



## The Nuclear Debate in Japan Are there alternatives?

**Rajaram Panda**  
*Senior Fellow, IDSA*

On July 13, 2011 Prime Minister Kan Naoto declared at a news conference that Japan will gradually decrease reliance on nuclear power, with the ultimate goal of achieving a nuclear power plant-free society. The announcement ushered a historic shift in Japan's energy policy, which has long been promoting nuclear power as a key energy source. However, such a radical policy shift requires clear plans and effective strategies based on solid scientific, technological and economic grounds. Kan gave no such details. The next day of his announcement Kan realised that he had announced the government's denuclearisation policy without consulting other cabinet members and claimed to be his personal opinion and not the government's decision.

Kan had initially planned to coordinate opinions among his cabinet colleagues regarding his denuclearisation policy. However, in a meeting of the Nuclear Emergency Response Headquarters that he chairs, Kan sensed that many of the cabinet members were not favourably disposed to his stance and he feared exacerbation of disunity among them. He therefore went overboard and announced a fundamental rethink of Japan's basic energy policy that underlined less reliance on nuclear power. He did not discuss specific measures to achieve the goal. However, he was apparently not thinking in terms of an immediate policy change. He seemed determined to start the process of decommissioning all nuclear power plants in Japan while he was still in office.

Though the LDP and the opposition party New Komeito had earlier promoted nuclear power, they found it difficult to oppose Kan's idea of phasing out the industry because of the current public opinion. They therefore focused their criticism on Kan's failure to specify measures to

achieve his goal. The LDP had a pro-nuclear stance for half a century while it was in power before August 2009. Apparently, the Fukushima nuclear power plant crisis and the public thinking against nuclear power have been responsible for a gradual shift from nuclear power for both the LDP and the New Komeito. However, the LDP has close connections with the electric power industry and the party may find it difficult to shift its policy. There is an apprehension among the law-makers in the opposition that after Kan steps down his successor may backpedal on his strident anti-nuclear stance.

### NUCLEAR ENERGY: WILL JAPAN OVERHAUL ITS ENERGY STRATEGY?

A comprehensive overhauling of the country's energy policy is not an easy task. Notwithstanding the anti-nuclear sentiment prevailing in Japan in the wake of the Fukushima nuclear accident and Kan trying to capitalise on such a wave to his advantage, Japan cannot afford to do away with nuclear power. Japan is utterly deficient in domestic supply sources. The formation of resource cartels and the fear of controlling supplies by the resource-exporting countries are not good signs to the Japanese economy. Therefore, supporters of Kan's denuclearisation policy are said to be a minority in the cabinet. Opponents of Kan's denuclearisation policy include Kaoru Yosano, the State Minister in charge of economic and fiscal policy. Yosano said, "Countries will scramble for oil and natural gas in the future. Prices will soar and concerns will arise about a stable supply. Will we really prepare ourselves for such troubles?"

Complete denuclearisation would harm the international competitiveness of Japanese

companies.

Kan's news conference remarks lacked specifics and raised numerous questions. Aiming to achieve a society without nuclear plants in the future may be attractive to the people embedded in anti-nuclear thoughts, but when does "in the future" refer to? *The Mainichi Daily* in an editorial raised the fundamental question by observing: "How will the government promote the development and introduction of substitute energy sources?"

The Genkai nuclear power plant remains suspended for regular inspections. The Genkai Town Mayor Hideo Kishimoto notified the Kyushu Electric Power Company of his consent to restart the plant's second and third reactors. After examining the safety measures of the plant, it was found that there were no traces of earthquakes or tsunamis in the town over the past 2,000 years and therefore natural conditions indicated the town as a secure location for a nuclear plant. The Mayor concluded that since electricity supply insecurity emerged from the Great East Japan Earthquake in March 2011, it would be unsafe for the whole of Japan if nuclear plants in western Japan were halted.

Since the central government handles the country's nuclear energy policy, it is unreasonable to hold a company or a local government responsible for deciding the safety of nuclear reactors and restarting them. The Prime Minister holds the final political decision to restart the Genkai reactors.

The main issue in the debate is whether Japan can progress without nuclear power. Assuming that Japan shifts priority as a policy option and decides to increase natural energy sources' share of electricity generation, it will have to depend on nuclear plants to some extent for one or two generations. Japan already has been facing electricity shortages and this is affecting adversely Japan's industrial infrastructure. More cuts in

*The main issue in the debate is whether Japan can progress without nuclear power. Assuming that Japan shifts priority as a policy option and decides to increase natural energy sources' share of electricity generation, it will have to depend on nuclear plants to some extent for one or two generations.*

power will have an adverse impact on the health of the elderly, the sick and the infants, in particular.

