Catherine Mei Ling Wong
Catherine Mei Ling Wong is a PhD student at the School of Sociology, Australian National University. Her research focuses on organisational risk, safety culture and the role of technology and environment in the nuclear power sector in India.

India's nuclear programme: Trust abroad but not at home
The protests in Kudankulam will continue if the government doesn't reassess the root cause of public unrest.

Protests against the Kudankulam Nuclear Power Plant in Tamil Nadu turned violent on September 10, 2012 [AP]
Even as trust in India's nuclear power programme in the international arena grows steadily, trust on its domestic front has been eroding over the last few decades.

Since the 1-2-3 Agreement between India and the US in 2005, the UK, Canada, Russia, France, South Korea, Kazakhstan and even Namibia have signed civilian nuclear co-operation agreements with India to export uranium and nuclear technology.

Australia too, with the world's largest known uranium resource, is now in the cusp of finalising a deal to export the commodity to India.

On the home front however, it is quite a different picture. Protests against the Kudankulam Nuclear Power Plant (KKNPP) in Tamil Nadu, India's largest so far, first started in 1988 with no more than 1,000 villagers turning up at a rally in Tuticorin. This number has now snowballed to nearly 10,000 men, women and children in the most recent protests that turned violent on September 10.

The resistance has also taken many new innovative forms: From protestors submerging themselves in the Arabian Sea in emulation of the "Jal Satyagraha" activists in Madhya Pradesh, to sea-based protests that included 700 boats carrying 3,000 fishermen.

Expanding nuclear programme

Even India's own Comptroller and Auditor General's 2012 report gave a scathing review of the Atomic Energy Regulatory Board (AERB), highlighting the structural weaknesses of the regulator and its inability to ensure that safety requirements are met by the Nuclear Power Corporation of India Limited (NPCIL).

The NPCIL has also been hauled to court by anti-nuclear activists for failing to disclose the safety report for the KKNPP.

Why then, is the rest of the world so ready to trust India's nuclear establishment while its own people are ever more doubtful of the country's experts?

For one, the trust issues in international relations rarely go beyond concerns over non-proliferation and military applications of uranium and nuclear technology, and India has done well on both fronts.

But with the Fukushima disaster just over one year behind us, India's nuclear establishment has found itself confronted by the public on a large scale for the first time over the same questions of safety and regulatory capture in Japan.

In addition to that, India's nuclear programme today is expanding faster than ever before in the country's history. Since its inception in 1957, India only had small to medium sized indigenous reactors, between 100MW to 540MW. These contribute a mere 3.2 percent of India's energy mix today.

This is set to change exponentially with mega-projects like the KKNPP, which is just the beginning of an ambitious expansion programme to increase the share of nuclear power to 25 percent by 2050. This involves building large nuclear parks housing four to six reactors of capacities ranging from 1,000MW to 1,650MW.

The scale of such projects alone changes the dynamics of risk in terms of cost, impacts and human resource issues. But more importantly, unlike the early indigenous reactors made with Indian technology, these mega-projects are in collaboration with foreign companies from Russia, France and the US, which raises questions about liability.

This is where poor legislation has done greater disservice to the industry by the Civil Nuclear Liability Act of 2010, which introduced clauses to make technology suppliers responsible in the case of an accident, contrary to the international standard which places liability on the operator of the facility.

As a solution to this, the government offered Russia a waiver of the nuclear liability agreement for the Kudankulam plant, setting a precedent for negotiations with the French and US reactors too.

This not only makes a mockery of the 2010 Act, but portrays the nuclear establishment as acting more in the interests of foreign companies instead of the local population, further eroding public trust.

These recent developments - coupled with pre-existing fears about radiation and health impacts - create a feeling of risk that is not based on the lack of information, but on feelings of fairness and the lack of trust in the experts and the organisations they represent.

The explosion of protests in Kudankulam will continue and spread to the other planned mega projects if the government does not reassess the root cause of public resistance.

Environmental costs and risks

This is not about the logics of the technology, energy security or India's growth imperative, but about feelings of disempowerment, unequal access to the benefits of nuclear power and the uneven distribution of the environmental costs and risks that host communities have to bear.

But this conflict of interests is not inevitable. The reality is that both camps share common interests. Both want India to develop, modernise and strengthen its position as an emerging global power. But the contention lies in who bears...
the cost of India's growth and who enjoys the benefits.

And while a perfectly equitable world is impossible, a more attainable goal for now is to have a more equitable decision-making process that engages with all stakeholders. For this to happen, "feelings" have to be acknowledged on both sides.

On the one hand, the nuclear establishment in India needs to recognise that local community fears about radiation may be imagined, but have very real economic consequences when the fishermen are unable to sell their catch in the local market because people suspect the fish may be contaminated.

On the other hand, the local community must be patient with the technology. They need to come to terms with a "no 100 percent safe" guarantee and rather focus on working with the nuclear establishment and those with the expertise to build resilience against the risks as a joint effort.

Greater focus could be placed on local level collaboration - not just communication. The Department of Atomic Energy already has localised regulation and environmental monitoring groups in each of its plants.

Why not bring in community leaders as co-regulators at the local level? India's nuclear scientists are privy to the fact that the locals know their land better than they do. Why not consider innovative ways of integrating these spheres of knowledge into their safety systems to enhance robustness?

Finally, it is important to recognise that people develop social relations with their environment in the same way nuclear scientists attach their sense of identity to the nuclear organisation. These relations form the basis of their sense of ontological security, without which, all further plans for nuclear expansion will be perceived as a threat and be met with resistance.

Investing in infrastructure like hospitals, schools and markets help support this sense of security and is a small price to pay compared to the coffers of money spent on mobilising thousands of police to quell unarmed civilians.

