

Japan reverses nuclear phaseout plan adopted after Fukushima

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What's in today's article?

- Nuclear Power in India – About, nuclear energy generation in India
- News Summary

Why in News?

- Recently, Japan adopted a new policy promoting greater use of nuclear energy to ensure a stable power supply amid global fuel shortages and to reduce carbon emissions.

- This is a major reversal of its phase-out plan following the Fukushima nuclear disaster.
 - It was a nuclear accident in 2011 at the Fukushima Daiichi Nuclear Power Plant in Ōkuma, Fukushima, Japan.
 - Following a major earthquake, a 15-metre tsunami disabled the power supply and cooling of three Fukushima Daiichi reactors, causing a nuclear accident beginning on 11 March 2011.

About Nuclear Power in India

- Nuclear power is a clean and environment friendly base load source of electricity generation, which is available 24X7.
- It also has a huge potential and can provide the country long term energy security in a sustainable manner.
- Keeping these in mind, India has a largely indigenous nuclear power programme.

What is the nuclear energy generation capacity of India?

- India currently operates 22 nuclear reactors, with a total capacity of more than 6.7GW.
 - Besides these 22 reactors, the Indian government is currently building 8 reactors with 3 proposed (total 11), with a total capacity of 8.7GW.
 - The public sector entity, Nuclear Power Corporation of India (NPCIL), is responsible for designing, building, commissioning and operating nuclear power reactors in the country.
 - NPCIL operates under the Indian government's Department of Atomic Energy (DAE).
- In 2021, about 3.2 percent of the domestic production of electricity in India was derived from nuclear energy.
 - Following thermal, hydroelectric and renewable sources and gas, nuclear is the fifth-largest production source of electricity in India.
- India has planned to increase the nuclear power capacity to 22,480 MW by 2031.



Image Caption: Location of nuclear plants in India

News Summary

- Japan adopted a plan to extend the lifespan of nuclear reactors, replace the old and even build new ones.
- The new policy says Japan must maximise the use of existing nuclear reactors:
 - by restarting as many of them as possible and prolonging the operating life of old reactors beyond their 60-year limit, and
 - by developing next-generation reactors to replace them.
- This is a major shift in a country scarred by the Fukushima disaster that once planned to phase out atomic power.

Why Japan is reversing its nuclear phaseout plan?

- The Fukushima disaster supercharged anti-nuclear sentiment in Japan and at one point led the government to promise to phase out the energy by around 2030.
- But since then, the government has recommitted to the technology, including setting a target for nuclear to make up 20-22% of the country's energy mix by the end of the decade.
 - At present, nuclear energy accounts for less than 7% of Japan's energy supply.

- In the face of global fuel shortages, rising prices and pressure to reduce carbon emissions, Japan's leaders have begun to turn back toward nuclear energy.
 - Japan seeks to achieve carbon neutrality by 2050.
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Q1) What is nuclear energy?

Nuclear energy is a form of energy released from the nucleus, the core of atoms, made up of protons and neutrons. This source of energy can be produced in two ways: fission – when nuclei of atoms split into several parts – or fusion – when nuclei fuse together.

Q2) What is the fuel for nuclear energy?

Uranium is the most widely used fuel by nuclear power plants for nuclear fission. Nuclear power plants use a certain type of uranium—U-235—as fuel because its atoms are easily split apart.

Source: [Japan reverses nuclear phaseout plan adopted after Fukushima](https://vajiramandravi.com/current-affairs/japan-reverses-nuclear-phaseout-plan-adopted-after-fukushima/)

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