Chapter 6

Policy Implication

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CHAPTER 6
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Main Arguments

Based on the reviews, liquid fuels could be the major energy source in Asia in the coming decades. The collective benefits of expanding biofuels use are not only regional energy security, but also the mitigation of global warming. The expansion of biofuels utilisation in Asia could benefit not only individual countries but also the region as a whole. The challenges are to find and expand the Asian potential of biofuels.

The future potential depends on the demand and supply outlook. A major finding on demand side is the exceptionally large demand by Indonesia. Assuming Indonesia's demand will not change, one of the most important findings is that the shortage of bioethanol is coming soon, if no progress is made in increasing productivity and in effectively using unutilised lands. Another important message from the findings is that biofuels in Asia should not be separated from agriculture as it is already integrated in the market. The success of biofuel utilisation in Brazil and Thailand indicates that there are ways in sustainably developing food-compatible biofuels. In Asia, foods compatible to biofuels will continue to be the primary sources, however, the supply potential of agriculture-oriented conventional biofuels in the region of 16 countries may fail to catch up with the fast growth of demand before 2020s.

The core strategy suggested in this study is to improve the enabling environment—improve productivity and enhance regional cooperation for trade and energy security. Also, the development of next-generation biofuels as a mid- to long-term solutions should also be pursued in line with the

development of energy–agriculture integration for the security of both sectors.

Policy Implications

1) Supply side

- Provide incentives to increase productivity and enhance the utilisation of unused agricultural lands, as an energy–agriculture joint policy initiative. The policy could benefit both sectors of energy and agriculture.
- Improve the conversion efficiency from solid to liquid biomass.

2) Demand side

- Promote regional energy security through biofuels trade.
- Promote local best practices of "sustainable" consumption/utilisation of biofuels for energy access.
- Promote domestic/local use of biofuels, including waste oil products from food industries.

3) Enabling Market

- Use domestic biofuels mandate to activate the local market, improve productivity, and promote the use of unused agricultural lands.
- Share biofuel standard for inter-regional trade.

4) Sustainability/Food Security

- Secure food allocation (production allocation or preferably through distribution).
- Enable domestic/local use of biofuels as a buffer for food security.
- Develop a sustainable development map of biomass utilisation in the future energy mix with vision of the role of biofuels.

5) Importance of collaborative study and development of next generation biofuels

- Commercialise next-generation biofuels within the next decade.

6) Different implications by type of the country

- For energy importing countries like the Philippines and Thailand, policies for productivity increase with efficient use of land (utilisation of unused land) should be enhanced through a joint effort of both the energy and agriculture sectors. For Indonesia, since the future demand is exceptionally large, greater efforts will be required.
- Exporting countries with abundant supply sources like Malaysia should pursue a more stringent implementation of the policies, like the B5 mandate.
- A regional framework such as ASEAN could contribute to the research of next-generation biofuels for the sake of common interests in the region.