Chapter **1**

Introduction

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The radioactive disaster at Fukushima Daiichi Nuclear Power Station on 11 March 2011 caused a serious impact on regional society. More than 100,000 local residents were forced to leave their home for a long time. The general public in emerging economies in Asia was greatly shocked not only because the disaster was one of the three most severe nuclear accidents so far, but also because it happened in Japan, which has been well-known as one of the most advanced countries in terms of technology and infrastructure.

Meanwhile, economic efficiency is an inevitable element that should be considered in developing power stations in Asia. In this light, coal-fired power stations appear as an option as they have advantages in terms of stability of supply and economic efficiency. However, although there are technologies that utilise coal at lower environmental burdens, concern over carbon emission sometimes harms the adoption of coal-fired power generation.

Therefore, cultivating mutual reliance and agreement between institutional stakeholders such as the government, the licensee, and the local municipalities, would be crucial to the establishment and operation of a nuclear and coal facility. Intense and practical research on issues such as the specific feature of nuclear and coal power, their roles in energy security and climate change, social influence, and disclosure of risk information would be highly appreciated from a socio-scientific point of view. Raising a proposal for collaboration towards the social acceptance of nuclear and coal power in East Asia and taking practical action are of immediate necessity and would greatly contribute to the smooth development and utilisation of this energy in East Asia.

In this context, this project aims to build a network on collaborating towards the social acceptance of nuclear and coal power in East Asia.

This project has three methodologies. They are as follows.

First, we reviewed the activities for social acceptance and consensus taken in more advanced countries, and found facts from national debates and communications between local residents and licensees in advanced countries using nuclear and coal energy, such as the United Kingdom

(UK), Sweden, and Finland. These countries are the focus of this study. We also discussed and analysed how public discussions have influenced nuclear and coal power policies in these countries.

Second, we identified issues to be discussed and implications for a possible approach on risk communication. Based on reviews, we extracted issues on the social acceptance of nuclear and coal power in East Asian countries from the perspectives of energy security and environmental aspects as well as social science and risk science. Comments by experts on these areas from the United States, Europe, and Asia were introduced as inputs on how the risk from nuclear and coal power should be assessed by the public. This will pave the way to suggest an appropriate approach towards building a consensus on energy sources in East Asia.

Third, we held a workshop and open symposium. We discussed what conditions are crucial to improve the social acceptance of nuclear / coal power from the public's point of view aside from the viewpoints of engineers and policymakers. We also held an open symposium aimed for a better public understanding of the effects of nuclear and coal power.

Two major policy recommendations were suggested in this project.

One is that Southeast Asian countries should share a certain practical and useful approach towards having a better social acceptance in countries where the introduction of nuclear and coal power is still under consideration.

Another is that the methods for transparent and public debates in policymaking process are not developed yet in most Asian countries compared to advanced European countries. The study results provide a case model for establishing social consensus on certain public issues.