Chapter 4

Context of The Jaitapur Nuclear Power Protest, Ratnagiri

Introduction

This chapter provides a background to nuclear power projects in India, the struggles against them and the ongoing struggle against the proposed nuclear power plant at Jaitapur-Madban in Ratnagiri district of Maharashtra which began in November, 2005. On 22 November 2005, around 400 villagers marched from gram sabha to the entrance of the Madban village and prevented press reporters from visiting the site of the nuclear plant. The protests were directed against Nuclear Power Corporation of India Limited (NPCIL) officials, who had invited reporters without consulting the local people. This protest was among the many actions taken by locals against the setting up of the JNPP.

Several protest actions have been carried out by local people and organisations from Mumbai, Thane, Pune, and other states as well have expressed solidarity towards the cause of the struggle. The struggle is called for protecting local people and their livelihood, environmental concerns, impacts on water bodies and aquatic life, effects of radiation on human beings and the surrounding environment over long term, hidden cost of nuclear power in terms of economics, storage and disposal of radioactive waste, decommissioning etc. and other hidden dangers like possibility of disaster, continuation of human race and the like.

The present chapter attempts to provide a background to the struggles against the plant. It discusses the contentious global debates around nuclear power and locates these within the context of the JNPP. It also provides a description of protest actions initiated by various local level groups like Konkan Bachao Samiti, Janhit Seva Samiti, Madban Panchkroshi Bachao Samiti, Maharashtra Machhimar Kruti Samiti, Madban-Mithgavane Sangharsh Samiti and Konkan Vinashkari Prakalpa Virodhi Samiti, which is a joint committee of representatives from different local committees formed from the Konkan region.

Nuclear Power debate

Nationally and internationally, the nuclear power debate revolves around the following points. More than 15 percent of the world’s electric power today is comes from nuclear power. The debate between supporters and opponents of nuclear power is framed around the following questions:

1. Is nuclear power a viable alternative source of energy in place of coal, oil, and natural gas?
2. Does nuclear power help in reducing greenhouse gas emissions? How can one ignore the entire cycle from uranium mining, processing of uranium for making fuel pellets, transportation, and
finally decommissioning of NPP while looking in to carbon footprint? Will nuclear power help in preventing global warming in a significant way?

3. Is uranium mining safe? What are the environmental risks associated with uranium mining?

4. What are the risks and dangers of nuclear waste? Is there a method known to dispose the radioactive waste? Can we address these issues in the interest of the future generations satisfactorily?

5. How long will the supply of uranium last? Is fast breeder reactor safe?

6. Does the modern nuclear plant eliminate the risks that were prevalent with the Chernobyl, Three Mile Island, and Fukushima nuclear energy plants? Is there a technology that is foolproof?

7. Do nuclear plants pose the risk of ‘melting down’?

8. Are the local communities and workers exposed to radiation at the nuclear plants?

9. What are the essential measures taken to prevent radiation risk?

10. Even if nuclear power is non-renewable, is it still a desirable option?

Nuclear energy not only triggers scientific debate, but also social, ecological and political debates. The World Nuclear Association and environmentalists who support nuclear energy have vehemently stated that it is safe, clean, green; as well as a sustainable energy source.

**Assessment of the claims**

Activists opposed to nuclear power bring forth a vital point that the nuclear power cost estimates are misleading. The hidden costs involved in generation and post-generation of nuclear power is not scientifically calculated. The entire nuclear fuel cycle from mining to the safe storage and disposal of radioactive waste and decommissioning of nuclear power plant must be considered to calculate the true “social cost” of nuclear power and also the carbon footprint of nuclear power. The claims do not seem to be factually correct. There is no data in the public domain. Everything is shrouded in secrecy.

The storage of nuclear waste for thousands of years, unresolved problem of safe disposal of radioactive waste and the risks involved in it, risks of accidents and their fall outs, impact of accidents on environment and population, the liability costs, decommissioning cost are not known properly and discounted while calculating the cost of nuclear power production.

Similarly, the collateral damage to water bodies and marine systems from where water is drawn, and its impact on the livelihoods of fishermen and allied businesses are not covered in the cost.

Another important issue is availability of uranium reserves. Uranium reserves in India are insufficient and importing uranium will make us further dependent on other countries. Mining of uranium is not free of radioactivity dangers. The effects of radiation are seen over generations, especially visible in the form of congenital defects caused by gene mutations.
A study conducted by Dr. Surendra Gadekar in Jadugoda (in Jharkhand) supports this position. Dr. Gadekar’s study near the uranium mines of Uranium Corporation refutes the claim of nuclear energy being safe and clean. There is an evidence of extraordinary rise in congenital conditions such as:

1. Miscarriages, stillbirths, and cradle deaths of new born babies significantly higher
2. Significant increase in chronic diseases especially amongst youths
3. Solid tumors significantly higher
4. People die eleven years younger than they would on an average

**Threats posed by nuclear power**

**Nuclear Accidents**

Nuclear accidents are issues of serious concern. When nuclear accidents like Chernobyl (1986), Three Mile Island (1979) and the recent Fukushima-Daiichi (2013) disasters take place, they indicate the risks of radioactivity to humans and other forms of life. These places then become uninhabitable. For eg., the town of Pripyat, located a few kilometres away from Chernobyl Nuclear Power Plant even today, i.e. after 30 years, is uninhabitable. The evacuation zone of 4000 sq. km area will remain uninhabitable for next 300 years. This exclusion zone covers 100,000 sq. km of farming land, unfit for cultivation ever since.

