



# **Summary of ERIA Research Projects in 2009-10**

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**Economic Research Institute for ASEAN and East Asia**

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## ERIA Research Projects 2009-10

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**Tracing the Progress towards the ASEAN Economic Community**

*Ed. Shujiro Urata, Misa Okabe*

**Abstract**

This research project is an extension of the research conducted over the last two years. An ERIA test-run project “Deepening Economic Integration” in FY 2007-08 recognized the ASEAN’s initiatives toward establishing the AEC as a crucial step in deepening economic integration in East Asia. In the second phase of the project, conducted in FY 2008-09, quantitative measures regarding key policy pillars in the AEC Blueprint were developed, in order to complement the AEC Scorecard being developed by the ASEAN Secretariat.

A long-term and stable economic development in ASEAN countries depends on stimulation of intra-regional demands and opening up to regions outside ASEAN. The ASEAN Economic Community (AEC) has the potential to do this. The AEC aims at achieving a free flow of goods, services, investments, capital and skilled labor which will promote both regional domestic demands on the one hand and the competitiveness and attractiveness of this region in the global market on the other.

This research project has developed quantitative measures for three core elements, that is, trade in services, trade facilitation and FDI policy, in order to trace the current state of policy across countries in their progress toward the AEC. The expected role of these quantitative measures is to facilitate the implementation of the AEC Blueprint. The quantitative measures are designed (a) to visualize the process of policy reforms, following the AEC Blueprint; (b) to provide a framework on which milestones and end goals of each element can be defined; and (c) to evaluate the current state and the progress vis-à-vis the milestones and end goals.

In this research, the degree of free flow of services, air transportation, maritime services and telecommunication services are studied to map existing policy space and the extent of real policy reform needed in each ASEAN member country to achieve the liberalization laid out in the AEC Blueprint. The degree of free flow of goods has been studied through an analysis of logistics service liberalization focusing on custom procedures and ASEAN Single Windows (ASWs) and quantitative analysis of trade costs between ASEAN countries and major trading partners. For free flow of investment, this research has investigated and evaluated the restrictiveness of FDI policy regimes and environments in the ASEAN countries based on a questionnaire survey and study of the relevant legal documents. Based on these findings, this research presents several policy implications for the implementation of the AEC Blueprint. By mapping actual policies, the paper gives an indication of the extent of real policy reform that will be needed in each ASEAN member country in order to achieve the liberalization targets laid out in the ASEAN Economic Community Blueprint.

## **Key findings**

The ASEAN Economic Community Blueprint envisages that by 2015, there would be free flow of services, investment, and skilled labour, along with the free flow of goods and a freer flow of capital in the region.

### **Free Flow of Services**

#### *Air Transportation Services:*

Most ASEAN countries appear relatively liberal but there are still remaining barriers, which are becoming increasingly to prevent effective competition.

In restrictions on commercial presence (mode 3), ownership restrictions are the most prevalent, except in Singapore.

Restrictions on the movement of people (mode 4) remain most prevalent of all types of trade restrictions. Brunei, Indonesia and Malaysia retain both nationality requirements and labour market tests for managers and/or employees of foreign-invested firms. But Singapore has a relatively liberal treatment of intra-corporate transferees.

Only Singapore and Thailand have so far ratified the ASEAN Multilateral Agreement on Air Services.

Some other prevailing barriers are restrictions on international and domestic charter flights (Indonesia and the Philippines), allocation of flight and gate slots and government subsidies of domestic airlines.

#### *Maritime Services:*

Cabotage restrictions (provisions/ restrictions on domestic and coastal routes), along with inadequate and aging infrastructure, are the main impediments to economic performance in shipping services.

Restrictive port operating conditions also impose costs on shippers.

Regarding restrictions on trade in mode 1, only three countries (Cambodia, Indonesia and Thailand) have reported exemptions from cargo restrictions.

For restrictions on commercial presence (mode 3), ownership restrictions are slightly more prevalent in the region. No country meets the Blueprint target of allowing at least 51 per cent foreign ownership by 2010 in all maritime services. But some countries meet the target for at least some services.

In most countries, port operations are still government-owned with relatively heavy regulation of port services. In addition, a half of the ASEAN countries retain discriminatory licensing conditions for foreign suppliers (of port superstructure).

### Telecommunication Services:

Most ASEAN countries score relatively well on market structure and presence of competitors.

Only two ASEAN countries — Singapore and Vietnam — currently meet the Blueprint's foreign equity targets for investment in telecommunication service providers.

Most countries are relatively even-handed in their regulation of facilities-based and resale-based services. However, only a minority of ASEAN countries (Cambodia, Malaysia, Singapore and Vietnam) have moved comprehensively to general rather than individual licensing of telecommunications providers.

Malaysia is the one ASEAN country that still applies discriminatory licensing requirements to foreign-invested suppliers.

### **Free Flow of Goods**

#### Customs Clearances:

Most countries are participating in efforts to introduce National Single Windows and integrate these into an ASEAN Single Window (the exception is Myanmar).

However, there are variations in customs procedures on the ground caused by differences of levels of development, such as the degree of usage of electronic filing of customs documentation.

In addition, although most ASEAN countries are relatively transparent about their trade regulations in general, very few are fully transparent about ex-post performance such as measures of customs clearance time in making the results public.

#### Trade Cost Estimation:

On average, the trade cost of ASEAN countries has been on a declining trend.

In addition, the variation in trade costs in the ASEAN countries appears to be converging to the lowest cost country.

The low level of general quality of institutions and infrastructure of the ASEAN countries increases trade cost, particularly for seaborne.

These results suggest that efficient logistics and distributions, as well as improvement of quality of institution and infrastructure are important factors for trade cost reduction.

## **Free Flow of Investment**

ASEAN countries have generally restrictive FDI regimes in the areas of the movement of investors (Thailand, Cambodia, and Myanmar), screening and appraisal procedures for FDI applications (Myanmar, Indonesia, Cambodia and Lao, PDR) and lack of national treatment (Malaysia and Brunei).

The wide variations among countries in scores for these areas among the countries reflect diversity in the seriousness of those problems among them.

Market access is rather relaxed in manufacturing sector compared to the high levels of restriction found in the public sectors and service sectors, including information and communication.

In market access restrictions by country, Thailand sets an upper limit to foreign equity ownership in many sectors. Market access is nil or very limited in Lao PDR (information and communication, and public administration), Myanmar (information and communication, financial and insurance businesses, and public administration) and Indonesia (real estate activities).

Reduction of indirect barriers to FDI such as institutional problems, complicated and delayed procedures, underdeveloped infrastructure, inflexible labor market conditions and problems involving taxation regulations (including double taxation problems) is also required.

## **Policy Recommendations**

### *Air Transportation Services:*

There are yet only few countries meeting the ASEAN Blueprint targets. ASEAN members should work towards further reform of their air services agreements, and should achieve much greater transparency in their provisions.

### *Maritime Services:*

ASEAN countries should make more efforts to reduce the scope of cabotage restrictions.

All countries should be looking to meet the Blueprint target of allowing at least 51% foreign ownership by 2010.

### *Telecommunication Services:*

The limitations/restrictions on competition and foreign equity limits should be phased out.

Also, the problem of very high market shares possessed by incumbent service suppliers needs to be addressed.

### Customs Clearances:

The variations in the extent to which countries have set targets and used information technology in customs clearance reflect levels of development of technology. Region-wide technology cooperation in these fields is necessary to eliminate these differences in ability of implementation.

Publication of clearance times would bring in transparency in ex-post performance. This would provide the acid test as to whether ASEAN cooperation efforts are achieving their ultimate aims.

### Trade Cost

Ad valorem trade costs have a tendency to decrease and converge to the lowest-cost country.

For further reduction of this trade cost, efficiency of logistics and distributions sectors, and quality of infrastructure related to transportation (port infrastructure, roads and railroad) should be generally improved.

### **FDI Climate**

In order to promote FDI policy liberalization, the ASEAN countries should use various existing frameworks such as WTO/GATT's TRIMs agreement, BITs, FTAs and other legal frameworks. In particular, ASEAN should use the ASEAN Comprehensive Investment Agreement (ACIA).

To overcome obstacles concerning FDI facilitation, the ASEAN countries should actively use various cooperation programs with developed countries to improve the human resources engaged in the implementation and enforcement of FDI policies. Technical assistance in human resource development can also be sought from UNCTAD, the OECD and ERIA.

Monitoring of the implementation of FDI liberalization and facilitation measures has to be emphasized to achieve a freer FDI environment. In this regard, a monitoring mechanism should be established in ASEAN or in ERIA.

## ERIA/AEC Scorecard

	Brunei	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average
<b>I. Free Flow of Services</b>											
<b>Restrictions on Trade in Air Transport Services</b>	39.7	44.2	32.0	55.5	51.3	38.2	21.5	6.3	18.7	60.6	36.8
<b>Restrictions on Trade in Maritime Services</b>	NC	21.9	30.8	NA	19.2	41.9	31.8	17.6	26.5	41.1	28.9
International Shipping	NC	14.3	28.6	NA	26.9	20.0	24.9	2.9	31.5	40.0	23.6
Cabotage	NC	13.0	26.2	NA	36.5	52.2	30.4	NA	27.8	54.3	34.4
International Waterways	NC	0.0	53.3	NA	22.7	73.3	40.0	NA	36.0	30.1	36.5
Port Superstructure	NC	41.7	16.8	NA	11.7	75.0	35.0	66.7	16.8	29.3	36.6
Cargo Handling	NC	0.0	16.8	NA	11.7	16.7	26.7	0.0	16.8	29.3	14.7
Storage and Warehousing	NC	0.0	16.8	NA	11.7	16.7	10.0	66.7	16.8	29.3	21.0
Freight Forwarding	NC	0.0	16.8	NA	11.7	16.7	26.7	0.0	16.8	29.3	14.7
Pilotage, Towing and Tying	NC	91.7	50.0	NA	11.7	91.7	26.7	66.7	16.8	66.7	52.7
Maintenance and Repair	NC	0.0	16.8	NA	11.7	16.7	18.3	0.0	16.8	29.3	13.7
Port Operation	NC	47.9	49.2	NA	6.3	50.4	58.3	16.7	36.0	52.1	39.6
<b>Restrictions on Trade in Telecommunication Services</b>	21.3	35.1	19.1	86.9	24.9	84.8	26.5	8.1	19.0	21.5	34.7
Facilities-Based Services	19.5	24.5	18.1	93.6	19.5	80.3	22.3	0.0	20.8	17.6	31.6
Resale-Based Services	18.5	45.1	17.0	98.7	19.8	95.6	22.6	0.6	2.6	17.9	33.8
Leased Lines and Private Networks	22.2	22.2	33.3	11.1	33.3	11.1	0.0	33.3	44.4	22.2	23.3
General	34.3	41.7	23.1	59.3	51.9	91.7	58.3	44.4	51.9	42.6	49.9
<b>II. Free Flow of Goods</b>											
<b>Implementation of ASEAN Single Window</b>	24.0	46.0	20.0	48.0	16.0	46.0	8.0	32.0	17.2	45.6	30.3
National Policy	27.5	55.0	22.5	57.5	17.5	52.5	10.0	40.0	19.0	54.5	35.6
Regional Cooperation	10.0	10.0	10.0	10.0	10.0	20.0	0.0	0.0	10.0	10.0	9.0
<b>III. Free Flow of Investments</b>											
<b>Assessment of FDI Policy Regimes</b>	39.4	24.2	37.5	42.8	43.8	46.3	23.7	17.5	30.0	31.5	33.9
Market Access	24.3	14.0	36.4	39.2	32.0	37.8	25.7	19.7	42.3	33.8	30.5
National Treatment	79.5	18.3	19.8	41.0	83.3	40.1	27.9	14.3	0.0	26.2	35.0
Screening and Appraisal	43.4	62.2	78.9	60.8	25.0	92.1	11.2	15.4	50.0	36.4	47.5
Board of Directors	59.0	0.0	30.8	25.0	39.7	39.9	51.9	35.6	0.0	28.6	31.0
Movement of Investors	18.0	75.0	54.6	79.3	56.2	71.4	4.3	7.4	80.5	46.9	49.4
Performance Requirement	18.0	11.7	25.5	24.5	22.7	28.4	10.7	9.1	0.0	15.2	19.4

