

Summary of ERIA Research Projects

2016 - 2017





Economic Research Institute
for ASEAN and East Asia

Summary of ERIA Research Projects

2016 - 2017

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Deepening Economic Integration

01 Digital Economy, Innovation and East Asia's Competitiveness in GVCs (Phase I: Cross-border e-Commerce in ASEAN and East Asia)

Lurong Chen

SUMMARY

The development of e-Commerce tends to promote Asian regional integration via facilitating cross-border trade, investment, and factor movement. Meanwhile, it will also call for new rules and regulations and requires cross-border cooperation in governing e-business. For ASEAN countries, this is a topic directly related to its ambition to establish a highly competitive economic region and the achievement of AEC 2025.

The project aims to advance the international debate on the development of e-commerce, the facilitation of cross-border production sharing, and the deepening of regional integration and cooperation with a focus on ASEAN and East Asia. It covers the following issues:

1. The development of cross-border e-commerce;
2. E-commerce, GVCs, and regional production sharing;
3. E-commerce and inclusive economic growth: SMEs development, job creation, poverty reduction, labour mobility, etc;
4. The barriers to cross-border e-commerce; and
5. E-commerce regulation and governance.



GEOGRAPHIC SCOPE

ASEAN and East Asia

02 Services Supply Chains – Implications and Opportunities for RCEP

Christopher Findlay, Fukunari Kimura, Shandre Thangavelu, and Lurong Chen

SUMMARY

This project intends to study value-chain activities in service supply chains in the region. In particular, the research is expected to contribute to the understanding of supply chain activities and implications for the Regional Cooperative Economic Partnership (RCEP) that is currently under negotiation. This research examines services from a supply chain perspective and provides a deeper assessment of the implications for policy coverage and design of commitments in RCEP related to services.

Objectives:

1. Develop a new methodology for identifying and mapping the international supply chain in services activities, in all the modes of supply;
2. Apply this methodology to a series of services chosen to provide relevant sectoral and economy coverage in RCEP countries, through interviews with participants in the supply chains;
3. Consolidate commentary on key policy issues that impede international transactions or distort the shape of supply chains;
4. Identify implications for the specification of service commitments in RCEP to enable countries to respond to those policy issues;
5. Specify complementary capacity building to support the implementation of policy reform; and
6. Identify the key factors that contribute to the competitiveness of ASEAN members as participants in these supply chains and the drivers of 'upgrading,' productivity gains, and labour markets.



GEOGRAPHIC SCOPE

Japan, China, Republic of Korea, Australia, Indonesia, Thailand, Malaysia, the Philippines, Cambodia, and Viet Nam.

03 Trade in Value Added of Southeast Asia (ERIA-OECD)

Lili Yan Ing and Fukunari Kimura

PARTNERS

ERIA Research Institute Network (RIN) members and The Organisation for Economic Co-operation and Development (OECD)

SUMMARY

East Asia Pacific (EAP) economic growth has outperformed world growth for the last two decades, except from 1997 to 1999 due to the Asian Financial Crisis. Most East Asian economies are well-positioned to weather renewed volatility. The drivers of global economic growth are shifting towards East Asia, and Emerging East Asian economies (EEA) are well-positioned to benefit from the growing power of Asian economies. The emerging Southeast Asian economies experienced strong growth in the last two decades and are estimated to be on a par with China.

China's growth pattern is changing as it moves up the income stages, and is likely to rely more on consumption and less on investment and exports, and more on services and less on industry. This creates opportunities for Southeast Asia to expand their economies through trade and investment.

The study aims to provide a framework on globalisation's second unbundling related to trade and industrialisation in Southeast Asia. The study will cover the following issues:

1. How does the slowdown in trade in China affect Southeast Asian trade?
2. How does Southeast Asia manage to level up its product value added and improve trade competitiveness?

The objectives of this study are:

1. To provide rigorous analyses on Southeast Asia's value added and trade competitiveness; and
2. To provide rigorous analyses on product development, product variety, quality upgrading, export market concentration and new market creation of its manufactured export products that will provide lessons learned about how to build or join production networks.



GEOGRAPHIC SCOPE

Japan, China, Republic of Korea, Australia, Indonesia, Thailand, Malaysia, the Philippines, Cambodia, and Viet Nam.



RELATED PUBLICATIONS

Ing, Lili Yan, and Fukunari Kimura. *Production Network in Southeast Asia*. United Kingdom: ERIA-Routledge, 2017.

More details:

<https://www.routledge.com/Production-Networks-in-Southeast-Asia/Ing-Kimura/p/book/9781138222830>



04 Trade in Value Added of East Asia (ERIA-OECD) ERIA-OECD, workshops, policy discussions and engagement

Lili Yan Ing and Fukunari Kimura

PARTNERS

OECD, ERIA RIN members, prominent economists on TIVA

SUMMARY

East Asia Pacific (EAP) economic growth has outperformed world growth for the last two decades, except from 1997 to 1999 due to the Asian Financial Crisis. Most East Asian economies are well-positioned to weather renewed volatility. The drivers of global economic growth are shifting towards East Asia and Emerging East Asian economies (EEA) are well-positioned to benefit from the growing power of Asian economies. The emerging Southeast Asian Economies experienced strong growth in the last two decades and are estimated to be on a par with China.

After a decade of China's membership of the World Trade Organization (WTO), no one could afford not trading with China. Nevertheless, export performance of China was anaemic in 2011 and has weakened further in early 2012. Asia accounts for more than 50% of the world's automobile production, 62% of liquid display screens, 86% of smartphones, and 100% of digital cameras (Hiratsuka, 2013). Much of this production is based in production networks. Imports are largely used as inputs for exports. Many countries are engaged directly and indirectly in producing final products.

The study aims to provide a framework on globalisation's second unbundling related to trade and industrialisation in East Asia. The study will cover the following issues:

1. China's shock in East Asian trade; and
2. How East Asia manages to maintain its trade growth in the facing of the increasing sentiment of anti-globalisation.

Objectives

1. To provide rigorous analyses on East Asian, productivity, value added and trade competitiveness; and
2. To provide rigorous analyses on product development, product variety, quality upgrading, export market concentration and new market creation of its manufactured export products.



GEOGRAPHIC SCOPE

East Asia, Asia, World

05 The Indonesian Economy: Trade and Industrial Policy

Lili Yan Ing and Mari Elka Pangestu

PARTNERS

The Government of Indonesia

SUMMARY

Trade evolves. Production is sliced. A large portion of production is based on production networks. Imports are largely used as inputs for exports. Many countries are engaged directly and indirectly in producing final products. The development of global production chains, with an increased use of imported inputs, caused a reduction of the domestic value added content for each unit of manufacturing production and exports. The decreased ratio of domestic value added to total exports was quite feasible in the major Euro area economies from 2000 to 2007 with a stronger reduction for Italy than for Germany and France (Cappariello, 2012). This phenomenon was also feasible in a number of developing countries (based on calculations from OECD TiVa from 2000 and 2009).

Indonesia's manufacturing sector was among seven gainers in the share of the world's manufactured products over the past three decades, even though relatively small, in terms of contribution to the world's value added in manufacturing in which Indonesia's contribution increased from 0.1% in 1970 to 1.8% in 2011. The winners in the manufacturing sector over the last three decades are developing countries that industrialised by joining, rather than by building, production networks which are part of the production networks of the US and Germany, namely Poland and Turkey and part of the production networks of Japan, namely China, Republic of Korea, Indonesia and Thailand (Baldwin, 2013:24).

However, the share of Indonesia's machinery parts and components exports to total exports, which is widely used to indicate the degree of participation in international production networks, remains low. Indonesia is relatively lagging behind its peer countries; the Philippines, Singapore, Malaysia, and Thailand, and even Viet Nam. For Indonesia, the share of exports of machinery parts and components to total exports and total imports are 13% and 37%, respectively in 2000 (Ando and Kimura, 2013).

This leads us to question if there is correlation between relatively high domestic contents and composition of exports: What do we know about value added of Indonesia?

Deepening Economic Integration

5. The Indonesian Economy: Trade and Industrial Policy

This study aims:

1. To provide evidence on value added of Indonesia's products; and
2. To provide insights in designing trade, industrial and investment policies in improving the value added of Indonesia's products.



GEOGRAPHIC SCOPE

Indonesia, Southeast Asia

06 East Asian Economic Integration 2nd Edition (RCEP 2nd Edition)

Lili Yan Ing and Shujiro Urata

PARTNERS

ERIA RIN members; ADBI; ERINA; the ANU; Governments of RCEP countries

SUMMARY

The Regional Comprehensive Economic Partnership (RCEP) is a critical element in regional integration in East Asia and Pacific.

RCEP takes initiatives on regional economic integration in East Asia to a higher level. First, in contrast to the ASEAN+1 FTAs where individual ASEAN member states (AMSs) had essentially bilateral commitments with the ASEAN+1 dialogue partners, AMSs would likely need to have common commitments vis-à-vis the partners (with perhaps for a few exceptions) under RCEP.

Second, the commitments of the dialogue partners need to be common commitments congruent with those of the AMSs. Third, the commitments under RCEP need to be substantially better than those under the ASEAN+1 FTAs; in short, RCEP should not be merely a consolidation of the ASEAN+1 FTA commitments for the simple reason that mere consolidation is only feasible at the lowest common denominator that delivers far less than a number of the ASEAN+1 FTAs. RCEP would need to be a high quality agreement in order for it to be credible and worthy of the resources and time expended for the negotiations and related activities to ensure a successful conclusion of RCEP. Moreover, given that RCEP effectively includes an implicit FTA agreement among China, Japan and Republic of Korea which results in trade and investment diversion from ASEAN as compared to the ASEAN+1 FTAs, only deeper facilitation and liberalisation commitments would provide additional benefits to ASEAN Member States as compared to the current ASEAN+1 FTAs.



GEOGRAPHIC SCOPE

ASEAN and East Asia



RELATED PUBLICATIONS

Ing, Lili Yan, ed. *East Asian Integration*. Jakarta: ERIA, 2015. Downloadable from: http://www.eria.org/publications/key_reports/FY2014/No.6.html

07 Non-Tariff Measures in East Asia

Lili Yan Ing, Lurong Chen, and Shujiro Urata

PARTNERS

National think tanks and University in East Asia, UNCTAD, WTO, East Asian SEOM, ASEAN SEOM, ASEAN HLTF, National Team 1.5 track

SUMMARY

With tariffs constrained by the WTO, we expect to see increasing numbers of non-tariff measures (NTMs) designed to protect domestic firms and industries. This trend is quite possible in ASEAN as one of the fastest growing regions in terms of growth in economy and trade.

NTMs in general are defined as policy measures, other than ordinary customs tariffs, that could affect the economy in international trade. Thus, NTMs include wide and diverse policies affecting international trade in goods, changing the quantities traded, or prices, or both (UNCTAD, 2013).

While looking at developing countries, a lot have greatly benefited from the integration in the global economy through international trade in goods and services. Integration into the international market in developing countries was made possible by appropriate policies, such as tariff liberalisation, and initiatives related to trade facilitation and aid for trade. Today, deeper integration in the global economy depends not only on liberal tariffs and supportive policies, but also on increased policies in various forms of complex trade-related regional economic integration. The rise of specialisation and fragmentation of production has led to the increase of trade in intermediate goods and, in particular, to regional production networks.

The inclusion of six East Asian countries in the NTM database, to complement the 10-ASEAN countries NTM data collected the year before, will be a significant milestone for economic integration research in the region.