Nuclear accidents are completely different from other accidents. A release of large amount of radioactivity into the atmosphere poses a serious threat to the sustainability of human life over a very large area for hundreds of years. The accidents at Three Miles Island, Chernobyl and Fukushima happened in spite of the best safety systems deployed. Human error, natural calamities, sabotage or terrorist attacks are the risk factors for nuclear power stations.

**Lessons from Nuclear Accidents**

The Fukushima Daiichi nuclear disaster following a major tsunami in 2011, alerted the world yet again to the potential fallouts of nuclear power plants. Following Fukushima, possibly one of the most widely covered nuclear power plant accidents in the media, several countries took decisive steps on their nuclear power generation programmes. After the Fukushima accident, Germany decided to re-visit the 2010 Energy Concept, imposing a three-month suspension of operations in eight of its oldest nuclear

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17 A number of newspapers and magazine reports, and a documentary made by Shriprakash titled as *Buddha Weeps in Jaduguda* report higher incidences of congenital anomalies and cancer.
plants. The government mandated an Ethics Commission on Safe Energy Supply to examine its future policy, and concluded that an exit from nuclear energy was feasible within a decade. The German government decided to shut down all remaining reactors by 2022. In Europe, Switzerland has decided to phase out its nuclear plants by 2034, and Belgium has decided to abandon nuclear power by 2025.

In France, by contrast, which is the world’s largest net exporter of electricity, nuclear power accounts for 74.1% of its electricity production. In 2012, the government decided that only the Fessenheim plant would be closed before the end of 2016. Japan, where 30% of electricity was provided by nuclear power, shut down all 50 operating reactors after the Fukushima accident.

**Opposition to nuclear power projects**

Based on the pros and cons of nuclear power, the decision to build nuclear power plants is heavily criticised by environmentalists like Green Peace International, environmental movement activists, and other local people’s organisations where the plants are constructed. In India, people from Haripur in West Bengal, Mithivirdi from Gujarat, and Koodankulam from Tamil Nadu are persistently resisting the state and central governments’ decision to construct nuclear power reactors.

**The study area**

The Nuclear Power Corporation of India Ltd (NPCIL) and government of Maharashtra entered into a Memorandum of Understanding (MoU) on 25th September, 2006, for setting up of the proposed 9,900 MW nuclear power project at Jaitapur in Ratnagiri district of Maharashtra about 400 kms away from Mumbai. India and France signed a bilateral agreement in September 2009, according to which the two countries have agreed to work together for ‘peaceful use of nuclear energy.’ NPCIL intended to install six reactors, each having a capacity of 1650 MW in a phased manner. These reactors will be constructed by a French company, Areva. For setting up of the JNPP, land measuring 968 hectares from five villages, namely Madban, Vareliwadi, Mithgavane, Karel, Niveli and Tulsunde was to be acquired. Out of these six villages, Madban and Varliwada were merited as actual project sites and Karel, Niveli, Mithgavane, and Tulsunde were rated for township purposes of the staff. According to the National Power Corporation of India Limited (NPCIL), JNPP is one of the largest nuclear power projects in the world. In chapter 3, the course of events and the course of struggle have been dealt with extensively.
**The JNPP: The state vs people**

India is considered to be an ‘emerging economy’ with a target to achieve GDP of 9% or above. However, despite this, 25% of households do not have access to electricity. In rural areas, load shedding is an everyday phenomenon, with power cuts varying from 6 to 14 hours a day. With the backdrop of rising demand for electricity and depletion of the conventional sources of energy, the Government of India has decided to promote nuclear power. In the context of global warming and climate change, the push for nuclear power appears to be an obvious choice since nuclear energy is projected as cheap, clean, and safe. Accordingly, in October 2005, the Government of India sanctioned setting up of the nuclear power plant at Jaitapur besides three other locations.

The location was selected on the basis of certain conditions like: availability of land in proportion to population density, available sources of cooling water, seismicity of the region, and a safe-gradient at site, and proper access for transportation. The government approved the Jaitapur site for establishing nuclear power plant in Jaitapur-Madban area as it fulfilled the above parameters.

The stated benefits of the project are listed below:

1. Augmenting electricity generation in an eco-friendly manner
2. Developing areas near the project site
3. Employment opportunities in direct and indirect ways
4. Contribution of NPCIL in social and community development of surrounding areas, especially nearby villages, in the field of education, health and infrastructure facilities

**Background to the anti-JNPP struggle**

Jaitapur was one of the important ports in ancient times and early medieval times. It is located in the Ratnagiri district that forms a part of the greater tract known as the ‘Konkan’. This tract is historically famous for its long coast line and convenient harbours.
The government of India in principle gave approval in the year 2005 to set up a giant nuclear plant of 10,000 MW, the largest ever at a single location in the world viz. Jaitapur. The nuclear power park is proposed to be built in two phases over 15 to 18 years. The first phase will be two reactors totalling
3300 MW. Subsequently, four more reactors will be added to raise the total capacity to 9900 MW. On completion, the Jaitapur power plant would be the world’s largest nuclear power generating station. It is estimated to produce 22,480 MW of electricity by 2031. The fuel used will be five percent enriched uranium which will be imported over the entire life of the power plant. Areva, a French company was selected for construction of six EPR reactors for the JNPP. A Memorandum of Understanding (MOU) was signed between NPCIL and Areva in February 2009.