**Liberal**

**Restricted**

NA: Not Applicable

NC: Not Collected

**Note:** The original value on **II. Free Flow of Goods** was constructed as implementation index, i.e., greater the value, better the situation. The values on row II of this table are modified by subtracting the original value from 100. These values are non-implementation indexes, which denote the gap between the target of the Blueprint and the current status.

Source: ERIA/AEC Scorecard (ERIA Research 2009-10)



**Causes and Consequences of Globalization in East Asia: What do the Micro Data Analyses Show?**

*Ed. Chin Hee Hahn, Dionisius Narjoko*

**Abstract**

This research covers the impact of globalization and trade and investment liberalisation on productivity through a micro data analysis of East Asian countries. Historical experience of world economy supports that globalization and economic growth are intimately related. However, there exists a contrary thinking too, which suggest that the relationship between trade or trade liberalization and growth is ambiguous at best.

While the debate on the macroeconomic effects of trade on growth is still quite open, there are many questions that need to be explored, e.g. relationship between globalization on the one hand, and growth, productivity, reallocation, location of industries and firms, employment and wage inequality, market structure, etc. on the other.

This research recognises that many of the old and new issues raised above can be addressed better by utilizing micro datasets. This micro data analysis of globalization is particularly aimed at East Asian countries as they are characterized by relatively open trade and investment regimes, dynamic growth performances in the past and a rapid de facto integration recently, not only among themselves but also with countries in other regions. As a consequence, the effects of globalization are likely to show up in a relatively short period of time in countries of East Asia. It is therefore expected that with a micro data analysis of globalization, any proposed benefits or costs of globalization are likely to show up clearly in East Asian countries. The heterogeneity of East Asia countries in terms of development and size, foreign direct investment (FDI) and migration flows, liberalization strategies and economic structures gives a unique opportunity to assess the different effects of globalization across countries.

This research examines the effects of trade and investment liberalization, although the outcome variables examined differ across the country papers. The variables range from causes, as well as consequences, of globalization (Japan), effect of cross-border labor inflows (Thailand), effect of trade liberalization on plant total factor productivity (TFP) growth (Korea), effect of trade reforms and reversal of trade liberalization on firm productivity (Philippines), effect of liberalized trade and FDI on firm productivity (India), the absorptive capacity of domestic firms (Vietnam), emphasis on innovation and productivity (Malaysia), competitive pressure on and gains for the firm from participation in a global production network (Thailand), relationship between the demand for skilled labor and exports and FDI (China) and role of FDI in labour productivity (Indonesia).

## **Key Findings**

### **Reduction of trade costs between host and home countries has different impact on Horizontal FDI (HFDI) and Vertical FDI (VFDI)**

Reduction of trade cost make firms more likely to choose vertical FDI (VFDI) which allows a reallocation of a part of the production process to cheap-labor countries, and engages in vertical production process division between host and home countries.

A substantial reduction in trade costs between Japan and countries of East Asia region has led to an increase of VFDI from Japan into the region.

### **Greater access to imported intermediate varieties (due to trade liberalization) improves the total factor productivity of domestic firms.**

Increased imported intermediate varieties also have a positive impact on stimulating the product-switching (i.e., product adding and product dropping) behavior of domestic plants, which in turn enhance the resource reallocation process within the firm and thereby improve the firm's production efficiency.

The research establishes that imported intermediate variety growth reduced the product scope (that is, the number of products) of domestic plants in an industrial country like Korea, but also suggests that this factor may not have similar implications for developing countries.

### **Trade and investment liberalization act as a proxy for the policy reforms and reduce the costs of establishing private enterprises and of exporting.**

Rapid trade and investment liberalization in Vietnam since early 90s has triggered a rapid growth in the number of firms entering the country's manufacturing and services sectors.

There is a reallocation of resources across firms within Vietnamese manufacturing towards the more productive firms, resulting in a higher industry-level productivity growth. However, an intra sector impact of high firm entry rate suggests that the increase in productivity mostly applies to firms that have already acquired some intermediate level of productivity.

### **Reversal of the policy reforms affects firm productivity negatively**

Replacement of tariff reforms by a selective protectionist policy in the Philippines has held back productivity improvement which arose from the earlier waves of trade policy reforms. This has reversed the gains from previous trade liberalization.

The selective protectionist policy has weakened the process of reallocation of resources from less to more productive firms. Such policy change tends to allow inefficient firms in the industry to survive.

**Besides policy reforms in international trade and FDI, positive productivity gains are also being determined by liberalization of the imports of intermediate inputs and capital goods, size of operation, quality of employment and technology imports.**

In the case of India, export orientation by itself does not tend to improve productivity. Liberalizing the import side, especially of capital and intermediate inputs have improved firm productivity and has largely helped consumers in domestic markets.

Foreign firms have chiefly catered to the domestic market and as a result, India is yet to develop as an export platform.

The importance of imported goods in improving productivity suggests that firms are learning from imported and more advanced technology. This suggests that positive productivity gains have accrued due to liberalization of the imports of intermediate inputs and capital goods.

**FDI spillovers from foreign firms are positive in various aspects contributing to improved productivity of local firms**

Some of the externalities that promote the development of the domestic sector are that domestic-owned firms can imitate the superior technology of foreign firms nearby (the technological imitation effect), or they can benefit from skilled labor turnover (the skill acquisition effect). Furthermore, competition and production linkages among firms are also important channels for such phenomena as technological diffusion.

The existence, pace and magnitude of productivity spillovers are subject to the nature and extent of technological transmission, nature of both foreign and domestic firms and the conditions of host country. However, gaps in technology and skill intensity limit the positive spillovers from the presence of foreign or multinational firms and restrict domestic sector to maintain and improve its competitiveness.

**There is also a case for enhancing innovation capabilities, rather than productivity, of domestic firms to ensure their and the country's export dynamism.**

In export oriented economies like Malaysia, productivity is driven by capital intensity and human capital but this may not necessarily translate into export dynamism. Here the manufacturing sector will need to move up the value chain by achieving higher productivity and by innovating.

Product and/or process innovation allows firms to move up the value chain in manufactured exports and are likely to be the key drivers in exporting.

Trade liberalization can promote exporting, but such policies may be less relevant to innovating firms. Exporters are more likely to be larger firms with foreign ownership attesting the present role of FDI and large multinational companies (MNCs) in exporting activities. The role of small domestic firms and their ability to innovate and venture into exporting needs to be seriously considered.

## **Trade liberalization increases demand for unskilled labor in developing countries which specialise in the production of unskilled-labor-intensive goods.**

An analysis of large-scale firm-level census data suggest that exporters tend to employ more unskilled workers than non-exporters both in the ordinary trade regime and foreign invested exporting firms in the processing trade regime. Though consistent with established theory, this finding runs against the predictions of a large body of literature on trade and heterogeneous firms.

In an international fragmentation of production, where production processes are fragmented into many stages and carried out in different locations, the production activities that are shifted to developing countries are unskill-intensive in developed countries but are in fact skill-intensive in developing countries. This stands verified in China where FDI is associated with a higher share of skilled labor in total employment,

### **Some other significant findings are:**

- FDI's play a significant role in improving labor productivity over periods.
- Exporting firms consistently provide more jobs than non-exporting firms.
- Firms which are relatively large in size (both in employment and sales), perform better, and actively undertake upgrading activities usually do not hire foreign workers.
- Allowing the migration of unskilled foreign workers on a temporary basis would be a win-win solution for labor importing and exporting countries, as well as for the migrants themselves, so long as this process does not affect the upgradation processes of small firms.

## **Policy Recommendations**

**There are strong evidences in this report that trade and/or investment liberalization had a positive dynamic effect on the aggregate economy studied.**

These evidences show correlation between trade and/or investment liberalization on the one hand, and higher TFP growth (Korea, Indonesia, Philippines, India, and Vietnam) and higher rates of new product introduction (Korea) on the other.

Trade and investment liberalization is a necessary policy to promote strong and sustained growth.

FDI in outsourcing gives incentive to accumulate human capital by increasing the demand for skilled labor.

**Trade and investment liberalization should be pursued as part of a broad national growth strategy.**

Other complementary policy for productivity improvement and growth such as enhancing absorptive capacity or human capital of domestic workers and firms also seem necessary to gain the potential benefits from international knowledge/FDI spillovers.

**Trade cost reduction should be on the policy agenda as a high priority for countries that have yet to join the international production networks.**

Reduction of trade costs can be achieved by improving trade-related infrastructure. This improvement integrates hitherto isolated markets into international production networks and makes them competitive. This, in turn, positively addresses country's economic and distribution issues.

**Domestic policies should facilitate forces of competition in domestic markets.**

Most dynamic gains from trade are realized through reallocation across firms and industries and even across products within-firms. Existing regulations related to firm entry, employment protection and business regulations based on firm size inhibit the reallocation of resources by market forces. Domestic policies must focus on elimination or reduction of such regulations and encourage building up of proper institutions or markets, such as bankruptcy laws and procedures.

**Enhancing the credibility of trade and investment reform is likely to raise the effectiveness of trade/investment liberalization.**

Reversal of trade liberalisation damages both the gains from and credibility of reforms. Sustained gains and credibility of reforms can be ensured by making trade and investment liberalization non-reversible and a part of the broad growth strategy.

**Policy measures are extremely necessary to ensure distribution of economic gains.**

The main agents participating in the economic growth, such as labour, have to make adjustments when the trade or FDI involved is outsourcing-related. Economies integrated into international production networks will face wage inequalities between skilled and unskilled workers. Domestic policies must be put in place to address these changes in society, especially for those who are on the losing side.