The value of this project is to provide analytical exercises of impact assessment on trade-related reforms by providing reliable and up-to-date information and conducting analyses on NTMs. The completion of the NTM database collection of +6 East Asian countries will be useful for policymakers for further integration (e.g. for RCEP negotiation).



GEOGRAPHIC SCOPE

East Asia

08 Non-Tariff Measures in ASEAN (Phase III: Renewal of Database and Country Report Design Phase)

Lili Yan Ing and Shujiro Urata

PARTNERS

National Team 1.5 track, ASEAN SEOM; ASEAN HLTF-EI; ASEAN Business Advisory Council; ASEAN countries; ERIA-RIN Members; UNCTAD; WTO; Representatives of ASEAN countries at the WTO; OECD (GP)

SUMMARY

With tariffs constrained by the WTO, we expect an increasing number of non-tariff measures (NTMs) designed to protect domestic firms and industries. This trend is quite possible in ASEAN, one of the fastest growing regions in terms of growth in economy and trade.

Between 2008 and 2011, the number of NTMs rose substantially across the globe. However, this increase is not necessarily a bad sign for the economy. As consumer wealth rises around the world, the demands on governments for health, safety and environmental protection rise as well.

Many developing countries have greatly benefited from integration into the global economy through international trade in goods and services. In the past, developing countries' integration into international markets was made possible by appropriate conducive policies such as tariff liberalisation, as well as initiatives related to trade facilitation and aid for trade. Today, deeper integration in the global economy depends not only on liberal tariffs and supportive policies but increasingly requires policy responses to various forms of complex trade-related regional economic integration.

In the case of ASEAN, however, the latest official data on NTMs is only available for 2009, as released by the ASEAN Secretariat. A number of surveys have been conducted to fill the gap, but more work is needed. In this context, the project seeks a strong multi-agency collaboration between ERIA and UNCTAD supported by experts on NTMs to: (i) collect, validate and classify NTMs data from official sources issued by governments; (ii) improve general understanding of these measures and their impact on world trade; and (iii) provide insights on policy recommendations for streamlining NTMs and trade regulation reforms.

Deepening Economic Integration

8. Non-Tariff Measures in ASEAN (Phase III: Renewal of Database and Country Report Design Phase)

As the NTM data for ASEAN are collected according to the MAST NTM classification and UNCTAD's NTM data collection approach, analyses can be prepared and policy options can be devised to make appropriate assessment of the trade and development impacts of such barriers to trade.

Beside keeping the database up-to-date with current national regulations, the value added of this project is to provide analytical exercises of impact assessment of trade related reforms by providing reliable and up-to-date information on NTMs, conducting rigorous analyses on NTMs and how these will affect trade policy and overall trade performances, comparing NTMs in ASEAN region to the other regions, and providing inputs in streamlining NTMs in this region.



GEOGRAPHIC SCOPE

Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, Viet Nam



RELATED PUBLICATIONS

Cadot, Olivier, Ernawati Munadi, and Lili Yan Ing. 'Streamlining Non-Tariff Measures in ASEAN: The Way Forward', *Asian Economic Papers*, 14(1) (2015), 35-70.

Ing, Lili Yan, and Olivier Cadot. 'Facilitating ASEAN Trade in Goods.' *ERIA Discussion Paper*, No 20 (2016). Downloadable from: http://www.eria.org/publications/discussion_papers/DP2016-20.html

Ing, Lili Yan, Olivier Cadot, M. Rizqy Anandhika, and Shujiro Urata, 'Non-Tariff Measures in ASEAN: A Simple Proposal' in *Non-Tariff Measures in ASEAN eds.* Lili Yan Ing, Santiago de Cordoba, and Olivier Cadot, 13-36. Jakarta: ERIA, 2016. Downloadable from: http://www.eria.org/publications/key_reports/FY2015/No.01.html

09 Study on International Regulatory Cooperation for ASEAN

Ponciano Intal, Jr. and Derek Gill

PARTNERS

New Zealand Institute of Economic Research and possibly the OECD

SUMMARY

In a world of regional and global value chains, international regulatory cooperation (IRC) looms large as an important potential initiative in reducing costs to international trade arising from differing regulations across national boundaries on the one hand while at the same ensuring that the objectives of the regulations are effectively addressed. International regulatory cooperation can help address these twin concerns by fostering improved regulatory coherence among countries arising from improved design and execution of the operation of regulations on goods and services as they cross national borders.

Deeper regional economic integration invariably involves examining behind the border regulations and regulatory practices that can impinge on both the mobility of goods, services and factors of production as well as the productivity and competitiveness of economies. As regulations are geared towards the specific circumstances of the countries in which the regulations have been promulgated, differences in the design and implementation of regulations are almost inevitable especially between countries with substantially different levels of development and institutional capacity. However, this can impose substantial transaction costs to cross border business and thereby can be a significant barrier to deeper economic integration.

During their retreat in early March 2017, the ASEAN Economic Ministers agreed to the framework for an ASEAN Action Plan on Good Regulatory Practice to implement the AEC Blueprint 2015. Although not explicitly indicated in the AEC Blueprint 2025, IRC as a means of engendering regulatory coherence in the region is largely within the ambit of Section B.7 on effective, efficient, coherent and responsive regulations and Good Regulatory Practice.

The project is a seminal work on IRC for ERIA and ASEAN. Thus, a major component of the project is the development of the IRC for ASEAN and a survey on the willingness of ASEAN institutions to undertake IRC in ASEAN (and possibly East Asia). The project will also coordinate with the Department of Trade and Industry of the Philippine government for a possible deliverable of an ASEAN framework on regulatory coherence and cooperation as host of ASEAN in 2017.



GEOGRAPHIC SCOPE

ASEAN



10

Cost Benefit Analysis of Regulations and Options Toward Reducing Unnecessary Regulatory Burden of Regulations

Ponciano Intal, Jr. and Jeremy Gross

PARTNERS

Malaysia Productivity Corporation (MPC) and research institutions in Brunei Darussalam, Cambodia, Lao PDR and Myanmar

SUMMARY

This research follows on the Reducing Unnecessary Regulatory Burden (RURB) project in FY 2016 which used the RURB methodology of determining industry profiles, mapping out regulations of interest, identifying and validating issues through engagement with stakeholders, undertaking consultation, and developing recommendations as a basis for joint discussion with the regulators and affected business.

This project focuses on the study, training and implementation of the cost benefit analysis (CBA) of regulations and options as part of the development of regulatory options to reduce unnecessary regulatory burden. The focus is on the CLM countries which are the most in need of CBA of regulations and options. The capacity building component is central to the project and involves a large number (about 20) of government staff in each country to be trained on CBA although the research team will consist of a few individuals only. Brunei Darussalam is also included in the project, but not in the capacity building programme, in order to strengthen the research capacity of the Brunei Darussalam team.

This research provides an analysis of the options and the determination of the appropriate solutions based on the results of the different cost savings from the chosen options. Note that the standard cost model includes determination of the reference costs and prices of interest to the case at hand.



GEOGRAPHIC SCOPE

Cambodia, Lao PDR, Myanmar, and Brunei Darussalam

11

Reducing Unnecessary Regulatory Burdens on Business and Engendering Informed Regulatory Conversations in Priority Integration Sectors in ASEAN

Ponciano Intal, Jr., Jeremy Gross, and Melanie Milo

PARTNERS

Research Institutes Network (RIN) and Malaysia Productivity Corporation (MPC)

SUMMARY

Two critical challenges facing ASEAN member States (AMSs) in an increasingly open and integrated ASEAN are (1) to promote a conducive business and investment environment; and (2) to improve economic performance and productivity. To meet these challenges, AMSs need to focus on reducing the burden of government regulations on business, together with the minimisation of border barriers and greater investment in infrastructure and people. An important means of enhancing investment attractiveness as well as productivity and competitiveness of industries is Reducing the Unnecessary Regulatory Burdens (RURB) on business, particularly in sectors with significant export potential. RURB is also an important element of ASEAN's drive towards institutionalising good regulatory practice (GRP) in the AEC Blueprint 2025.

RURB addresses unnecessary costs arising from poorly designed or excessive regulation, as well as from poor administration and enforcement of regulations. RURB supports national regulatory reform initiatives to improve overall regulatory regimes such that policies and regulations complement one another in support of greater efficiency, enhanced competitiveness and increased trade.

This research focuses on RURB, particularly in trade-related activities of firms in selected sectors that have significant export potential or are of significant policy interest in each of the nine AMSs (excluding Singapore) covered in the study. The sectors chosen include automotive industry for Indonesia, fishing sector (e.g. tuna for the Philippines, fish production for Myanmar, fish production and trade for Viet Nam), warehousing for Malaysia, halal manufacturing for Brunei Darussalam, coffee and corn for Lao PDR, passenger land transport service for Thailand, and pepper for Cambodia.

Deepening Economic Integration

11. Reducing Unnecessary Regulatory Burdens on Business and Engendering Informed Regulatory Conversations in Priority Integration Sectors in ASEAN

Overall, the RURB approach has great potential. However, it is best done by institutions that have analytic skills and strong and continuing links with the government and the private sector. This is because conversations about RURB appear to raise expectations of the private sector that there will be solutions to their regulatory concerns. However, the 'solutioning' phase can take a long time and involves pilot testing, review and eventual roll-out if found effective. Be that as it may, the project indicates that the RURB approach is indeed useful to improve the regulatory regime, and its institutionalisation in each AMS is in support of the good regulatory practice (GRP) agenda in the AEC Blueprint 2025.



GEOGRAPHIC SCOPE

ASEAN except Singapore



12

Study on Trade Facilitation Indicators in ASEAN

Ponciano Intal, Jr., Dionisius Narjoko, and Maura Ada Décosterd

PARTNERS

Department of Trade and Industry, Philippines

SUMMARY

The concept of trade facilitation refers to the streamlining and coordination of international trade procedures governing the movement of goods across borders. Inefficiencies across regulatory areas that have a significant impact on the movement of goods can be corrected by informed policy-making. This so-called data-driven decision model, however, requires trade facilitation data that is valid, reliable, accurately measured, relevant and robust. The quality of the data reflecting trade-obfuscating measures directly informs the nature of the actions that can be undertaken by national regulators. Additionally, the availability of data also contributes to creating an environment where business stakeholders have access to reliable information that allows them to make sound operating and investment decisions.

This project (1) improves on the OECD Trade Facilitation Index and adapts it to ASEAN by shifting from the 0-2 scoring range of OECD to a range of 0 – 100; (2) consolidates many of the OECD variables into fewer numbers to allow for the 0 – 100 scoring; and (3) adds ASEAN trade facilitation initiatives into the proposed trade facilitation index. The project used the OECD trade facilitation index because it mirrors the provisions of the WTO Trade Facilitation Agreement (TFA) that the ASEAN Member States have signed.

ERIA intends to create two lists of indicators for Trade Facilitation Index and Transport, Transit, and Goods Facilitation Index.

The project is a joint initiative of ERIA Research Department and ERIA Policy Design Department in support of the Department of Trade and Industry's deliverable of a trade facilitation index for ASEAN 2017.



GEOGRAPHIC SCOPE

ASEAN

Dionisius Narjoko

SUMMARY

Large theoretical and empirical literature on firms and trade in the past decades has indeed deepened our knowledge on key issues of international trade: how firms become globally engaged and how globalisation affects firms and the aggregate economy. However, there are at least two features of the real world that are likely to be important for better understanding these issues that have not received the attention they deserve in the mainstream academic literature. These are interfirm linkages within and across countries, over and above the standard product market competition and factor market demand linkage, as well as knowledge or information spillovers.

