

Policy Brief

Comprehensive Asia Development Plan and Beyond -Growth Strategies for More Prosperous and Equitable East Asia-

1. The East Asian Economies in 2020
2. Four virtuous cycles for clearing bottlenecks
3. How to enhance the momentum of four virtuous cycles
4. Conclusion

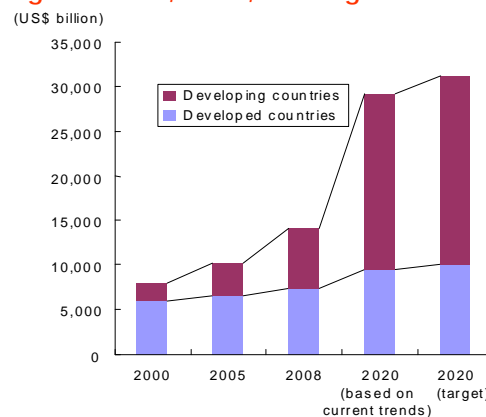
By Takeshi Fujimoto
Shochiro Hara
Fukunari Kimura

Let's dream of our bright and prosperous future. In the year of 2020, sixteen East Asia Summit (EAS) member countries can reach doubled per capita income compared with their income level in 2008 with proper policy guidance; eight countries may join developed countries with per capita income exceeding US\$10,000, five countries could enjoy the status of newly industrialized countries with per capita income between US\$3,000 and US\$10,000, and three countries would have per capita income above US\$1,000. The Comprehensive Asia Development Plan (CADP) provides immediate policy guidance for industrialization through the development of logistics and other economic infrastructure. Beyond CADP, EAS member countries will face novel policy challenges that developing countries in the world have not broken through yet. This policy brief claims that establishing four virtuous cycles will be the key and we must have the courage to meet a number of policy challenges.

1. The East Asian Economies in 2020

In 2008, the combined GDP of East Asia Summit (EAS) member countries amounts to US\$14 trillion, and per capita income is US\$4,277. With a simplistic extrapolation of the current trends in the nominal term, these figures in 2020 are forecasted as US\$29.1 trillion and US\$7,964, which are a bit short of income doubling. To reach income doubling with US\$31.3 trillion and US\$8,579 in 2020, the overall annual growth rate should be accelerated by 0.7% (Figure 1).

Figure 1. Past, future, and target GDP



Figures for the past (nominal) GDP are from ADB, *Key indicators for Asia and the Pacific 2009*.

Under the income-doubling scenario, East Asia will show a completely renewed face in 2020. Malaysia and Thailand will join a group of developed countries with per capita GDP exceeding US\$10,000. Indonesia, the Philippines, Vietnam, and India will become newly industrialized countries with the income above US\$3,000. Cambodia, Laos, and Myanmar will also reach per capita income of \$1,000 (Table 1).

This simplistic growth projection suggests that not only the quantitative growth but also the qualitative transformation

• Copyright © 2010. Economic Research Institute for ASEAN and East Asia. All rights reserved.

• The views expressed in this publication are those of the author(s). Publication does not imply endorsement by ERIA of any of the views expressed within.

• You can download this policy brief at the ERIA website:
<http://www.eria.org>

• Contact:
TEL: +62-21-5797-4460
FAX: +62-21-5797-4463

Table 1. Past, future, and target GDP per capita

GDP/capita	1995	2000	2008	2020 Target
Australia	19,915	19,508	45,062	66,073
Singapore	24,220	23,073	39,422	58,006
Brunei	16,050	17,996	35,626	57,858
Japan	41,833	36,835	38,581	49,164
New Zealand	16,640	13,613	29,860	42,080
South Korea	11,581	11,488	19,295	33,648
Malaysia	4,314	4,030	8,197	14,454
Thailand	2,794	1,968	4,055	10,531
China	601	946	3,235	8,671
Indonesia	1,056	804	2,247	6,859
Philippines	1,059	977	1,847	6,675
Vietnam	284	396	1,041	3,800
India	350	411	960	3,584
Cambodia	303	287	754	2,336
Laos	370	303	852	1,948
Myanmar	125	191	529	1,172
East Asia Average	2,847	2,660	4,277	8,579

Figures for the past (nominal) GDP per capita are from ADB, *Key Indicators for Asia and the Pacific 2009* and UN, *World Population Prospects: The 2008 Revision*. Future forecasts based on current trends and targets are NRI estimates.

of our economic and social structure should be enormous in the coming decade and we must surely face a number of new policy challenges for economic development.