Kan is under pressure to take a political decision regarding restarting of operations at the Genkai plant reactors, paving the way for restarting other reactors whose regular checkups are complete. Kan's proposal to shift an energy policy away from nuclear plants without explaining its entire energy policy is perceived as arbitrary with an ulterior motive to remain in office longer.

## II THE NUCLEAR DEBATE IN MEDIA

At this critical time, Japan cannot afford to waste energy on political battles; rather it is time to focus on nuclear power plant issue and arrive at a decision which is in Japan's national interests. In May 2011, Banri Kaieda announced that Genkai Plant was safe to resume operations. Many major Japanese newspapers were sceptical.

*The Mainichi* argued that "discussion on nuclear safety was still lacking". *The Asahi Shimbun* called on the government to "not rush to restart nuclear reactors". *Tokyo Shimbun* declared that a "premature resumption of operations would be problematic". *The Sankei Shimbun* showed concern for power shortage saying, "We welcome the fact that we are heading in the direction of restarting the Genkai plant." As the Kan administration decided afresh to conduct stress tests on all nuclear power plants, it brought the re-launch of operations at the Genkai plant back to square one.

*The Mainichi* was rather sympathetic with Kan. In an editorial, it said "though questions remain about the circumstances that led to the decision, at least it is a step toward confirming the safety of the nation's nuclear power plants". *The Sankei*, however, was harsh and demanded that it "stop messing around with the issue of resuming nuclear power plant operations". Both positions have merits in their own ways. What angered the nation was the kind of disconnect between Kan's own stand and that of some of his senior cabinet colleagues, with Kaieda hinting at his own resignation. What this means is the public distrust towards the government. *The Yomiuri Shimbun* lambasted the Kan administration and observed "everyone in the political world should find a way to bring an end to the Kan administration as soon as possible".

Indeed, Kan came under flak for numerous mistakes since the triple disaster struck Japan. His

choice of Kazuyuki Hamada of Upper House from the opposition LDP camp as Parliamentary Secretary for Internal Affairs and Communication without taking into confidence his own cabinet dented Kan's reputation. His choice of Ryu Matsumoto to the post of Reconstruction Minister was erroneous as Matsumoto resigned on the ninth day on the job.

Kan's popularity may have ebbed and most newspapers have lambasted Kan for his mishandling but they have not offered an alternative figure to take his place. Four of the most recent Japanese Prime Ministers only served for about a year each. Almost all of them started with high ratings but their popularity soon dropped to dismal level. In the case of Kan, unfortunately the debate has centred on his alleged mishandling rather than deliberating how to resume nuclear power plants. Unfortunately, politics has taken the upper hand in handling the nation's most crucial issue at present. Since top officials of the DPJ executive office are distancing themselves from Kan and that their attention is focused more on when Kan is resigning, it seems likely that "the pursuit of an end to nuclear power will end up being merely a Kan pet project". Kan wanted to achieve major changes in the country's energy policy as a defining achievement of his political career.

Furthermore, Kan's announcement that his government will promote the use of natural gas-fired thermal power stations and take other measures to make up for electric power shortages fell short of details as it did not specify how the plans will be executed. The issue was more of safety precautions and how to protect the interests of the business. Apparently, Kan was using his anti-nuclear power policy to cling on to power longer than what was expected.

Kan has been criticised for various statements, including those requiring a "certain progress" for his resignation. In a meeting on social security on July 14, Kan admitted those politicians in general and he in particular are not trusted by the public. According to a poll conducted by the *Asahi Shimbun* on July 9-10, approval rate for Kan's Cabinet sank to 15 per cent, falling below the 20 per cent mark for the first time. The disapproval rate rose to 66 per cent, the highest since Kan took office in June 2010.

### III

#### NUCLEAR ENERGY: SIGNIFICANCE FOR JAPAN

Japan embarked on nuclear power generation in 1954, less than 10 years after the end of World War

*Kan's statement of July 13 was premature and was only to assuage public sentiment. The result has been counter-productive as no details have been provided on how to achieve the change.*

II. The scientific community engaged in the development of Japanese nuclear power technology in the early stage was of the view that nuclear power was a prerequisite for Japan's reconstruction from the devastation wrought by the war. Atomic energy did support Japan's post-war "economic miracle" to some extent.