There are several examples of interfirm linkages discussed in this project. First, firms may have a transactional relationship or buyer-seller relationship with each other. This transactional relationship often exists in a broader context of global value chain (GVC). Second, there are ownership linkages among firms. The ownership linkage takes the form of a parent-subsidiary relationship in its simplest form; however, in some cases, it takes a more complex form, such as a group of affiliated firms. Third, there are geographical linkages among firms. In the presence of external economies of scale, the location of firms in an industry tends to be geographically concentrated, which may facilitate the interactions of firms and humans across space. Last but not least, we cannot exclude the possibility that there are other types of linkages among firms—among foreign and domestic firms, globally-engaged firms and domestically-oriented firms, large firms and small firms, young firms and old firms, for example – which rely on formal or informal personal/business networks and interactions, worker/manager mobility, etc.

These various interfirm linkages are likely to be important to understand how firms become globally engaged and how globalisation affects firms and the aggregate economy.

Against this background, this project aims to address the following key questions:

1. What linkages exist among firms?
2. How are they determined and how do they evolve over time?
3. What roles do they play in firms' decision to become globally-engaged?
4. Do they matter for understanding the effects of globalisation on firms and the economy and how?



GEOGRAPHIC SCOPE

East Asia, Japan, Republic of Korea, Indonesia, India, Viet Nam



14

Global Production Value Chain, Cities, and Urban Amenities

Dionisius Narjoko

SUMMARY

This study focuses on the role of cities in creating urban networks and urban amenities, attracting and enabling the development of skills and human capital, as well as driving creativity. This in turn supports the development and liberalisation of the services sectors and the operation of the global production value chains in the Asian region. These linkages of urbanisation, innovation, services and the global value chains form the key agenda for the next stage of development and growth in the Asian region.

In particular, the study focuses on:

1. Regional competitiveness and productivity of cities and what drives creativity in urban areas, leading to innovation and more extensive entrepreneurial activities;
2. The attractiveness of cities with urban networks and amenities to skilled workers to live and work, thereby contributing to greater services 'unbundling' and linkages to global production value-chain activities. Not only 'skilled' workers are required, but also workers who are innovative and can operate in different ways;
3. The extent to which a creative and innovative urban environment, which is attractive to the right types of workers, leads to greater support for services liberalisation;
4. Key policy considerations in terms of strategies for the second stage 'unbundling' or fragmentation of industrial production and its implications for services sector liberalisation. In particular, it will be important to understand the effects of urban amenities on development of SMEs and entrepreneurial activities in the region; and
5. It is interesting to observe that both first stage and second stage 'unbundling' are occurring concurrently in the Asian region. It is important to understand the policy considerations for countries in different stages of growth and different stages of fragmentation and the linkages between first and second stage fragmentation.



GEOGRAPHIC SCOPE

Japan, Republic of Korea, China, ASEAN

15

Impact of FTA on Firms and Industries (Phase I)

Dionisius Narjoko

SUMMARY

Bilateral and regional free trade agreements (FTAs) and economic partnership agreements (EPAs) have proliferated in the past 25 years, partly due to the slow progress of multilateral trade agreements. Reviews of international trade agreements are important and need to be undertaken on a regular basis, due to a constantly changing economic environment and policy direction in countries involved in the agreements. In order to properly review the cost and benefit of an agreement, one needs to carefully assess the impact of the agreement.

This project examines the impact of FTA on trade, especially how it affects the dynamics of industry or firms in a country. It asks whether an FTA changes the structure of industry or characteristics of firms, including firms' production and/or exporting characteristic. The project utilises the rich firm/plant-level data and connects them with trade data in assessing the impact.

The project is conducted in two phases. Phase I was conducted in FY 2016 with an objective to firstly examine the impact of FTA on trade using trade data at industry level. Phase II will be conducted in FY 2017 and will continue the work of Phase I. Specifically, it connects the trade data with microdata and examines the adjustments at firm/industry level. Phase I attempted to cover RCEP country as many as possible, where the data are available. The main deliverables of Phase I were (a) create a depository of available data by countries covered by the project; and (b) undertake empirical analysis on the determinants of the utilisation of FTAs.



GEOGRAPHIC SCOPE

Japan, China, Republic of Korea, Australia, Indonesia, Thailand, Philippines, Viet Nam, and Cambodia

Dionisius Narjoko

PARTNERS

ERIA's Research Institute Network (RIN) members

SUMMARY

The Agreement Establishing the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA), which entered into force in 2010, is ASEAN's most comprehensive and highest quality free trade agreement (FTA) to date. For ASEAN, it is the first comprehensive single undertaking agreement with a Dialogue Partner. Envisioning that the AANZFTA would be a 'living document', the AANZFTA Agreement provides a periodic review mechanism to ensure that it remain a high-quality agreement with commercial relevance. Specifically, Article 9 of Chapter 18 of the AANZFTA requires Parties to 'undertake a general review of this Agreement with a view to furthering its objectives in 2016, and every five years thereafter, unless otherwise agreed by the Parties.'

Subsequently, the 8th AANZ FTA Joint Committee (FJC) Meeting held on 14 – 18 March 2016 in Melbourne, Australia agreed to defer the commencement of the General Review to 2017 in view of the development of the AANZFTA and the RCEP negotiations. To prepare for the General Review, ASEAN agreed to undertake an overall Regional Assessment on the AANZFTA's impact and benefits to ASEAN. ERIA was invited to assist ASEAN in conducting the Regional Assessment with a proposed timeline for finalisation of April/May 2017.

In general, the scope of the study includes the implementation and impact of AANZFTA. It covers most of chapters/topics in the agreement for the implementation analysis and, as for the impact analysis, it covers the impact on investment and trade. The focus of the analysis is the implementation and impact on ASEAN's side, and hence they focus on the analysis on the ASEAN member states.

The co-chair of the FTA (ie. Brunei Darussalam) requested ERIA to also conduct some surveys and/or FGDs to check the implementation and the impact on the business. In doing the survey and the FGDs, ERIA works together with all ERIA's Research Institute Network (RIN) members from all ASEAN member states.



GEOGRAPHIC SCOPE

ASEAN



17

AEC Blueprint 2015 Midterm Review: Methodology Development (Phase 1)

Dionisius Narjoko and Ponciano Intal, Jr.

SUMMARY

The ASEAN Economic Community (AEC) Blueprint 2025 calls for mid-term and end-of-term evaluations covering the periods 2016-2020 and 2021-2025. Similar statements of mid-term and end-of-term reviews are also included in the ASEAN Political Security Community Blueprint 2025 and the ASEAN Socio Cultural Community Blueprint 2025.

The explicit statement on the mid-term and end-of-term reviews is part of an enhanced implementation mechanism in the AEC Blueprint 2025 compared with the AEC Blueprint 2015. This is consistent with the view that, given the ASEAN Way, an enhanced monitoring and implementation mechanism is important for the effective implementation of the Blueprint.

In contrast to the mid-term review of AEC 2015, the mid-term review of AEC Blueprint 2025 explicitly emphasises the evaluation of outcomes and impacts and not just the extent of implementation. Moreover, the review is broader and more demanding, with greater emphasis on behind the border issues; e.g. good regulatory practice. In short, mid-term review of AEC Blueprint 2025 is significantly more demanding.

Precisely because the mid-term review of AEC Blueprint 2025 is more demanding, this project will develop an appropriate methodology to analyse the progress, output, outcome and challenges. The methodology development will be a two-year project. For 2017-2018, the methodology development will focus on the critical core of the ASEAN economic integration efforts, that is, (1) liberalisation measures in goods, services and investment; and (2) trade and investment facilitation including transparency.



GEOGRAPHIC SCOPE

ASEAN

18

Asia-Europe Connectivity Vision 2025: Challenges and Opportunities

Anita Prakash

PARTNERS

Government of Mongolia

SUMMARY

The Asia-Europe Meeting (ASEM) has entered into its third decade with commitments for a renewed and deepened engagement between Asia and Europe. After 20 years, and with tremendous global and regional changes behind it, there is a consensus that ASEM must bring out a new road map of Asia-Europe connectivity and cooperation.

It is commonly understood that improved connectivity and increased cooperation between Europe and Asia require plans that are both sustainable and that can be upscaled. 'Asia-Europe Connectivity Vision 2025: Challenges and Opportunities', was commissioned by the Government of Mongolia for the 11th ASEM Summit in 2016 in Ulaanbaatar, Mongolia, and ERIA was entrusted to prepare this Vision Document.

The ASEM Connectivity Vision 2025 provides the ideas for an ASEM connectivity road map for the next decade, which can give ASEM a unity of purpose comparable to (if not more advanced than) the integration and cooperation efforts in other regional groups. ASEM has some existing platform to create a connectivity blueprint for Asia and Europe. This ASEM Connectivity Vision Document provides the template for a blueprint of Asia Europe Connectivity using existing platforms and proposing new initiatives to connect institutions and regions, and the people, between Asia and Europe.



GEOGRAPHIC SCOPE

Asia and Europe



RELATED PUBLICATIONS

Prakash, Anita, ed. *Asia-Europe Connectivity Vision 2025: Challenges and Opportunities*. Jakarta: ERIA-Government of Mongolia, 2016.

Downloadable from: http://www.eria.org/publications/key_reports/asia-europe-connectivity-vision-2025.html

Anita Prakash and Sachin Chaturvedi

PARTNERS

Research and Information System for Developing Countries (RIS) and Institute of Developing Economies (IDE)

SUMMARY

The Asian economy has showed strong resilience and provided robust drive for the global economy in the past, and continues to provide the tailwinds to global economy. Africa, on the other hand, is on the growth path, and poised for a leap. Endowed with a young demography, its economy and social growth indicators are ascending every year. The next decade will be an opportunity for both regions to realise their economic and social potentials, as also to deepen their capacities, and institutional strengths. Connectivity between Africa and Asia will be a driver for strong global value chains, complemented by digital connectivity and trade related laws, and for a greater flow of peoples between the two continents.

The 'Asia Africa Connectivity Vision Study' will cover the following issues: What is being done to improve institutional and people to people connectivity between Asia and Africa? What is the extent of involvement of stakeholders, civil society, industry, think tanks, academia in connectivity initiatives between Asia and Africa and how these can be intensified and given a renewed direction? What can be the role of youth and women in connecting Asia and Africa? Which cooperation mechanisms will bring about a qualitative change in connecting Asia and Africa? What and how safeguards to these linkages can be put in place? What are the economic, socio-cultural and political-security platforms for these initiatives? What are the specific strengths that countries like India and Japan bring into Africa? How can synergies be created between strengths of countries/regions on one side and the demands of other regions? These are the issues that stakeholders in Asia and Africa need to address.

This research addresses the following elements of connectivity:

1. What is the broad based agenda for Asia Africa Connectivity in the coming decade?
2. How can physical connectivity between the two continents, and their sub-regions be revamped to address the current demands of trade, investment, and services in the coming decade?
3. How can optimum connectivity be ensured among the selected sub-regions of Asia and Africa?

4. How can Asia Africa Connectivity lead to a greater spatial connectivity with Europe and beyond?
5. How can better and freer institutional and people to people connectivity between Asia and Africa be ensured?
6. Identification of priority projects, which can be optimized and which are economically and financially feasible?
7. What are the mechanisms that can produce exchange of best practices of governance and connectivity between Asia and Africa, including their sub-regions?
8. What are the remaining technical, economic, and institutional barriers?
9. How far can cooperation and connectivity complement each other?
10. What are specific recommendations for Asia Africa connectivity, and for the larger global periphery around Asia and Africa, in the next decade?



