

Nuclear Safety and Credibility in India

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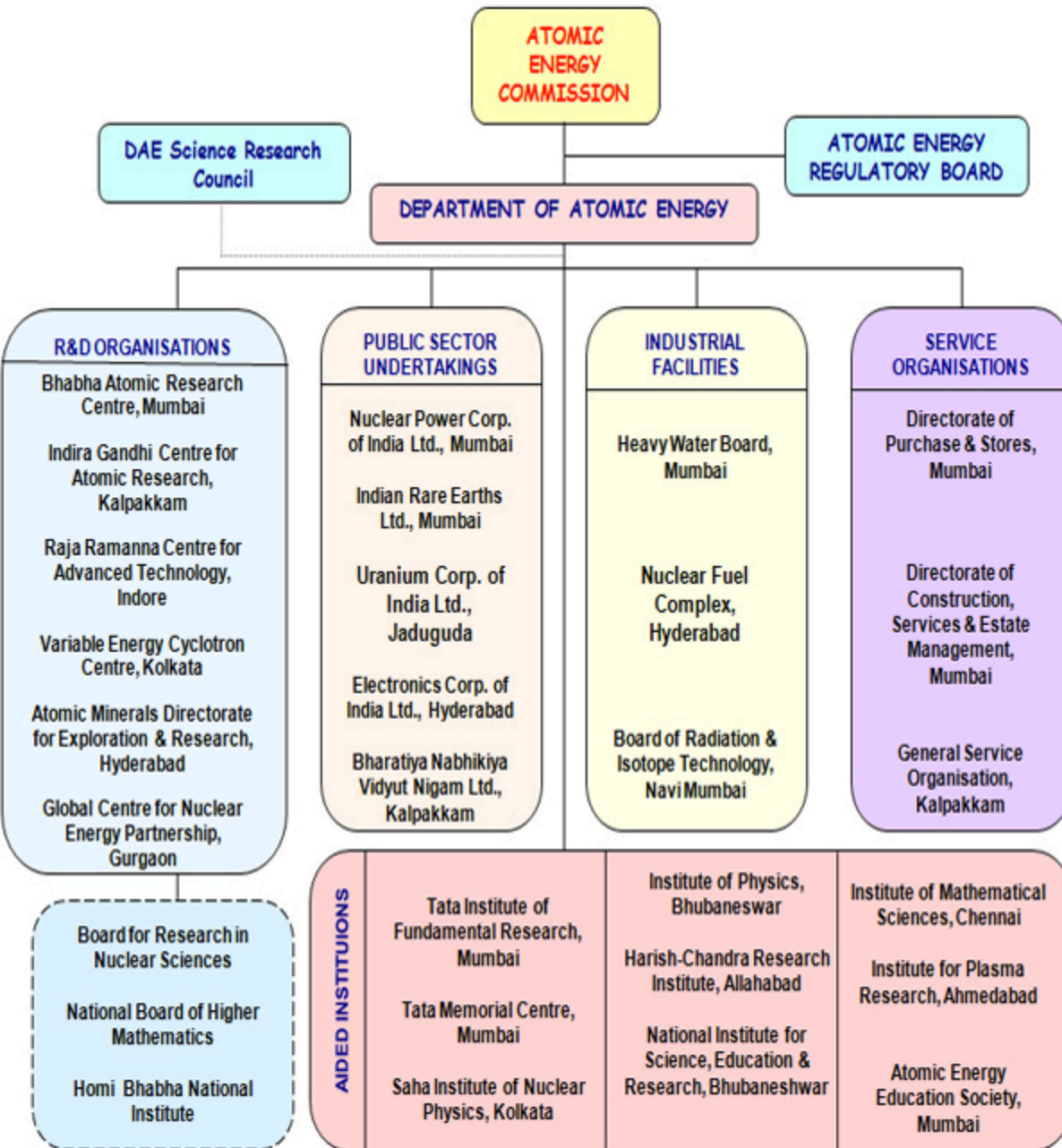
International Nuclear Energy Symposium, Tokyo, May 17-20



