



Nuclear Resistance Movements in India

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The paper illustrates dynamics of nuclear resistance movements in India and how people's power rises in response to subversion of justice and suppression of human rights. The need for democratising nuclear policy runs implicit through the demands of the people protesting against nuclear programs. The paper analyses the rationale behind developing nuclear energy according to the mainstream development model adopted by the state. Whether the prevalent nuclear discourse includes people's ambitions and addresses local concerns or not is discussed by focusing on the nuclear resistance movements at five sites in India—Koodankulam (Tamil Nadu), Jaitapur (Maharashtra), Haripur (West Bengal), Mithivirdi (Gujrat) and Gorakhpur (Haryana).

Indian model of development

Emerging social movements in India since the 1980s have put to test the accepted notions of development and broadened its concept to bring in newer concerns reflecting the need of time (Sangvai 2007). The complimentary issues that these movements integrate into the mainstream concept of development include democratic and human rights, issues of justice and equality, and environmental sustainability, among others. The nuclear resistance movements have the same agenda as other new social movements as they also expand the ambit of politics by bringing



in newer and non-traditional concerns into the political sphere. Primarily, the nuclear movements across India comprise of two types of actors i.e. the local population as well as the urban interlocutors. The first type of actors is the local population comprising of the people who are residing in the vicinity of the nuclear site and are affected by its construction, presence and operation. They have very immediate concerns against nuclear energy projects but also have an ideological stand against producing nuclear energy. The other type of actors are the urban interlocutors, who are the intellectuals and nuclear activists who have a principled stand against nuclear energy and help to aggregate the aims and goals of the movement on various platforms.

The nuclear resistance movements strive to counter the established paradigm of modernism and development by bringing in alternatives that borrow from best practices of local cultures, initiatives and knowledge that are traditional but not archaic in nature. These movements formulate to show "the other side" of the development debate by demonstrating the unexpected effects that development has on people. The Indian nuclear experience gives many examples where people have risen up to question the viability of the claim of a clean, green and cheap source of energy provided by nuclear power plants. There are many human implications of nuclear power plants in the form of loss of livelihood and habitat for people residing in its vicinity, environment sustainability, and production of dangerous waste. These concerns have been brought time and again to the notice of the government. An example is the assertion that since the Koodankulam region in Tamil Nadu is naturally rich in Thorium and Monazite due to its presence in beach sand, a high level of background radiation is detected in this region (Malathi et al. 2005). Based on the higher levels of natural radioactivity, residents expressed a concern about possible contamination of the food chain if a nuclear reactor was also to be set up in the area (Srikant 2009). The presence of nuclear power plant in the region was also expected to have effect on the livelihood of people. If coolant water and low-grade waste from the reactors would be let into the sea, it was likely to impact fish production. Due to this, the fisher folk would have to go fishing in the deep sea where only those with motorised boats can venture, while majority of the fishermen that still rely on traditional methods will suffer (Raju & Ramana 2011). At various nuclear sites in the country, anti-nuclear protesters have expressed their concerns about unforeseen problems that nuclear technology would bring with it, related to health, environment and nuclear catastrophe.

The former President of India and eminent scientist, Dr. A. P. J. Abdul Kalam, co-authored a newspaper editorial after the 2011 Fukushima



Daiichi nuclear disaster, titled "Nuclear Energy is our getaway to a prosperous future" (Kalam & Singh 2011). This was an effort to exhort the nation to not allow an accident arising out of "extreme natural stresses" to derail their dreams to be an economically developed nation. The article continually highlighted the fact that economic growth in India needs massive energy. The article contends that 'energy is the most fundamental requirement of every society or nation as it progresses through the ladder of development.' Yet, this economic ladder that the 'self-centred urban middle class is so busy climbing,' according to S. P. Udayakumar, 'has its bottom rung on fire.' (Udayakumar 1999) S. P. Udayakumar is the coordinator of the group People's Movement Against Nuclear Energy (PMANE) which is an umbrella organisation, formed at Madurai on 10 November 2001 that spearheads the movement against setting up of the Koodankulam Nuclear Power Plant (KNPP). The Koodankulam project in Tamil Nadu is just one of the examples of the state's idea of development being questioned by the people from the perspective of livelihood, environment and human rights.