GEOGRAPHIC SCOPE

Asia, Africa, Europe



RELATED PUBLICATIONS

Prakash, Anita, ed. *Asia-Europe Connectivity Vision 2025: Challenges and Opportunities*. Jakarta: ERIA-Government of Mongolia, 2016.

Downloadable from: http://www.eria.org/publications/key_reports/asia-europe-connectivity-vision-2025.html

20

ASEAN Regional Integration and the Automobile Auto Parts Industry (Phase V: Development of Automobile Production Networks in CLMV Countries and Other ASEAN Countries)

Yasushi Ueki, Hideo Kobayashi, and Martin Schroeder

PARTNERS

Research Institute of Automobile and Parts Industries, Waseda University

SUMMARY

The enhancement of connectivity and the development of special economic zones (SEZ) enable the fragmentation of the production process and give more opportunities for Cambodia, Lao PDR, Myanmar, and Viet Nam (CLMV) countries to develop new industries like automobile and parts production. Pioneering firms in the automobile parts industry in Thailand have extended their production bases to SEZs near the border with other countries, such as the Savan-Seno SEZ in Lao PDR and the Koh Kong SEZ in Cambodia. Recently, new SEZs opened in the border regions in Poi Pet, Cambodia; Pakse, Lao PDR; and Yangon in Myanmar. Car manufacturers from developing countries such as Tan Chong Motor (Malaysia) and SAIC Motor (China) are also internationalising their production activities in ASEAN. This study focuses on CLMV countries to understand the current status of the sectoral development of the automobile parts industry and obstacles for firms to operate factories. This study will also investigate upgrading in the automobile industry that will be necessary for maintaining existing production bases.



GEOGRAPHIC SCOPE

CLMV and/or other ASEAN countries

21

21st Century Regionalism, Mega FTAs, and Asian Regional Integration

Shujiro Urata, Lurong Chen, and Masahito Ambashi

SUMMARY

This study intends to provide solid economic and legal analyses to help ASEAN and East Asian countries formulate trade policies in the new era, especially for those countries that intended to join TPP. It focuses on analyses and discussions on the rules and regulations set by TPP that could set a new global standard of international trade and investment in the future. It covers three main areas, Intellectual Property Rights (IPR), Investment, and State Owned Enterprises (SOEs). Objectives:

1. Provide a rigorous analysis of the TPP agreement and to evaluate its economic effects on the ASEAN and East Asian countries;
2. Assess the effects of TPP on economic integrations in progress within ASEAN, such as the ASEAN Economic Community (AEC) and RCEP; and
3. Give guidance to the ASEAN and East Asian countries for their actions to be taken on their trade, investment, and economic policies.



GEOGRAPHIC SCOPE

Indonesia, Thailand, Viet Nam, the Philippines, Japan



RELATED PUBLICATIONS

Kimura, Fukunari, and Lurong Chen. 'Implications of Mega Free Trade Agreements for Asian Regional Integration and RCEP Negotiation.' *ERIA Policy Brief*, No 03 (2016).

Downloadable from: http://www.eria.org/publications/policy_briefs/PB2016-03.html

Kimura, Fukunari, Lurong Chen, Maura Ada Iliuteanu, Shimpei Yamamoto and Masahito Ambashi. 'TPP, IPR Protection, and Their Implications for Emerging Asian Economies.' *ERIA Policy Brief*, No 02 (2016).

Downloadable from: http://www.eria.org/publications/policy_briefs/PB2016-02.html

Maritime Connectivity in Southeast Asia: Its Role and Challenges towards Integration

Fauziah Zen, Khoirunnurofik, M. Halley Yudhistira, Riatu Qibthiyah, Shauqie Azhar, Desi Setia, Astrid Dita, M. Rizqy Anandhika, Aditya, Nazery Khalid, Adoracion M. Navarro, Chaiyot Peetijade, Ross Robinson, Sophia Everett, Lam Siu Lee Jasmine, and Y.H. Venus Lun

PARTNERS

LPEM FEB-UI (Institute for Economic Research, University of Indonesia), Philippine Institute for Development Studies (PIDS), Maritime Institute of Malaysia (MIMA), Victoria University Australia, Nanyang Technological University (NTU) Singapore, Hong Kong Polytechnic University (PolyU)

SUMMARY

ASEAN still needs to improve its maritime development. The Master Plan on ASEAN Connectivity (MPAC) identifies three key challenges in improving marine development: 1) port infrastructure, 2) maritime services, and 3) port performance. This study focused on the status maritime and port development in the following seven countries: Indonesia, Thailand, Malaysia, Philippines, Singapore, Hong Kong, and Australia.

Key Findings

1. There were various stages of port development among East Asian countries covered in this study, where Hong Kong, Singapore, and Malaysia were way ahead of their peers. Thailand, Indonesia, and the Philippines have a lot of room for improvements and utilise their ports as an element of production network;
2. Trans-shipment played an important role in port utilisation since there were only several ports that fulfilled the requirement to become hubs in the region;
3. Most Southeast Asian ports, with the exceptions of the main ports of Singapore and Malaysia, suffered from inefficiency, red tape, and underutilisation of capacity;
4. Indonesia's ports remain underutilised. Indonesia used Singapore as a hub for its export and import connectivity. As an archipelagic country, Indonesia has just started putting more emphasis on developing its domestic connectivity and less on ASEAN connectivity. Reform in soft infrastructure in the port sector was fragmented, since the road map of port development was detached from the whole supply chain system perspective;
5. The slow development in port modernisation also hampered Philippines and to some extent, Thailand. The main challenges came from internal factors, including reforming port management systems and having smooth connectivity with other segments of the supply chain system. Meanwhile, challenges from external factors include decisions made by large shipping lines to make a port call or not.



GEOGRAPHIC SCOPE

Indonesia, Thailand, Malaysia, Philippines, Singapore, Hong Kong, and Australia



Narrowing Development Gaps



23 Innovation Policy in/for ASEAN

Masahito Ambashi and Yanfei Li

PARTNERS

Dr Nobuya Fukugawa (Tohoku University)

SUMMARY

This study investigates what is required for innovation in ASEAN Member Economies (AME) by reviewing their existing innovation policies and learning from the successful cases of other developed countries in East Asia. It also intends to explore common ASEAN-wide policies that further innovation as a whole while simultaneously provide an input to the ASEAN Economic Community (AEC) Blueprint 2025.

The project aims to:

1. Conduct stocktaking of existing technology/innovation policies in developed AMEs such as Indonesia, Malaysia the Philippines, Thailand, and Viet Nam, and to present possible directions for future policies for these countries;
2. Examine successful national innovation systems of China and Singapore through case studies and derive useful implications for AMEs;
3. Investigate ASEAN-wide innovation policies that are necessary for promoting regional innovation in ASEAN; and
4. Conduct empirical analyses of measuring innovation issues by using data such as R&D, patents, and human resources in order to reinforce the proposed arguments (if possible).



GEOGRAPHIC SCOPE

China, Indonesia, Malaysia, Philippines, Singapore, Thailand, Viet Nam.

24 State of ASEAN 2017

Lurong Chen

SUMMARY

This project aims to collect the insights, perspectives and reflections of experts from outside the region on their views on the status of the ASEAN 'project', including comparison with the regional integration processes in other continents. This is part of the pre-preparation for the establishment of a monitoring and assessment system for ASEAN community building.

The topics to be discussed include:

1. What does/will ASEAN identity mean to Asia Pacific and the world?
2. How to evaluate the status of the ASEAN 'project' – what it has achieved and what it has not (but should have)?
3. What are ASEAN's impacts on regional architecture and the implications for development, dispute settlement, rule-setting, resilience, etc.?
4. How international agreements have been incorporated at the ASEAN level?
5. How to combine regional integration with domestic reform?
6. Issues on ASEAN moving forward, ie: sustainability, inclusiveness, and innovation.



GEOGRAPHIC SCOPE

ASEAN, RCEP Countries

25 India as an Economic Hub for Integrating East and Southeast Asia with the Rest of Asia

Ram Upendra Das

SUMMARY

Various credible analysts have highlighted India's recent economic dynamism, including its status as the fastest growing economy in 2016. These, coupled with emphasis of Indian policy making on the 'Make in India' initiative, suggest that India can emerge as an economic hub for integrating East Asia, ASEAN on one hand with South Asia, Central Asia, West Asia and even the eastern coast of Africa, on the other. However, this proposition needs to be posited in a broader framework, building on The Comprehensive Asia Development Plan (ERIA, 2010).

The research has the basic objectives:

1. To provide analytical and empirical basis to make India an economic hub for integrating different parts of Asia;
2. To identify dimensions and sectors across sub regions where India can play such a role; and
3. To suggest policy measures and modalities for creating enabling conditions for the above.

To achieve these objectives some of the dimensions/themes that are being explored, but not limited to, include: (i) conceptual basis to regional value chains; (ii) potential trade and regional value chains in manufacturing and services; (iii) infrastructure and connectivity; (iv) India as an R&D hub; and (v) mapping, building and harnessing skill complementarities.

The study would come up with policy recommendations on the subject of enquiry.

Key Findings

1. Identification and feasibility of creating RVCs connecting different sub regions;
2. Specific projects of infrastructure and connectivity identified weaving different parts of Asia;
3. Assessing scope for tapping skill complementarities across sub regions; and
4. Enabling conditions and drivers for making hub-spoke R&D framework in Asia.



GEOGRAPHIC SCOPE

South Asia, East Asia and ASEAN, Central Asia, West Asia

26

ASEAN at 50: Retrospectives and Perspectives on the Making, Substance, Significance, and Future of ASEAN

Ponciano Intal, Jr.

PARTNERS

ERIA RIN members

SUMMARY

The research project is being undertaken as a joint project of the Philippine Government and ERIA, as part of the commemorative events to celebrate ASEAN's 50th anniversary in 2017, under the Philippine chairmanship of ASEAN. The research will produce a commemorative publication that brings the retrospectives and perspectives of key people who have been involved in the making and working of ASEAN, voices from the ASEAN people (as captured in an ASEAN-wide survey), and the analytical insights, perspectives and reflections of eminent persons and experts on the evolution, substance and future of ASEAN. The commemorative publication will consist of five volumes:

- Volume 1: The Making and Working of Emergent ASEAN: Leaders' and officials' retrospectives and perspectives. (Editors: Surin Pitsuwan, Hidetoshi Nishimura, Kavi Chongkittavorn, Ponciano Intal, Jr., Larry Maramis)
- Volume 2: Voices on ASEAN: What does ASEAN mean to ASEAN peoples? (Editors: Ponciano Intal, Jr. and Lydia Ruddy)
- Volume 3: ASEAN and ASEAN Member States: Transformation and Integration (Editors: Ponciano Intal, Jr. and Lurong Chen)
- Volume 4: Reflections on the Significance and Future of ASEAN: The Building of the ASEAN Political-Security Community and the ASEAN Socio Cultural Community, The Substance of ASEAN: The state, challenges, and impact of ASEAN integration and community building (Editors: Aileen Baviera, Larry Maramis, and Kavi Chongkittavorn)
- Volume 5: Reflections on the Significance and Future of ASEAN: The ASEAN Economic Community into 2025 and Beyond (Editors: Rebecca Sta. Maria, Shujiro Urata, and Ponciano Intal, Jr.)