During this period, the employment pattern by industries will reveal notable growth in the secondary and tertiary sectors. The secondary sector, consisting mostly of manufacturing, will reach its peak share of employment by 2020. There will also be a steady move toward manufacturing with higher value-added, contrary to the current low-cost-oriented production. The proportion employed in the tertiary sector will continue to grow and is projected to reach around 50% of the total employment in 2020. Such an increase will be caused by shifts in employment from the primary sector.

Changes in industrial structure together with population growth will lead to massive urbanization in the region. The total population of major cities in the EAS region, defined as the population in cities with over 1,000,000 population, will increase by 16% between 2010 and 2020, from 570 million to around 663 million; of this increase, China will account for 51 million, India 27 million, and other countries 15 million (all are based on the UN estimates). As a result, the population density of existing urban areas will increase, and new city development will become crucial. The number of cities with a population of at least 1 million will increase

from 173 to 228. The number of cities in China with a population of at least 5 million will go up from 8 to 13, and that in India from 5 to 9 (Figure 2).

Figure 2. ASEAN cities with a population over 1 million



Source: UN, *World Urbanization Prospects, 2009*.

Industrialization will bring in a rise in income levels, causing considerable expansion of the middle-income groups. These people will trigger a huge leap in consumption. The population with a per capita income of US\$3,000-35,000 is projected to increase from 620 million in 2008 (19.1% of the region's total population of 3.23 billion) to 1.64 billion (45.8% of 3.57 billion) in 2020.

Urban areas will face a serious challenge in transforming their industrial structure into innovative clusters while middle-size cities and

rural areas will need to attract more manufacturing activities. To achieve accelerating economic growth with keeping equitable society in the EAS region, well-coordinated development strategies will be required for constructing innovative industrial agglomerations and urban amenity with vigorous human resource development and expanding production networks to developing areas.

2. Four virtuous cycles for clearing bottlenecks

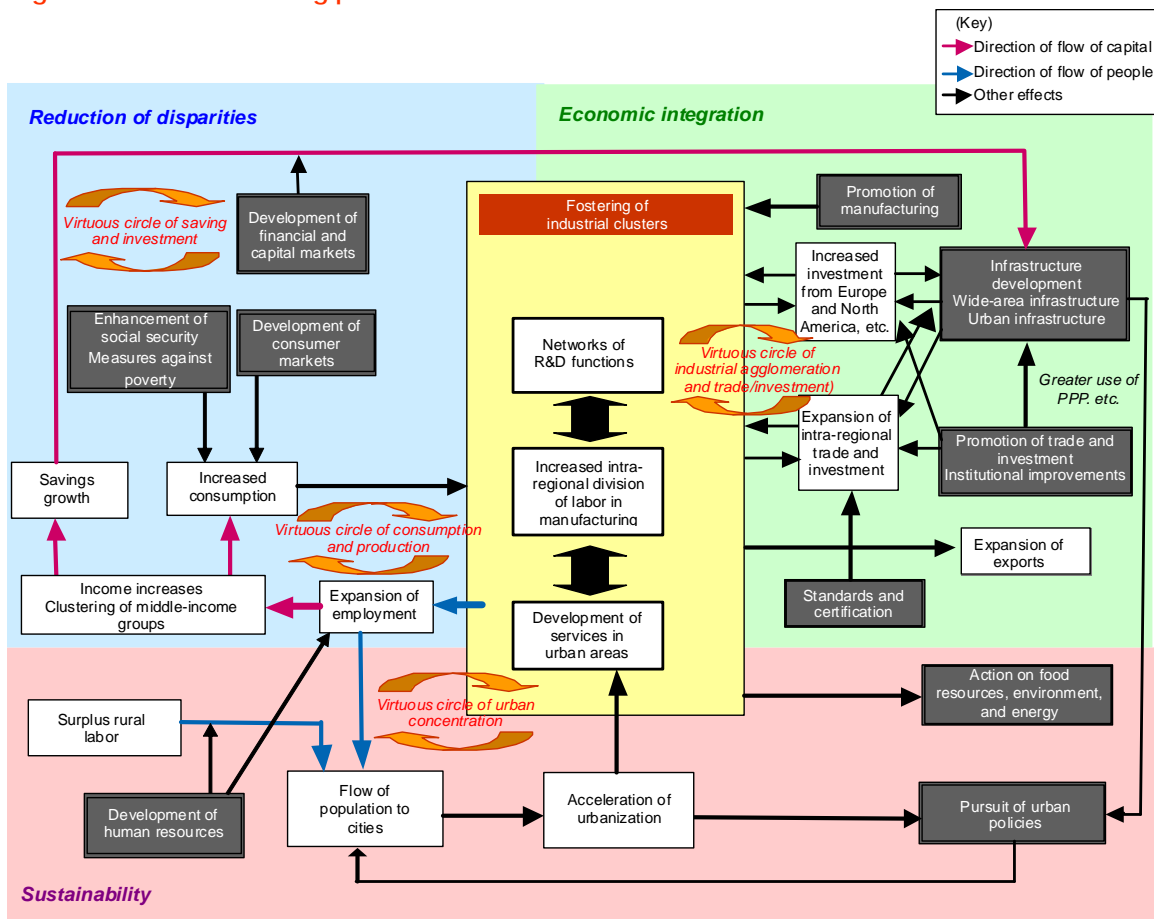
It is not at all easy and automatic for developing countries to properly respond to the demand for drastic transformation of economic and social structure in stepping up the ladder of economic development. Indeed, we have observed numerous failure examples in qualitative transformation together with quantitative economic growth in the history of economic development. Can East Asia overcome the challenges?