On its part, the Indian state has ambitiously taken up nuclear power generation to achieve "nuclear security" and "energy independence". India has an indigenous nuclear power program and expects to generate 63GW by 2032. It aims to supply one-fourth of its energy needs through nuclear power by 2050 (Mohan 2016). India is planning to expand its nuclear capacity by setting up more nuclear power plants all over the country. Post-independence, the state has adopted the Nehruvian model of development which advocates modernisation. This model promotes centralised planning and large-scale industrialisation with increased scientific and technological inputs. Even before the Nehruvian model of development came to dominate the public policy making, Homi Jehangir Bhabha visited the Tata Institute for Fundamental Research (TIFR) in 1945 with a view to recruit young scientists in the service of the country as nuclear energy was beginning to be seriously considered as an alternative to the other scarce energy sources (Srikant 2009).

This is reflected even at the beginning of India's nuclear program in the 1970s, when it was launched with the twin objectives of defence and development. During the international oil crisis of 1973, India realised the need to move towards new forms of energy like nuclear, so as to meet the future industrial demand, while also safeguarding against the anticipated shortfalls in fossil, thermal and hydel sources of energy (Thomas 1986). However, it is possible that the path of development need not coincide with development of nuclear energy as some of the developed countries are in fact rolling back, shutting down or phasing out their nuclear energy production due to fear of nuclear disasters,



ethical concerns or problem of radioactive waste management (Simpson & Fairlie 2016).

Simultaneously, there has been an undercurrent of people in the country who have raised their voices in opposition to expanding nuclear sector. Scholars have reflected that the emergence of the anti-nuclear movement in India was affected majorly by two incidents. First, the success of the Chipko Movement in 1970s which inspired other mass movements on similar lines; and second, the Bhopal gas tragedy in the 1980s that raised concern over industrial safety hazards. There are two streams to the nuclear resistance movement. The first is urban based which addresses the issue of nuclear bomb and is taken up by the mainstream media. The second is rooted in the livelihood of people, threat of displacement and harmful radiation from the power plant.

The argument about energy needs leading to a compulsion to promote nuclear energy has been time and again refuted by environmentalists in view of other environmental concerns that follow the establishment of nuclear energy power plants. The role of civil society seems to be limited in nuclear safety related provisions and policies. While civil society activists often raise alarm on the apathetic state of nuclear safety in the country, yet there are counter claims of adequate safety by the authorities, who harbour a tendency to understate the hazards of nuclear energy. Our scientific community, in fact, seems oblivious to some obvious dangers associated with nuclear plants. Dr. Srikumar Banerjee, the former Director of Bhabha Atomic Research Centre (BARC), called the hydrogen explosion at Fukushima Daiichi Nuclear disaster in Japan in March 2011 'a purely chemical reaction, not a nuclear emergency.' (Bidwai 2011) Environmental networks worry that contrary to claims that it is cheap and green, nuclear energy is likely to impose terrible health risks and deter us from developing other sustainable alternatives.

As an alternative to a centralised system like a nuclear power plant, decentralised power systems could be established like biogas, mini hydel, wind and solar energy, which would ensure greater people's participation and make the local communities self-reliant. In other words, the Gandhian model of development marked by less technological development and greater decentralisation (Srikant 2009), for instance, could serve as an alternative to mainstream development model.

The Gandhian model of development contains the principle of *Sarvodaya* which means the welfare of all; and by underlying welfare for all, it rejects the utilitarian principle of greatest good for greatest number. It does so by emphasising equally on rights, duties and equalities (Ghosh 2007). It intricately links human rights with human duties where, in the



absence of human duties, human rights lose their viability in the long run. Gandhi harboured deep scepticism (Nataraj et al. 2005) for the "all powerful" state which is centralised and bureaucratic; which insists on the virtues of homogeneity and uniformity; and which holds monopoly over violence. While trying to minimise exploitation, the state kills individuality which should be at the core of any progressive discourse. Therefore, Gandhi imagined self-governing units that promote community identity and self-sustainability.

Not only have scholars questioned the massive energy projections by the Indian state but also the path to achieve it. A study by Mathai (2009) employs DEFENDUS (development focused, end-use oriented, service-directed) approach to explain that the achievement of desired energy goals is possible in less than half the energy requirements projected by the Indian government. It constructs scenarios of future energy demand, paying deliberate attention to the equity and energy efficiency considerations of alternative scenarios, and is built on the premise that energy planning first and foremost has to be informed by a context based normative discussion of the desired ends to be achieved, thus bringing in the dimension of justice in policy making. In the absence of the dimension of justice, nuclear power is nothing more than an "authoritarian technology" (Mathai 2013).