Narrowing Development Gaps

26. ASEAN at 50: Retrospectives and Perspectives on the Making, Substance, Significance, and Future of ASEAN

Volume 1 presents the voices of selected Leaders and Officials from AMSs on the retrospectives and reflections on ASEAN in the past 50 years and in the future. The essays will be complemented with a number of integrative chapters elaborating on the evolution of ASEAN in the economic, political-security, and socio-cultural arenas plus an essay on the importance of the donor community in ASEAN development, and an essay on ASEAN leaders and leadership.

Volume 2 presents the results of the ERIA survey together with the RIN on what ASEAN mean to ASEAN peoples, especially their aspirations and expectations on ASEAN into 2025.

Volume 3 focuses strongly on the interface of AEC and AMSs reform policies, the progress of ASEAN economic integration and the impact of as well as challenges to AMSs of SEAN economic integration initiatives.

Volume 4 presents the reflective essays and papers of a large number of experts and analysts on the significance and future of ASEAN in the political-security arena and the socio-cultural arenas.

Volume 5 presents the reflective essays and papers of a large number of experts and analysts on the significance and future of ASEAN Economic Community.



GEOGRAPHIC SCOPE

ASEAN

Research Project for Policy Recommendations to ASEAN Countries on Realisation of Higher Value Added of Agricultural Products

Eiichi Kusano

PARTNERS

OECD

SUMMARY

The agro-food market in Southeast Asia still has unresolved issues, such as low-incomes of small-scale farmers, despite various supporting factors such as a steady population and economic growth as well as the deepening of regional and international economic integration. However, there is plenty of scope for improvements in food value chains (FVC) including in the production, processing, circulation, and trade of agro-food products, from both institutional and technical aspects.

ASEAN has recognised that poverty reduction and food security are critical issues related to the agro-food sector. In fact, improvement of FVCs is an important measure for both poverty reduction and food security. There is a wide range of potential strategies to improve FVCs even if they are only applied at the domestic level. While the term 'FVC' is widely used, its evaluation scale is ambiguous. A series of studies on global commodity chains (GCC) and global value chains (GVC) since the 1990s provided analysis of governance or non-market coordination of economic activity. The evaluation method of VC analysis has obtained various analytical footholds including distribution of profit, non-economic values, and sustainability, especially in the context of agricultural value chain (AVC) and value chain development (VCD).

This project aims to contribute to economic development and poverty reduction, particular in rural areas, by providing practical information to policy makers based on FVC assessment in ASEAN countries. It will focus on FVCs around small producers. An analytical framework taking into account various evaluation scales will be constructed through dialogue with officials of the Ministry of Agriculture in each country. The analysis will clarify the current situation of FVCs, and identify specific obstacles to, and appropriate measures for, the development of efficient FVCs in selected ASEAN countries.

This project will be implemented in collaboration with a GVC study by the OECD.



GEOGRAPHIC SCOPE

Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Viet Nam



28 Technological Catching-Up and Innovation Policies in China: What is Behind the Largely Successful Story

Yanfei Li, Dayong Zhang

PARTNERS

The Southwestern University of Finance and Economics (SWUFE)

SUMMARY

The study aims to discuss a generalised framework or model to understand the innovation and technological catching-up policies of China. First, this study comprehensively reviews the theories on this topic in the literature. Second, the policy framework and phenomenon of rapid progress of technological catching-up and innovation in China is summarised. This is followed by the proposal of a new theoretical framework to explain the accelerated catching-up process. Empirical methods are subsequently applied to provide evidence and support the proposed theoretical framework. Both data analysis and case studies are applied. An empirical model is developed to analyse the main driving forces of such technological progresses in China. At micro-level, case studies on a leading state-owned nuclear energy company CGN and Huawei, a prominent Chinese private company in telecommunication industry, are conducted to provide further insights on what firm-level strategies—in combination with or leveraging on state-level policies—enable a successful story in reality.

This article will contribute to the literature in three ways. First, this article will give a detailed and in-depth review of the characteristics of several selected industrial sectors in China and examine what factors have been driving for the successful cases and what factors may have worked as China's disadvantages. Second, a quantitative method will also be applied to test if these factors' influences are statistically significant and to what extent they determine the success or failure. Third, this article contributes two case studies to shed some light on how these factors are working at firm level and what additional findings could be identified at firm level.



GEOGRAPHIC SCOPE

East Asia Summit countries

29 ASEAN SME Policy Index

Dionisius Narjoko

PARTNERS

OECD

SUMMARY

The 26th ASEAN Summit in April 2015 highlighted the importance of ASEAN in strengthening micro enterprises and improving the competitiveness of small and medium enterprises (SMEs) in its member countries. The ASEAN Strategic Action Plan for the SME Development 2016–2025 (SAP) manifests this idea to support the vision of the ASEAN Economic Community.

In this context, ERIA and the OECD proposed a research to renew the previous ASEAN SME Policy Index. The policy index should serve as a tool to assess the strength of SME policies, instruments, and institutions for ASEAN member states (AMS) in accordance with the SAP and the level of policy convergence in the priority areas as defined by the AMS.

The motivation for the renewal of the policy index is twofold. First, the framework of the new policy index will be different from that of the earlier exercise conducted in 2013/2014. The new policy index will use the SAP whereas the earlier policy index used the ASEAN Strategic Action Plan for SME Development (2010–2015). The SAP explicitly defines competitive and inclusive ways through which actions will be implemented, while this was not the case with the 2010–2015 action plan. The different framework results in different policy dimensions that the new policy index will cover. The overall mandate for this work is under Strategic Goal D of the SAP, aiming at improving overall policies and moving towards policy convergence across ASEAN.

Second, the new policy index intends to improve the focus and method of data gathering. It aims to combine a quantitative assessment of the range and intensity of policy inputs with quantitative information concerning the outputs of different policy measures with qualitative information on the SME policy framework, institutions, and the key features of the different policy measures introduced by the AMS. Those data and information will be complemented by data on the structure and the performance of SMEs and the evolution of the business and economic environment, to obtain a full picture of the various factors that concur to shape SMEs in each ASEAN country. Thus, the new policy index will be based more on factual information or data instead of on the more qualitative information of the earlier one.



GEOGRAPHIC SCOPE

ASEAN member states



30 Business Opportunities and Managerial Challenges for East Asian SMEs in the Globalised Economy: An In-depth Case Study of Japanese SMEs Multi-plant Operation in East Asia for Apparel and Clothing Accessories Production

Yasushi Ueki and Fusanori Iwasaki

SUMMARY

This study selected three unlisted Japanese SMEs for in-depth case studies of firm strategy based on information available only to insiders, which we call 'insider management studies'.

The first phase of this study focused on Firm A, a producer and seller of apparel products. We collected information through in-depth interviews with a director and at the headquarters in Osaka. We visited all factory managers at domestic and overseas factories (China and Viet Nam), as well as the manager responsible for the distribution centre near Tokyo. We also met a merchandiser who is responsible for overseeing all activities related to one of the brands. Based on these interviews, this research will provide an overview of the history of Firm A, including domestic and overseas production.

During this first phase, we focused mostly on the economic reasons for maintaining labour-intensive production in Japan and the benefits from multi-factory operations in the three countries. As the research proceeded we developed a better understanding about the importance of procurement/production/delivery lead times, the difference in defect rates among Firm A's factories and subcontracting factories, and the burden of repairing defectives.

The Japanese clothing industry strives to manage risk associated with seasonal variations in sales and exchange fluctuations. Our single-firm multi-factory case study strategy helps understand these issues by enabling inter-factory comparison of production process for a specific product under the same quality standard. To manage the seasonality, Firm A combines make-to-stock and make-to-order. Its choice of production sites for a specific product depends on procurement, production, and delivery lead time. The make-to-order requires very short lead time or 'quick response'. Factories in Japan have advantages in realising quick response as it takes one day for each Japanese factory to transport their products to the delivery centre near Tokyo, but it takes more than five days for China and one week for Viet Nam. Location of factories has an influence on on-time delivery; therefore, Firm A sets up all factories in Japan and China near toll gates of expressways.

Narrowing Development Gaps

30. Business Opportunities and Managerial Challenges for East Asian SMEs in the Globalised Economy: An In-depth Case Study of Japanese SMEs Multi-plant Operation in East Asia for Apparel and Clothing Accessories Production

These findings are contradictory to a widespread perception that labour cost is crucial to the choice of production sites for the labour intensive apparel manufacturing processes, which leads to the conclusion that Japan is at a disadvantage in apparel manufacturing. Such conventional perceptions of the industries have a significant influence to policy debates in upper middle income countries in Southeast Asia that face competition from less developed countries. We expect that the case study of Firm A can provide policy makers and practitioners with novel perspectives of policy alternatives and business strategies. We will describe details of such findings, investigate whether the findings from Firm A can be applicable to other Japanese firms, and develop a theoretical framework for further empirical studies.



GEOGRAPHIC SCOPE

Japan, China, Viet Nam, Thailand



31

Policy Report on Local Currency Bond Markets in Asian Emerging Markets

Fauziah Zen and Astrid Dita, Abhijnan Rej, Diego Valiante, Achim Deuchert, and Willem Pieter De Groen

PARTNERS

Centre for European Policy Studies (CEPS), Research Institute of the Central Bank of China (PBoC), Observer Research Foundation (ORF)

SUMMARY

In the majority of emerging Asian economies, governments occupy the market through their bond issuance as one of the avenues to plug budget deficits and help finance infrastructure development. Therefore, it has been proven costly to set aside the development of financial markets given the fact that the current system of financing has not been able to support development financing, especially to finance infrastructure projects. The financial markets in Asia are still thin and have many opportunities for further expansion. This joint research focused on the Local Currency (LCY) Bond market in the three biggest emerging markets in Asia: China, India, and Indonesia.

Issuing LCY Bond has some advantages for emerging countries since it avoids the risks of currency mismatch for issuers and it is less vulnerable to global financial market fluctuations. By analysing the LCY Bond market in selected countries, we expect to provide lessons from their experience. The policy insights will provide useful inputs and suggestions for the authorities in the financial sector of Asian emerging markets to further develop their capital market and support infrastructure financing.

In order to develop a healthy and progressive bond market, there should be a policy convergence of both monetary and fiscal sides, a set of prerequisite building blocks, and an improved regulatory capacity. Moreover, one of the key factors to develop a healthy bond market is the broadening of the investor base, such as foreign-based investors, retail investors, and institutional investors. Foreign-based investors will be interested in purchasing LCY Bonds if they believe the country's economy is strong. Retail investors can become potential buyers, as they take into account the country's economic growth rate and population size. Institutional investors, especially pension funds and insurance, may invest in infrastructure projects through financial markets if there are attractive investment schemes and investment facilitation. In addition, the economies should provide fiscal incentives for more long-term investments, which will affect the financial markets.



GEOGRAPHIC SCOPE

China, India, Indonesia



32 The Role of Public Finance in Infrastructure Finance

Fauziah Zen, Kensuke Tanaka, Prasiwi Ibrahim, and Naoyuki Yoshino

PARTNERS

ADB and OECD

SUMMARY

The demand for infrastructure in Emerging Asia is very large, due to the fact that the development of new infrastructure, the improved maintenance of existing infrastructure, and the upgrading of ageing infrastructure will contribute to inclusive and sustainable growth within countries as well as deepen the countries' connections with the global economy. Nevertheless, financing these investments has proven to be a considerable challenge for the region. Broadening the financing methods, including domestic fiscal and financial efforts, will attract more investments for infrastructure and contribute to sustainable growth. Efforts to secure infrastructure financing have typically relied on private resources, public-private partnerships, and international lending. These approaches may be complemented by providing more public incentives for investors, issuing government bonds, and financing using tax revenues.

