

5 Years After the 3/11 Disaster – An observation from U.S.

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I observed the fifth anniversary of the Great East Japan Earthquake in the U.S. capital of Washington. I would like to offer my heartfelt condolences anew for the great number of victims of the disaster and pray for the repose of their souls.

On the day of the disaster, I was in Brunei attending an ASEAN+3 meeting. I remember that I was greatly shocked at seeing a great tsunami hitting northeastern Japan on television in Brunei. I also remember that I had a serious sense of crisis over the Fukushima Daiichi Nuclear Power Station accident including reactor core meltdowns and hydrogen explosions while praying for the resolution of the accident in the absence of sufficient information. Five years have passed since then.

I visited Washington this time to participate in a conference on “Japan’s Energy Priorities and the Middle East” at the invitation of the U.S. think tank Atlantic Council. As indicated by the title, the conference did not focus on the disaster or the nuclear power plant problem. At the conference and the talks I attended with other U.S. organizations and experts during my Washington visit, however, Japan’s energy problems became a major topic in regard to the disaster. We discussed what changes have come to Japan due to the disaster and what Japan is planning to do. The discussions prompted me in the following to review how or whether domestic and overseas energy changes for Japan have changed from five years ago:

First, Japan has revised its energy policy. In response to the earthquake-tsunami disaster and the Fukushima nuclear accident, Japan decided to thoroughly reconsider its “Basic Energy Plan” that had sought to raise nuclear energy’s share of electricity generation to 50%. Through the accumulation of difficult discussions, the government managed to compile a new long-term energy supply and demand outlook last July. The revised Basic Energy Plan and the new long-term energy supply and demand outlook call for safety as the top priority in addition to the traditional policy goal of simultaneously achieving the so-called 3Es -- energy security, environmental protection and economic efficiency. Ultimately, the government has based its energy policy on a serious reflection on the Fukushima nuclear accident.

It’s no exaggeration to say that new initiatives were taken in every area as the energy policy was reconsidered from scratch. The most difficult area in this respect was the nuclear energy policy. Although nuclear was a mainstay electricity source before the disaster, nuclear power reactors remained unable to restart after undergoing regular checkups following the Fukushima accident, forcing Japan to experience the absence of nuclear power generation. The Nuclear Regulation Authority (NRA) was established as a new independent nuclear regulatory body. Based on the reflection on and lessons from the Fukushima accident, the NRA has worked out new and stringent safety standards and examined nuclear reactors’ conformity with the new standards in a run-up to their restart. Since Kyushu Electric Power Co. restarted the No. 1 unit of its Sendai Nuclear Power

Station last summer, some other nuclear reactors have resumed operations. However, the future prospects and pace for restarting nuclear reactors are uncertain. In this respect, American experts indicated their great interests in the Otsu District Court's decision to order Kansai Electric Power Co. to suspend the operation of the Nos. 3 and 4 units of its Takahama Nuclear Power Station, which came just before the conference in Washington. They asked me many questions about the future prospects for the nuclear power station and the decision's impacts on the pending restart and the nuclear energy policy.

Conditions involving Japan's energy policy regarding renewable energy, energy conservation and fossil fuels have changed dramatically during the past five years. Another major change has come in regard to market deregulation. The deregulation of electricity and gas markets had been at a pause before the disaster and began to make progress with the electricity system reform just after the disaster. The three-stage electricity system reform enters the second stage of full retail liberalization in April following the first stage where a wide-area coordination organization was established. The third stage will be completed with the legal unbundling of power generation and transmission operations, dramatically changing Japan's electricity market. Under the planned gas system reform following the electricity system reform, retail will be fully liberalized next year before three major gas companies are required for legal unbundling in 2022. The abovementioned long-term energy outlook depicts a future picture from a policy-oriented viewpoint. How will the future picture be realized under the system reforms pursuing market principles? It is pointed out that uncertainties may grow under the progress of the reforms.

I would like to cite three external issues for Japan. First, the supply and demand environment for the international energy market has changed remarkably. In early 2011, five years ago, crude oil prices were rising in response to the Libyan crisis and other events. The benchmark West Texas Intermediate crude futures topped \$100 per barrel in early March 2011. From that time to the first half of 2014, crude oil prices fluctuated at around or above \$100/bbl. At present, however, crude oil prices have plunged. On March 11, the key WTI futures price stood at \$38.5/bbl, down some 60%. Imported liquefied natural gas prices for Japan, which have mostly been linked to crude oil prices, have slipped below \$8 per million Btu (British Thermal Units) from \$16-17/MMBtu just after the disaster. Behind the energy price plunge has been the easing supply-demand balance, which has been triggered primarily by the U.S. shale revolution. In my discussions in Washington, multiple experts posed questions to me about the implications of U.S. LNG exports for Japan amid the changing market environment. For Japan, the LNG market has shifted from a seller's market with high prices to a buyer's market with low prices. Japan is now required to devise how to take advantage of the present situation.

The second external issue is the further complication of geopolitical risks over the past five years. The "Arab Spring" started five years ago, leading to Egyptian and Libyan crises. Developments since then have brought about the present complicated Middle East situation. Major present issues include the escalating civil wars in Syria and Yemen, the complicated Islamic State problem and rampant terrorist attacks inside and outside the Middle East. These issues have been coupled with an intensifying tensions between Saudi Arabia and Iran to make the Middle East situation more confused. The emergence and deterioration of tensions over the Russia-Ukraine problem have involved the United States and the European Union, leading them to implement and toughen economic sanctions against Russia. Tensions have intensified in Asia as well under China's growing expansion into the South China Sea. Geopolitical risks in the world have increased and grown complicated, but have fallen short of triggering energy price spikes. However, we may have to

take note of these geopolitical risks as potential threats to energy security.

On the third issue of climate change, the 21st Conference of Parties to the United Nations Framework Convention on Climate Change last December produced the Paris Agreement on an international framework for long-term climate change measures. Although enhanced climate change measures are still left for future negotiations, there is an international framework that had not existed five years ago. Japan's target for reducing greenhouse gas emissions has been incorporated into a part of the framework. The Paris Agreement in a sense indicates that the Japanese target has been given an international position, becoming one of the factors behind the major change in the past five years.

Finally, the stabilization and resolution of the Fukushima accident is still the most important energy problem in Japan, even five years after the accident occurred. During the past five years, the cold shutdown has been maintained for the nuclear reactors involved in the accident, with spent nuclear fuels being extracted from the fuel pool of the No. 4 unit and arrangements expanded for disposing radiation-contaminated water. Despite such steady progress in some areas, there are many problems and a long way to go for the planned decommissioning of the nuclear power station. Given that the accident has seriously affected the post-disaster reconstruction of Fukushima, with a great number of evacuees from the accident-affected areas still unable to return home, Japan is required to do its utmost to truly resolve the accident. (Written on March 12)

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