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However, the ideological tussle between the different segments that argue in favour and against nuclear energy in India continues, with the state policy largely being in favour of its expansion. This path of modernisation and economic development in the opinion of Myron Weiner and Rajni Kothari has given birth to the phenomenon of two Indias: 'One very modern on the path of progress having access to resources, information and technology and the other very much left behind, in fact bearing the brunt of exploitations, depressions and oppressions.' (cit. in Singh 1991: 453)

Role of mass media

The nuclear resistance organisations in India active at various nuclear sites have had to fight long and hard. The origins of a few of these movements are discussed below. Perhaps one of the most significant nuclear resistance movements has been carried out against the Koodankulam Nuclear Power Plant (KNPP). The people of Tirunelveli, Kanyakumari and Tuticorin districts have put up a united front against the Russian VVER-1000 reactors being built in Koodankulam village in the Tirunelveli district of Tamil Nadu. The reactor was first announced in 1979 during the visit of Prime Minister Morarji Desai to Moscow and a



formal agreement for the project was signed in 1988 during President Gorbachev's visit to New Delhi. The disintegration of the Soviet Union in 1991 only temporarily stalled the project, as not only was the agreement renewed in 1997 between the Indian Prime Minister Deve Gowda and the Russian President Boris Yeltsin, but also an additional four reactors were decided to be constructed (Parveen 2014).

The resistance to KNPP has only increased with time, because the Nuclear Power Corporation of India Limited (NPCIL) has been unable to address peoples' concerns. The fishing districts affected by the project account for 70 per cent of Tamil Nadu's fish catch. An editorial in the *Economic and Political Weekly*, "Unclear over nuclear" (2011) highlights some of the concerns of the fisherfolk. One, there are livelihood concerns related to the inevitable discharge of hot water from these reactors which is expected to raise water temperature to the point that their fish breeding grounds are destroyed. Another concern is regarding allocation of fresh water. Despite the 7.6 million litres per day desalination plant, there is an apprehension that fresh-water resources will be diverted to the project once all six reactors are functional. Second, there are broader environmental concerns as the project is close to one of the world's richest marine biosphere reserves in the Gulf of Mannar and its environmental implications will only unravel with time. Thirdly, there is the looming prospect of displacement. For instance, in the five km radius of the "sterilised zone", there are three settlements, including Idinthakarai where the protests were held. In the 16 km radius where the population should not exceed 10,000, there are nearly 70,000 inhabiting people. The inevitable displacement of this population has added another layer of concern.

Initially, there was a strong opposition to the Koodankulam power plant from farmers. Farmers participated in the movement because it was declared that the nuclear plant would meet its water needs from the nearby Pechiparai reservoir. If that happened, water meant for agricultural purposes would be diverted to the nuclear plant. Water scarcity in this region, thus, was one of the strong motivations behind the resentment for the power plant (Srikant 2009).

As the number of protesters has increased, the tools adopted by them have also changed over the years. The first signs of resistance began on 19 December 1988 when the organisation Samathuva Samudaya Iyakkam (Social Equality Movement) took out a massive rally at Tirunelveli. Several groups such as the National Alliance of People's Movements, the National Fish workers Forum, the Tamil Nadu Fish workers Union, the Social Action Movement, the Palmyrah Worker's



Development Society, the Peace Association for Social Action, Group for a Peaceful Indian Ocean, and several others have directly or indirectly opposed the Koodankulam project in various parts of Tamil Nadu (Udayakumar 2004).

Udayakumar (ibid.) lists the chronology of protest movements against KNPP. Rallies have been organised on various occasions in which over 120 organisations representing farmers, fish workers, women, students, environment groups, and representatives of various political parties have participated. Various people's organisations have come together and formed an umbrella organisation, the People's Movement Against Nuclear Energy (PMANE).