This project focuses on the domestic fiscal and financial policy options for Emerging Asian countries to fund infrastructure development and maintenance. Areas of study include reducing risks, improving rates of return, improving governance mechanisms, avoiding moral hazards, as well as balancing the strengths and weaknesses of various financing options. This work will be informed by the experiences of advanced economies in these areas, while also considering country-specific circumstances. Lessons learned from advanced economies' experiences and their relevance to Emerging Asian countries will include types of taxes (including infrastructure purpose tax/earmarked tax); tax rates and the effects of tax on consumption; fiscal investment, loan, and postal savings programmes; income streams, their stability and determinants; preparation, and strategy of implementation; political intervention; evaluation; as well as institutional setup and institutional capacity (regulatory type, period of validity, collecting mechanism, management body, audit system, authorities, reporting).

The project also provides country case studies that cover exploration of optimum resource mobilisation and its structure, revenue stream estimation, prioritised sectors, institutional frameworks, and implementation strategies.



GEOGRAPHIC SCOPE

Case: Indonesia, Philippines, Viet Nam

Advanced economies: OECD, Japan, North America



Sustainable Economic Development



33 Distributional Effects of Disasters on Food Security in ASEAN

Venkatachalam Anbumozhi

SUMMARY

The ASEAN Socio-Cultural Community (ASCC) Blueprint and East Asia Summit (EAS) statements clearly recognise the need for concerted efforts to address the issue of disasters and climate change and their impacts on socio-economic development, health and the environment. ASEAN Member States (AMS) agreed for implementation of 11 related actions based on the principles of equity, flexibility, effectiveness, common but differentiated responsibilities and enhance their institutional capabilities. Ensuring adequate access to food at all times for all ASEAN peoples is also identified as priority agenda for ASCC blueprint implementation. However, climate change and increasing number of natural disasters is affecting the regional and local food security.

Why are AMS not investing more in disaster resilience, despite the prevalence and rising costs of disaster events? This may be due to the fact that decision-makers in governments, businesses and households, tend to focus on avoiding losses from disasters, and perceive the return on investment as uncertain – only realised if a somewhat unlikely disaster event actually happens. Effective policy actions require sector specific damage and loss data for the agriculture and trade ministries of the AMS. AMS' national strategies on disaster risk reduction and climate change adaptation that supports resilience must address the types of disasters with the greatest impact on the agricultural sector. Government must design measures specific to the crop, livestock and fisheries subsectors, and be enabled to adopt more systematic strategies that counteract the impacts of disasters on the agricultural sectoral growth and development, and national and regional food security.

Nevertheless, there should be business rationale for climate change adaptation and disaster risk management based on the multiple dividends of resilience. Actions should look beyond not only avoiding losses (the first dividend) but also wider benefits to be gained independently of whether or not the disaster event occurs. These include unleashing entrepreneurial activities and productive investments by lowering the looming threat of losses from climate change and enabling farmers and supply chain actors to take positive risks (the second dividend); and co-benefits of resilience measures beyond just disaster risk (the third dividend), such as flood embankments that double as roads, or drought tolerant crop varieties that maximises crop yields. The no regret adaption strategies should also reflect on recent efforts to build a stronger business case for resilience in the private sector including the insurance sector.

Hence, the main objective of this study is (i) to understand key food security challenges posed by disasters and climate change and the required actions taken by policy makers to address these risks; (ii) share experiences on adjustment of key planning instruments relating to agriculture sectors; (iii) Exchange experiences on successful adaptation measures across key vulnerable areas; and (iv) undertake cost-benefit analysis and identify necessary structural and non-structural measures that could contribute to a resilient ASEAN.



GEOGRAPHIC SCOPE

ASEAN with a particular focus on CLMV



34 Social Protection Floor: A Perspective from Developing East Asia

Mukul Asher, Fauziah Zen, and Astrid Dita

PARTNERS

National Economic Research Institute (NERI), Philippine Institute for Development Studies (PIDS), Thailand Development Research Institute (TDRI), National University of Singapore (NUS), Fudan University, Ministry of Labour, Invalids, and Social Affairs of Viet Nam, Council for Agricultural and Rural Development (CARD) Cambodia

SUMMARY

East Asian economies apply different methods and time frames in developing and implementing social protection programmes. This research critically discusses the process and how public policy responds to dynamics of global trends, including Millennium Development Goals (MDGs), and ASEAN Sustainable Development (ASD). Progressive adoption of the Social Protection Floor (SPF) requires dedicated funds that largely come from state budgets. The issue of creating sufficient fiscal space to finance social security is usually only lightly discussed, while it actually is one of the major challenges in implementing social security systems. This volume discusses fiscal space implications and reviews different aspects of methodologies needed to assess sustainability of social protection. The cases are provided by the countries with largest population in East Asia (China, India, and Indonesia) and several emerging economies (the Philippines, Thailand, and Viet Nam). There have been ample lessons from each country and suggestions for future measures.

The volume also examines the concepts of social protection systems and their floors, as well as briefly reviewing the social protection sustainability and affordability debate, including different aspects of methodologies needed to assess sustainability of social protection. Availability of good quality statistics on social protection expenditure, financing, coverage, and adequacy is a precondition for good quantitative governance of any public expenditure programmes. Therefore, attention is drawn to existing challenges towards the availability of social protection statistics at national and international levels. Existing statistical standards in this area are discussed, in addition to initiatives conducted by various international organisations in this subject. Policymakers should be aware of these data limitations when they undertake social protection initiatives.

Lastly, the research discusses the debates on the need to go beyond pure static accounting when assessing the financial sustainability of public expenditure and discusses various challenges associated with incorporating projection results into inter-temporal government accounts.



GEOGRAPHIC SCOPE

China, India, Indonesia, Philippines, Thailand, Viet Nam.



35 Human Resource Management and Coordination for Innovative Activities in Production Networks: Towards Effective Uses of Internal and External Resources

Patarapong Intarakumnerd, Sunil Mani, Erman Aminullah, Avvari V. Mohan, Xaysomphet Norasingh, Maureen Ane D. Rosellon, Chawalit Jeenanunta, Truong Thi Chi Binh, Masatsugu Tsuji, Tomohiro Machikita, and Yasushi Ueki

PARTNERS

Institute of Developing Economies – Japan External Trade Organization (IDE-JETRO)

SUMMARY

This research project focuses on organisational characteristics of firms with and without formal R&D organisations and internal factors of the firms to realise innovations.

Key findings include:

1. Top management (either owners/founders or professional CEOs) play very important roles in initiating and executing technology upgrading and related human resource management;
2. Organisational culture that is open to new ideas and new knowledge cannot be taken for granted. At the same time, the open innovation concept is becoming a norm for R&D/innovation management. Therefore firms need to enhance 'internal' capabilities to realise open innovation strategies;
3. A common characteristic among firms trying innovative activities is their strong customer orientation. Customer orientation, combined with top management's leadership, may help firms to develop an organisational culture for innovation;
4. Cross-functional teams have been widely introduced to improve usage of internal resources of the firms. Use of ISO standards helps organisations develop innovative activities. Quality control practices are fundamental to innovative activities;
5. Reward systems, job promotion and monetary rewards for personnel who contributed to upgrading occurred in some innovative firms. A separated career path for researchers helps to retain those people and increase their morale; and
6. Firms need collaboration and cooperation with other firms and institutions. Sales engineers play key roles in understanding customer needs and establishing collaborative relationships with their customers. Trade fairs are used to find not only customers but also partners for innovative activities.



GEOGRAPHIC SCOPE

India, Indonesia, Japan, Lao PDR, Malaysia, Philippines, Thailand, Viet Nam



36 Economic Policy Making in the Indonesian Economy

Fauziah Zen and Dionisius Narjoko

PARTNERS

Centre for Strategic and International Studies (CSIS)

SUMMARY

The President of the Republic of Indonesia H. E. Joko Widodo started his government with great confidence following the successful presidential election and strong support from the public for his economic agenda. Great expectations emerged for his agenda of reforms to achieve strong economic growth and higher living standards. Several policies that he introduced during the first few months of his leadership were encouraging, including the significant reduction of fuel subsidies and the introduction of new social assistance programmes.

However, the positive signal was short-lived. It became clear several months later that the government lacked a robust framework or idea in the policies it introduced to achieve strong growth. Many of the policies or ideas for policies were not deliberated in their preparation, did not have a visible strategy for implementation, or were inconsistent with other policy objectives.

While it is subject to debate, the potential underlying issues are weak understanding (by policymakers) about the problem at hand or lack of solution that can quickly be implemented or feasible for some of the issues such as those in infrastructure development. At the same time, adding to the complexity of the problem is the tendency toward inward-looking policies and the emphasis on stability (over rapid growth) adopted by the President in his more general thought for economic agenda.

It is therefore important for the research community to contribute to the Government by providing knowledge, ideas, or even updated information that will help the President and his Government in putting effective policies in place. This project contributed through supporting discussions or debates about key policy issues by scholars and relevant stakeholders. Implicit in this project is the idea to contribute to the process of building a strong yet independent advisory group driven by the local research community.

The project addresses several topics namely infrastructure, trade and industry, investment and business climate, fiscal policy and macroeconomic challenges, food security, and services. The outcome of the project includes a new website www.paradigmaekonomi.org and 16 policy briefs on the website.



GEOGRAPHIC SCOPE

Indonesia



RELATED PUBLICATIONS

Policy briefs downloadable from www.paradigmaekonomi.org



37 Policy Index for Natural Disasters Resilience

Fauziah Zen, Ilan Noy, Hirokazu Tatano, Susan L. Cutter, Adrian Pradana, Irwan Meilano, Yasuyuki Sawada, and Mika Shimizu

SUMMARY

ASEAN is one of the world's most vulnerable regions to natural disaster. This project aims to evaluate which factors most influence the resilience of a region by constructing an index to represent the resiliency of a region, and then to apply the formula to pilot regions. There are several main challenges for the research: a) there is no universal definition of resilience; b) scholars have constructed some formulas but so far no evidence proves the accuracy; and c) the value of variables is usually relative from one region to another, because of different utilisation by locals.

Using the Schipper and Langston (2015) approach, we define the influential variables to represent the criteria of Learning, Options, and Flexibility to be used as a proxy for resilience. There are three groups of variables to characterise influential variables: financial and economic capital, social capital, and institutional capital. Because there is no solid conclusion on the relationship between variables, we decided against building a composite index. Instead, we will construct a relative position of the city for each variable. The result will provide policymakers with the data of areas that need to be maintained or improved.



GEOGRAPHIC SCOPE

50 pilot cities in Indonesia



Energy-Related Research

38

Unlocking the Potentials of Private Sector for Accelerated Low-Carbon Energy Transition

Venkatachalam Anbumozhi

SUMMARY

While the ASEAN Economic Community (AEC) Blue Print aims for progressive liberalisation of ASEAN member states' (AMS) investment regime to achieve free on open investment, it also recognises the importance of making such investments sustainable through, among others, mitigating greenhouse gas emissions by means of effective policies and market based measures. Recognising the limited global reserve of fossils energy and unstable world prices of hydrocarbon products as well as meeting the COP 21 Paris Agreement targets, it is essential for AMS, to accelerate the transition to low-carbon energy, as well as to promote open trade, facilitation and cooperation in related low carbon industries with the requisite infrastructure.

