

Which countries in South Asia are ready for nuclear power?

Electricity demand across South Asia is projected to triple by 2050, rising from 2,100 TWh in 2022 to 8,260 TWh, accounting for 22% of the total global increase. Here's an overview of nuclear readiness in South Asia, based on the latest <u>global market map</u> for advanced nuclear by Third Way and the Energy for Growth Hub.

1. Pakistan: Ready now (dark green)

Pakistan has six operating commercial nuclear power plants with a total capacity of 3,500 MW.

A <u>seventh</u> — the country's largest — under construction and expected online by 2030. All projects are supported by Chinese funding.

- Nuclear <u>accounted</u> for 6% of energy consumption in 2023, up from 2.5% in 2020, and 14% of electricity production. Nuclear's consumption share is already higher than wind and solar combined, although this could shift with <u>ongoing solar developments</u>.
- China <u>might transfer</u> its technological expertise on small modular reactors (SMRs) to Pakistan.

2. India: Ready now (dark green)

India <u>operates</u> 22 nuclear reactors across 8 nuclear power plants, with a total installed capacity of approximately 7,000 MW. Six of these reactors at the Kudankulam Nuclear Power Plant were constructed with <u>Russian support</u>.

- In 2023, nuclear energy <u>contributed</u> 120 TWh, accounting for 1.1% of the country's total energy consumption.
- The Indian government aims to <u>triple its nuclear capacity</u> to 22,800 MW by 2031-32. It also plans to <u>partner with private firms</u> to develop a fleet of SMRs for hard-to-decarbonize industries like steel and cement.

3. Bangladesh: Ready by 2030 (light green)

Bangladesh is building its first nuclear power reactors at Rooppur, 100 miles from Dhaka, with two units scheduled for commercial operation by the end of 2025. Both units are <u>financed and</u> <u>built</u> by Russia.

• The two reactors will provide 2,400 MW of clean electricity, contributing to the <u>government's target</u> of increasing nuclear's share in electricity generation to 12% by 2041.

4. Sri Lanka: Potentially ready by 2050 (yellow)

Sri Lanka is exploring nuclear power as part of its strategy to achieve carbon neutrality in its electricity sector by 2050.

• Russia's Rosatom has <u>proposed</u> building SMRs with a capacity of 300 MW per unit and has held preliminary talks with the Sri Lankan Atomic Energy Board. If plans proceed, Sri Lanka's first nuclear power plant could be <u>operational by 2032</u>.

5. Nepal: Unlikely ready by 2050 (red)

Nepal has <u>lightly engaged</u> with the IAEA milestone process, but is unlikely to commission and operate a nuclear power plant in the next few decades.

6. Bhutan, Maldives, and Afghanistan: No progress

These three countries face significant barriers that make nuclear power development unlikely for the foreseeable future.

For more detailed information, our full <u>checklist</u> is available here.