

## VII. SUPPORTING ACTIVITIES FOR ERIA

JETRO continues to conduct activities supporting the Economic Research Institute for ASEAN and East Asia (ERIA).

### 1. Activity Objective

The objective of these activities is to contribute to policy efforts to promote both the comprehensive development of the Asian economy and the growth of the Japanese economy through collaboration with relevant organizations such as the Ministry of Economy, Trade, and Industry (METI) by supporting the Economic Research Institute for ASEAN and East Asia (ERIA). ERIA is an international organization established in June 2008 by the 16 East Asia Summit member countries to conduct policy research and formulate policy recommendations concerning greater East Asia.

### 2. Activities in FY2017

Through close ties with 15 regional research institutes, and in consultation with METI, JETRO has been working on a variety of activities, including research and dissemination of research findings, with the Institute of Developing Economies (IDE), serving as secretariat for the Research Institute Network (RIN), and JETRO Bangkok, serving as a local administrative office for such activities, in cooperation with JETRO's Overseas Research Department and overseas offices.

#### 2.1. Research Projects

Under ERIA's three research pillars—"deepening economic integration," "narrowing development gaps" and "achieving sustainable development"—JETRO conducted research projects as follows:

##### (1) ERIA/JETRO Collaborative Research Project

###### (1.1) Innovations with Network Effects in Production Networks: Can Innovation Policies Upgrade Production Networks?

This study focuses on innovations with network effects that have considerable influence on the productivity and market power of individual firms. This study investigates factors inside and outside the firms that affect the introduction and utilization of new technologies with network externalities. The possible factors within the firms may include managerial practices, human resource management, R&D management, and other micro factors. The factors outside the firms may be related to buyer-supplier relations, linkages with suppliers of capital equipment, collaborations with universities, formation mechanisms of international production networks, international technology transfer along the production networks, and other macro and international elements. Thus, investigation of the factors that encourage or hinder new technology introduction and utilization is an issue that reaches beyond business interests and has great political importance. Innovative activities with network effects by a firm may necessitate interventions into innovative activities by its business partners. What are the firms' motives for cooperating for the innovation projects? How these firms define common strategic targets? Do these firms share resources to jointly implement the innovative activities? What organizational design and human resource management are needed to collaborate with partner firms? What are the factors affecting firms'

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decision on investing in innovative activities and cooperation with the business partners? These are research questions for this study.

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### (2) Supporting Research Projects for ERIA

#### (2.1) High-Speed Railways and the Landscape of Thailand and its Neighboring Countries in 2030

With the aim of moving toward Industry 4.0, the Thai government is promoting the Eastern Economic Corridor (EEC). This plan calls for three eastern provinces to be developed by propelling innovation, and technology, and by the implementation of infrastructure projects including the high-speed railway (HSR) linking three international airports, corporate tax exemption, low personal income tax for researchers and experts, urban planning, and bypassing bureaucratic procedures. This study introduces the theoretical framework and finds that the HSR service will disperse the services sector over a shorter distance and the manufacturing sector over a longer distance. Based on this conclusion, this study argues that the Bangkok-Rayong HSR route will significantly change the EEC from a basic manufacturing sector to a manufacturing-plus-services sector, in which research and development (R&D) centers, testing and laboratories, and data centers, as well as services related to tourism, will agglomerate. However, any success will depend on how the amenity level in the EEC improves. The study warns that the districts with HSR stations will benefit the most, while other EEC districts and some provinces will lose, as the labor force will move to the cities serviced by the high-speed railway stations. Due to such congestion, the neighboring countries will benefit, although only slightly. In order to maximize the benefit, domestic reform is needed that reduces the barriers of services through a whole country, the facilitation measures at the border, and the transport infrastructure across the border.

**Organizer:** Daisuke Hiratsuka (JETRO Bangkok)

**Co-researchers:** Souknilanh Keola (JETRO Bangkok), Ikumo Isono (IDE, in Seville)

**Coordinator:** Mitsunori Yokoyama (JETRO Bangkok)

#### (2.2) Human Resource Development, Employment, and Mobility of Healthcare Professionals in Southeast Asia

The global movement of nurses has recently been increasing. In the ASEAN region, mutual recognition arrangements (MRA) would allow professionals, including nursing services, to practice in other ASEAN countries through mutual recognition of their qualifications. However, the mobility of nurses in ASEAN regions is still limited.

In this research project, Singapore and Thailand are taken as examples of countries where nursing and elderly care are in high demand. Both countries face the progressive ageing of the population and have geared health-care industries towards international services. Each country has a different approach to the shortage of nurses. Singapore has recruited foreign-trained nurses, while Thailand has a relatively restricted policy on foreign-trained nurses. An attempt has been made to comprehensively understand

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multifaceted perspectives on human resource development, employment, and mobility of health-care workers by analyzing both (potential) nurse-receiving countries from different perspectives.

Findings in the project include the following: the recruitment and career pathways are institutionalized in Singapore, registered nurses in developing countries are working in the non-nursing sectors in both countries, the job satisfaction level among foreign-trained nurses tends to be higher in Singapore, and foreign-trained nurses fill the shortage of nurses for completely different reasons in both countries.

**Organizer:** Yuko Tsujita (JETRO Bangkok)

**Co-researchers:** Naomi Hatsukano (IDE-JETRO), Hisaya Oda (Ritsumeikan University), Maria Reinaruth D. Carlos (Ryukoku University), Yupin Aunguroch (Chulalongkorn University), Patcharawalai Wongboonsin (Chulalongkorn University)

### (2.3) Measuring Urbanization in ASEAN from Space

Spatial economics assumes higher productivity in urban areas, whereas many empirical studies conclude that urbanization is positively correlated with industrialization and economic development. Nonetheless, the ambiguous definition of urbanness undermines the practicality of drawing conclusions from this argument. This study aims to propose consistent metrics to quantify urbanization, and their sustainability in ASEAN.