Following on the Paris Climate Agreement, Asia's attention is now firmly fixed on advancing viable, scalable low carbon energy solutions at different levels. Most of the estimated investments required to scale up low-carbon energy systems will come from the private sector, either nationally or internationally. However, concerted and coordinate efforts by national and sub-national governments, public financing institutions and international organisations are essential to move the needle towards unlocking the potentials of private sector. Governments can accelerate this trend by targeting more of their funds to leverage private finance.

There are several reasons for leveraging private finance to accelerate the low carbon energy transition and to achieve the Nationally Determined Contributions (NDC) agreed as a part of Paris Agreement. First, advanced countries have not yet agreed on any clear plans for meeting their commitment to provide US\$100 billion annually by 2020 for reaching the NDC targets by developing countries. Second, as current estimates indicate, more than US\$100 billion per year is needed to meet the low carbon transition challenges that include not only investments in renewable energy, but also energy efficiency and other strategies like deployment of clean coal and carbon capturing and storage technologies at a scale required. Third, government budgets of both advanced and emerging economies are often constrained by the financial debts and other austerity policies, with little clarity on about when and how public financial flows will be scaled up to meet the targets set for 2030.

The question for the prudent policy makers is: to what extent can emerging economies of Asia make the transition to the low carbon economy – with the expectation for Paris targets achieved by 2030 and how to deepen private sector stocks underpinning low carbon energy solutions? Hence, the objectives of the study is to (i) Examine the priority private sector investment needed for the region to attain the NDC targets (ii) identify regulatory barriers (technical, fiscal and market based) to scale up private low-carbon investments in key sectors and (iii) Propose innovative policy solutions that will unleash the potentials of private finance to support the transition pathway.



GEOGRAPHIC SCOPE

EAS countries (ASEAN +6)



39

Globalisation of Low-Carbon Technologies

Venkatachalam Anbumozhi

PARTNERS

ASEAN Centre for Energy

SUMMARY

In recent years, tremendous strides have been made to advance low-carbon energy systems – innovating, scaling up investment, bringing down system costs, implementing the right policy frameworks, and interconnecting large amounts of variable renewable energy supply into the grid. Reflecting this, many countries have put forward ambitious plans to increase low-carbon energy in power generation. Combined, the low-carbon renewable energy plans of China, India, and ASEAN will result in an increase from approximately 9,000 TWh in 2012 to 20,000 TWh in 2030.

In addition, a number of promising initiatives currently being implemented will buttress the Intended Nationally Determined Contributions (INDCs). Some 40 implementing agreements carry out technology programmes in the areas of renewable energy (solar, wind, bios, geothermal); fossil fuels (clean coal, enhanced oil recovery, carbon capture and storage); fusion power (tokamaks, materials, technologies, safety); and energy efficiency (building, electricity, industry, and transport). To find solutions, the public and the private sectors must work together. INDCs can provide an important impetus to enhance and achieve global efforts to mitigate carbon emissions, double the share of low-carbon energy in the supply mix, and accelerate green growth.

There is growing awareness of the urgent need to turn INDCs into analytical works and concrete actions. Yet despite the fact that energy-related goods account for more than ten percentage of international trade, policymakers, academics, and the business community perceive several barriers to the diffusion of these low-carbon technologies at the national and regional levels. This study is designed to identify the opportunities and barriers within INDCs for diffusion of low-carbon energy technology and to propose the incentive mechanisms at the local, national, and regional levels to the required scale.

This study addresses the following policy-oriented research questions: (i) What are the key low-carbon technologies that can significantly influence INDC targets and Sustainable Development Goal agendas? (ii) Will the transition to a low-carbon energy future by 2030 be economically feasible and viable under INDCs? (iii) How could regional/international technology cooperation accelerate investments on a scale required for achieving the INDC targets?

Key Findings

1. Given the rapid increase in demand for a large and stable supply of electricity in rapidly industrialising countries in the region, low-carbon technologies provide a compromise solution to attain energy security and reduced emissions; and
2. To make low-carbon technologies and measures commercially viable, globalisation of technologies is needed. The cooperation of Asia, the European Union, Japan, and the United States on low carbon can speed up the process of commercialisation through demonstration, direct investment, joint venture, build-operate-transfer (BOT) schemes, financial aid, and capacity building.



GEOGRAPHIC SCOPE

East Asia Summit Countries (ASEAN +6)



RELATED PUBLICATIONS

Anbumozhi, V., Kalirajan, K., Kimura, F., Yao, X, eds. *Investing in Low-Carbon Energy Systems*. Singapore: Springer, 2016.

More info: <http://www.springer.com/gp/book/9789811007606>

40 Integrating NER India with Regional Economies through Cross Border Energy Sector Development

Venkatachalam Anbumozhi and Mahendra Kumar Lama

PARTNERS

The Institute of Energy Economics, Japan (IEEJ) and Confederation of Indian Industries (CII)

SUMMARY

There is increasing policy and academic interest in strengthening economic connections between the North Eastern Region (NER) of India and major economic centres in South and South East Asia. This region has several critical and strategic advantages in jointly participating in the development process of the neighbouring countries of Bangladesh, Bhutan, Myanmar and Nepal. These adjoining countries along with other states of India have been among the most dynamic in Asia and have produced highly impressive socio-economic development.

Advantages of economic integration among these countries also emanate from politico-historical linkages, geographical proximity, socio-cultural cohesiveness, economic complementarities and scope for economic integration further towards ASEAN and China. However, progress of trade and investment as well as industrial development in the eight states of NER of India has been relatively limited by various infrastructure bottlenecks, policy misalignments and information gaps.

The aim of this study is to (i) Determine the energy sector development needs and potentials of electricity generations in NER; (ii) Analyse the opportunities for cross-border energy trade between NRE and other neighbouring countries such as Bangladesh, Myanmar, and Nepal; (iii) Estimate the cost of such arrangements and investment possibilities; (iv) Draw policy implications for prioritised investment needs, which covers regulatory reforms, financial flows, and institutional cooperation at national and international level.



GEOGRAPHIC SCOPE

India, Myanmar, Bangladesh

PARTNERS

University of Tokyo, University of California

SUMMARY

Integration into the global economic system in late 1990s, it still faces many energy development challenges. Such challenges and opportunities – are the focus of this study which has the functional objectives of (i) quantitative scenario analysis of major factors of rural electrification including future electricity demand forecast, necessary amount of needed power generation capacity in the off-grid areas, costs required for rural electrification, and many more; (ii) Qualitative analysis of obstacles in power development particularly in the border areas; and (iii) Human resource development in policy making/implementation for energy policy makers and researchers.

This ongoing project has the following policy recommendations, so far:

1. Assuming the national electrification target of the universal energy access in 2030, the integration of decentralised power systems into planned centralised systems might be one of the crucial aspects to make the target feasible;
2. In order to facilitate the integrated infrastructure development, Public Private Partnerships (PPP) should be soundly coordinated with proper reforms such as electricity tariff and institutional/legal framework to encourage foreign direct investment; and
3. For the relevant plan-do-check-act (PDCA) cycle, a human resource development (HRD) programme for governmental offices is necessary. It is also important to provide a common ground for energy related ministries and other stakeholders to discuss and work together.

**GEOGRAPHIC SCOPE**

Myanmar, Lao PDR, Cambodia, Viet Nam, Thailand

SUMMARY

ASEAN is one of the world's fastest growing regions in terms of economic development; however, the gross domestic product (GDP) per capita of several ASEAN countries such as Myanmar, Lao PDR, and Cambodia are less than US\$ 1,000. While some countries in ASEAN have done very well in terms of providing energy access, about 130 million people in ASEAN countries lack access to power and energy. Inadequate access to energy threatens the region's economic growth and also economic transition (ACE, 2013). Research suggests that energy poverty has important consequences if not addressed, such as impacting health, further entrenching poverty, and making other objectives (such as addressing climate change) less attainable.

'Energy poverty' is a concept used to define a situation where individuals or households are not able to adequately heat or provide other required energy services in their homes at affordable cost. Grevisse and Brynart (2011) investigated how energy poverty is understood in Europe by looking at various indicators and aggravators of energy poverty. For the purposes of their study, they defined energy poverty as 'the impossibility (or the difficulty) for a household to gain access to the energy it needs to ensure dignified living conditions at an affordable price from the point of view of its income.' In the European context, energy poverty is believed to be caused by rising energy prices, recessionary impacts on national and regional economies, and poor energy efficient homes. However, in developing Asia, especially some remote areas in ASEAN countries, energy poverty is also due to inadequate energy infrastructure.

This study explores the following issues in the Asian context:

1. The causal relationship between energy poverty and other socio-economic characteristics such as poverty, health, education, and others
2. The lack of understanding and limited recognition of the issue of energy poverty by relevant national and regional authorities could further affect the well-being of people where energy poverty are prevailing.
3. Construct concrete example of how energy poverty could be eradicated through concerted policies and policy implementation.



GEOGRAPHIC SCOPE

ASEAN



43 Temburong Eco Town

Shigeru Kimura and Romeo Pacudan

PARTNERS

Brunei National Energy Research Institute (BNERI)

SUMMARY

ERIA is working together with BNERI to create a Smart and Eco-friendly city applying smart energy technologies in Temburong, Brunei Darussalam. The first phase of the study focused on energy efficiency technologies for buildings, vehicles and the smart grid. These technologies will be available to apply for Temburong as a smart and eco-friendly city.

In the second phase of the study, a simulation study based on daily climate data is conducted to seek the optimal capacity of solar photovoltaic cells, wind, and diesel generator.

Based on the results from the second phase and the basic concept of Temburong Smart City prepared by the Government of Brunei Darussalam, ERIA will request an external urban planning company to design a blueprint of Temburong smart and eco-friendly city as the phase three study.



GEOGRAPHIC SCOPE

Brunei Darussalam



RELATED PUBLICATIONS

Kimura, Shigeru, Romeo Pacudan, and Han Phoumin, eds. *Development of the Eco Town Model in the ASEAN Region through Adoption of Energy-Efficient Building Technologies, Sustainable Transport, and Smart Grids*. Jakarta: ERIA, 2017.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2015/No.20.html

44 Energy Outlook in Thailand

Shigeru Kimura and Han Phoumin

SUMMARY

This project provides support to the Thai Energy Policy and Planning Office (EPPO) to develop an energy outlook model that applies an end-use approach and Chiang Mai University (CMU) to analyse energy consumption patterns in Thailand household sectors.

The research will provide three assessments: (1) detailed issues in energy demand side; (2) energy consumption pattern in household sector in Thailand; and (3) major critical points of power development in Thailand.



GEOGRAPHIC SCOPE

Thailand



45 Operationalising ASEAN Petroleum Security Agreement

Shigeru Kimura and Han Phoumin

SUMMARY

This research examines the best ways to revise the existing ASEAN Petroleum Security Agreement (APSA)/ Coordinated Emergency Response Measures (CERM) to make it more effective by recommending concrete actions that can be completed in order to operationalise it including defining executing bodies and establishing the permanent APSA secretariat.



GEOGRAPHIC SCOPE

ASEAN



46

Create Better Social Acceptance for Electric Power Infrastructure

Ichiro Kutani and Yanfei Li

PARTNERS

IEEJ

SUMMARY

The East Asia Summit (EAS) region needs to develop every kind of power plant to supply electricity for future demand. However, some types of power, including coal, nuclear, grid, and even renewable power source such as wind are facing protests from surrounding residents or non-governmental organisations (NGOs). Therefore, it is crucial to enhance social acceptance for electric power infrastructure for achieving stable electricity supply and well-balanced power supply mix. This study focuses on a case study for Thailand where conflict continues between advocates and opponents of coal-fired power plant (CPP). The study will try to develop a specific consensus formation process that reflects its unique background. This is because that discussion in Thailand is thought as typical case, thus implication can be disseminated among the ASEAN region.