## **Future Research**

Some further issues, not covered under this research but important for a better understanding of the subject can be explored. The questions for future research would include whether intermediate imports from advanced countries have different impacts from those from developing countries? What are the characteristics of the added product and the dropped product in this process? Do they really represent a creative destruction process?, and linkages between domestic companies and possible contributions of these factors to productivity spillovers

**Linkages between Real and Financial Aspects of Economic Integration in East Asia**

*Ed. Christopher Findlay, Friska Parulian, Jenny Corbett*

**Abstract**

The financial integration of the economies of the region and its relationship with the linkage of the real side of these economies has remained an issue of much interest. These linkages need particular examination after the experience of the Global Financial Crisis (GFC).

It is found that there is an apparent balance between financial integration and the benefits it confers, on the one hand, and the transmission of shocks from the rest of the world and associated threats to financial stability on the other. This balance raises interest in both the direct channels of transmission of such shocks and also the indirect effects.

The linkages between the real and financial sectors of the economy, requires an analysis of several links in a chain. This research examines macroeconomic indicators on the behavior of the financial and real economies and reviews the microeconomics of the channels of transmission of shocks and the processes of integration. The questions asked are: What are the connections and sequence between trade and financial integration? How financially integrated are the Asian economies? Through this research the connections between trade and monetary integration have been examined.

This research is novel to the extent that it derives some measures of price-based real and financial integration of the region from the conventional relative Purchasing Power Parity (PPP) and Uncovered Interest Parity (UIP) relation. It also uses growth in aggregate output, change in net factor income and change in national saving to estimate the degree of smoothening of shocks to GDP in nine East Asia countries.

The research analyzes trade intensity, similarity of industrial structure and financial integration, with an emphasis on the impact of financial integration on Business Cycle Synchronization (BCS). The paper looks at clusters of research on structure of corporate finance and the impact of financing on growth or productivity. In particular, it studies the structure of corporate sector finance and the banking systems in the region to understand how the economy will respond to changes in the financial system. It further examines the impacts of trade financing on the export demand in three major economies of East Asia, the determinants of efficiency of banks in the selective Southeast Asian economies.

This research demonstrates that country and region specific factors are generally significant in understanding the processes of economic integration and their consequences.

## **Key Findings**

**The dynamic estimations suggest that financial integration in the region might lead to a real integration but not necessarily the opposite. This may be due to difference in the timing of adjustment of the respective markets.**

Monetary integration encourages trade and trade integration leads to the closer synchronization of business cycles and produces other economic spillovers that facilitate monetary integration.

At a bilateral and regional level, those countries with greater financial integration (lower FI) tend to have more diversified, deeper and larger financial markets.

**Countries in the region may benefit from having more open financial systems, which they could use as means of increasing the consumption risk sharing.**

With a relatively small fraction of shocks to GDP being smoothed via credit market channel, East Asian countries are still not well integrated into international capital markets.

These economies have a relatively low portion of change in net factor income from abroad and a relatively small ability to adjust national savings to protect consumption.

There would be significant welfare gains from improvements to mechanisms to achieve consumption smoothing and that these would benefit all countries in the region.

**Trade and financial linkages can influence Business Cycle Synchronization (BCS) either way.**

An inverse relationship between bilateral financial linkages and BCS indicate that financial integration makes it easier for these countries to transfer financial assets, which should help Asian countries diversify themselves against country-specific risks.

Financial integration leads to an improvement in welfare as specialization benefits are magnified and realized. Availability of better risk-sharing mechanisms tend to offset the risk of spillover or transmission of shocks.

**Country-specific factors are generally significant in understanding the processes of integration and their consequences.**

Differences in financial structures of the corporate sector matter for real economic outcomes such as growth, productivity, investment and volatility.

The GFC was transmitted through the lending channel to East Asian economies, but the effects were heterogeneous within the region.

Financial shock that originated in the US had heterogeneous impacts on individual economies.

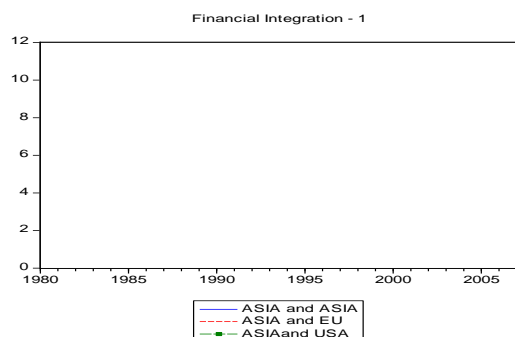
Since symmetric shocks, or symmetric response to shocks, are considered one pre-requisite for monetary union, the region does not seem to meet this criterion.

The impacts of trade financing on the export demand differ from one country to another. The more developed a country's financial sector is, the more significant the role of trade financing would likely to be.

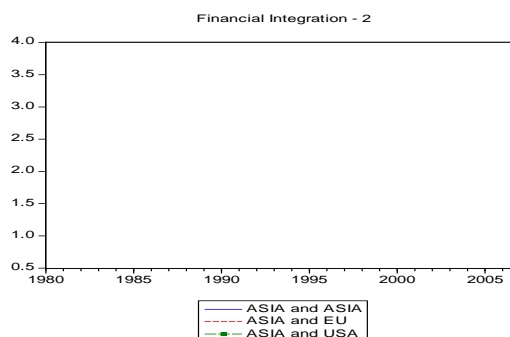
**Bank regulation and supervision will be crucial to improve the efficiency of the banks and stability in the financial markets in the Southeast Asia.**

Compared with private sector monitoring of financial activities, the role of banking regulation and supervision is important for the efficiency of banks in Southeast Asia.

### Financial Integration over Time (Quantity-Based)

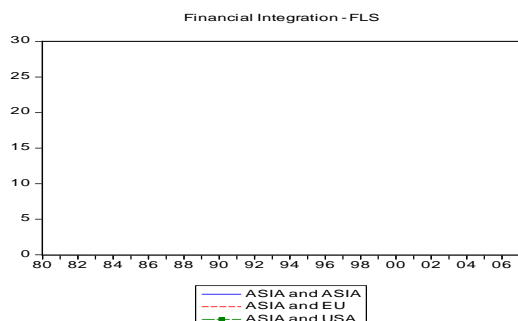


**FI-1** is the measure of the extent of openness between pair of countries to global financial markets



**FI-2** is an alternative measure of financial openness based on IMF Annual Report on Exchange Arrangement and Exchange Restriction.

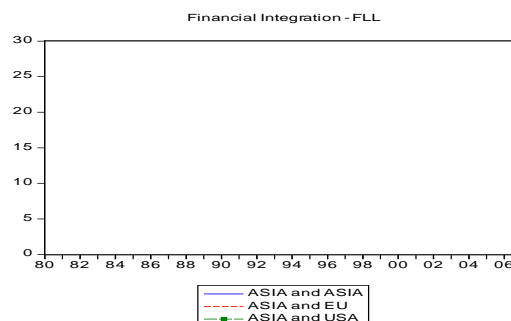
### Financial Integration over Time (Price-Based)



**FLS** is price based indicator measured by distance between long term and short term rates

Note: The correlation is estimated with a four-year rolling window.

Source: Linkages between Real and Financial Aspects of Economic Integration in East Asia (ERIA Research, 2009-10)



**FLL** is price based indicator measured by distance between long term and short term bank lending rates



## **Policy Recommendations**

**There are positive externalities arising from cooperation among East Asia economies.**

There is some evidence of a need for cooperation among countries to strengthen individual financial sectors, to develop regional financial markets, and, in particular, to diversify their financial structures.

**However, the appropriate policy approach to enable countries to reap the benefits of further financial integration will likely differ across countries in the region.**

The challenge for policy makers is to be able to counter balance the benefits and risks of greater financial integration. This trade-off will vary across economies as it will be a function of the level of financial market development of individual countries in the region.

Improved openness of financial markets is one mechanism to achieve this. Developing and strengthening capital markets which facilitate cross-border ownership of assets is essential.

Reforms aimed at improving the capability of market to adjust in response to shocks as well as to being more receptive of cross-border financial activities can further enhance risk-sharing opportunities between countries.

**Since symmetric shocks, or symmetric response to shocks, are considered one pre-requisite for monetary union, the region does not seem to meet this criterion.**

The bottom-up strategy appears to be more important than top-down institution building, such as the creation of regional monetary unions or regional bond markets.

**As closer financial integration increases the risk of exposure to external shocks, it is worthwhile to develop a framework for containing contagion from a weak link in the system.**

Development of a risk-sharing framework (cross-border supports for injecting liquidity, provide trade credit) would be practical and desirable for closer financial integration.

**Central banks in the region gain from a better system of monitoring and supervising the risk-sensitive activities of the banks.**

Some restrictions on risky activities of banks tend to produce more efficient banks. The right balance between creating a competitive market, including foreign participation, alongside prudent banking regulation and supervision will be important for banking efficiency and for stability in financial markets.

## **Future Research**

A number of empirical studies are required to clarify the questions that have emerged in the process of this research. This includes work on measures of integration, the indicators of business cycle movements, further work on the sources of corporate funding, and new indicators of bank efficiency, and others. Most importantly, there is need to identify the specific institutional features which are contributing to the observed economy-level variations in results.

As there are significant country differences in institutional structures in financial markets and their links with local corporate structures, the future research program should exploit these differences in the region and identify more carefully the nature and contributions of country features. This analysis will be a valuable input into the design of a capacity-building program for financial integration in this region and between this region and the rest of the world.

It would also explain the possible differing effects that different types of financial integration have on synchronicity of business cycles.

**Establishment of Secure and Safe E-Commerce Marketplace**

*Ed. Tsuneo Matsumoto*

**Abstract**

The expansion of cross-border trade is one of the keys to ensure sustainable economic growth in ASEAN and East Asia. With the region's continuous increase in Internet use, companies, in particular small-and-medium-sized businesses, are keen to take advantage of the opportunity provided by the Internet to start cross-border e-commerce. This is a serious business opportunity which can enhance sale of goods and services beyond borders without major investments.

This research paper is the second, and final, in the series of study on E-Commerce in the region. It compares the e-commerce situations in Malaysia, Singapore, Vietnam, the Philippines, Japan, Fiji, Indonesia, India, Thailand, China and Korea and establishes the two major challenges in cross-border e-commerce; one is the differences of the legal systems in each country, and the other is the availability of a common dispute settlement mechanism in the region.

In this segment, the research team has attempted to deepen their understanding of the legal systems regarding e-commerce in each of the above countries and analysed actual instances of cross-border complaints to develop a dispute settlement mechanism for e-commerce. The research also demonstrated the usefulness of the International Consumer Advisory Network (ICA-Net) as a platform for information sharing such as information on the legal systems of each country and best practices for solving disputes among the Consumer Advisory Liaison Office (CALOs). The establishment of the Social Networking Service (SNS) was also beneficial because the CALO can easily share such information through the system.

