

Chapter 3

Summary and Policy Recommendations

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Chapter 3

Summary and Policy Recommendations

The study justifies and promotes oil stockpiling development in ASEAN countries, and explores the possibility of joint stockpiling with Middle East crude oil exporters.

Chapter 1 covered rising oil import dependency, oil supply risks, and oil stockpiling in ASEAN. Despite the decarbonisation trend, robust oil demand and declining regional crude oil production will inevitably result in rising oil import dependency. Most demand growth will be met by Middle East crude oil. Although refinery capacity will increase in the region, ASEAN is expected to remain a net importer of oil products.

The world is not short of oil supply disruptions throughout the supply chain, from upstream in exporting countries through midstream (transportation) to downstream in importing countries. Whilst countermeasures are available to address supply insecurity, stockpiling is considered the last resort in the case of supply disruption. All ASEAN countries legislate and implement oil stockpiling to different extents. Whilst actual stockpiling amounts are not often disclosed, IEEJ assumes that most ASEAN countries hold 20–50 days of demand, mostly in the form of oil products.

Stockpiling options are categorised into national initiatives and international initiatives such as ticket and joint oil stockpiling. Whilst national initiatives are the main option because of national security, international initiatives offer cheaper options. Joint oil stockpiling with Middle East crude oil exporters eliminates the initial oil purchase cost for importers and provides better market access and removes the storage cost for exporters. Therefore, joint oil stockpiling would have strategic and economic value and be a win–win for exporter and importer.

Chapter 2 conducted a cost–benefit analysis on oil stockpiling in Indonesia, the Philippines, and Viet Nam. Based mainly on the methodology and major assumptions of studies of the IEA and the Energy Modelling Forum of Stanford University, the analysis assumed scenarios of stockpiling options and supply disruptions.

Whilst the national initiative of oil stockpiling costs US\$7.9–US\$8.2/bbl, ticket stockpiling costs US\$5.9/bbl and joint stockpiling is the cheapest at US\$3.7–US\$3.8/bbl. Assuming a stockpiling portfolio of a national initiative (75 days), joint stockpiling (10 days), and ticket stockpiling (5 days), the cost would be US\$7.3–US\$7.6/bbl, for a total cost of US\$20 billion for Indonesia and US\$4 billion–US\$5 billion each for the Philippines and Viet Nam. The sums are huge but including international initiatives (i.e. 10 days' joint stockpiling and 5 days' ticket stockpiling) would save as much as US\$0.4 billion–US\$1.6 billion from a pure national initiative.

Assuming supply disruption in the Middle East and the South China Sea and a natural disaster in the importing country, the benefit was calculated through a Monte Carlo simulation. The

median values of the benefit are US\$9.1/bbl for Indonesia, US\$11.4/bbl for the Philippines, and US\$34.4/bbl for Viet Nam. Therefore, the benefit exceeds the cost in all three countries.

The above analysis suggests that there are good reasons to expand oil stockpiling. At the webinar organised by ERIA, KAPSARC, and IEEJ on 21 February 2022, participants from Indonesia, the Philippines, and Viet Nam confirmed the importance of oil stockpiling to address supply insecurity. They have long been working on enhancing stockpiling but have not necessarily achieved the policy target, mainly because of financial constraints as stockpiling by itself does not create financial returns. However, stockpiling is like an insurance policy that prevents national energy, economic, and social disaster, and its effectiveness has been justified.

Therefore, governments not only in Indonesia, the Philippines, and Viet Nam but also in other ASEAN importing countries should, first, raise awareness and give priority to oil stockpiling. The government is primarily responsible for the energy security policy; therefore, little can be done without prioritising oil stockpiling in the energy policy. Governments could publish policy papers, hold workshops, and enhance public relations to remind others how vulnerable oil supply security can be and how important oil stockpiling is to address supply disruptions.

Second, to mitigate financial constraints, governments could consider the portfolio approach of oil stockpiling. Based mainly on national development, ASEAN importers could include joint oil stockpiling with Middle East crude oil exporters and ticket stockpiling with other importing countries because of the substantial saving. Indonesia, the Philippines, and Viet Nam have not yet considered international initiatives.

Third, ASEAN importing countries could consult countries involved in joint and/or ticket stockpiling because, as the webinar revealed, the importing countries are unaware of the details of such schemes. The opportunity for international cooperation is great. Feasibility studies could follow to assess potential sites, quantities, entities, legal frameworks, and emergency response schemes.