The study is consistent with the wide range of strategic theme in the AEC Blue Print 2025 and its subordinate paper APAEC 2016-2025 Phase I such as 'ASEAN power grid', 'Coal and Clean Coal Technology', 'Energy Efficiency and Conservation', 'Renewable Energy', and 'Civilian Nuclear Energy', and anticipated to contribute to it. In addition, the study is consistent with a goal to create resilient society in the ASCC Blueprint 2025; it particularly corresponds to principles of 'D.5. ii ensure availability and accessibility of affordable energy services'.



GEOGRAPHIC SCOPE

Thailand



RELATED PUBLICATIONS

Murakami, Tomoko, ed. *Building a Collaboration Network towards the Social Acceptance of Nuclear and Coal Power in East Asia*. Jakarta: ERIA, 2017.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2015/No.19.html

47

Formulating Policy Options to Promote Natural Gas Utilisation in the EAS

Ichiro Kutani, Tetsuchi Uemura, and Yanfei Li

PARTNERS

IEEJ and Nomura Research Institute (NRI)

SUMMARY

As stated in the Joint Ministerial Statement from the East Asia Summit (EAS) Energy Ministers Meeting on 22 September 2016, ERIA will conduct a research on natural gas markets in the EAS. Japan and ERIA will start to work on the research to report for the next EAS Energy Cooperation Task Force (ECTF) in July 2017.

Research objectives include a) Clarify possible areas that can be shifted to natural gas in each field, such as 'power generation', 'industry', 'residential', and 'transportation'; b) Calculate gas demand potential in the countries; c) Clarify challenges and issues in promoting natural gas utilisation; d) Propose optional gas distribution network and calculate the amount of funding required for investment; and e) Propose policy options which are essential to promote natural gas shifting and investment in related infrastructure and equipment in the region.

In this survey, future gas demand potential in ASEAN countries and India will be investigated and necessary investment amount will be clarified. By doing so, this survey will raise the awareness of the market size of natural gas in the EAS countries, clarify the challenges to expand the natural gas market, and propose the policy options necessary to solve them.



GEOGRAPHIC SCOPE

ASEAN



RELATED PUBLICATIONS

Kutani, Ichiro, and Yanfei Li. *Sustainable Development of Natural Gas Market in East Asia Summit Region*. Jakarta: ERIA, 2015.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2014/No.31.html

48 Co-operation, Exchange of Information and Assistance between East Asian Regulators in Nuclear or Radiological Incidents and Emergencies

Antero Kuusi and Yanfei Li

PARTNERS

Finland's Radiation and Nuclear Safety Authority (STUK)

SUMMARY

Severe nuclear or radiological emergencies have global effects, either directly or indirectly, as evidenced by the Fukushima Accident (2011). A less severe emergency may have regional effects that affect several countries in the area. Several nuclear facilities already exist in East Asia Region and an even larger fleet of nuclear power plants are under construction or planned in this region, growing at the fastest speed globally. Thus, cooperation in preparedness for nuclear or radiological emergencies is increasingly important to ensure that impact of any such emergency is minimised as much as possible. In addition to international conventions that have been already established in this subject, there were regional collaborative frameworks complementing international conventions and enhancing the safety and security of nuclear applications, as shown especially by the Nordic and European experiences.

This research is a proposal for practical cooperation in case of and in preparation for nuclear or radiological emergency among ASEAN countries. The document describes the formation, structure, communication methods, and coordination mechanisms of an East Asian coordination working group for cooperation in nuclear or radiological emergency and cooperation arrangements among its members. This document reflects the vision of a comprehensive and effective regional collaboration mechanism, although in reality a step-by-step approach may need to be taken for institutionally and politically easier items to be agreed first and the more difficult ones to be adopted later and in a gradual manner.

Key Findings

1. All member countries have a common awareness that every country should play a role in regional cooperation on nuclear emergency preparedness and response, irrespective of the development status of commercial nuclear power generation;
2. East Asian countries can learn practices and guidelines in European countries, especially Nordic countries, with regard to regional information-sharing and collaborating systems in the case of a radioactive emergency; and

Energy-Related Research

48. Co-operation, Exchange of Information and Assistance between East Asian Regulators in Nuclear or Radiological Incidents and Emergencies

3. It would be appropriate to make use of a relevant framework in East Asia, such as the ASEAN Network of Regulatory Bodies on Atomic Energy (ASEANTOM) concept, in order to achieve the most effective emergency preparedness and response.



GEOGRAPHIC SCOPE

Indonesia, Japan, Malaysia, Philippines, Republic of Korea, Singapore, Thailand, Viet Nam



RELATED PUBLICATIONS

Murakami, Tomoko. *Building Guidelines and a Cooperative Framework in East Asian Countries for Radioactive Emergencies*. Jakarta: ERIA, 2016.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2014/No.37.html



Yanfei Li, Shota Inoue, and Yasushi Iida

PARTNERS

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SUMMARY

This study aimed to (1) analyse the potential for deploying an advanced energy management system (EMS) in the East Asia Summit region, especially focusing on ASEAN countries; and (2) propose, upon identifying the policy challenges common in the region, policy recommendations to promote EMS. The study was conducted for two years, and this report outlines the results of the second-year study that focused on the applicability of EMS for factories. It is meant to complement the first-year study report (ERIA Research Project FY2014 No. 39, published in September 2015) on EMS for office buildings. It likewise proposed a set of policy recommendations promoting the deployment of EMS in the ASEAN region.

The second-year study report discussed the importance of deploying EMS in a practical point of view. It is important to note that a waste of energy is caused not only by the use of inefficient appliances but also by the inefficient use of appliances. Energy efficiencies may be achieved without replacing energy-consuming appliances with more efficient ones: by monitoring and analysing the operational data of these appliances as well as by optimising their operational setup. Installation of EMS, which provides visual information, can serve as the solution. However, because of this indirect role of EMS, the benefit of installing EMS may be unclear. Therefore, this study pointed out that a policy intervention is necessary to support the diffusion of EMS.

There were also several case studies that focused more on Factory Energy Managements Systems (FEMS) and subsectors, which showed how effective energy-saving measures, differ depending on industries. This study listed typical energy-saving measures, indicated effective measures for specific industries, and described specifically how these measures will be implemented.



GEOGRAPHIC SCOPE

East Asia Summit Region



RELATED PUBLICATIONS

Iida, Yasushi, Inoue Shota, and Yanfei Li, eds. *Study on the Advancement of the Energy Management System in the East Asia Summit Region*. Jakarta: ERIA, 2017.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2015/No.17.html



50 Electricity Supply Mix and Role of Policy in ASEAN

Yanfei Li and Ichiro Kutani

PARTNERS

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SUMMARY

Increasing demand for electricity combined with lower income levels have prompted ASEAN member states (AMS) to develop large-scale power generating capacity in an economically efficient way. Mitigating environmental burdens is also becoming more important. Thus, the simultaneous achievement of the so-called 3Es – energy supply security, economic efficiency, and environmental protection – in power development has become indispensable in the energy policy of ASEAN countries. Each country has its policies and targets for future power supply mix, yet without appropriate implementation tools, such policies or plans are unlikely to be implemented. Every energy source has its own advantages and disadvantages; some effort is required to make full use of the advantages and minimise the disadvantages. Therefore, creating a system featuring a mixture of electricity sources is crucial to ensure a stable supply. This study aimed to suggest policy tools for policymakers to realise an appropriate power supply mix. Once the optimal mix has been envisioned, the next step is to determine policies that could prompt the most effective implementation of such a mix. One of the key conditions for successful implementation is to introduce market models that are most appropriate in light of each AMSs' policy priorities.

Key Findings

1. The applicable policy tool for achieving electricity mix target differs according to each country's development stage and market model;
2. A simple 'copy and paste' system will not work effectively; therefore, every country or region needs to understand its own situation first;
3. Every government and/or region is suggested to envision its future electricity supply mix in order to indicate a preferred direction for investment; and
4. On the industry side, a life cycle cost evaluation of power station investment must encompass the true value of different investment options.

Energy-Related Research

50. Electricity Supply Mix and Role of Policy in ASEAN



GEOGRAPHIC SCOPE

ASEAN



RELATED PUBLICATIONS

Yokota, Emiri and Ichiro Kutani, eds. *Study on Electricity Supply Mix and Role of Policy in ASEAN*. Jakarta: ERIA, 2017.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2015/No.18.html



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Institutional Strategy and Economic Impacts by Energy Subsidy Removals in the EAS Region

Han Phoumin and Shigeru Kimura

SUMMARY

ERIA and the International Energy Agency (2013) estimated that fossil fuel subsidies amounted to \$51 billion in Southeast Asia for 2012 alone. It is widely accepted that fossil fuel subsidies encourage wasteful energy use, burden government budgets, defer investment in energy infrastructure and efficient technology, and further undermine renewable energy uptakes. While some ASEAN countries have taken actions to remove subsidies, these must be accompanied by careful strategy and steps to do so, as it is often a politically sensitive subject. On the other hand, energy subsidies incentivise consumption and can increase energy demand. When these subsidies are inefficient, they can lead to fiscal pressure, harmful emissions, and potentially undermine sustainable green growth in East Asia countries. In theory, reduced subsidies will encourage more energy-efficient consumption, leading to a positive impact on international energy prices and energy security, and will make renewable energy and technologies more competitive. Reducing local pollution and cutting down greenhouse gas emissions further benefit the environment and society.

This study presents recommendations towards steps and approaches to implement the removal of energy subsidies with public acceptance.



GEOGRAPHIC SCOPE

EAS countries (ASEAN + 6)



RELATED PUBLICATIONS

Phoumin, Han and Shigeru, Kimura, eds. *Institutional Strategy and Economic Impacts of Energy Subsidy Removal in ASEAN and East Asia Region*. Jakarta: ERIA, 2017.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2015/No.23.html

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A Review on Institutional Framework, Principles, and Key Elements for Integrated Electricity Market: Implications for ASEAN

Tsani Fauziah Rakhmah and Yanfei Li

SUMMARY

ASEAN member countries are becoming large energy consumers and growing participants in the global energy market. Cross-border electricity trade becomes increasingly important particularly in the context of fast-rising energy demand and growing urban population. This paper attempts to set out the common principles, methodologies, institutions, and structure for designing an integrated cross-border electricity market and delivering practical policy implications for ASEAN. To allow cross-border electricity trade, the region will need a target model, common vision, and principles that govern electricity market and grid operation.

In the country level, energy prices administratively determined by the government should be shifted to market-oriented pricing mechanism. Integrated electricity market has an enormous potential that can be realised at reasonable costs. When individual countries pursue regional cooperation mechanism to secure their energy supply, investment comes and contributes to optimisation of available energy resources throughout the region.

Questionnaire survey on ASEAN power sector stakeholders on what is necessary and feasible institutional components in building an integrated ASEAN electricity market will be conducted as the main methodology of this study. The practice will not only contribute primary data on the status and feasibility of electricity market integration in ASEAN, but also enable further analysis and insights on corresponding policy recommendations.



GEOGRAPHIC SCOPE

ASEAN



RELATED PUBLICATIONS

Li, Yanfei, and Shigeru Kimura, eds. *Achieving an Integrated Electricity Market in Southeast Asia: Addressing the Economic, Technical, Institutional, and Geo-political Barriers*. Jakarta: ERIA, 2016.

Downloadable from: http://www.eria.org/publications/research_project_reports/FY2015/No.16.html

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