On 25 November 2008, a 14 day awareness raising tour was organised by the Organization Against Violence on Women to educate the people of Kanyakumari district about the physical, psychological, cultural and structural violence that are inflicted upon women in the name of development projects by the government and pointed out that the development project such as the Koodankulam nuclear power plant would cause much violence on women in the form of radiation illnesses, abortion, cancer, birth of deformed and mentally retarded children. Women, today, form a significant backbone of the struggle and continue to participate through hunger strikes etc. along with the fishermen, farmers, shopkeepers, Dalit workers, beedi rolling women and others from the southern part of India (Dietrich 2012).

Student groups have been active in expressing their support for the protesters as well. A youth music band in Coimbatore has released *Puratchivendum*, a Tamil song on *YouTube* supporting the movement. "Radiation Stories" (R. P. 2012) is a documentary on the protests produced by a volunteer Amudhan R.P.

The role of mass media is quintessential in making any movement reach the masses. 'Revelations of nuclear information are not standardized, but the information is banalized and embellished, made into a rosy and often entertaining presentation to increase its audience appeal,' according to Kaur & Mazarella (2009: 151).

A study aimed to ascertain the awareness level among the public on issues related to nuclear energy in India conducted in February 2011 showed that over half of the 300 respondents from the cities of Chennai and Kalpakkam in Tamil Nadu derived their information over prevailing nuclear issues not from national publications but mainly from vernacular media i.e. Tamil newspapers, including *Daily Thanthi* (45 per cent), followed by *Dinakaran* (29 per cent). While 73 per cent of respondents



were aware that nuclear energy is useful for generating electricity, 53 per cent admitted that they were frightened to live in the vicinity of a nuclear plant. 74 per cent of the respondents expressed that they did not consider nuclear energy to be safe and this perception arises mostly from the fact that they are not properly informed about the radiation and safety measures at the atomic energy stations (Arulchelvan 2013).

A discussion paper "Media coverage on Koodankulam in Chennai: a content analysis" conducted a study between October and December 2011 and focused on newspaper coverage of protest events in the city of Chennai. Four English language dailies were studied: *The Times of India*, *The Hindu*, *The New Indian Express* and *Deccan Chronicle* and data on lengths and volumes of articles on anti-nuclear protests were collected. A total of 196 articles covered local protests, including Koodankulam protests among others (Mujumdar 2012).

Deccan Chronicle, that had the maximum number of articles carried exclusive stories like, "We fund nuke protest, say Koodankulam women" (20 Nov.) besides giving space to the pro-nuclear establishment e.g., "Vasan asks protesters to see reason" (20 Nov.) and "Nuke protesters responsible for power crisis in India, says MoS" (14 Nov.). *The New Indian Express* had series of reports, marked "Ground reality", in the form of a full page spread that contained human interest reports from the area. E.g., "Kids used for NPCIL campaign" (3 Nov.) and "Idea of fuel switch at Koodankulam unheard of" (14 Nov.).

The Hindu carried news reports, editorials and analytical pieces covering both sides of the issue. A full-page special essay by the former President A. P. J Abdul Kalam titled "Nuclear energy is our gateway to a prosperous future" (Kalam & Singh 2011) was published that detailed the finer points of nuclear energy and asserted the need to move away from 'mere conjectures and comic bookish imagination.' Soon after, Suvrat Raju and MV Ramana's response "Why Koodankulam is untenable" (12 Nov.) found its way in the same pages. Editorially, the stance seemed to be in support for the plant where it said that 'India cannot ignore nuclear power in the era of global warming', but with a stress on democratic processes and safety standards by saying that 'plenty can be done to engage democratically and transparently with the protesters.' (Raju & Ramana 2011)

In contrast, it was observed that *The Times of India* did not engage with the debates surrounding the plant as much. Articles related to protests were fewer in number compared to the other newspapers, and typically appeared between pages six and eight. The editorial stance appeared in support of the commissioning of the plant. 'New Delhi and



Chennai must work together to clear the logjam that has stopped work at the Koodankulam nuclear power plant,' reads an editorial published on 8 November 2011 in *Start Koodankulam* (Mujumdar 2012).