The Fukushima nuclear accident has led to a rethinking in Japan about nuclear as an option and cast serious doubt over continued dependence on nuclear power generation, especially when safety issues have taken centre stage. Japan's science and technology powerhouse is still grappling to cope with the crisis.

The basic principle for phasing out nuclear power generation should be shutting down old reactors that have reached the end of their planned life span without building new ones. The disaster-stricken Fukushima's No.1 reactor operated by TEPCO is already 40 years old and the third oldest of all the reactors that were in operation in Japan. The other two older reactors are the No.1 reactor at Japan Atomic Power Company's Tsuruga Nuclear Power Plant in Fukui Prefecture and No.1 reactor at Kansai Electric Power Company's Mihama Nuclear Power Plant in the same prefecture. The government has approved a 10-year extension of their service life. If Kan's plan of phasing out nuclear plants is adopted as a government policy, these two reactors would be the first ones to be decommissioned, especially because both are old and both are located close to an active fault. However, old reactors are small and even if they are closed after they reach 40, the impact on Japan's total power generation will be negligible.

If all reactors in Fukushima are shut down after 40 years of operation, total power generation capacity of the nuclear power plants in Japan will fall by 20 per cent in 2021 and by 50 per cent in 2029. It is only by the end of 2049 that all existing

reactors will go out of service. If Kan's proposal is adopted, Japan has time for the next four decades to expand other sources of energy such as solar, wind, and renewable. Can Japan leapfrog to attain energy security this way?

A better option for Japan should be to work out new safety standards and disaster prevention plans based on the lessons learnt from Fukushima rather than doing away with plans for the nuclear in the long run. The Central Disaster Prevention Council needs to ensure that plants will be able to withstand the most destructive earthquake and tsunami in future. It is also necessary to establish an effective crisis management system to minimise damage when an accident occurs. "The current system must be redesigned fundamentally from the viewpoint of how to get a grasp of what is happening and how to respond to the situation when multiple problems arise simultaneously at a nuclear power plant."

Japan needs to revamp its disaster prevention system. In the past nuclear accidents, the evacuation zone was a 10-km radius around the plant; Fukushima accident required evacuation 20 km from the accident site. This means more number of people and local governments are affected. Therefore, it is necessary to assess carefully the viability of any plan for such large-scale evacuation.

Generally, electric power companies are reluctant to disclose information on the safety measures of their nuclear plants. Disclosing information could be inconvenient if accident occurs. The government therefore needs to have an effective system for critical assessment of the safety of nuclear power plants by independent experts. The ability of the Nuclear Safety Commission needs to be enhanced significantly. The Nuclear and Industrial Safety Agency needs to be separated from the Ministry of Economy, Trade and Industry as it promotes nuclear power generation.

Then the question of running nuclear power plants needs to be re-looked. At present, electric utilities run these facilities. It may be worth-considering if government takes over by nationalising the facilities or a new entity be created to handle the business. If shutting down the nuclear plants is the final option, such a decision would impact greatly on the local governments by way of loss of revenue as well as job loss for the locals. Since

decommissioning a reactor will take 20 to 30 years, the government can make a long-term plan to review its energy policy. The government needs to plan for new "stress tests" to assess the safety of reactors.

#### IV CONCLUSIONS

If phasing out nuclear reactors is the preferred choice in the long term, Japan needs to move towards a clean energy future. It needs to find new energy sources for the transition period. Natural gas can be used for power generation. But it would emit carbon dioxide and tackling this is another challenge. Natural gas, however, can be used for micro-power generation for individual households and buildings and the exhausts heat could be used to supply hot water. Global natural gas supply is becoming stable with the development of large-scale projects to develop shale gas deposits under way in Russia and Australia.

In response to the Fukushima disaster, Germany decided to phase out all of its nuclear power plants over the next 11 years and looks for a nuclear-free future. Globally, the use of renewable energy sources is growing rapidly. If the plans in several countries proceed as schedule, several years from now, the total capacity of wind power generation facilities is expected to surpass that of nuclear power plants. If Japan decides to reduce dependence on nuclear energy, it has to expand its use of renewable energy sources.

At present, Japan does not have a strategy to do so. Kan's statement of July 13 was premature and was only to assuage public sentiment. The result has been counter-productive as no details have been provided on how to achieve the change. Nuclear power generation has become a major political issue in Japan. The Fukushima disaster may have provoked calls for reconsidering the nuclear energy policy within the Japanese political community but any talks of phasing out, however slowly, do not seem to be realistic. Japanese economy is already ailing and it will be throttled if energy denial strategy is taken too far.

*Views expressed are author's own.*