## **Key Findings**

**E-commerce in each ASEAN and East Asian country is on an upward trend across the region, but the spread of e-commerce differs country by country.**

The most important reason for this differential spread is the development of legal systems pertaining to e-commerce in each country.

There is a need for promoting legal harmonization among ASEAN and East Asian nations to help active cross-border e-commerce transactions.

However, the realization of legal harmonization is not feasible in the short term because of the differences in social, economic and political situations within the region.

**A secure and safe e-commerce market can be developed in ASEAN and East Asia by ensuring transparency in business-to-consumer (B2C), business-to-business (B2B) and business-to-government (B2G) processes.**

To increase legal transparency in the e-commerce market, it is necessary that the information on the commonalities and differences between legal systems of each country should be made available to both e-commerce businesses and consumers before they engage in online transactions.

As most e-commerce complaints result from differences of language, laws, regulations, business practices and a lack of communication, these can be solved effectively by a network of complaint handling organisations which have deep knowledge of the legal systems and presence in each country.

**In order to realize the creation of such a network, namely, an International Consumer Advisory Network (ICA-Net), a Consumer Advisory Liaison Office (CALO) should be established in each country.**

The functions of the ICA-Net are:

- i. To receive cross-border complaints from domestic consumers
- ii. To offer them relevant information or advice
- iii. To inform the business dispute origin country CALO of the complaint
- iv. To urge the business to solve the dispute through the specific CALO.

To enable the ICA-Net to function effectively, there is a need to develop a set of rules, e.g. rules for handling of personal information which the CALO should comply with.

## **Policy Recommendations**

**Governments must aim towards a better understanding of the legal systems and learn from the best practices of other countries toward making effective policy as well as increasing consumer protection in the context of cross-border e-commerce.**

Continuous review and exchange of information regarding legal systems related to e-commerce in ASEAN and East Asia are needed toward future legal harmonization

The ICA-Net could provide the impetus for the harmonisation of legal systems on e-commerce, and thereby contribute to the economic integration in ASEAN and East Asia. Governments should be supporting the ICA-Net for its sustainable and effective operation toward the resolution of disputes in cross-border e-commerce.

Select a reliable CALO in each country and provide minimal financial assistance to allow it to get integrated into the domestic and cross border network.

## **Strengthening Information Security in the Business Sector**

*Ed. Dr. Komain Pibulyarajana*

### **Abstract**

Information security measures are necessary for a secure business environment. It helps in promoting outsourcing and investment in more sophisticated services in ASEAN and East Asia.

This research is the second in series where the working group developed a common information security management benchmark (Common ISM Benchmark) as a self-check tool for organisations with which users can compare their security level with others.

In last year's research, the working group analysed how the establishment of information security would affect the economy or enterprise management in ASEAN and East Asia. It studied the role that Common ISM Benchmark could play in the region through a survey on the trial use of the existing benchmark, namely, Information Security Management Benchmark (ISM Benchmark).

The survey showed that majority of the companies viewed the ISM Benchmark as an effective tool in evaluating the information security level of an enterprise. However several related issues were still needed to be resolved.

In this year's research the working group has analysed the following items required for practical development of the Common ISM Benchmark through specific surveys and individual study.

- Concept and value of the Common ISM Benchmark
- Positioning of the Common ISM Benchmark
- Part to be developed in common and the part to be localized
- Framework and challenges toward implementation

The study has researched the status of companies anticipated to be possible users of the Common ISM Benchmark through two surveys (one for Japanese companies and another for companies in other member countries). The surveys focus on information security environment and issues in trade and investment.

The research also analyses the current ISM benchmark in comparison with ISO/IEC 27002 in five areas—coverage, focus, depth, quality, and assurance—to better understand its relationship with existing international standards.

In this year, the research on ISM benchmark has used existing benchmarks in Japan and South Korea and determined the 25 common questions which are the core of the Common ISM Benchmark.

## **Key Findings**

**Economies in ASEAN and East Asia have rapidly developed due to and sustained by an increase in direct investment in the region and expansion of Economic Partnership Agreements (EPA).**

Generalisation of outsourcing, progress of cross-border technology transfer, progress of knowledge transfer and the construction of a global supply chain have supported these changes and developments.

As a qualitative shift, the economies in the region have been moving toward a knowledge-based economy with the growth of high value-added industries.

**Consolidating the development of Asia requires constructing a more advanced cross-border common infrastructure appropriate for a knowledge-based economy**

In order to promote further business outsourcing and foreign direct investment in ASEAN and East Asia, a secure business environment needs to be created. For this, it is important to invest in an enterprise information security.

**A survey of 234 listed Japanese companies on their overseas investment intention and its relation to information security shows an overwhelming usage of risk assessment for purpose of increased trade and investment in the region.**

Eighty percent or more of the respondent companies perform risk analysis in decisions on overseas trade and investment. The larger the company, the more likely it implements risk analysis.

The larger the company, the more likely it has standards or a policy about the information security risk. Ownership rate of standards and/or policy about information security is higher in sectors such as financial and insurance, construction, transportation, information and telecommunications than manufacturing.

The companies also seek confirmation of information security measures at client companies.

**A similar survey was conducted in 11 companies from six countries in ASEAN and East Asia (Malaysia, Singapore, Thailand, Vietnam, China and Korea) and the results showed shared perceptions on overseas investment and information security.**

Information security measures are being implemented by most of these companies.

While most companies expect governments to formulate standards or guidelines for information security in overseas transactions, they also desired the development of a shared method for measuring information security levels including common check sheets.

**The relationship among companies in ASEAN and East Asia is not hierarchical or static but is that of equal partners. This indicates that the importance of bi-directionally common communication is growing for risk communication with respect to information security.**

The objective of the Common ISM Benchmark is building and promoting a trustworthy economic partnership. With it, the groups of companies that comprise the value chain of companies in the region are able to share important proprietary information and divide the operations among themselves while providing value to end consumers.

The Common ISM Benchmark should be an acceptable and comparable risk communication tool which can be used for confirming the information security measures both of the company as well as its clients and investment destinations.

**The proposed ISM benchmark focuses on the requirements and best practices specified in ISO/IEC 27002. The 25 questions used in the ISM benchmark represent a subset of the 133 controls in the ISO/IEC 27002 standard.**

However, in doing this, the research anticipates that the outcome of the benchmark, comparing many organizations from different industries based on their answers to a single set of 25 questions, may have several side effects, such as lack of focus, depth, quality and assurance.

Hence, the research now proposes a framework based on the approach used in the Singapore Standard (SS) 493:2001 – Security Standards Framework, and the ISO/IEC 15408 – Evaluation criteria for IT security standards that combines functional requirements and assurance requirements and is also in line with the security evaluation approach.

**There are several challenges for implementation of the ISM Benchmark.**

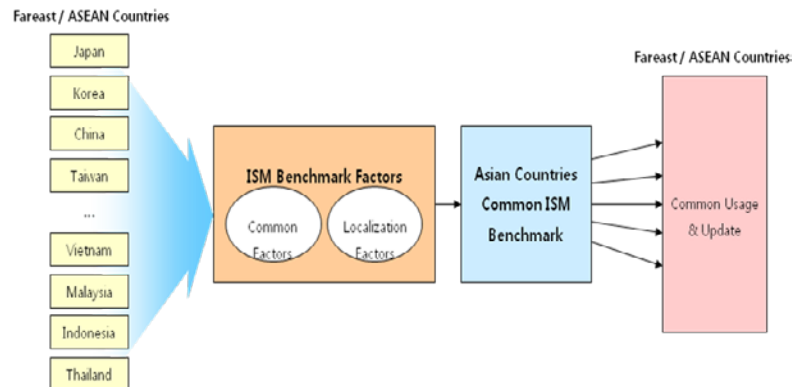
The level of e-readiness of organisations in Korea, Japan, and Taiwan is now increasing as these countries have also developed their benchmark tools. However, the small and medium-sized organizations are at the center of economy in East Asian countries and they require an ISM benchmark which is simple, affordable, and doable.

A common benchmark must take into account each country's benchmark items that are already in operation and also gain consensus of Asian countries. Only then it may become a de facto standard in Asian region.

The other challenges for the Common ISM Benchmark are selection of a dependable entity for operation and maintenance, individual country's sensitivity towards security of its data, competitiveness of Common ISM Benchmark among other information security management tools.



## Process of developing a common benchmark for Asian countries



Source: Strengthening Information Security in the Business Sector (ERIA Research 2009-10)

### Policy Recommendations

**Common ISM Benchmark can help to improve information security management, and risk communication within ASEAN and East Asia.**

Organisations responsible for establishing business environments within their economies must encourage the use of the Common ISM Benchmark as a means for small and medium businesses to assess and recognise their level of information security management within the region.

The countries should develop/use this platform for sharing of statistical data and other information gathered from the use of the Common ISM Benchmark.

Appropriate mechanisms can be developed by both businesses and governments to popularise the Common ISM Benchmark as a means to enhance information security in ASEAN and East Asia.

**Integrating Small and Medium Enterprises (SMEs) into the More Integrated East ASIA**

*Ed. Vo Tri Thanh, Dionisius Narjoko, Sothea Oum*

**Abstract**

Despite the many barriers and capacity constraints SMEs face due to their relatively small size, they remain a vibrant and essential ingredient for the economic growth and employment generation of the regional economy. East Asian region remains heavily dependent upon SMEs, particularly for employment generation.

The process of globalization has presented new challenges but it has also presented new opportunities for those enterprises most able to respond flexibly and adaptively to rapidly changing regional and global markets. A critical issue is how best to ensure that they fully participate in the business opportunities that will present themselves including that in the form of participating in global and regional value chains or production networks..

There are about 20 to 30 million SMEs in East Asia. SMEs employ about 60% of the private sector workforce, and 30% of the total workforce. SMEs contribute about 70% of net employment growth. SMEs are usually lower-tier firms in production networks having competitive value from their low cost structure and high degree of flexibility. However, a significant proportion of SMEs are also at risk because of a liberalized and highly competitive environment. Therefore, there is always survival threat because SMEs are located in the weakest link in a production network.

This research improves the understanding of issues and challenges for effective and increased SMEs participation in the East Asian production network. It examines the constraints in growth of SMEs and their participation in production networks and the firm characteristics that determine SME participation and performance in production networks. Globalization and regional integration bring economic openness and domestic trade and investment liberalisation. This challenging new economic environment tends to put SMEs at a disadvantage compared to large-medium sized enterprises. The challenge facing SMEs is two dimensional. First, to try and enter a global value chain, and, second, to also move up the tiers by upgrading the added value content of their activities.

The research suggests various facilitation measures by both hosting and investing countries for effective engagement of SMEs in the production networks. These include improvement of governance, capacity building, reducing transaction costs, promoting further liberalization, addressing non tariff barriers, increasing internet access and facilitating trade and investment to improve the capacity of SMEs to export. Regional cooperation in these measures is an effective way to promote SME activity in the East Asia region.