S. P. Udayakumar (1999) writes in "The blind carrying the lame" that media does not indulge in debates regarding Department of Atomic Energy and its acts of commissioning and omission. He narrates that Sun TV, the most popular Tamil channel, conducted a long interview with him on Koodankulam in May 2001 which was to be telecast on their prime-time breakfast show *Vanakkam Tamilagam* (Greetings Tamil Nadu). But when the interview was not telecast for a long time, he called to enquire and got to know that the Managing Director was yet to approve the telecast. This man was the son of Murasoli Maran, a senior cabinet minister in the BJP led government in Delhi and the grandson of DMK party leader M. Karunanidhi. However, when the 2001 state election results went against the DMK government, the interview was telecast hurriedly the same day without any pre-show announcements. In another anecdote, Udayakumar (ibid.) writes that he wanted to advertise the foundation of Green Party of India at Nagercoil thinking it would provide ideological rigour and vision and spearhead the Koodankulam protest and struggle against other issues related to nuclear energy. All the leading newspapers refused the advertisement saying it was against the government. He says he was finally able to get the ad in print, only by 'exploiting their business rivalry.'

Achin Vanaik, former journalist and nuclear activist, describes his tryst with the media as far from satisfactory (Achin Vanaik, personal communication, 1 Nov. 2015). For the 12 years of his job as a journalist, he regularly wrote editorials on global disarmament, superpower arms treaties etc. but could not contest the mainstream wisdom on nuclear weapons or government policies. Yet, he frequently saw independent writers filling front pages of newspapers by freely supporting nuclear weapons. After quitting his job with the Times group and starting to work as a freelance journalist, he realised that the unpopularity of his perspective led to editors exercising self-censorship on his work. In five years, two of his articles were returned on flimsy grounds. The anecdote goes to highlight that platforms for independent nuclear experts are limited in the country.

In a democracy, the mass media plays an important role in shaping public opinion on an issue. The amount of space allocated and the treatment of the issue in a particular media are as important as the coverage of the event itself. The power of the mass media lies in its ability to set the agenda. The agenda setting hypothesis suggests that the way media



highlights, or de-emphasises issues affects their importance in the eyes of people by influencing what they think about it.

The media usually lives from event to event and crises to crises. Governments wait for crises to tide over because crises are short lived (Roy 2004) and tend to fade away from public memory once other news occupy airwaves. Governments know that media cannot hold onto the same story for too long. While an event may be a breaking news item today, tomorrow it might cease to exist. Often due to unwarranted sensationalism, polarising issues like nuclear energy production benefit little from public discussion as any discussion veers into the territory of jingoism.

Different faces of the same struggle

People have been protesting tooth and nail against setting up of nuclear power plants in many regions of the country; be it Koodankulam (Tamil Nadu), Jaitapur (Maharashtra), Haripur (West Bengal), Mithivirdi (Gujrat) or Gorakhpur (Haryana).

With a view to inspect various coastal sites for construction of new nuclear power plants, Department of Atomic Energy constituted a site selection panel of 12 members in 2006, who selected probable sites for nuclear plants construction (Dutta 2009). Around 1,013 acres of land dedicated to agriculture and fisheries was set to be acquired by the state government in Haripur. A preliminary soil test was conducted on the pretext of a tourism project coming up in the region but as the news about a possible nuclear plant spread, the first strand of resistance was born. After a few months, as the confirmed news of an inspection by site selection panel reached the villagers around middle of September, they gathered in hundreds to block access to their villages and stood their ground unwaveringly for three days (ibid.).

The struggle against the setting up of a nuclear plant at Haripur in East Midnapore in Kolkata has been taken up by various local groups comprising of fishermen and villagers. More than 20,000 people, organised under the banner of *Haripur Paramanu Bidyut Prakalpa Pratirodh Andolan*, prevented a team of experts from the NPCIL from visiting the area on 17 November 2006, even in the face of Police action. The entry points to the villages were blocked by villagers who gathered in thousands (TNN 2016). *Paschim Banga Khet Majoor Samity* and *Matsyajibi Unnayan Samity* were the local organisations who helped in mobilisation. Member of Legislative Assembly from the region, Subhendu Adhikary, personally intervened and appealed to the public to



allow the inspection to take place as the NPCIL team returning empty-handed would flout the safe protocol. This was to no avail as the villagers installed a bamboo barricade at the village entrance and burnt a culvert to prevent outside entry (Sarkar 2011). The resistance seemed to reflect sentiments of the people across the state as many groups and organisations joined in, as well as there was participation by most political parties, especially the Democratic Socialist Party and Socialist Unity Centre who emerged as active participants. One result of these various groups coming together to protest was the formation of *Parmaanv Chulli Birodhi O Bhitay Maati Jeeban Jeebika Bachao* committee which means a committee against nuclear plant to save home, land, life and livelihood. Subsequently, a rally that covered around 20 villages was also organised to spread awareness about concerns against nuclear plant (Dutta 2009).