The results of our studies are compiled into six articles. The first article summarizes how remote sensing data is used to detect land cover, and hence urbanization on the ground, from an engineering perspective. The second article categorizes the degree of urbanness into stocks and flows and demonstrates how to measure urbanness in a consistent manner, using only data available for free or at low cost. The third article examines the role of foreign direct investment on monocentric urbanization in Thailand. The fourth article traces government-led polycentric urbanization in Vietnam and discusses the associated benefits and problems. Using urbanization in southern Sweden as an example, the fifth article examines the role of public transportation on urbanization and inclusive development.

**Organizer:** Souknilanh Keola (Bangkok Research Center, JETRO Bangkok / IDE-JETRO)

**Co-researchers:** Ryutaro Tateishi (Chiba University), Nattapong Puttanaphong (Thammasat University), Thang Toan Tran (National Center for Economic Forecast and Information), Carl Magnus Ewald Andersson (Malmo University)

### (2.4) Impact of China's Increasing Demand for Agro Produce on Agricultural Production in the Mekong Region

This research project aims to reveal the impact of recent increases in demand for agro produce in China on agricultural production in the countries neighboring China in the Mekong region (Laos, Myanmar, Thailand, and Vietnam). The research focused on the export of watermelon from Laos, watermelon and muskmelon from Myanmar, durian from Thailand, and lychee and dragon fruit from Vietnam. These are among the 12 tropical fruits that China has officially approved for import from ASEAN countries.

The research assesses the efficiency and sustainability of the trade practices by focusing on such issues as quality control, contract farming, and technology transfer to the producers. One of the important research findings is the role of Chinese buyers in the value chain structures. In the value chains of low value-added fruits, such as watermelon, muskmelon, lychee and dragon fruit, transactions are basically buyer-driven in terms of quality control and price setting, while high-value-added durian is

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traded in the supplier-driven value chains. Moreover, in the areas where fruits for Chinese markets have not traditionally been widely grown, such as Myanmar and Laos, Chinese traders played significant roles in transferring production know-how of watermelon and muskmelon, mainly through contract farming.

Recently, new phenomena have been observed, such as the integration of production and distribution channels of durian by Chinese traders, the reduction of contract farming, and the vitalization of the land rental market due to the increase in growers in Myanmar. These can be interpreted as the shift of value-added acquisition structures in the fruit trade.

**Organizer:** Shozo Sakata (JETRO Bangkok)

**Co-researchers:** Koji Kubo (IDE, in Bangkok), Lei Lei (IDE), Fumie Takanashi (Hirosaki University), Nattapon Tantrakoonsab (Chulalongkorn University), Wannarat Tantrakoonsab (Chulalongkorn University), Vanthana Nolintha (Ministry of Planning and Investment, Lao PDR)

### (3) Independent Research Project Related to Japan's National Interests

(3.1) Studies on Asia's Production Network and New Trends in Asia

## 2.2. Seminar/Symposium

To disseminate and maximize the results of studies, IDE-JETRO and ERIA held a roundtable, symposium, and seminar as follows:

- (1) Title: Roundtable on "Connectivity and Innovation"  
Date: January 30, 2018  
Venue: Jakarta, Indonesia  
Co-Organizer: ERIA
- (2) Title: Joint International Economic Symposium on "Innovation, Strategy, and Survivability for East Asian Firms in the Globalized World"  
Date: March 2, 2018  
Venue: Kyoto, Japan  
Co-Organizer: ERIA,  
Graduate School of Advanced Integrated Studies in Human Survivability Kyoto University,  
Waseda University Institute of Asia-Pacific studies (WIAPS),  
Comprehensive Research Organization, Research Institute of Automobile and Parts Industry  
Waseda University
- (3) Title: Seminar on "Innovation along the Value Chain in East Asia: Empirical Evidences with an Application to Aeronautical Manufacturing Industry in India"  
Date: March 14, 2018  
Venue: Trivandrum, India  
Co-Organizer: ERIA, CDS

In addition, seminars and a symposium were organized by Bangkok Research Center, JETRO Bangkok / IDE-JETRO, as follows:

- (1) Title: Symposium on "High-Speed Railway and The landscape of Eastern Economic Corridor 2030"  
Date: May 26, 2017  
Venue: Bangkok, Thailand

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- (2) Title: Seminar on “Analyses of Urbanization and Development in ASEAN from Space”  
Date: March 14, 2018  
Venue: Bangkok, Thailand
- (3) Title: Seminar on Thailand's Nursing Workforce: Emerging Trends, Issues and Strategies  
Date: March 19, 2018  
Venue: Bangkok, Thailand
- (4) Title: Seminar on “Impact of China's Demand for Fresh Fruits on the Mekong Region”  
Date: March 21, 2018  
Venue: Bangkok, Thailand

### 2.3. Secretariat for the Research Institute Network

The Research Institute Network (RIN) was formed by research institutes from 16 countries with the objective of supporting ERIA activities by providing research results and information to the ERIA, as well as offering advice concerning the ERIA's research agenda and policy recommendations. JETRO has played a leading role in organizing the RIN meeting, with IDE-JETRO acting as the Japanese representative to the RIN and with Bangkok Research Center, JETRO/Bangkok, serving as the RIN's administrative office. A meeting was held on January 29, 2018, in Jakarta.