The nuclear ‘park’ is slated to occupy a total of 938 ha of land out of which, 692 ha is private farm land, adjoining the sea, and 246 ha is for the residential complexes in Niveli, Karel and Mithgavane villages, about five km from the proposed plant. People of Madban started getting land acquisition notices after January 2006, following the Maharashtra government’s gazette notification. Applications filed by activists under the Right To Information (RTI) Act revealed that plans were afoot as far back as 1984, when then Prime Minister Indira Gandhi visited the area along with Dr. M. R. Srinivasan, Director of the Power Project Engineering Division (later NPCIL). It is obvious that Jaitapur which has a coastal line was selected. The plentiful availability of sea-water would serve as a coolant; and when compared to other projects, there were fewer numbers of people to be compensated.

There are many blind spots as far as JNPP is concerned. The Civil Liability for Nuclear Damage Bill(2010) is one such grey area. At the heart of the debate over nuclear liability is a conflict of interest. On the one hand, is the risk faced by nuclear suppliers and operators that they may, someday, be forced to pay large amounts of compensation for catastrophic accidents that they can, through their actions,

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18 Yousef, Shamsheer and Jha Monica in their feature titled ‘Jaitapur: A Fight without an end’, explains the background factors pertaining to Jaitapur nuclear power project. They state that in the year November 1984, Jaitapur site was visited by the then Prime Minister of India, Mrs. Indira Gandhi along with Dr. M. R. Srinivasan, who was the director of Power Projects Engineering Division (now NPCIL) and also the then chairman of Western Electricity Board. He found it suitable for a nuclear power plant and on the same day the site was selected for setting up of an Indian-made 235 MW or 500 MW pressurised heavy water reactors.


19 The Civil Liability for Nuclear Damage Bill, 2010 introduced by the UPA government in the Parliament primarily sought to cap the nuclear plant operators and the equipment suppliers in case there is an accident involving a nuclear installation. The proposed draft of the bill was in line with the requirements of the Convention on Supplementary Compensation (CSC) and also a precondition put by the US government that India must enact a law capping the liability of nuclear operators and protecting the equipment suppliers of all liabilities before it delivers on its promises in the India US Nuclear deal. The proposed bill was clearly not in the interest of the victims of a nuclear disaster and was opposed by opposition parties. In case of JNPP, Areva (Now EDF - Électricité de France) is the supplier. The nuclear liability bill focuses on the operating lifetime of the reactor and has two key clauses - In the event of an accident, it indemnifies the suppliers from any kind of liabilities, regardless of what caused disaster. Secondly, it caps the liability of the operator at Rs. 500/- crore, with additional compensation, if required, coming from the government. These two crucial clauses of the liability bill run counter to the principles of natural justice. Finally, the bill was passed in the Lok Sabha with BJP supporting it after government amended very contentious provision in clause 17(B) by removing the word “intent” with regard to equipment suppliers or their employees in causing an accident in a nuclear installation which was diluting the suppliers’ liability (from Raju and Ramanna, 2010).
lower the chances of, without however, complete elimination. On the other hand, there are risks faced by the inhabitants of the regions close to a nuclear reactor. The people at large might be stuck with the burden of cleaning up the results of a catastrophic accident. What is significant is that in either form, the Civil Liability for Nuclear Damage bill shifts the primary burden for accident liability from the foreign builders to the Indian state. Ultimately, the Indian tax payer could end up paying for serious nuclear accidents.

The Indian government has passed Nuclear Damage Bill in Parliament but Areva has certain reservations about it. Their struggle continued in the face of severe repressive methods used by the government. The company officials and the police were all power-wielding, authoritative figures. They used their powers in different ways by imposing government decisions on the local people. The police used their power by lathi charging or firing at a violent mob. The death of a young boy during an agitation was projected as an accident, though villagers knew that police action had killed him. The death of a veteran leader Mr. Pravin Gavankar of the JNPP struggle altered the struggle saga. Women from the neighbouring villages refrained from joining the struggle. Some villagers agreed to take the compensation amount, even though they wanted to support the struggle.

Environmental Impact Assessment Report

The Environmental Impact Assessment (EIA) report is yet another concern for the protestors. This report prepared by the National Environmental Engineering Institute (NEERI) and Jan Sunwai (Peoples’ hearings) was conducted by the Maharashtra Pollution Control Board on behalf of Ministry of Environment and Forests on 16 May, 2010 at the plant site. Print media reports about this and describe the strong protests from the villagers in public hearing (The Hindu 17 May, 2010). Villagers expressed their fears about the proposed project and had several doubts regarding the viability of the project. They were deliberately kept unaware about the EIA report since the report was printed only in English. Moreover, three out of four-gram panchayats received the copy of EIA only four days prior to the day of the hearing. Villagers recorded their objection. They said that a report that took nearly a year and a half to be completed could not be reviewed in four days.

