

Opinion: Should the Japanese give nuclear power another chance?

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Professor Hayano and Dr. Tsubokura invented the BABYSCAN technology, a whole-body scanning to measure radiation in small children. Credit: Harry Surjadi

On September 9, 2014, the Japan Times reported an increasing number of suicides coming from the survivors of the March 2011 disaster. In

Minami Soma Hospital, which is located 23 km away from the power plant, the number of patients experiencing stress has also increased since the disaster. What's more, many of the survivors are now jobless and therefore facing an uncertain future.

This is not the first time that nuclear power has victimized the Japanese people. In 1945, atomic bombs exploded in Hiroshima and Nagasaki, creating massive fears about nuclear power in the Japanese population. It took 20 years for the public to erase the trauma of these events. It was then – in the mid 1960s(?) – that the Fukushima Daiichi Nuclear Power Plant was built.

According to Professor Tetsuo Sawada, Assistant Professor in the Laboratory of Nuclear Reactors at Tokyo University, it took a lot of effort to assure people that nuclear power was safe and beneficial. The first step was a legal step: In 1955, the Japanese government passed a law decreeing that nuclear power could only be used for peaceful purposes.

"But that law was not enough to assure people to accept the establishment of nuclear power," said Prof. Sawada.

He explained that the economy plays an important role in public acceptance of nuclear power. Through the establishment of [nuclear power plants](#), more jobs were created, which boosted the economy of the Fukushima region at that time.

"Before the Fukushima disaster, we could find many pro-nuclear people in the area of nuclear [power plants](#) since it gave them money," said Prof. Sawada.

Now, more than forty years have passed and the public's former confidence has evolved into feelings of fear about nuclear power and distrust toward the government.

According to a study conducted by Noriko Iwai from the Japanese General Social Survey Research Center, the Fukushima nuclear accident has heightened people's perception of disaster risks, fears of nuclear accident, and recognition of pollution, and has changed public opinion on nuclear energy policy.

"Distance from [nuclear plants](#) and the perception of earthquake risk interactively correlate with opinions on nuclear issues: among people whose evaluation of earthquake risk is low, those who live nearer to the plants are more likely to object to the abolishment of nuclear plants," said Iwai.

This finding is in line with the perception of Sokyū Genyū, a chief priest in Fukujuji temple, Miharu Town, Fukushima Prefecture. As a member of the Reconstruction Design Council in Response to the Great East Japan Earthquake, he argued that both the Fukushima Daiichi and Daini nuclear power plants should be shut down in response to the objection of 80% of Fukushima residents.

However, the Japanese government, local scientists and international authorities have announced that Fukushima is safe. Radiation levels are below 1mSv/y, a number that, according to them, we should not be worried about. But the public do not believe in numbers.

But Genyū was not saying that these numbers are scientifically false. Rather, he argues that the problem lies more in the realm of social psychology. Despite the announcement about low-radiation levels, the Japanese people are still afraid of radiation.

"It is reasonable for local residents in Fukushima to speak out very emotionally. Within three months of the disaster, six people had committed suicide. They were homeless and jobless, " said Genyū.

It is heart-breaking to know that victims of the Fukushima Daiichi nuclear accident died not because of radiation, but instead because of depression. Besides the increasing number of suicides, the number of patients suffering from cerebrovascular disease (strokes) has also risen. In Minami-Soma Hospital, the population of stroke patients increased by more than 100% after the disaster.

Local doctors and scientists are now actively educating students in Fukushima, convincing them that the radiation will not affect their health.

Dr. Masaharu Tsubokura, a practicing doctor at Minami-Soma Hospital, has been informing students that Fukushima is safe. But sadly, their responses are mostly negative and full of apathy.

"I think the Fukushima disaster is not about nuclear radiation but is rather a matter of public trust in the technology," said Dr. Tsubokura.

Dr. Tsubokura has given dosimeters, a device used to measure radiation, to children living in Minami-Soma city. But apparently, this was not enough to eliminate people's fears.

In 2012, Professor Ryogo Hayano, a physicist from the University of Tokyo, joined Dr. Tsubokura in Minami-Soma Hospital and invented BABYSCAN technology, a whole-body scanning to measure radiation in small children as well as to allay the fears of Fukushima parents.

"BABYSCAN is unnecessary but necessary. It is unnecessary because we know that the radiation is low. But it is necessary to assure parents that their children are going to be okay," said Prof. Hayano.

After witnessing the fears of the Fukushima people, Prof. Hayano thinks that nuclear power is no longer appropriate for Japan. He believes that

the government should shut down nuclear power plants.

"As a scientist, I know that nuclear power is safe and cheap. But looking at the public's fear in Fukushima, I think it should be phased out," said Prof. Hayano.

But, does the government care about the public when it comes to politics?

It has only been three years since the disaster and Prime Minister Shinzo Abe has been keen to revive the country's nuclear power plants. The operations of more than 50 [nuclear power](#) plants in Japan have been suspended because of the Daiichi power plant meltdown.

Last month, Japan's Nuclear Regulation Authority approved the reopening of a power plant in Sendai for 2015.

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