Nuclear energy concerns in India

Why in news?

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- Indian government recently approved ten new nuclear reactors.
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- These reactors deserve to be carefully appraised.
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What is the issue with India’s decision?

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- In March an US company Westinghouse, the largest historic builder of nuclear power plants in the world, declared bankruptcy creating a major financial crisis for its parent company, Toshiba.
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- The French nuclear supplier Areva went bankrupt a few months earlier and is now in the midst of a restructuring that will cost French taxpayers about €10 billion.
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- Both Areva and Westinghouse had entered into agreements with the Indian government to develop nuclear plants.
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- Areva had promised to build the world’s largest nuclear complex at Jaitapur (Maharashtra).
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- Westinghouse would build six reactors at Kovvada (Andhra Pradesh).
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- The collapse of these companies vindicates critics of these deals, who consistently pointed out that India’s agreements with Areva and Westinghouse were fiscally irresponsible.
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- Therefore, the government’s recent decision to approve the construction of ten 700 MW Pressurised Heavy Water Reactors (PHWRs) deserves to be scrutinised carefully.
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What is status of upcoming Indian reactors?

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- The first 700 MW PHWRs already under construction which was signed in 2012.
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- the 700 MW PHWRs are cheaper than imported reactors, their electricity is likely to be costly.
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- These reactors are commercially untested, since the largest PHWRs constructed so far in India are the 540 MW twin units at Tarapur.
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- There are two 700 MW PHWRs under construction at Rawatbhata (Rajasthan) and Kakrapar (Gujarat), but these have been delayed by over two years, and the government has not revealed the resultant cost increases.
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- The changed international scenario for nuclear energy, and the ongoing reductions in the cost of renewable energy all imply that these earlier plans are best abandoned.
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What are the problems with new nuclear installations?

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- The cost of electricity during the operations at the reactors is likely to be costly than the current prices.
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- The capital invested in any plant yields no returns while the plant is being constructed.
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- The new reactors promised various employment opportunity but in the present trend those promises find to be questionable.
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- The solar energy is cheaper, in comparison it is even more unfavourable to nuclear power when viewed in terms of jobs created per rupee spent.
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- Nuclear power poses its own set of threats to the environment and public health, and is therefore an inappropriate tool to mitigate climate change.
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- Nuclear waste remains an unavoidable long-term problem for the environment.
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- A single nuclear disaster can contaminate large tracts of land with radioactive materials, rendering these areas uninhabitable for decades.
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What is the way forward?

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- Local communities are keenly aware of the hazardous nature of nuclear power.
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- Since the 1980s, every new site chosen for a nuclear plant has been greeted with a protest movement.
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- The risks and costs of these reactors are borne overwhelmingly by poor rural communities, who consume only a tiny fraction of the electricity that is generated.
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- If these new projects had gone ahead, Indian taxpayers would have been left holding the bag billions of dollars of debt, and incomplete projects.
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- Nuclear power would be even less economically attractive if a methodology that consistently incorporates the time value of capital were to be used to establish tariffs.
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- The narrow escape calls not only for a hard look at the credibility of those members of the nuclear establishment who advocated these deals for a decade, but for a comprehensive revaluation of the role of nuclear power in the country’s energy mix.
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Source: The Hindu

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