## **Key Findings**

**Empirical analyses conducted in this research project indicate differences in the constraints facing SMEs that operate in production networks, compared to those that do not operate in the networks.**

Both the descriptive and econometric results suggest that productivity, foreign ownership, financial characteristics, innovation, and managerial/entrepreneurial attitude are the important firm characteristics that determine SME participation in production networks.

However, SMEs operating in production networks consider constraints of distribution-logistics and business environment barriers to be more important than those operating outside of the networks. But product and price barriers are common constraints to SMEs in and outside production network.

**An extension of this analysis has been applied to issues pertaining to SMEs operating in the higher quality tiers in production networks.**

It was found that SMEs in a sophisticated and integrated production networks are more concerned with external constraints. On the other hand, internal constraints are critical to SMEs operating in less integrated and low quality production network.

Econometric analysis reveals that foreign ownership, productivity, access to finance, as well as capability of SMEs in servicing their debts are determinants of SME participation in and upward movement to a higher tier.

Size too becomes an important determinant in this process. However, innovation and managerial attitude become less important determinants for moving up to a higher tier.

**In CLMV countries, SMEs are significantly constrained by their internal resources in performing well and improving their chance to participate in production networks.**

The results from Cambodia indicate that firms outside of production networks suffer substantially from the lack of financial and managerial capability, inability to compete with other firms, and difficulty in having wider information/networks. These weaknesses also appear in the results and analysis obtained from Vietnam and Laos.

Barriers faced by SMEs to acquire advanced technology, or to improve technological capability often prevent SMEs in these countries to meet the strict quality-standard of goods demanded by firms in higher tiers of a production network.

**In contrast, the results from the bigger and older economies (Thailand, Indonesia, and to some extent the Philippines) suggest that SMEs in these countries consider external barriers more critical.**

Firms in these countries have both internal resources and ability to engage in production networks.

These SMEs consider unfavorable business environment or direct investment climate as more critical barriers to their performance.

**There are some common concerns and lessons for SMEs operating in the East Asia region.**

Regardless of the country of origin, access to finance poses a binding constraint for most SMEs in the countries covered by the study.

Higher productivity and sufficient technological capability ensures higher probability for SMEs to participate in production networks.

An understanding of Japanese SMEs that operate in various countries in East Asia show that competitive SMEs are likely to expand their operations both domestically and internationally, mainly in East Asia, by effectively being involved in the production/distribution networks in the region.

Developing SME sector capacities to enable them to participate effectively in regional production networks ensures that economic growth from regional integration is translated into employment growth.

**Effectiveness of and perception of need for assistance among the 780 surveyed SMEs-  
Ranked by Degree of Importance**

<b>Rank</b>	<b>Effectiveness of Assistance</b>	<b>% of Assisted SMEs</b>	<b>Perception of Need for Assistance</b>
1	Financing	31.5	Financing
2	Technology development and transfer	33.3	Information
3	Counseling and advice	35.8	Business linkages and networking
4	Overall improvement in investment climate	37.2	Overall improvement in investment climate
5	Business linkages and networking	40.2	Training
6	Training	41.1	Technology development and transfer
7	Information	47.7	Counseling and advice

*Source:* ERIA – SMEs Survey (2009).

## **Policy Recommendations**

**To further develop international production networks and to deeply involve SMEs in the networks, various facilitation measures are important for both hosting and investing countries.**

An effective engagement of SMEs in production networks can be obtained through interaction between several domestic and external factors, especially through deeper regional integration and the institutional arrangements at regional level.

To resolve the issue of access to finance, both host and investing countries need to develop suitable policies to:

- Establish or promote credit reporting agencies, either privately or publicly;
- Develop credit guarantee schemes shared by private sector and business associations;
- Direct financing for SMEs through stock market;
- Facilitate leasing activities to finance medium and long term investments (machineries, assets) for the SMEs.

**Introduction of capacity building measures will strengthen SMEs' managerial skills and internal capability.**

Such measures help SMEs to meet the standard business requirements (e.g. on project proposals, financial statements, accounting reports) and also access to formal finance.

Other capacity building programs may include counseling and advice, business coaching, and short-run on-job training, training on modern management system, and training on (simple) information and communication technology.

**Investments by large foreign firms as well as foreign SMEs (especially those from advanced economies) can help SMEs to participate more effectively in production networks**

Policies attracting foreign direct investment into a country, therefore, should emphasize equally on large, medium and small firms.

Since a firm's technological and innovation capability is another determinant of quality upgradation of SMEs in production networks, governments must promote policies for developing modern telecommunication network, widely covered internet, institutions for higher learning, and Intellectual Property Right (IPR) protection.

**Regional cooperation processes should also have components for capacity building for SMEs' development.**

Though SMEs share similar challenges, they are heterogeneous at formation level. A regional cooperation process can facilitate a focus programme which takes care of the common challenges as well as the structural and sectoral differences among the SMEs in the region.

Regional cooperation initiatives can also encourage exchange of professional, scholars, and entrepreneurs across the regions to promote information flow relevant for SMEs.

**Regional Mutual Recognition Agreements (MRAs) will deepen SMEs participation in regional production networks.**

These regional MRAs could facilitate SMEs access to market and lower transaction costs by eliminating duplicative testing. The MRAs, if devised carefully, also prevent product standards to act as Non Tariff Barriers (NTBs).

**Social Protection – Current State and Challenges**

*Ed. Mukul Asher, Sothea Oum, Friska Parulian*

**Abstract**

While there are many demographic, institutional and fiscal challenges in the EAS region, the financial crisis underscores the political necessity of sustaining the process of expanding social protection. This paper undertakes to provide an overview of the diversity and complexity of the social security systems in 13 EAS countries (Japan, the Republic of Korea, Singapore, China, India, Indonesia, Malaysia, the Philippines, Thailand, Vietnam, Brunei, Laos and Cambodia.

This research provides the demographic and labor market trends in the sample countries and sets the context in which social protection policies will need to be designed and implemented. The country studies suggest that the coverage of the pension branch of social security is relatively low in Asia. It also studies the relative roles of social pensions, matching contributions and social assistance which are now extensively debated in policy circles and are also increasingly being adopted in the sample countries.

The research identifies the key challenges in the 13 countries which are - extending the coverage of social protection programs and improving program benefits in a manner that is sustainable over the long-term. It then suggests the avenues which have the potential to strengthen social protection systems in the sample countries.

The individual country papers give an in-depth analysis of Social Protection programmes in the country and provide a research base on a comparative basis.

Given the enormity and diversity of this theme, the research suggests future studies in the areas of reforms of civil service pension schemes, design of the payout phase of contribution schemes for retirement income, efficient delivery mechanisms for retirement income transfers, financing of healthcare and development of robust databases for actuarially fair pricing of health insurance and retirement products.

## **Key Findings**

**Demographic trends show rapid population ageing in the EAS countries, signified by increasing old age dependency ratios and life expectancies at age 60.**

By 2050 the 13 EAS countries will account for about half of the global population above 60. This suggests that the extent of their success in addressing social protection issues will have significant impact on how these issues are addressed globally.

This rapid population ageing suggests a need to allocate greater economic resources for the elderly. But such allocation will need to be reconciled with macroeconomic stability, fiscal sustainability and other priorities of the economies such as health, education and infrastructure.

**The demographic trends suggest that a little more than three-fifths of the new livelihoods to be created globally between 2020 and 2050 will be in Asia.**

With a relatively low share of the formal sector in total employment in many Asian countries, much of the anticipated livelihood generation will need to be in the informal sector.

As social protection systems have traditionally been based on employer-employee relationships, extending their coverage to the informal sector requires innovative approaches.

**The higher income Asian countries have, consistent with international evidence, higher coverage, with Japan and South Korea exhibiting much higher coverage.**

Even in these countries an increasing proportion of the workforce (around 25 percent) does not enjoy the kind of long term employer-employee relationships which provide pension, healthcare and other benefits.

The country studies also suggest that the coverage of the pension branch of social security is relatively low in Asia. This is consistent with the low share of formal sector employment in Asia, as the coverage is primarily confined to formal sector employees.

**There has been a long tradition of providing benefits under different branches of social security in the 13 EAS countries.**

However, country papers reveal that mere establishment of a benefit under a social security branch does not necessarily imply that the coverage of these programmes in terms of labor force and potential beneficiaries is adequate.



The country papers also show that the programmes do not cover all other contingencies or risks, are managed with requisite professional competence; and that benefits provided are sufficient and sustainable.

### **There is considerable potential for strengthening social protection systems in the 13 EAS countries.**

There is a need to construct a multi-tiered social protection system which should involve:

- i. a mixture of contribution by employers, employees and in selected cases by the government;
- ii. non-contributory schemes;
- iii. schemes by the voluntary not-for-profit sector, both domestic and international;
- iv. family and community-support; and
- v. labour market flexibility and tax regulations which permit elderly people to meet a small but not an insignificant proportion of their retirement needs through paid economic activity (including household production).

The relative weight of each of the tiers will depend on the specific context, capabilities and objectives of the country.

### **Availability of Programs under Different Branches of Social Security in Selected EAS Countries**

Country	Old age, disability and survivors	Sickness and maternity		Work injury	Unemployment	Family allowances
		Cash benefits for both	Cash benefits plus medical care <sup>a</sup>			
Brunei	X	b	d	X	b	b
China	X	X	X	X	X	X
India	X	X	X	X	X	b
Indonesia	X	b	d	X	b	b
Japan	X	X	X	X	X	X
Korea, South	X	b	d	X	X	b
Laos	X	X	X	X	b	b
Malaysia	X	b	d	X	b	b
Philippines	X	X	X	X	b	b
Singapore	X	X	X	X	b	b
Thailand	X	X	X	X	X	X
Vietnam	X	X	X	X	X	b

Source: US Social Security Administration (2008).

Note :

- a. Includes Old Age, Disability and Survivors; Sickness and Maternity; Work Injury; Unemployment; and Family Allowances. In some countries, the rate may not cover all of these programs. In some cases, only certain groups, such as wage earners, are represented. When the contribution rate varies, either the average or the lowest rate in the range is used.
- b. Also includes the contribution rates for other programs.
- c. Government pays the total or most of the cost of family allowances.
- d. Contributions are submitted to a ceiling on some benefits.
- e. Government pays the total cost of most programs from general revenues.
- f. Employers pay the total or most of the cost of work injury benefits.

