
15 Quick Facts About Nuclear in Emerging Markets

- 1. Nuclear is not only for rich countries.** India and Pakistan started civilian nuclear programs when they were far poorer than most nuclear-aspiring countries today.
- 2. A diverse set of emerging markets are already ready.** Thirty one countries already have nuclear power today, while another 29 countries across [Africa](#), [Asia](#), and [Latin America](#) are ready or will likely be ready by 2030. An [additional 41 newcomers could be ready by 2050](#).
- 3. Next-gen technology may be especially suitable for smaller grids.** Conventional reactors are 1,000 megawatts or larger, making them costly and difficult to integrate into small grids. Next-generation small and micro reactors [may offer a more flexible option](#).
- 4. Small modular reactors are not yet commercially available.** No next generation designs by US firms are yet operational. Pilots are [still under construction](#).
- 5. Once built, nuclear power plants last a very long time.** The lifecycle of a typical nuclear power plant is 80-100 years, compared to 25-30 years for gas and solar.
- 6. Russia and China are winning the nuclear race.** They have signed [dozens of nuclear cooperation and construction agreements](#) with countries. The US is trying to catch up.
- 7. Nuclear decisions are highly geopolitical.** Russian nuclear packages come with multi-decade fuel lock-ups and other dependencies that create strategic vulnerabilities.
- 8. Nuclear power is very capital intensive.** The vast [majority of costs are incurred upfront](#) during construction, while operating and fuel costs are relatively low.
- 9. Financing constraints are starting to ease.** The World Bank and regional development banks for Asia and Latin America have all [lifted longstanding nuclear financing bans](#).
- 10. Nuclear is not an energy access solution.** Nuclear is attractive for industries and mature utilities that need large-scale, long-term energy. Nuclear is almost [never going to be a solution for first access in poor countries](#).
- 11. Hype is misleading.** Many announcements of nuclear projects are [false propaganda](#).
- 12. Nuclear energy does not equal nuclear weapons.** The fuels and technical capabilities are [entirely different](#). Facilities to convert fuel to weapons-grade are closely monitored.
- 13. Security risks are overstated.** Weaponization by rebel or terror groups is [too technically difficult to pose a real threat](#).
- 14. Spent fuel (AKA waste) is manageable.** Most of the new designs either recycle used fuel or come packaged with waste solutions.
- 15. Market success hinges on cost.** Deployment in emerging markets will ultimately depend on new reactor designs proving commercial viability and the availability of finance.