The Trinamool Congress Party, which was in opposition when the resistance first begun maintained its stand against construction of a nuclear plant in the state, which it reinstated after it came to power in 2011. Recently, NPCIL conducted an aerial survey of the Haripur coastline and expressed confidence that though the Chief Minister Mamata Banerjee's government had earlier refused permission to the nuclear facility at Haripur, NPCIL believes that the project can be back on its feet if some of the misconceptions around nuclear energy are clarified with the villagers (Singh 2017). On the other hand, Debasis Shyamal, Convener of the *Haripur Parimanu Prakalpa Pratirodh Andolan* Committee (Haripur Nuclear Power Project Resistance Movement) maintained that any efforts by NPCIL would be met with resistance as the villagers are not willing to sacrifice their livelihood and health 'in the name of so-called development.' (ibid.)

Jain (2012) wrote on the Mithivirdi nuclear resistance movement. Around 40 villages including Mithivirdi, Jaspara etc. in district Bhavnagar of Gujarat have been protesting against government's plan to construct a 6000-8000 MW nuclear power plant. The plant was first slated to be constructed after the India - United States Civil Nuclear Agreement, 2005. The proposal of 777 acres of land to be acquired by the government in the district did not go down well with the villagers who had toiled for years to make the land fertile compared to what it used to be about a decade ago.

The nonviolent resistance against the nuclear plan started with the efforts of a Gandhian activist, Chunnibhai Vaidya, who has championed rights of the people in many land related issues in Gujarat. By 2008, Vaidya and his comrades from Gujarat Loksamiti party, had taken up the cause to be the voice for protests at Mithivirdi. The activists spend days



travelling and personally explaining to people the harmful effects that come with having a nuclear power plant in their vicinity (Dhar 2017). A public meeting in April 2010 had 7,000 attendees, while the NPCIL officials visiting the region in June 2010 to take soil samples for testing met the resistance of thousands of people, following which they were forced to retreat (Jain 2012). After submitting letters to various government officials regarding their objections to the power plant, the protesters sent a memorandum to the then Prime Minister of India Manmohan Singh before his visit to the US in 2013, expressing their unhappiness about the dilution of *The Civil Liability for Nuclear Damage Act, 2010*. There were 281 affidavits along with the memorandum which was signed by the *sarpanchs* (heads) of seven villages. This was brought to the attention of the district collector following a massive rally in September (DiaNuke 2013a).

After sustained resistance of over a decade, victory for protesters came when the government declared to wrap up the project at Mithivirdi in the Bhavnagar district of Gujarat and shift it to Kovada in Andhra Pradesh. Meanwhile at Andhra Pradesh, leaders of various national organisations had already started reaching out to local farmers who were being asked to give up their lands. The Communist Party of India (Marxist) is supporting these organisations that include National Alliance of People's Movements, People's Movement Against Nuclear Energy, National Alliance of Anti-Nuclear Movement, Human Rights Forum, and *Sanjeevini Paryavarana Seva Sangham* (Rao 2017). The protesters have been seeking to gain support of people in nearby regions of Visakhapatnam and Srikakulam as they believe the danger of nuclear radiation is a common threat.

NPCIL is proposing a nuclear project in Gorakhpur village in the Fatehabad district of Haryana. Three protesters have lost their lives, and many have fallen ill on their daily sit-in protesters or *dharna* outside the office of the district collector (Banerjee & Ramanathan 2012). Since August 2010, protesters have been expressing their dissent against the project though some of them have distanced themselves from the protests after receiving monetary compensation for their lands. The agenda of the protests has also changed from unwillingness to give up their lands and livelihood to concerns about radiation safety etc. (Banerjee 2012). The former Army Chief of India, General V. K. Singh, has criticised the location of the project due to its proximity to India's border with Pakistan which can be exploited to compromise India's international security (TNN 2013). Under the aegis of *Kisan Sangharsh Samiti* and the leadership of Hans Raj Siwach, farmers had initially started an ideologically opposed resistance against nuclear energy which seemed to



have been quietened by 'fat compensation cheques' (Manish 2013) as their *dharna* protest of two years officially came to an end in September 2012.