The villagers were kept in the dark about the boundaries for the said project. There were contradictory reports. The villagers’ claims about the fertility of their lands were refuted by the EIA report which stated that the Madban plateau was barren, with no biodiversity. A survey by the Bombay Natural History Society (BNHS) on the contrary, reported 1500 species flora and fauna in the area; and NEERI found the land patch barren and infertile. The TISS report on Social Impact Assessment of the project states that according to government records, the vast area of land to be acquired for the plant is non-productive. There is also categorisation of land as potkharaba kshetra (useless/barren) land and warkas
kshetra (less usable category). But villagers do not admit such categorization. They say portions of this land are used as pastures for grazing animals. Similarly, there are huge portions of land which are called ‘baul’ where an excellent quality of rice is cultivated. Some part of this land includes cashew and mango orchards (ibid: nd).

There was also no clarity about waste processing system and emergency systems at the time of accidents. Several activists raised objections which the officers were unable to answer satisfactorily. Konkan Bachao Samiti and the Indian Institute of Social Sciences raised objection with regard to sustainability of the project. Amjad Borkar asked about the release of hot water in the sea. Several flaws, omissions and errors were brought to the notice of NPCIL. The objections were huge in number which compelled NPCIL to compile them and produce a volume of 964 pages. NPCIL officials did not mention those as objections but labelled them as observations. One woman said, “You have no right to have my land, go back.” Another woman said, “you will first promise to give employment and then education. Our children are not educated”.

**Report by Tata Institute of Social Sciences, Mumbai**

A social impact assessment review was conducted by Jamshetji Tata Centre of Disaster Management, TISS Mumbai. The report made the following observations about JNPP. Excerpts from the report:

Farmers and horticulturists have spent lakhs of rupees to make the land cultivable over years and even the government has supported them. This includes Alfonso mangoes and cashews. Now, when the time has come for them to reap their investments, they are afraid of losing their land as the government now claims it is barren land. It adds that even the fisher folk of the region are against the project…Their fear that the fish will migrate to deeper waters due to release of hot water from the reactors is not unjustified. Apart from fishing, other allied activities will also be adversely affected, says the report, which was prepared after interviewing villagers.

**Letter to Chief Minister of Maharashtra**

The letter written to the Chief Minister of Maharashtra by the KBS explains why people from Jaitapur do not want to have the nuclear power project in their vicinity. The objections are manifold. As the letter states, “We wish to clarify at the outset that ever since the land acquisition process commenced in 2006, we have deeply studied the issues relating to the nuclear power project and our opposition to the project is firmly anchored in these scientific studies”.

There was reliable information that the European regulatory authorities from three countries namely, Finland, France, and United Kingdom have jointly written to Areva raising certain serious objections to the current design of EPR type reactors.
The protestors have raised serious objections regarding the viability of Environmental Impact Assessment report. The study conducted by Bombay Natural History Society (BNHS) reported the possible environmental damage due to this project. Its report contradicted the official 1200-page environment assessment report prepared by the National Environmental Engineering Research Institute (NEERI). The former chairperson of the Atomic Energy Regulatory Board A. Gopalkrishnan even questioned the wisdom of India to enter into a contract with Areva ‘for the European Pressurised Reactors’ which is unproven and is plagued by delays and cost overruns.

Some of the major objections raised by protestors against the nuclear power plant (extracted from the letter written to the then Chief Minister of Maharashtra) are summarised below:

Based on the writings of scholars, researchers, and discussion with scientists the protesters were clear that nuclear energy is an unaffordable and unacceptable option as costs far outweigh the benefits. There is some unanimity of perspective - that nuclear power has inherent safety, security and large-scale environmental risks and long-term risks for people; that despite substantial research there is no satisfactory technology to eliminate the high radioactivity produced by reactor; and finally, that there is no safe geological repository for confinement of the nuclear by-products, or for containing the radioactivity to acceptable levels. There is no solution regarding the disposal of nuclear waste and radioactive by-products from nuclear reactors.

In spite of precautions, there are instances of numerous accidents and incidents of radioactive releases at nuclear power plants. The recent incident at Kaiga\footnote{Kaiga is a nuclear power generation station from Karnataka. In November 2009, Kaiga plant was in the news as 55 employees consumed radioactive material after tritiated water finds its into the drinking water cooler. (www.greenpeace.org/india/en/what-we-do/nuclear-unsafe)} is an example. Being aware of such nuclear accidents and incidents, the western power plant suppliers are demanding exemption from civil liabilities.