## **Policy Recommendations**

**The country papers suggest clear avenues which have the potential to strengthen social protection systems in the EAS countries. The importance of each avenue will differ from country to country, but all countries will need to combine these avenues in accordance with their priorities and capabilities.**

**Modernizing and professionalizing existing provident and pension fund in performing five core functions:**

- i. reliable collection of contributions, taxes and other receipts (including any loan payments in the security systems);
- ii. payment of benefits for each of the schemes in a timely and correct way;
- iii. ensuring good financial management and productive investment of provident and pension fund assets;
- iv. maintaining an effective communication network, including development of accurate data, and record keeping mechanisms to support collection, payment and financial activities;
- v. production of financial statements and reports that are tied to providing effective and reliable governance, fiduciary responsibility, transparency and accountability.

Social security organizations should increasingly use sophisticated information technology to improve administration and compliance efficiency and to generate management information systems which are conducive to better decision making.

Initiatives in aggressive and professional investing of social security funds could be taken for higher returns, though this will be accompanied with increased risks.

For the low-income countries like Cambodia and Laos, the priority should be to build capacities of their provident and pension fund organizations to undertake the core functions more efficiently. This would also include emphasis on record keeping functions and on reducing administrative and compliance costs.

**Reforms of selected components of existing systems (such as Civil Service Pensions).**

Provisions of these schemes have to be rationalised to reflect the new environment of reduced fertility, longer life expectancy, developments in financial and capital markets and changing labor market dynamics.

The Civil Service Pension in the 13 EAS countries have to consider reforms in retirement age, contribution system, participation of retirees in labour market and limitations on withdrawal of retirement benefits etc.

**Different Types of retirement income transfers which are not dependent on formal labor market relationships must be introduced.**

All country papers suggest varying degree of social pension schemes and co-contributions by the State. For poverty alleviation, social assistance targeted at poor in all age groups may be needed.

Some of the examples are China's Old Age Pension, Thailand's 30-Baht Scheme for healthcare and India's National Rural Employment Guarantee Scheme. However, the fiscal space in each country will be a major factor in sustainability of social pension schemes in the future

There is a strong case for considering a Social Security Forum for the 16 country EAS (East Asian Summit) for which ERIA is in the best position to take a lead. This will build capacity among the member countries; provide a solid research base on a comparative basis, and help develop indigenous research capabilities.

Some countries have set examples in linking of pension with microfinance. This may be of interest to policy makers in other countries as this will assist in enhancing financial inclusion and strengthen social cohesion.

The task of strengthening social protection systems should be approached from a medium term perspective as short term fixes and ad hoc measures are likely to be counterproductive. A well considered strategy with appropriate planning and implementation focus will be needed.

**There is considerable flow of workers across borders within the EAS countries calling for improved social protection of foreign workers.**

Flows are generally from developing Asia (such as Philippines) to developed Asia (such as Japan, Korea and Singapore). China and India are major providers, as well as absorbers, of foreign workers.

Provision of social security and improved labor and work conditions for these workers should therefore be an important part of the social protection agenda in Asia. Formal totalisation agreements and bilateral agreements on the working and living conditions of foreign workers between recipient and sending countries within Asia, merit serious consideration.

**Future Research**

Given the enormity and diversity of this theme, as well as the different levels of economic growth among EAS countries, the research suggests future studies in the areas of reforms of civil service pension schemes, design of the payout phase of contribution schemes for retirement income, efficient delivery mechanisms for retirement income transfers, financing of healthcare and development of robust databases for actuarially fair pricing of health insurance and retirement products.

**Developing Internationally Comparable Industrial Statistics in East Asia**

*Ed. Tomoyuki Kuroda*

**Abstract**

This research is third in the series regarding establishment of internationally comparable, high quality manufacturing statistics, which will form the basis of information infrastructure for regional economic research in East Asia in the future. The previous two researches were conducted in FY 2008 and FY 2007.

With mutual dependency in the East Asia region increasing through its de facto economic integration, the need to accurately understand a nation's position in the global and regional economy is arising among policy makers and economists in East Asia, even as the real economy accelerates toward globalization.

This research addresses the need of government policy makers and economists in East Asia to accurately understand a nation's position in the global and regional economy.

It aims at coordinating internationally comparable statistical data in each nation, create a database in a format that enables it to be used in a broad range of fields, and have people actually start using the statistics in various analyses.

The research acknowledges that the massive differences between the East Asian nations with regard to the development of this data and the status of implementing and coordinating government statistics, it is unrealistic to immediately achieve this goal.

Towards this major goal of setting up and coordination of internationally comparable statistical data, this series of research defines industrial classification and the research subjects/categories in the manufacturing statistics of each East Asian nation, identifies and analyses the status of data disclosure and the system of statistical surveys, clarifies problems and issues that hinder international comparability, and studies what the industrial statistics within the East Asia region should look like.

## **Key Findings**

**This research has confirmed statistical gaps and a lack of high quality primary statistics in the region, both of which are issues that need to be addressed in the interests of research activities and economic analysis.**

There also exist Human Resource Development needs in the statistics sector in East Asia and the need to coordinate this research with capacity building projects in CLM countries.

There is a need to consider policies that help countries that are missing out on the trend toward statistical services in the East Asia region.

An ideal beginning could be made through sharing the valuable expertise and experience of the statistical sector in the East Asia region, while bearing in mind the use of south-south cooperation schemes exemplified by the East Asia help East Asia (ASEAN help ASEAN) scheme.

**There is a conclusive need to understand trends in intraregional economies which are experiencing rapid growth.**

An intraregional information infrastructure (industrial statistics with a high level of industry completeness and reliability) is needed to allow each country to consider its exact policies.

Seen from the viewpoint of the intraregional economy, it is expected that demand for the development of intraregional statistical information will grow more than ever as the region moves towards ASEAN Economic Community and East Asian Community, which are expected to be borderless.

Cambodia, Laos and Myanmar (CLM) would especially require this information, who, while partnering to utilize their own countries' competitive advantages, have fallen behind in the development of statistics.

**Countries with advanced statistical information in the region are expected to share their accumulated knowledge as this would benefit the entire region.**

However, the reality of the situation has not received adequate recognition, and the formulation of an effective action plan is yet to commence.

While efforts have been made by UNESCAP and ASEAN Heads of Statistical Offices Meeting (AHSOM), the funding issues have remained unresolved. This leaves the action plan to be accomplished adequately.

**Lack of uniform and comprehensive statistical information will distract investments from the region.**

While the private firms are considering business strategies and market strategies to attract foreign capital, there are risks that a lack of basic statistical information will weaken investment activity and decision-making among investors will be delayed.

For Cambodia, Laos and Myanmar, there is a concern over the risk that the delayed statistical development in their own countries will lead to their missing the tide of economic development in the regional economic community.

### **Policy Recommendations**

**In moving towards development of industrial statistics in the East Asia region, several intermediary steps need to be taken by the countries in the region.**

Policymakers in each of the East Asia countries should recognise the importance of developing statistical information as an information infrastructure, review the priority of statistical information in their own country, and take the budgetary measures necessary to catch up to develop a master plan on industrial statistics development.

Capacity building through human resource development is highly recommended, especially in CLM countries.

The UNSIAP, the ASEAN Secretariat and ERIA should consult with one another with regard to regional HRD programs within East Asia and discuss ways of effectively utilizing the resources available to each program.

With concrete plans being drawn up for the formation of the ASEAN Economic Community and the East Asian Community, there is now an urgency to consider developing the necessary information infrastructure for that community. This infrastructure will consist of internationally comparable statistical data from each country compiled into a database in a widely available format, and the data is usable in a variety of analyses.

**Capacity Building for Statisticians in CLM Countries**

*Ed. Tomoyuki Kuroda*

**Abstract**

The industrial classification system adopted by nations within the region is not necessarily fully compatible with International Standard Industrial Classification (ISIC), which is hindering international comparison. The CLM (Cambodia, Lao PDR and Myanmar) countries in particular lack sufficient experts on industrial classification because their classification system- National Standard Industrial Classification (NSIC) - does not exist in a practical sense. This research paper looks into the issues that needs to be resolved before internationally comparable statistics can be structured in the CLM countries.

The research looks into financial and human resources issues for statistical development and finds them to be insufficient in many countries of the region. The capacity problems are chronic and may not be solved by the reallocation of resources by any government initiatives. This gap can be narrowed only by the realization of their economic growth.

This research establishes that technology transfer is not a self sustainable human resource development. Skilled expertise must be well organized into statistics production system from data collection and compilation to interpretation and dissemination.

This ERIA CLM research, which is being run in a project mode, is building capacities among CLM nations, and it complies with the primary policy of the ASEAN Heads of Statistical Offices Meeting. This is unique project which is allowing the CLM countries to catch up with other ASEAN nations in the move towards ASEAN Economic Community in 2015.

This project provides the technical assistance, mainly to statistics agency employees of CLM countries. In doing so, it helps in creating a NSIC draft relevant within each CLM country and also draws up the suitable policy recommendations for the governments/countries in the region

## **Key Findings**

**The CLM (Cambodia, Lao PDR and Myanmar) countries lack sufficient experts on industrial classification because their classification system, National Standard Industrial Classification (NSIC), does not exist in a practical sense.**

The CLM countries also need to train experts on industrial classification immediately to improve the quality of their industrial statistics.

Financial and human resources issues for statistical development are insufficient in many countries of the region. The capacity problems are chronic and may not be solved by the reallocation of resources by government initiatives.

This gap can be narrowed only by the realization of their economic growth.

**When there is a significant lack of balance in the quality of statistics employees it causes disharmony in organising statistics within the region.**

This gap leads to deterioration in the quality of statistics, and hinders the international comparability of industrial statistics.

The research project team has therefore worked to create five-digit NSICs for each of the three countries. The NSICs reflect the industrial structure of each country by allowing each country to make classifications autonomously.

This project has trained experts in industrial classification from amongst the employees in each country's statistics office in an effort to train core human resources to handle the ongoing maintenance of industrial classification.

## **Policy Recommendations**

**Demand for the development of intraregional statistical information will grow more than ever as the countries in the region move towards the formation of an ASEAN Community and East Asian Community.**

The project recommends establishment of an NSIC (Section C) draft that reflects the countries' industrial structure.

Countries whose statistics are advanced must share their accumulated knowledge and also improve their statistical information through a common or shared mechanism. Formulation of an effective action must be commenced in this regard.



Cambodia, Laos and Myanmar must be supported through capacity building in their statistical development in order to allow these countries to manage their competitiveness in the ASEAN Economic Community.

### **Future Steps**

A future challenge will be to evaluate the relevance and consistency between the NSICs that have been created for the CLM countries and to verify whether the NSICs that have been created actually and suitably reflect the industrial statistics for these countries. If not, further improvements may be required.

A pilot study could be undertaken in the three CLM countries with the intention of effectively utilizing the NSICs that have now been created. This would confirm the usefulness of the NSICs.

**Analysis on Energy Saving Potential in East Asia**

*Ed. Shigeru Kimura*

**Abstract**

Following the East Asia Summit (EAS) Declaration in Cebu Island of the Philippines, January 2007, ERIA is studying the potential impacts of the countermeasures to mitigate the problems related to energy security and climate change. ERIA is focusing on energy studies in two areas: promotion of energy conservation and utilisation of bio-fuels. This report extends and enhances the analysis of the Working Group on Energy Saving Potential in East Asia under the ERIA Energy Project undertaken in 2007-08 and 2008-09.

