

The issue of nuclear power in Japan, and climate change

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It is a big concern whether Japan should keep and build more nuclear power plants or not. According to the former Japanese prime minister, Naoto Kan, Japan should reduce the number of the nuclear power plants gradually and create the society which does not depend on the nuclear power plants. Quite a few people in Japan has been conducting demonstration for abolition of the nuclear power plants in Japan and against reoperation for one of the nuclear power plants which is in Fukui prefecture. First, it is easy to say Japan should aim at not depending on the nuclear power plants. However, the situation is rather difficult. The rate of the nuclear power in the total energy accounts for thirty percent. If Japan had enough renewable energy to compensate for the nuclear power plants, it might be possible to abolish the nuclear power plants in the future. Second, it is a great thing that Japan has a free society that all people can join or conduct the demonstration, but it is doubtful if people know quite well about the nuclear power plant and consider well which energy Japan can depend on after abolishing the nuclear power plants. Nowadays, especially all developed countries should agree on reducing greenhouse gas (GHG) and put a lot of effort to lower the temperature in the world. Thus, Japan cannot import more oil or coal and depend more on fossil fuels. It is against what the world should aim at. The only way that compensates for the nuclear power is renewable energy.

Although it is quite risky for Japan, where earthquake occurs in almost every areas, to have nuclear power plants, Japan has to keep them until either we find the way to use the renewable energy which is enough to compensate for energy which lacks because of nuclear power or to invent the nuclear power plant which withstands an earthquake or tsunami equivalent. After Fukushima disaster occurred, every part of Japan conducted saving electricity. In the train and the office, the air conditioner was turned off or turned down. It was fine in spring, but summer in Japan is very humid and hot. It seems probable enough that people is faint with heatstroke if the inside of the train or office is too hot. In my case, I still remember that I felt dizzy on the packed train and with almost no air conditioner to save electricity. It is very important to save electricity considering the situation in Japan. However, there is a limit to what we can do. If the government decides to stop using the nuclear power plants, it causes more difficulties in the public areas. Therefore, Japan still has to keep the nuclear power in the present condition while putting effort to keep safety for it.

After the Fukushima disaster occurred, so many rumors were exchanged not only in Japan but also in the world. My mother said to me, "Today, it's better not to dry the blankets outside because a massive dose of radiation is coming by wind and with pollen." One of my friends in Japan also said to me, "We should not go outside today because it is raining. The clouds which came from Fukushima area include radiation, and we will be exposed by radiation if the rain gets on our skin or hair." Furthermore, one of my friends from South Korea told me, "I heard on the news that radiation has reached California and East Asia is

exposed by radiation”. When I asked them, “How did you get information about that?” they answered that they heard about that from neighbors or my friends. These rumors without any reliable sources of information or enough knowledge about radiation also make the image of the nuclear power plant more “dangerous” and accelerate demonstrations temporarily. Information from South Korean friend shows it is very different that Japanese media report and foreign media do. It has been two years since Fukushima disaster occurred. The media in Japan seldom report about nuclear power. Few people conduct demonstration recently, compared to right after the accident. The leaders from each country gathered and discussed about nuclear power right after the Fukushima disaster, and then the world started moving toward anti-nuclear power plant. According to the Asahi newspaper, which I read two years ago, Turkey is unwilling to import nuclear power plants from Japan and postponed the plan to import them. It is obvious that people pay much more attention about nuclear power right after the disaster and the current of the world becomes anti-nuclear power. However, the important thing is that we should not be confused by rumor or the news right after the disaster because I think a psychological phenomenon occurs that people’s mind is controlled by the media which report how much radiation is exposed or the like. Although Japan has a lot of risk to have nuclear power plant, people should consider the fact that the present situation of that Japan depends on nuclear power energy. If Japan makes a decision to abolish it, people also have to consider alternative energy for nuclear power, the cost for that, and climate change. It is dangerous idea that abolishing them now just because it is not safe.

On the other hand, it is doubtful if nuclear power contributes to solve climate change while Japan need to keep nuclear power plants in the present situation. According to the International Atomic Energy Agency (IAEA), nuclear power can make a significant contribution to reduce greenhouse gases and produce virtually no greenhouse gas emissions. IAEA states strongly the need for the nuclear power and contribution to solve climate change by nuclear power. However, it is hard to say that nuclear power contributes to solve climate change when it comes to nuclear waste. If Japan depends on nuclear energy more, spent nuclear fuel will be generated more. Hence, more facilities will be needed in order to store the overflow of spent nuclear fuel. Although nuclear power produces much less greenhouse gas during their operation than thermal power, it is not likely to contribute to solve climate change considering nuclear waste.

Nuclear power has many problems such as a danger of terrorist attack, natural disaster, and radioactive nuclear waste. Considering these problems, the best way to contribute to solve climate change and keep safety is to develop and use more renewable energy as soon as possible. Japan is now planning to develop geothermal power generation and wind power generation at sea by utilizing the privilege of Japan’s topography. When renewable energy is fully developed, nuclear power should be reduced gradually.

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