The long-term damage due to radioactivity is irreversible and poses a risk for thousands of years. Hence the protestors were firm on their conclusion of not allowing a nuclear power plant in Madban/Jaitapur. Moreover, the protestors also based their protest on the fact that there was no public knowledge provided by the Atomic Energy Regulatory Board and other authorities about the operational design, safety measures, environmental risks, effect on the ecology and livelihoods of people. The norm as per Vengurlekar Committee recommendations is that, “a nuclear power plant shall not be put up in an area which falls beyond seismic zone 1 or 2. The site selected comes under seismic zone 4. The tremors experienced over the years in Koyna valley and Ratnagiri district makes the site inappropriate for a nuclear power plant. The tremors from end September '09 to end December '09 experienced in this region created a crater; 40 ft long & 40 ft deep on a State highway and changed the course of a rivulet,
just a few kilometres away from the selected site,”. they wrote. They also expressed concern over the “lacs of litres of sea water sucked in and released into sea at higher than the ambient temperature every day…” Newspaper articles published criticism from Dr. Madhav Gadgil and BNHS, stating the unique biodiversity of the region would be lost forever. Jairam Ramesh, (then) Minister of State for Environment and Forests has also acknowledged the adverse impact on marine life. Construction of the jetty would affect the mangroves around the creek. This would in turn affect the fish breeding grounds and population of the fish. Further the large sea vessels would destroy the marine ecology.

Finally, the protestors were of the opinion that substantial employment can be generated for people in industries which work on the rich natural resources, preserving and developing natural wealth, and creating no destruction. The farmers, fisher folk, and people of Konkan desire nature-conserving and people-oriented development in the Konkan region.

**Trajectory of the Struggle**

The debates over viability of JNPP continue at all levels. Villagers are fiercely struggling for their livelihood rights and environmental protection as well as the right to live with dignity. Local activists report a lack of transparency on all fronts; a fact reiterated in a report prepared by students of the Tata Institute of Social Sciences, Mumbai. One of the serious concerns expressed in the report is lack of transparency in dissemination of information about the project on the part of the government and the company. The report points out that information can be accessed only through the Right to Information (RTI) Act, and people seem to be losing faith in the government. Dr. Milind Desai from Mithgavane village says the first breach of promise began when people started receiving notices of joint surveys for land acquisition. They were not consulted; no one told them their land will be acquired. He said that even the joint survey was done without land owners’ presence as there were prohibitory orders for preventing gathering of five or more people at a time. Social Impact Assessment of Jaitapur-Madban Nuclear Power Plant, conducted by TISS students points out to the lack of transparency even in the quantum of land to be acquired by the government. The report (nd)states:

The MoU between NPCIL and the Maharashtra Government noted that the required land would be 990 hectares. Another source about details of proposed land to be acquired sited it as approximately 978 hectares. Newspaper articles quote 938 hectares, while website sources quote 700 hectares…

The notification for Jaitapur Nuclear Power Plant (JNPP) states 9% land as cultivable and the rest of it as barren and fallow. The Konkan stretch has laterite surface and people tend it for paddy cultivation and mango orchids. Villagers work hard to prepare the laterite surface for growing paddy. They wonder how the surveyors could find only 9% cultivable land. There are about 2,335 land owners and their families’ livelihood along with that of labourers will be jeopardised by the proposed project. The project
will also endanger fishing activity since it is situated very close to several fishing villages, thus snatching away the livelihood of several thousands of fishermen and dependent labourers.

People of Jaitapur and the surrounding villages have put up a strong resistance to the proposed nuclear power park in their area. The people of Madban and other affected villages initiated the opposition but even the fishing communities from Nate and Sakharinate, mango traders, transporters, and the civil society activists from Mumbai and other parts of India joined the struggle. It is significant that the five gram panchayats from affected villages passed the resolution against the project. Rest of the gram panchayats also supported them by passing resolutions in support of the five affected villages. In spite of repression by the state government machinery, the protestors continued their battle. Section 144 of the Criminal Procedure Code was imposed and many fake charges and charge sheets were framed against the protestors. An instance of such repression is a frail 70-year-old diabetic man, Shriram Dhondo Paranjape, who was falsely charged with pelting stones at police and was detained for 15 days (CNDP 2011: 23). There are many false and serious charges framed against protestors, including attempt to murder. The solidarity of protestors continued even in the dark phases of the struggle. On 18 April 2011, one of the protesters, 30-year-old Tabrez Sayekar, was shot dead in a protest meeting; a 70-year-old person was detained for pelting stones at police personnel and in December 2011 an NPCIL vehicle ran over 31-year-old Irfan Kazi.

The very first action of protest on 22 November 2005 was indeed against the breach of trust and confidence with village people. In November 2005, villagers started getting notifications for land acquisition and Nuclear Power Corporation officials informed gram panchayat to conduct a gram sabha as 30 journalists were invited for site visit. Madban villagers showed their determination and said they will not co-operate with NPCIL; as they were never told about land acquisition. It was unanimously decided in the gram sabha that the journalists will be prevented from entering the village and a motion to wave black flags was proposed. Around 400 villagers marched towards the entrance of the village shouting slogans like ‘Save Madban, withdraw nuclear project’. Pravin Gavankar, a veteran leader of the JNPP struggle said it was unfair that the government did not discuss the project with residents first.

On 8 December 2005, NPCIL conducted a meeting in the presence of director S. K. Jain, where people expressed their anger and showed opposition. They raised questions about displacement of people from villages, the disastrous impact of radiation, etc.