Tehelka covered the story of a farmer, Ram Phal, who remains the lone farmer in his village to decline a compensation of Rs 2.07 crores for his 4.5 acres of irrigated farm (Manish 2013). The farmer is willing to give up his agricultural land for another purpose such as a hospital or university but not a nuclear energy project. The government's response to his remaining presence is one of indifference as the electricity and water supply to his house and farm have already been disconnected. Not just the human population but also the wildlife in the region is being affected by the project. Two months after the preparation for construction began in 2013, the project came under controversy for non-adherence to environmental standards as it was reported that no land had yet been acquired for rehabilitation of wildlife in the region (DiaNuke 2013b). NPCIL officials landed themselves in legal trouble over the death of blackbucks at Kurukshetra (Manav 2015).

Protests against the Jaitapur nuclear plant in Ratnagiri district of Maharashtra is being carried by people of the village as well villages in the vicinity including Madban, Mithgavane, Nivelis and Nate. In contrast to Gorakhpur, the offer of monetary compensation has not found many takers here as more than 90 per cent people have declined it. In response, the government offered to hike compensation money, offered employment to local people at the site and ultimately forcibly acquired land from 2,275 families (Jain 2012). Bidwai (2011) writes that the concerns of the people against Jaitapur nuclear plant are threefold. First, livelihood concerns threaten people as their existing fishing harbours are likely to vanish. The massive investments that farmers have made in mango farms etc. are likely to be lost as the tree is highly sensitive to environmental changes and will be ruined by the construction project. Second, the Konkan region has diverse ecosystem comprising of virgin rainforests and several endemic plant species which can undergo severe distress due to activities of the project. Third, there are safety concerns about importing French European Pressure Reactors since no reactor of this design has been commissioned anywhere in the world yet and the company Areva is under financial strain. The conditions under which the project got sanctioned, as discussed below, are sufficient to raise eyebrows.

Ecologist Madhav Gadgil, chairman of the Western Ghats Ecology Experts' Panel constituted by the Ministry of Environment and Forests in its interim report criticised several aspects of the project that are likely



to endanger ecology in the region. The report highlights that the villages are already producing energy more than they need and in order to produce more energy out of them, the government should look at 'less damaging' options such as hydroelectricity instead of nuclear energy (ibid.). The report is critical of imposition of section 37(1)(3) of *The Bombay Police Act, 1951* which disallows gathering of more than five people at one place, and other measures that go against civil rights. The fact that the environmental report was accepted in a hurried manner and just days before an impending visit of the French president Nicholas Sarkozy, casts the first shadow of doubt whether proper scrutiny was performed while accessing the report, or if the report was simply accepted due to international pressure. The lack of transparency in providing conditional environmental clearance to the project served as a watershed movement where the resolve of the protesters was strengthened and also the intimidation and brutalities of police was exposed as they lathi charged nonviolent protesters and banned various kinds of assembly ("State repression" 2011).

Some of the local groups that helped mobilise masses in the campaign included *Konkan Vinashkari Prakalpa Virodhi Samiti*, *Azadi Bachao Andolan* and *Lokayat* from Pune. The representatives of various people's organisations operating in different parts of the country came together for a three-day march from Tarapur to Jaitapur between 23 and 25 April 2011. Here, activists and protesters engaged in peaceful demonstrations and public meetings. Though the march was peaceful, the police acted in a brutal manner and 134 activists were arrested for unlawful assembly, their phones were jammed, their conversations were tapped and the drivers of their vehicles were intimidated (Dietrich 2011).

Moolakkattu (2014) describes how the colonial legacy of the sedition law is employed to suppress dissent, block access to courts, and is being slapped on the protesters to take the wind out of their sails. He expounds that Koodankulam police has registered cases against the protestors under Sections 147 (rioting), 148 (rioting with deadly weapon), 353 (assault or criminal force to deter public servant from discharge of his duty), 121(A) (conspiring to overawe, by means of criminal force or the show of criminal force, the central government or any state government), 395 (dacoity), 307 (attempt to murder), and 149 (unlawful assembly), amongst others. That the forceful response of government authorities to nonviolent means of expressing their demands by people is needlessly disproportional is apparent. The concerns of the protesters are not sufficiently addressed and often suppressed in the name of restoring law and order; while their demands are given a negative connotation by labelling them as "anti-national" and "anti-state".