While some EAS countries have what might be called mature economies, the majority have developing economies. Countries with mature economies have higher energy consumption per capita, while developing countries generally have lower energy consumption per capita. These differences partly explain why energy efficiency and conservation goals, action plans and policies are assigned different priorities across countries.

The objective of this study is to analyse the potential impacts of proposed additional energy saving goals, action plans and policies in the East Asia Summit region on energy consumption by fuel and sector and greenhouse gas emissions.

Based on social, economic and technological assumptions which are exogenous to the modeling, this research develops a Business as Usual (BAU) scenario for each EAS country outlining future sectoral and economy-wide energy consumption assuming no significant changes to government policies. An Alternative Policy Scenario (APS) is also designed to examine the potential impacts if additional energy efficiency goals, action plans or policies were developed that are currently, or likely to be, under consideration. Increased uptake of renewable energy sources and nuclear energy is also considered in the APS. The difference between the BAU and APS represent potential energy savings.

This study does not focus on measuring ‘energy saving potential’ in the abstract. Instead, the focus is on analysing additional energy savings that might be achieved through the energy efficiency and conservation goals, action plans and policies of individual countries above and beyond BAU. The additional savings are measured as the difference between the BAU and APS scenarios.

## Key Findings

**In the EAS region, growth in energy consumption and greenhouse gas emissions is driven by increasing population, sustained economic growth, increasing vehicle ownership, and increasing access to electricity.**

Sustained population and economic growth in the EAS region will lead to significant increases in energy demand as countries pursue their economic and development goals.

The continued reliance on fossil fuels to meet this increased energy demand will also be associated with significant increases in greenhouse gas emissions.

**Thermal efficiency in the EAS countries is expected to improve considerably over time in the BAU as well as APS scenario as more advanced generation technologies such as natural gas combined cycle and supercritical coal plant are implemented.**

The combination of fuels used in electricity generation differs between countries. This is not only important as a key driver of demand for primary fuels, but also because the fuel mix used can have important implications for greenhouse gas emissions.

The largest increases in consumption of biofuels in the APS are expected in India and China. In all EAS countries, biofuels are expected to meet only a small portion of the transport fuel demand by 2030.

Advanced energy efficient and low emissions technologies (including clean coal and biofuels) need to be widely deployed throughout the region for simultaneous achievement of socioeconomic and environmental development goals and increased energy security.

**Throughout the region there exists potential to increase energy efficiency and reduce the growth in energy consumption and greenhouse gas emissions.**

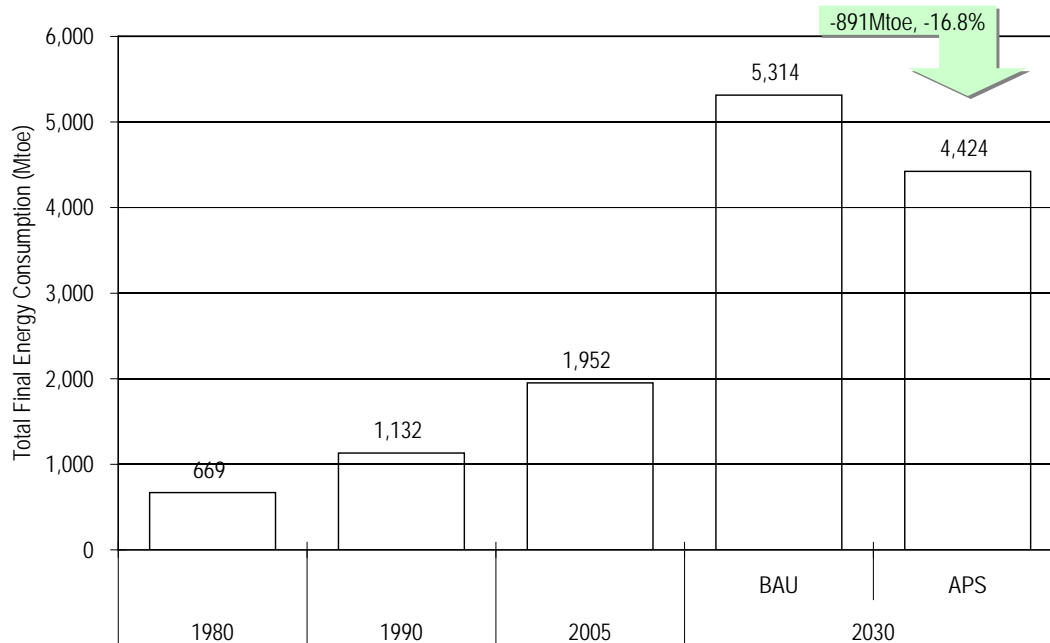
Relative to the BAU scenario, by 2030 the implementation of energy efficiency goals, action plans and policies proposed in the study could lead to an additional reductions in the APS of 19.4 percent in primary energy demand, 19.9 percent in energy intensity and 27.9 percent in energy derived CO<sub>2</sub> emissions across the EAS region.

The share of carbon intensive energy such as oil and coal will stand reduced due to the 70% increase of the non-fossil energy shares such as hydro and nuclear in the APS in 2030.

The diversification of the regional energy fuel mix will contribute to the improvements in the regional energy security as well as the carbon intensity. This is known as emission divided by energy

Appropriate energy efficiency and conservation programs and low emission technologies are needed for transport sector which is a major energy consuming sector for the ASEAN region.

## Total Final Energy Consumption



Source: Analysis on Energy Saving Potential in East Asia (ERIA Research 2009-10)

## Policy Recommendations

**Policy recommendations are based on a shared objective to promote energy efficiency and conservation policies, increase low carbon energy such as biomass, monitor energy saving goals and action plans, and prepare accurate energy consumption statistics. However, appropriate policies will differ between countries based on differences in country circumstances, policy objectives, and market structures.**

Countries need to continuously improve the energy saving goals and action plans for each sub-sector in order to set the target saving potential such as promotion of mass transport system.

Policy mechanisms should be introduced to include incentives for promoting the use of renewable energy and implementation of energy efficiency and conservation programs.

Policies to remove subsidies to fossil fuel energy will encourage further development of energy efficiency, conservation programs and renewable energy.

Development (and subsidy, where possible) of low emission technologies will support improvements in energy efficiency and reducing CO<sub>2</sub> emissions.

## **Enhancing reliable energy statistics for monitoring of energy saving goals, action plans and policies**

Development of reliable sectoral energy statistics are necessary for understanding the current characteristics of the energy consuming sectors and to qualify and quantify energy efficiency and conservation policies and action plans.

Detailed surveys are required to monitor and acquire information and data on energy saving policies and current energy consumption.

Capacity building on data collection and modelling will be important to analyse the policy options for promoting EEC programs.

**Many EAS countries already have a variety of policies aimed at achieving energy saving goals. However, a detailed action plan should also be developed which outline in a broad sense how these energy savings will be achieved.**

The analysis in this report indicates that there is significant potential for countries in the EAS region to reduce growth in energy consumption and carbon dioxide emissions by implementing policies across all sectors of the economy that encourage improvements in energy efficiency and conservation and increase the use of lower emission technologies and fuels.

**Benchmarking of Biodiesel Fuel Standardization in East Asia**

*Ed. Dr Shinichi Goto*

**Abstract**

Asian countries are actively promoting the introduction of biofuels due to soaring oil prices and increased energy consumption. The utilization of biofuels is also important from the viewpoint of energy security and alternative fuels. However, the Low-quality biodiesel fuel raises serious concerns regarding the effect on engine performance caused by fuel impurities and the oxidation. Therefore, it is expected that biodiesel fuel standards will be established in each country to promote usage of biofuels in the region.

This research is the third in series of benchmarking the biodiesel fuel standardisation in East Asia.

In the second research of the series, critical topics relating to sustainable promotion of biodiesel fuel in the region, including oxidation stability (new measurement and potential improvement techniques), low-temperature concern (improvement techniques), other potential feedstock and quality control for market acceptance were discussed and combined in the 1st draft of “Biodiesel Fuel Trade Handbook” with updated biodiesel data/status from member countries. This handbook was appreciated by 3rd EAS-Energy Ministers Meeting in Mandalay, Myanmar on 29 July 2009.

In the FY 2009-10, the research has worked towards defining an appropriate utilization of biodiesel fuel, by establishing quality standard and quality control/management method that is required in actual market. Achieving this objective would lead to production of high-quality biodiesel fuel, its smooth distribution, and stabilization of economic infrastructure.

The research in 2009-10 has completed the “Biodiesel Fuel Trade Handbook” and it will be published before 4th EAS-Energy Ministers Meeting in July 2010. The BFT Handbook will continue to discuss a suitable quality control/management method of biodiesel fuel in actual market, in particular for East Asia.

## **Key Findings**

**The research studied the fuel quality control method in Europe, North America, Japan and other countries in East Asia.**

In case of European diesel fuel standard it is essential to guarantee the quality of neat FAME (Fatty Acid Methyl Ester) for end user acceptance.

The National Biodiesel Board (NBB) in USA has an optional certification system and any FAME producers and distributors conforming to BQ-9000 regulation can be certified by NBB.

In Japan, the Ministry of Economy Trade and Industry (METI) is responsible for fuel quality in the consumer market and the traders, who are not only producers and importers but also distributors of FAME-blended diesel fuel, assume all responsibility by law.

The Philippine National Standards (PNS) are mandatory only when a regulation is issued by the appropriate government authority. Thus, PNS for fuels and related products, including biofuels, become mandatory only upon the issuance of a corresponding Circular issued by the Department of Energy (DOE).

**The ERIA research group has planned the establishment of the “Chemical Analysis Laboratory” of biofuels at NFV Center-AIST to contribute to the quality control of biofuels in EAS countries.**

The analyses for biodiesel fuel and bioethanol have been carried out in the laboratory to establish the fuel quality and its effect on combustion or metal components in engine.

Researchers from EAS countries are invited and trained at this laboratory for analysis of biofuels.

The objective of this program is cooperation with East Asian countries in the field of biomass energy and the promotion of research activities in each country.

The fields for the researches invitation in the program are: (1) sustainable utilization and production technology of biofuels in Asian countries, (2) quality standard, quality control and distribution management of biofuels, (3) environmental and socio-economic impact assessments of biofuel and (4) some others related to biomass energy researches

**The research group is also carrying out other activities towards standardisation of biofuels in the region.**

The ‘AAF (ASEAN Automotive Federation) Recommendation on Fuel Quality’ was investigated to illustrate the contribution of ERIA BDF standard to other international standardization.