21 The Coalition of Nuclear Disarmament and Peace (CNDP ) was established in 2000 by more than 250 civil society groups in opposition to the Indian and Pakistani nuclear weapon tests of 1998. They published a report in January 2011 on Jaitapur, titled as Courting Nuclear Disaster in Maharashtra: ‘Why the Jaitapur Project must be scrapped.’
Anti-nuclear activists Dr. Surendra and Dr. Sanghamitra Gadekar visited Madban in 2007 and along with the local activist, Pravin Gavankar conducted slide shows, and screened movies especially on nuclear projects. They visited every village within a 10 km range of the project. Gadekar shared experiences from Rawatbhata and discussed about the ill effects of nuclear energy in the form of skin lesion, congenital defects and cancer.

The *Janhit Seva Samiti* was formed in 2007. Pravin Gavankar and Shyamsundar Narvekar were nominated as general secretary and treasurer respectively. *Janhit Seva Samiti* comprised all members from Madban village only.

Gradually the support for Jaitapur Nuclear Power struggle increased as activists across India showed their solidarity with the *andolan*. *Konkan Bachao Samiti* (KBS), led by Dr. Sulabhatai Brahme, a group of environmentalists, writers and technical experts supported Jaitapur *andolan*. Largely, the *andolan* sought technical support from KBS. KBS played a key role in understanding and critically examining the technical aspects with debaters in discussions with NPCIL. The villagers also filed a case against land acquisition in the High Court in January 2008. The divisional bench of Justice J. N. Patel and Justice Mridula Bhatkar ordered status quo on ownership and held back NPCIL from acquisition of land. This order was replaced by the court verdict of August 2009 as the court observed that there is nothing wrong in land acquisition.

Sakharinate, which comes under the affected area, is a fishing hamlet located near the sea. There are 10,000 inhabitants living off fishing and its allied businesses. According to Amjadbhai Borkar, who is from the area and an activist in the struggle the village does not have land at stake but, hot water from the nuclear plant will increase temperature resulting in a revenue loss of Rs. 600 crores a year. He says the harbour in the creek which is in between the project site and Sakharinate village, will be affected. The project site will be walled and entry and exit of the boats will be hampered. The women from Sakharinate village are engaged in collecting, preserving and marketing fish in nearby villages. It is believed that once these women joined the struggle, the movement reached its glory. Protestors mention that the Nate police are afraid of these women.

The possible geological and environmental impacts are discussed by anti-nuclear activists of India. Fukushima nuclear disaster is a telling example for people who reside in and around Jaitapur and the incident has created sensitisation among the village dwellers. They were also guided by villagers of Tarapur, who are affected due to the presence of nuclear power station. The protestors have launched their protests through local level organisations, namely *Janhit Seva Samiti, Konkan Bachao Samiti, Madban Mithgavane Sangharsh Samiti* and *Machhimar association of Maharashtra*. A *Hindustan Times* report of 29 November 2010 states that the Maharashtra state government completed land acquisition in January 2010 but only 33 out of 2,325 villagers accepted compensation cheques as of November 2010. *The Hindu* reported in February 2014 that land compensation was accepted by all.
Despite all the resolutions and the facts being placed against nuclear power, the central government, NPCIL and the state government of Maharashtra have been pushing for the project ruthlessly. The state government went ahead with forcible land acquisitions under the draconian Land Acquisition Act by using police force. In spite of all the coercive efforts from the state government and NPCIL, the local people have not accepted any compensation from the government initially but eventually some of them have accepted.

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<th>Dates of the major events</th>
<th>Description of government action</th>
<th>Action taken by protestors</th>
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<tr>
<td>29 December, 2009 &amp; 12 and 22 January, 2010</td>
<td>Government authorities visited Madban for distribution of cheques</td>
<td>Villagers refused to accept cheques. Authorities were shown black flags and denied co-operation in carrying out their action.</td>
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<td>16 October, 2010</td>
<td>NPCIL and the state government of Maharashtra signed an MoU for rehabilitation of project affected people living near JNPP</td>
<td>Project affected villagers made bonfire of the newspapers carrying government’s announcement.</td>
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<td>29 October, 2010</td>
<td>Prohibitory orders imposed</td>
<td>Peaceful protest; over 3000 people courted arrest; resolution passed that there was no parting away with their land and no compensation to be accepted.</td>
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<td>28 November, 2010</td>
<td>MoU announced; granted environmental clearance for JNPP</td>
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<td>4 and 7 December, 2010</td>
<td>Visit of French President Nicolas Sarkozy to India</td>
<td>To express their strong protest against finalising of the JNPP on extraneous grounds and their opposition to JNPP, fisherfolk, farmers and other villagers organised a rally at Madban. 5000 strong people raised slogans of ‘AREVA Go Back’, and courted arrest</td>
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<td>18 December, 2010</td>
<td>An NPCIL official hired a Sumo (4 wheeler) which rammed into a scooter, killing a rider. It was an example of dangerous driving of police vehicles on the narrow roads. The police lodged FIR against the activists and local leaders with serious charges such as rioting, carrying deadly weapons and even attempt to</td>
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<tr>
<td>2011</td>
<td>The Chief Minister of Maharashtra organised a meeting of the project affected local people and others working on the issue with officials of the BARC, NPCIL and Atomic Energy Department to discuss JNPP in Mumbai.</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>The state industries minister issued an open threat to all those who are participating in the anti-JNPP agitation stating, “Some people do not want development work to be done in the Konkan belt. Those who oppose the project will not be able to go back home”.</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>After Fukushima accident, a <em>bandh</em> in Ratnagiri was called and students boycotted ceremony.</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>President Sarkozy arrives in India</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Protest in Madban</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>Police fired indiscriminately on the protestors killing one and injuring 17 others.</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>National committee meets in Delhi over Jaitapur</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>Monster of <em>Anu Urja</em> or nuclear power buried in Nate Village</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>Enhanced compensation for affected people</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>JanhitSevaSamiti</em> calls off protest</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pravin Gavankar dies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stop Jaitapur: Down With Areva, Public Meeting at Nate</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Compensation accepted by 1311 Protests in Sakharinate.</td>
<td></td>
</tr>
</tbody>
</table>
As mentioned earlier, all gram panchayats have passed resolutions against the nuclear power park. I could obtain the copies of the resolution from 11 villages in the vicinity. Local people have been protesting against the project peacefully and democratically for the last five years. The following table provides information about names of the villages, dates of the resolutions passed, and also briefly the reasons for taking ‘No AnuUrja’ (No nuclear energy) and ‘No JNPP’ stand.