Nuclear safety = Accountability

- How do different actors know and trust that the Indian government has taken necessary measures, and even exceeded its duty, in ensuring the safety of its citizens?
- How can people rest assured that their health and the environment will be protected, not only if the unthinkable occurs, but also during the everyday operations of a nuclear facility?
- There are two different audiences to whom the Indian state must demonstrate its credibility: domestic and international

THE ORGANISATION



Little institutional separation between Department of Atomic Energy (DAE) and the Atomic Energy Regulatory Board (AERB)

Credibility performances for domestic audiences

- Mayapuri incident of 2010 and Fukushima of 2011 sparked national concern and prompted limited reevaluation of India's regulatory structures
- Nuclear Safety Regulatory Authority Bill of 2011 was introduced to the Indian Parliament, but has since lapsed.

Necessity to engage with citizen scientific counter-expertise

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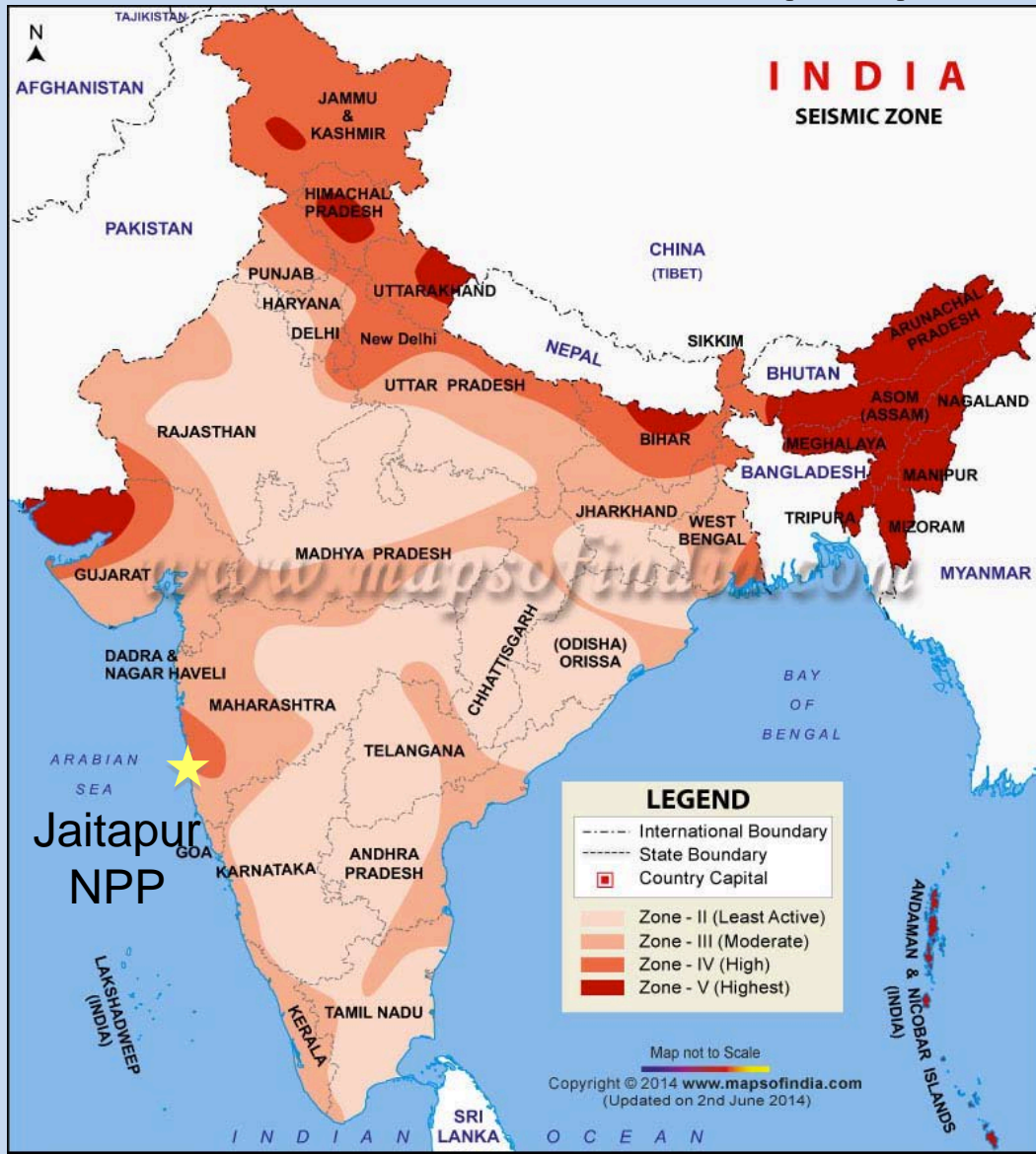
Health Survey Around an Indian Nuclear Power Plant

