

Preface

The importance of geothermal energy is emphasised in the context of energy security and for global environmental issues since geothermal energy supplies stable electricity sources with low (almost no) carbon dioxide (CO₂) emissions.

Many Asian countries have been attempting the development of geothermal resources of their territories, although the types of geothermal resources vary from country to country. Countries with rich high temperature resources have been utilising their geothermal resources by conventional steam power generation. Even in countries without volcanoes, heat extraction from the deeper underground using enhanced/engineered geothermal system techniques and/or from shallow underground for direct use have been studied. However, geothermal utilisation in these countries has not been progressing mainly due to lack of information on the latest technology of development and sustainable use of geothermal resources.

The ERIA research project 'Sustainability Assessment of Utilising Conventional and New Type Geothermal Resources in East Asia' has started to develop guidelines for sustainable use of geothermal energy. To complete this mission, the working group of the Economic Research Institute for ASEAN and East Asia (ERIA) first analysed current geothermal use, technology, and management, and barriers and opportunities in each country. Then, based on the current status of technical barriers, the working group collected case studies concerning these problems with possible solutions. The guidelines have been developed based on compiled case studies from member countries.

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