<table>
<thead>
<tr>
<th>Name of Gram panchayat</th>
<th>Date of the resolution passed</th>
<th>Reasons for ‘No JNPP’ stand</th>
<th>Demands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jaitapur</td>
<td>29 May, 2015</td>
<td>Forcible land acquisition, no transparency in disseminating information about the project, loss of livelihood for fisher-folk and labourers, environmental loss, impacting entire population.</td>
<td>No JNPP</td>
</tr>
<tr>
<td>Mogre</td>
<td>15 August, 2015</td>
<td>Nuclear energy is destructive and NPP are risk prone; nuclear accidents could make the land uninhabitable; issue of spent-up fuel; construction company AREVA is bankrupt; huge capital investment, hazardous effects on all life forms.</td>
<td>No JNPP</td>
</tr>
<tr>
<td>Dhopeshwar</td>
<td>30 September, 2015</td>
<td>Not yet tested EPR nuclear reactors, and other reasons same as above</td>
<td>Cancel the project immediately.</td>
</tr>
<tr>
<td>Dhaulpalli</td>
<td>15 August, 2015</td>
<td>Same as above</td>
<td>Cancellation of JNPP immediately.</td>
</tr>
<tr>
<td>Sagave</td>
<td>15 August, 2015</td>
<td>Loss of bio-diversity that will adversely affect variety of fish and their habitat; electricity generated will be costly; it incurs huge investment.</td>
<td>Cancellation of JNPP immediately.</td>
</tr>
</tbody>
</table>

22See Annexure Page No. 7: a specimen copy of the resolution from Jaitapur Grampanchayat is attached.
<table>
<thead>
<tr>
<th>Village</th>
<th>Date</th>
<th>Concerns</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mithgavane</td>
<td>26 August, 2015</td>
<td>Same as above</td>
<td>Cancellation of JNPP immediately.</td>
</tr>
<tr>
<td>Kondsar</td>
<td>25 August, 2015</td>
<td>Nuclear power is destructive; hazardous to health due to radiation; problem with nuclear waste material (spent-up fuel) which is equally radioactive; waste material needs management and safe storage site as it will be kept for a thousand years; bankruptcy of AREVA, expensive exorbitant to procure electricity; huge investment needs to be made.</td>
<td>Cancellation of the project immediately.</td>
</tr>
<tr>
<td>DevacheGothne</td>
<td>25 August, 2015</td>
<td>Same as above</td>
<td>Cancellation of JNPP immediately.</td>
</tr>
<tr>
<td>Nate</td>
<td>31 August, 2015</td>
<td>Forcible land acquisition, no transparency in disseminating information about the project, loss of livelihood for fisher-folk and labourers, environmental loss, impacting entire population, seismic zone, prone to earthquakes</td>
<td>Cancellation of JNPP immediately.</td>
</tr>
<tr>
<td>Ambolga and Sakharinate</td>
<td>28 August, 2015</td>
<td>Nuclear energy is destructive and NPPs are risk prone; nuclear accidents could make the land uninhabitable; issue of spent fuel; construction company AREVA is bankrupt; huge capital investment needed; hazardous effects on all life forms; not yet tested EPR nuclear reactors; and other reasons same as above.</td>
<td>Cancellation of JNPP immediately.</td>
</tr>
</tbody>
</table>

Source: Resolutions passed by village panchayats, collected by the researcher.

The villages which passed the resolution are not only those affected by the project but also the ones in the vicinity. The resolutions cite the following concerns for taking a ‘No JNPP’ stand are:

- Approval
- Rehabilitation
- Land acquisition
- Cost involved
- Radioactive by-products,
- Reprocessing of spent fuel
- Disposal of radioactive wastes
- Civil nuclear liability limits of Jaitapur nuclear power plant

The protestors feel that the state is repressing the people’s democratic, peaceful agitation against the nuclear power project and that the government machinery is indulging in false propaganda. The
people’s determination is uncompromising. For in-depth understanding about the safety and cleanliness of nuclear energy, a serious scientific debate is to be conducted. Protestors consider Jaitapur Nuclear Power Plant as a consequence of the Indo-US nuclear agreement. In their view, the lives and survival of Indian citizens and the protection of environment are more important than the profits.