Though their opinions often go unaccounted as far as official decisions are concerned, there are many nuclear activists and organisations which are independently researching and dispensing knowledge related to nuclear technology. In the early 1980s, Achin Vanaik and Praful Bidwai founded the Movement in India for Nuclear Disarmament (MIND) which initially had participation of scientists from Tata Institute for Fundamental Research. These scientists later bowed out after issues of setting up of a Nuclear Weapons Free Zone in South Asia came up as it was considered a conflict of interest with their research. Subsequently, MIND broke up. Following MIND, the Coalition for Nuclear Disarmament and Peace (CNDP) was set up in 2000. The manifesto of CNDP states that it was constituted as the 'national coalition of organizations and individuals in India committed to, and working for nuclear disarmament' (CNDP n.d.) in response to nuclear weaponisation in India, and soon after Pakistan, against a background of the global stockpiling of nuclear weapons. To begin with, CNDP took collective stand only against nuclear weapons as a number of members, especially those in the left-wing parties did not specifically oppose nuclear energy, while others didn't particularly have a consensus on unilateral disarmament and Nuclear Weapons Free Zone. In 2000, however, CNDP moved towards a collective position on all these contentious issues including a principled stand against nuclear energy production. There are other independent initiatives like DiaNuke, who describe themselves as 'researchers, activists and concerned citizens' (DiaNuke n.d.) and their website serves as a platform to publish and republish material related to nuclear politics across the world.

Reflections

Since the advent of nuclear technology, people have been concerned about the massive destructive capability of nuclear weapons and the dangers involved in nuclear power generation. The anti-nuclear movements question not just the feasibility of nuclear power but also its exclusionary nature when it comes to people's participation in policy making, as well as issues like endangering the ecology, violation of human rights etc. The character of these protests is nonviolent with an aim to produce more inclusive policy debates and democratic dialogues. In the case of India, two major points of contention in anti-nuclear movements have emerged: first, a statist notion of development which essentially reflects the interests of the ruling class; and second, development equated with nationalism marginalises people's localised concerns to the national ambitions.



Analysis of resistance movements across India led to some specific observations mentioned below. The first observation is that the prevalent discourse on nuclear issues in India is skewed in favour of interests of state authorities. A significant problem with the Indian nuclear discourse is that an informed public discussion is rendered impossible as most of the information regarding nuclear energy does not reach the public domain. As a result, the discussion restricts itself to elitist circles and caters to elitist concerns, which explains the privileging of energy requirements over concerns of local communities. The problem of restricted discussion and uneven participation gets especially grave on issues of public safety and health.

The second observation is that the concept of development is being woefully linked to the concept of nationalism. The words "security" and "national interest" have often been used to suppress the public debate on nuclear energy, even though these concepts are framed in a way that they cater to interests of specific communities of scientists, politicians and corporates. The problem arises when these mainstream nuclear ambitions are linked to development and security. Hence, the people opposing these ambitions are automatically perceived as being anti-development and a threat to national security. The path of development for India does not necessarily need to coincide with development of nuclear energy. An evidence of this assertion is that many of the developed countries are in fact rolling back, shutting down or phasing out their nuclear energy units due to fear of nuclear disasters, ethical concerns or problem of radioactive waste management.

The third observation is that the anti-nuclear activists are seen as standing on the wrong side of the development debate, even though the issues that they raise arise directly from the poor track record of the Indian nuclear establishment. The disregard for environmental and human impacts, underestimating the problem of nuclear waste management and unpreparedness for accidents cast the first shadow of doubt on the cost/benefit analysis of nuclear energy production. The local people at Koodankulam in Tamil Nadu, Mithivirdi in Gujarat, Haripur in Kolkata etc comprising fishermen, farmers, shopkeepers, Dalit workers, women and the elderly have been opposing the construction of nuclear power plants in their region for years which they consider an infringement on their human rights. In essence, what the dominant nuclear discourse ignores is the social impact of nuclear energy production, whether it pertains to issues of livelihood, displacement or ethical concerns. Despite the protests being nonviolent in nature, there are often reports of disproportionate and stringent police action to deter



them. In order to have a more inclusive policy making process, development must not be equated with economic reforms, but to be viewed as economics in consonance with its social impacts.

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