One advantage of developing East Asia is its unprecedented formation of production networks. Stemming from solid growth of productive

sector, developing East Asia may propel itself with four virtuous circles or feedback systems. The first is a virtuous circle of industrial agglomeration and trade/investment. The existence of production networks will generate effective feedbacks between the fragmentation of production and the formation of industrial agglomerations. The second is a virtuous circle of urban concentration. Strong basis of productive sector can change the functioning of urban areas in utilizing positive agglomeration effects and encouraging innovative activities while overcoming congestion effects. The third is a virtuous circle of consumption and production. Employment creation in the productive sector would nurture middle-income population, which ends up with the creation of thick market. The fourth is a virtuous circle of saving and investment. Income growth generates savings, and economic growth with qualitative transformation can yield ample investment opportunities.

These four virtuous circles should work as a four-wheel drive for developing East Asia (Figure 3).

Figure 3. Income-doubling process in Asia



3. How to enhance the momentum of four virtuous cycles

To step forward to quantitative and qualitative changes in economic and social structure by the four virtuous circles, we have to face a number of policy challenges. Along three policy research pillars of ERIA, i.e., deepening economic integration, narrowing development gaps, and sustainable economic development, major policy challenges are listed as follows.

(1) Deepening economic integration

Infrastructure development

As demonstrated by the Comprehensive Asia Development Plan (CADP), The development of logistics and other economic infrastructure, including hard and soft, can drastically enhance physical connectivity and remove bottlenecks for industrialization in the region. Infrastructure development is indispensable to pursuing both deepening economic integration and narrowing development gaps (ERIA (2010)).

The EAS region has developed unprecedented international production networks and has been regarded as the Factory of the World. By now, improving hubs for exporting to North America, Europe, and other parts of the world has obviously been given priority. As the Asian economies grow, however, substantial improvements in the region's logistical infrastructure, including roads and feeder ports that handle Intra-regional distribution and corridors in Mekong as well as in IMT+ and BIMP+, should also be promoted.

Urban and metropolitan infrastructure to support industrial agglomeration and human resource development is also essential. Both positive agglomeration effects in inter-firm division of labor and the supply of human capital will generate innovation in urban and metropolitan areas. While avoiding excessive congestion effects, metropolitan areas with ample space and charming urban amenity should be constructed.

Promotion of trade and investment

The growth of regional market will accelerate intra-regional trade. The enhancement of income

level will eventually nurture two-way foreign direct investment within the region. A challenge here is how to remove redundant barriers and impediments in order to take advantage of full benefits from regional integration.

There are actually many things to do for enhancing institutional connectivity. In addition to straight trade and investment liberalization, various trade facilitation including improving rules of origin and customs clearance can promote trade and investment. The betterment of investment conditions should also include deregulation in the services sector including services associated with manufacturing and the elimination of double taxation in the region, which would foster the development of regional multinational firms and entrepreneurs.¹

Promotion of manufacturing sector

The high time of picking-winner-type industrial policy is gone. It does not mean, however, that industrial promotion policy is useless or unnecessary. To take advantage of the mechanics of fragmentation and agglomeration effectively, proper policy package for industrial promotion must be designed so as to clear bottlenecks and constraints encountered at each stage of development.

We must provide favorable policy environment that encourages private dynamism in choosing location and activities along the static as well as dynamic location advantages. Rapid economic growth is accompanied by evolving production conditions, and industrial promotion policy must thus respond quickly to changes in the spatial structure of production networks and the innovation of business models.

There is ample room for regional cooperation and policy dialogues. