



## Agriculture and Disaster Management



## Oil Supply Resilience in ASEAN

ERIA Research Project Report 2016-03

*Edited by Shigeru Kimura, Tetsuo Morikawa, and Han Phoumin*

The study of oil supply resilience aims to share Japan's experience with ASEAN countries in dealing with oil supply disruption either from abroad or domestically as a result of natural or artificial disasters. After the Great East Japan Earthquake in 2011, Japan's supply of oil products, gas, and electricity was disrupted in some regions. As a result, the government and the industry comprehensively reviewed their energy policies. Domestic oil supply was one of the issues, and the government took a set of measures to ensure stable supply and swift recovery in case of disruption.

Increasing oil demand in ASEAN countries threatens supply security. Yet, oil stockpiling and other security measures have not been developed to the level of countries belonging to the Organisation for Economic Cooperation and Development. Many ASEAN countries are exposed to various risks of supply disruption, such as natural disasters, accidents, and terrorist attacks. The study analyses the current status of relevant oil supply security activities in the ASEAN region, identifies the required actions to enhance resilience in oil supply security, and proposes measures to enhance oil supply resilience in the region by using Japan's experience after the 2011 earthquake.

## Chained to Sustainable Development Goals? The Changing Role of Entities for Enhanced Resilience along Agriculture Food Value Chains in Thailand

ERIA Discussion Paper 2017-03

*By John K.M. Kuwornu*

This paper examines the required changing roles of private, public, and international organisations in 2016–2030 – as countries work towards the achievement of the Sustainable Development Goals (SDGs) – to enhance the resilience of agricultural food value chains in Thailand. The country's Sufficiency Economy Philosophy (SEP) is a growth and development model characterised by its universality and inclusiveness; people-centred approach; moderation, moral values, and reasonableness; and knowledge and integrity. The SEP encourages a holistic farm management system to promote sustainability, food security, water conservation and biodiversity, development of human resources, risk management, investment, and expansion of businesses, thereby creating self-sufficiency in households, communities, organisations, and the nation. These SEP objectives are somewhat consistent with Goals 1, 2, 8, 9, 12, 13, 14, and 15 of the SDGs. This paper presents the required roles of organisations to enable Thailand to achieve the SDGs towards enhancing the resilience of agricultural food value chains. It also highlights the policy implications.

## **Managing Stranded Assets and Protecting Food Value Chains from Natural Disasters**

ERIA Discussion Paper 2017-01

*By Vangimalla R. Reddy and Venkatachalam Anbumozhi*

Stranded assets are those that have suffered unanticipated or premature write-downs, lost value, or turned into liabilities due to external shocks. Environmental risk factors – such as natural disasters, climate change, and water scarcity – which can cause asset stranding of agriculture are poorly understood in the context of food value chains (FVCs). The value at risk globally is significant in agriculture due to overexposure to stranded assets throughout financial and economic systems. This paper discusses the issue of stranded assets and the environmental risks involved with the FVCs. It also provides an overview of disasters and climate change as contributors to agricultural asset stranding along the FVCs. The paper presents the impacts of disasters triggered by natural hazards on the economic losses of the agricultural value chain and the loss of value-added growth with further discussion on the principles of effective disaster risk reduction in the FVCs. Disasters, when combined with climate change, pose challenges by creating fluctuations in yields, supply shortfalls, and subsequent global trading patterns, and substantially affect the FVCs. Finally, the paper presents strategies for building resilient FVCs in partnership with communities.

## **Peat Policy and Its Implications for Value Chains of Indonesian Palm Oil**

ERIA Discussion Paper 2017-02

*By Budi Indra Setiawan and Falatehan Faroby*

The Government of Indonesia issued By Law No. 57 (Peat Policy) in 2016 to protect and manage the peat ecosystem. This study found that this policy, aimed at preventing environmental degradation, will reduce planting areas and impact the production of palm oil and its derivative products, amongst others. It will severely affect the country's economic development and threaten farmers' welfare. Therefore, the government and practitioners should make policy choices that are conducive for sustainable development of oil palm plantation in the peatlands, i.e. promote intensification programmes to increase productivity and manage sustainable production.



Competitiveness

