG waiver (2008), India imported uranium (2008–2025),

mainly from Russia, Uzbekistan, with future supplies from Canada, Kazakhstan, Australia.

PHWRs – Use natural uranium (domestic + imported) and LWRs – Require imported enriched uranium.

Quick Facts

• **NSG (Nuclear Suppliers Group) –** An elite 48-nation export control regime regulating nuclear materials, reactors, and dual-use technologies to prevent proliferation.
• **NPT (Non-Proliferation Treaty) –** Treaty that restricts nuclear trade to signatories; India is not a member; hence the waiver was crucial.
• **NSG Waiver (2008) –** A landmark exemption allowing India to join global civil nuclear trade despite not signing the NPT.
• **Yellowcake –** Concentrated uranium oxide, intermediate product in processing.
• **IAEA –** International Atomic Energy Agency, promotes peaceful nuclear use and safeguards.

Reference

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