

One Asia Foundation International Lectures, Fall 2019 Semester
*“Humanities General Education: The Asian Community:
The Construction and Transformation of East Asiaology” Lecture Series (10)*

Title: Environmental, Energy, and Other Problems in East Asia

For the 10th lecture, we invite Professor Soocheol Lee from Meijo University (Japan) as guest speaker. Professor Lee was graduated from Seoul National University (South Korea) and received his Ph.D. degree from Kyoto University (Japan). He specializes in environmental economics and has studied environmental problems in East Asia. The lecture focuses on several issues: (1) the air pollution in East Asia; (2) the waste problem in East Asia; (3) climate change problem; (4) the nuclear energy in East Asia; (3) other problems. The summary of lecture is as following:

Professor Lee first provided his opinion on Air pollution in East Asia. Professor Lee defined East Asia as a region including China, Taiwan, Japan, Korea (and North Korea). He noted that in respect of environmental problem these countries are community of destiny and should solve problems through mutual cooperation. In recent years, hazardous air pollutants resulted from fossil fuel have impacted all East Asian countries due to the influence of westerlies. Among these, PM2.5 is the most serious problem. PM2.5 is smaller than one-thirtieth of the diameter of a human hair and the pollen of china fir. PM2.5 is harmful for human health due to their ability to penetrate deep into the lungs causing asthma and lung cancer. Although the average density of PM2.5 in China went down, it still has not reached the standard of regulation. It is necessary to keep up our efforts on reducing the density of PM2.5.

Professor Lee then discussed waste problem in East Asia, cross-border movement of waste and ocean plastics pollution in particular. Some countries send electronic wastes (or E-wastes) and clinical wastes produced in their countries to developing countries like China and Philippine to handle these wastes; however, these wastes have caused environmental problem in these countries and have been harmful to health of people who handled these wastes. Chinese government banned the import of 11 types of waste including plastic waste in order to improve the waste pollution problem in China. In addition, ocean plastics pollution is also a very difficult problem for these countries. The weight of plastic waste inflows to the ocean yearly is equal to the weight of 50,000 jumbo jets. The plastic wastes take a very long time for them to decompose and cause serious damages to the ecology of marine life. In recent years, people tend to accept ideas like increasing the recycle of Pote bottle, reducing the use of plastic container and package; however, due to the higher price of environmentally friendly materials, it has not replaced traditional plastic products. We still need to improve people's environment awareness.

Professor Lee continued to analyze the problem of climate changes and mentioned that the trend of carbon dioxide emissions in the world has dramatically increased since the industrial revolution in the 1850s. The biggest problem is that exhaust emissions result in global warming. Indeed, temperature has increased 0.8 degree in the past 100 years and IPCC predicts that it will increase 4.5 degree in this century. Humankind might face the threat that earth becomes uninhabitable. In order to solve this problem, in the meeting of United Nations Framework Convention on Climate Change in 2015, 196 signatory states signed “Paris Agreement” in which the aim is to bring greenhouse gas emissions to zero in 2100. In 2018, CO2 emissions for Taiwan ranked 23 in the world. Although Taiwanese government sets the goal of providing renewable energy, comparing to Japan, the United States, and European countries, the proportion of renewable energy in Taiwan remains low. professor Lee suggested Taiwanese government should increase the proportion.

At last, professor Lee mentioned the nuclear energy in East Asia and the Fukushima Daiichi nuclear disaster started by the Tohoku earthquake and tsunami on Friday, 11 March 2011. Though it has been 8 years, the problems of contaminated water and soil remain unsolved and over 40,000 people are still not able to return home. From the map of nuclear energy in East Asia, we can see that East Asia is the most condensed area with nuclear power plants in the world. Nuclear safety is an important task for East Asia henceforth.

In sum, professor Lee remarks that countries should cooperate and establish a multilateral mechanism to construct the legal structure regarding energy and environmental security in East Asia. Because the environmental problems are borderless, we need to have an integrated consideration to solve the problems. Moreover, we should execute plans to solve environmental problems by reducing the amount of wastes through the method of “Reduce, Reuse, Recycle,” introducing emissions trading system, and increasing the penetration of electronic car. Professor Lee expected students to contribute to the environmental protection as hard as they can, starting from reducing the use of plastics products and recycling the Pote bottle.

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