BY SANGHAMITRA GADEKAR, M.D.,
AND SURENDRA GADEKAR, PH.D.¹

In sharp contrast to their ingenuity in making weapons, nuclear establishments the world over do a shoddy job of assessing the health and environmental damage caused by their activities. Leave aside a proper evaluation, in some countries even necessary readings are not regularly taken. And even when some research is done, most establishments are loathe to publish whatever poor quality



Need to develop credibility with rural populations



According to nuclear official presiding over the public hearing of the Jaitapur nuclear power plant environmental impact assessment, the colors are actually inverted, with red meaning least intense.

Expectation of automatic trust in nuclear expertise

The screenshot shows the top portion of a news article on the website 'THE HINDU'. The masthead features the newspaper's name in large blue letters with a central emblem. Below it is a navigation bar with categories like Home, News, Opinion, Business, Sport, S&T, Features, Entertainment, Books, and Special. A secondary navigation bar lists regional sections: NATIONAL, ANDHRA PRADESH, KARNATAKA, KERALA, TAMIL NADU, TELANGANA, and OTHER STATES. The article's location and date are given as 'RAMGARH, HARYANA, November 10, 2011'. The main headline reads 'AEC chief puts odds of N-plant accidents at '1-in-infinity''. Below the headline is a promotional banner for Audible audiobooks. The article is attributed to 'PTI'. A social media sharing bar includes buttons for Facebook Like, Share, Tweet, Google+, LinkedIn Share, Pin it, and a generic Share button. The main image shows a man in a light-colored shirt speaking at a podium. The background banner behind him reads 'HYDRABAD BRANCH TECHNICAL MEET' and 'SUMINARY LECTURE SER'. Below the image, the name 'Banerjee, Chairman, DAE,' is partially visible.

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NEWS » NATIONAL RAMGARH, HARYANA, November 10, 2011

Updated: November 10, 2011 19:05 IST

AEC chief puts odds of N-plant accidents at '1-in-infinity'

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HYDRABAD BRANCH
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Banerjee, Chairman, DAE,
VSSC, Thiruvananthapuram

Early national leaders created a culture of scientific expertise


- Developing scientific expertise in nuclear power was central to anchoring the pursuit of development in a nation, reeling from the violence of Indian Partition and creating credibility with Indian masses.
- Leaders thought Indian masses would only be ready for genuine citizenship when they cultivated a “scientific temper.”

Changing credibility perceptions

- Now, mere proclamations of expertise no longer garner trust. Many citizens have cultivated a “scientific temper”, and some have become scientific counter-experts.
- If an Indian democracy wishes to pursue nuclear power, it must engage with citizen science.

Cultivating credibility with an international audience

- US-India nuclear deal, the first of several bilateral agreements, has prompted India to take seriously international safety standards, such as creating an independent regulatory agency.
- IAEA: “The government should embed the AERB’s regulatory independence in law, separated from other entities having responsibilities or interests that could unduly influence its decision-making...The AERB should consider increasing the frequency of routine on-site inspections at NPPs to allow for additional independent verification and more effective regulatory oversight.”
- Source: <https://www.iaea.org/newscenter/pressreleases/iaea-mission-concludes-peer-review-indias-nuclear-regulatory-framework>



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Koodankulam Nuclear Power Plant Construction, Jan 2010,

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