**Demands made by the protestors**

1. Cancel the Jaitapur Nuclear Project.
2. Return forcibly acquired lands.
3. Withdraw all police cases filed against the activists and also the ban orders.
4. Carry out cumulative environmental impact assessment study of the existing and proposed power, mining, and chemical industry projects in the Konkan belt.

When I interacted with the local level leaders and villagers, especially men and women from Jaitapur and surrounding villages, I could gather that the concerns for life and livelihood were of utmost importance. One of the major grievances was the lack of transparency and casual attitude of the government towards villagers and their choices. They are dependent on land and sea and for generations; they derive their life source from these two natural resources. Along with the villagers, children from the area also expressed their strong opposition to JNPP. The fisherfolk, agriculturalists, horticulturists and all other dependent workers are ready to sacrifice their lives but not let the plant be set up.

These are some of the observations from my field visits: Labourers from other states assist in fishing and sailing activities. The researcher noted Nepali workers tending to mango trees and contributing their labour for mango cultivation and packing and unpacking of mangoes. Those owning coconut and palm trees have to depend on labourers from other regions now as their own village labourers have either migrated to nearby cities and towns or do not consider such work as worthy.

While talking to people and reading the reports of some studies conducted by TISS and Coalition for Disarmament and Peace (CNDP) and alike, it strikes one that people have been logical and reasonable arguments against such projects and developmental agendas of the government. They are not moved emotionally alone, but base their arguments on the facts and awareness about other nuclear power projects like Tarapur, Koodankulam, Rawatbhata and the consequences and ill-effects of deploying nuclear energy. Citing from ‘Student Fact Finding Report on proposed Jaitapur Nuclear Power Project,’ conducted by TISS students may not be out of place here. A woman in Nate said,

This company thinks that we are ignorant and do not know about ill-effects that will be caused due to the project. They say that the fish will become bigger due to the hot water discharge. Now you tell me, what will happen if you put a fish in hot water? It will obviously die. I know at least this much of science. (nd: 9)
The people boycott peace meetings to show their determination. The irony of the situation is that the collector attends peace meetings with more than twenty police vans and an ambulance in attendance. People raise pertinent questions such as: ‘if nuclear power plant is safe and radiation is of no issue, then why are the staff colonies located 10 kms away (at Niveli) from the plant and not in the villages where we reside?’

The youth, children, and elderly oppose the plant and argue why people like them have to sacrifice their livelihood for people in the cities and towns who require electricity. Setting up of a nuclear power plant at the cost of environment, health of the people and livelihood is an indecent proposal in fact, says a leader from Konkan Bachao Samiti (in an interview held in September, 2014).

A Peace Meeting conducted at Mithgavane Gram Panchyat and at Niveli Panchayat Hall on 25 December, 2010 brought forth several vital questions.

An elderly villager raised questions for the committee on behalf of the villagers. The seven questions that were raised covered almost all concerns about the project. They were:

1. How will the environment be affected by the plant? What will be the impact on the health of the people?
2. Why are the colonies of officials being situated away from the existing houses of the villagers?
3. What do you mean by ‘no displacement’? Whom do you call as ‘affected persons’?
4. Why have none of the ministers paid a visit to our village and spoken to us?
5. Why has the government not taken us into confidence regarding the project?
6. How will the project benefit us and our future generations? Will the benefits go only to the rich? We have asked for hospitals, schools and colleges before, but have never got it. Why is all of it coming only now?
7. There have been suspicious police activities in the village; three accidents have happened and one person has died. Such accidents have never happened in our village before and the roads in our village are clear. The villager said, he suspects that the police are deliberately inducing violence in the community to scare away the people from protesting. Is it so?

The Jaitapur Nuclear Power Project is a highly contested project. The said project will create direct impact on the livelihood as there would be lands acquisition and in case of fisherfolk, the sea water will get much warmer due to the release of water from the nuclear reactors. Agriculture, horticulture and fishery losses will badly impact the lives of people. Villagers feel that the concerns like future of children, ecological destruction and loss of livelihood are beyond money and compensation. The fear of radiation is another major concern of the local people, which need to be addressed. The people of Madban, Jaitapur, Mithgavane, Nate, Sakharinate, Karel and Niveli have been living in harmony with
nature and heavily dependent on the natural resources from the area. Radiation is harmful not only for human life but also it creates alterations in the natural resources. The radiation contaminated resources will adversely affect the agricultural, horticultural products and fishing from the sea. There is a lack of transparency in case of dissemination of information. Government is not providing information readily. People have to make use of RTI or initiate protest actions at times for gathering the authentic information details about the project. People are agitated for lack of information or manipulation of information. The main focus of this study is exploring women’s role and participation in the said struggle. The discussion about women’s role and participation is presented in Chapter 6.