## **An IEA -ERIA Joint Workshop was organised on the topic ‘Trade activities and opportunities for liquid and solid biofuels in the SE Asian region and implications for policy’**

To provide an overview of ongoing biomass use and trade developments in the South-East Asian region, including:

- a review of existing policy initiatives in various countries in the region
- to point out the supply and demand of solid biomass streams (wood pellets, wood chips, palm kernel shells, other agricultural residues) and the major industrial players active
- to show current supply and demand developments for liquid biofuels in the region, how these have developed in past years and where trade flows will be heading in years to come
- to point out both opportunities for further trade and (policy) barriers to be overcome.

This workshop targets mainly industry representatives, policy makers, representatives from NGOs and science. Some important biofuel issues – crops, varieties, trade, standardisation including biomass resource potential etc were deliberated by members from Thailand, Indonesia, Philippines, India, China, Japan, Canada, South Korea and Brazil.

### **The Country Reports in the research reflect the current status of R&D in biodiesel fuels in various East Asia countries.**

Australia has reported that research is being carried out on identification of bio-fuel crops that are agronomically suitable for the region/territory and experimenting with a wide variety of crops and alternative feedstocks including algae and grasses.

In China, the Strategy of New Energy Development has begun to plan since April 2009, which will focus in two directions: one is to accelerate the development of wind energy, solar energy and bio energy, the other is clean using the traditional fossil energy such as coal based energy, new fuel for vehicle and intelligent power system.

Similar activities are being carried out in Japan, Indonesia and Malaysia, Philippines, New Zealand, South Korea, Singapore and Vietnam for development of national biofuel policy and standardisation of biodiesel fuel.

### **Policy Recommendations**

The research group has developed the following themes for policy pertaining to biodiesel fuel in East Asia:

- Addressing macro and micro levels needs to reap maximum economic benefits
- Mitigating negative & enhancing positive environmental impacts
- Realizing direct & indirect monetary returns for societal benefit
- Developing sustainability indicators to enhance the decision making process
- Standardizing tools to generate quantifiable & verifiable information
- Considering country-specific needs & available biomass resources



# **ERIA's Ongoing Research**

**2010**

## **Comprehensive Asia Development Plan**

The Comprehensive Asia Development Plan (CADP) was mandated by the East Asia Summit (EAS) on Global Economic And Financial Crisis held in June 2009 in Thailand when the EAS leaders mandated the “Economic Research Institute for ASEAN and East Asia (ERIA), ADB and ASEAN Secretariat to work together to prepare “ .... as soon as possible a coherent master plan, which would contribute to coordinating, expediting, upgrading and expanding sub-regional initiatives and promoting private sector participation.” *(From the EAS Statement)*.

However in the 4<sup>th</sup> EAS in Thailand in October 2009, the above mentioned coherent master plan actually got the name of Comprehensive Asia Development Plan, as this was the name of the project that ERIA had started to work upon in response to the EAS mandate of June 2009.

The CADP in its mandate, scope, coverage, methodology and indeed recommendations, is a project that is designed for economic development and integration of the EAS region. The CADP will provide a grand spatial design of economic infrastructure and industrial placement, applying a novel analytical approach based on the fragmentation theory and new economic geography, in order to pursue both “deepening economic integration” and “narrowing development gaps” at the same time.

The CADP suggests three tiers of development strategies for the ASEAN and some EAS countries based on their level(s) of economic growth. The CADP proposes development of logistics infrastructure as a trigger for economic development of the region. It also proposes a tentative list of prioritised projects out of more than 600 proposed development projects in the region, paying attention to the necessary financial arrangement such as PPP.

The CADP would also consist of some satellite research projects, which eventually and together form the comprehensive development plan. Some of these projects are:

- Innovative Activities in Industrial Agglomerations
- Study on Industrialization in CLMV
- Development of Geographical Simulation Model (GSM)
- Study on Logistics Infrastructure and Services in BIMP-EAGA
- Existing Development Plans and Project Prioritization
- Study on Financial Design for Infrastructure Project

The final version of CADP will be presented to the EAS leader in October 2010.

## **AEC/ERIA Scorecard**

In the 41<sup>st</sup> ASEAN Economic Ministers (AEMs) meeting in August, 2009 in Bangkok, ERIA was requested to conduct a study that reviews the implementation of AEC Blueprint. The study complements the official report made by the ASEAN Secretariat on the implementation of the Blueprint (i.e., the ASEAN Scorecard). The AEC Scorecard is essentially a compliance scorecard; the ERIA Study focuses more on the status of the liberalization and facilitation environment, and the eventual outcomes or impact of the AEC Blueprint. Therefore, the complementary functions of the ASEAN Secretariat's AEC Scorecard and the ERIA's Study strengthen and improve the monitoring of the Blueprint's implementation.

The study starts a complementary exercise with a number of priority areas and sectors that are especially critical for the realization of an integrated ASEAN economic region as they are the ones that are immediately important to producers in the region. Successes in these priority areas and sectors will go a long way for pushing the AEC forward. Moreover, improving the facilitation environment entails better coordination among agencies, streamlining of processes and procedures, and regulatory reform. In effect, it improves governance in the ASEAN Member States, thereby benefiting all. While the AEC Scorecard is adequate to monitor progress of tariffs etc., it is not adequate in measuring progress in such areas as investment and trade facilitation so much so that additional indicators (as proposed in the AEC/ERIA Scorecard study) are needed to capture the actual progress on the ground.

The areas and sectors/industries covered by the first round of the study are the following: (1) investment liberalization and facilitation; (2) trade facilitation, focusing on the effectiveness of customs services, including National Single Window (NSW) and ASEAN Single Window (ASW); (3) transport (air, land, and maritime); and (4) logistics services.

Transport and logistics services are central to the physical connectivity of the ASEAN member states, the creation of a single production base in the ASEAN region, and deepening regional production linkages in the ASEAN and with the rest of East Asia. Given that intra-ASEAN trade in goods is virtually not constrained by tariffs especially among the original 6 members of the ASEAN, it is now trade facilitation issues that loom large; hence, the study emphasises on the importance of the Single Window initiative and customs modernization.

The study is currently under implementation, and the final report will be presented before the AEM in the ASEAN Summit in Vietnam in October 2010.

## **ASEAN Strategic Transport Plan**

The ASEAN transport sector is currently guided by the ASEAN Transport Action Plan (ATAP) 2005-2010 that covers maritime, land and air transport, and transport facilitation. As ATAP will soon expire in 2010, a successor plan needs to be prepared as the ASEAN Strategic Transport Plan (ASTP) 2011-2015.

ERIA has been assigned to prepare the ASTP which would act as the main reference for ASEAN transport cooperation to support the establishment of the ASEAN Economic Community (AEC) by 2015. Towards this end, ASTP is designed in consistence with other overarching ASEAN initiatives such as the AEC Blueprint and the ASEAN Connectivity Master Plan. As the transport sector is one of the key components in ASEAN Community building and the concept of the ASEAN Connectivity, the role of ASTP cannot be overemphasized. In addition to these ASEAN specific contexts, ASTP would also reflect other ongoing developments in the world such as changing economic landscape, mainly due to emergence of new economic powers like China and India, and growing global concerns over environment, climate change, safety and security.

Based on these premises, the ASTP is being formulated:

- (1) to identify strategic actions to support the establishment of the AEC by 2015, that will also compliment existing transport undertaking;
- (2) to identify long-term vision of ASEAN transport cooperation beyond 2015; and
- (3) to undertake a comprehensive assessment of the current transport situation in ASEAN and of the implementation of the current action plan with a view to identify the gaps and priorities for the period 2011-2015 and beyond.

The report on ASTP 2011-15 will be presented to the ASEAN Transport Ministers in their annual meeting in September 2010.

## **ASEAN Connectivity Master Plan**

The ASEAN Connectivity Master Plan was conceived in the statement of the leaders at 15th ASEAN Summit in October in Thailand. The ASEAN Statement on Connectivity called for the “An ASEAN High Level Task Force, comprising relevant experts, supported by the ASEAN Secretariat and relevant sectoral bodies, in cooperation with relevant international organizations such as the Asian Development Bank (ADB), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), the Economic Research Institute for ASEAN and East Asia (ERIA), shall be established to study ASEAN’s internal and external connectivity, and to develop an ASEAN Master Plan on regional connectivity, that include, among others, innovative infrastructure financing mechanisms, taking into account the work done and planned to ensure optimum synergy rather than duplication of work. In devising the Master Plan, the Task Force should ensure that the limited resources from ASEAN, Dialogue Partners and International Development Banks and Agencies are employed in the most efficient and effective manner to realise our vision. The ASEAN High Level Task Force should consult with the APSC Council, the AEC Council and the ASCC Council before submitting their recommendations to the 17th ASEAN Summit in 2010 through the ASEAN Coordinating Council.”  
*(From the ASEAN Leader’s Statement on ASEAN Connectivity).*

The ASEAN Secretariat has now developed the Terms of Reference for the Connectivity Master Plan and work is ongoing. ERIA has been entrusted to prepare chapter 3 and 4 of the ASEAN Connectivity Master Plan which contains the achievements of and challenges and impediments to ASEAN Connectivity and key strategies for enhanced ASEAN connectivity respectively.

ERIA’s major work under achievements and challenges to ASEAN connectivity is towards development of an ASEAN Connectivity Framework which includes physical, institutional, financial and value-chain connectivity. Under key strategies for connectivity, ERIA is contributing on the themes of promoting industrial agglomeration, extension of high-frequency production networks, enhanced economic linkages among ASEAN+6 countries, development of infrastructure projects, including energy infrastructure. Some elements of CADP would also find a place in Connectivity Master Plan.

The final report will be presented to the 17<sup>th</sup> ASEAN Summit in October in Vietnam.

## **Energy Market Integration**

The EAS Energy Ministers at their inaugural meeting (EMM 1) in Singapore, 23 August 2007 recognised that there was significant scope for increasing intra-EAS energy trade and investments.

They supported the EAS Energy Conservation Task Force (ECTF) work plan to promote better understanding of integrated and liberalised energy markets in the region and to launch a study to examine the state of energy markets in the EAS region and recommend policies and measures to develop an integrated EAS energy market.

The Energy Market Integration (EMI) Phase 1 study was produced by Australian Consultants and funded by AusAID. It has identified trade and investment barriers as well as determining opportunities for improved energy trade linkages and trade promotion in the EAS region

In the 3<sup>rd</sup> EMM, Energy Ministers requested ERIA to take over this study.

The Terms of Reference of the current EMI study are:

- Estimating potential economic benefits for the EAS region from the removal of trade and investment barriers within the EAS region.
- Reviewing initiatives for enhancing energy market integration in the EAS region.

The scenarios being examined in the study are:

- Economic impact of five policy scenarios
- Removal of energy trade tariffs
- Physical linkage of gas pipelines and power grids
- Liberalization of investment on the energy sector
- Liberalization of domestic energy market in electricity /gas distribution
- Removal of fossil fuel subsidies

The final report will be presented to Energy Ministers Meeting (EMM 4) in July 2010.