It would be pointless if India succeeds in securing international uranium supply but not have the social licence to expand its nuclear programme at home. They may be able to push the project forward for now, but in a post-Fukushima era, public opinion can no longer be ignored.

The nuclear establishment is beginning to realise this and is making efforts in public outreach and communication. But meaningless knowledge transmission is like filling a glass that is already full.

By reorienting the agenda towards trust-building, the nuclear industry will not only gain the social licence to operate, but also improve resilience of the local community in partnership with the nuclear community.

Catherine Mei Ling Wong is a PhD student at the School of Sociology, Australian National University. Her research focuses on organisational risk, safety culture and the role of technology and environment in the nuclear power sector in India.

The views expressed in this article are the author's own and do not necessarily reflect Al Jazeera's editorial policy.
Nuclear energy is the way to go. I hope that India will succeed in convincing the people and making it a reality.

Many countries think otherwise, secondly India is not Japan it does not have the capabilities to face a Fukushima type disaster. I hope India makes a sensible decision.

Primarily because there is nothing quite so idiotic as building reactors on fault lines, divergence zones and upwind of large metropolitan areas.

There are a significant number of areas, and emerging nations, with uninhabitable expanses where, with an initial additional outlay of transmission infrastructure, building plants there solves many if not most of a local population's misgivings. When you look at the costs associated with testing, impact assessments, massive project delays, bribes for the locals, public resistance and the bottomless pit liabilities associated with a mishap; these initial infrastructure expenditures pale by comparison.

Have you ever visited India. Stop shooting in dark.

Oh yes...nothing like a descent into Mumbai, hitting about 15,000 foot elevation and smelling "the darkness" of what is called the Indian SUBcontinent wafting into the plane’s ventilation system. Then I hailed a cab, and counted not one, not two but literally hundreds of citizens squatting and relieving themselves on the city’s streets'.

How's that for shooting in the dark.

BTW irrational, what does that have to do with my comment that nuclear power can be safely and responsibly employed, if the will and the capital to respect all stakeholders in considered.

If Indians does not have the capabilities, then they have to build it. There is no excuse for shying away from nuclear power.
India's nuclear programme: Trust abroad but not at home - Opinion - Al Jazeera English

Like

11/4/12

there is no excuse for not licking guillotines either?

Like

Its better if you stick your nose to matters consisting of zionism only. No F**king zionist on mother INDIA.

Like

Like

Hi efbya.

Right on and well said! When India has more than 500 million people lacking essential things like electricity, running water and proper sanitation, do we need to wonder why? So then relying on nuclear energy, having nuclear power plants as well as nuclear weapons are allowed, then why are we questioning Iran exclusively, for that right? Especially when we don't have this urge to ask questions to North Korea, Israel, Russia, India and China? Kind regards.

Like

An important point to note here too is that the government has used excessive force to charging activists for treason for protesting and protecting their interests. The highhandedness of the Indian government is the other hidden costs burden on the victims in the name of national security and emerging power 'trips.'

Like

India's nuclear program shows the duplicity of the Anglo­Jews coalition to control the world through corruption, usury and nuclear weapons.

While Israel pushes USA to "prevent" Iran to acquire nuclear weapons (a signatory to the non proliferation treaty), USA provides them to a non signatory of the non nuclear proliferation treaty, namely Israel, a racist apartheid country with bad relations with the whole world but USA and UK, and also provides nuclear technology to India, another non signatory country.

This points to a clear aim designed to keep the world disarmed while they arm themselves to the teeth.

Behind the policy of "friendship" with India, is the secret and cynical intention to pit India against Pakistan, China and Russia in the expectation of provoking a nuclear war that will drastically reduce their populations...

Norberto

that besides racism and xenophobia against jews are among the oldest and most persistent. admittedly camels are newer, swimming is an even better invention.

Like

Why HINDUI people angry when they HAVE renewable source of energy called REINCARNATION????

Like

If you rationally look at the safety of nuclear energy relative to alternatives that come in high energy density blocks (kw/M2/yr) and high reliability like coal, oil, gas, hydro, nuclear looks real good. Even including Chernobyl with about 2,000 expected to be ultimately killed, Japan with 2 killed (not by radiation) and Three mile island zero killed, the safety record is far better than coal (black lung), oil (accidents, explosions, etc. -- excluding wars over oil) on an energy/human life basis (real risk).

The activists have fund raising objectives and a good emotional base for selling fear, uncertainty and doubt while avoiding a rational relative risk analysis. Emotionally, something you can't see -- radiation -- is easy to sell just like religions sell both god and the devil and extract a lot of money selling nonsense. Selling nuclear fear is even easier than selling the devil, radiation can be easily and cheaply measured at totally insignificant levels down to the atomic isotope levels.

The activists have no responsibility or liability for the deaths and destruction of the environment (including CO2 emissions and global warming) that will be created if alternatives to nuclear power are forced upon the society. Perhaps they should have
liability for the "unintended" consequences of their actions.

Thank you for your response.

MrAlGebra

You're right about the commercialization of science. It's a sad reality that money often drives decisions that prioritize profit over safety and the greater good.

Another Peter Panner has spoken

MrAlGebra

Clearly, the pursuit of commercial gains can cloud our judgment, putting profits above the well-being of humanity. Science should always be directed towards the betterment of society, not just the pursuit of profits.

another Peter Panner has spoken

MrAlGebra

Indeed, and it's important to remember that the choice of technology should be guided not only by our current desires but also by anticipating and preparing for the long-term consequences. Technology, like any tool, can be used for both good and ill, and it's up to us to make the right choices.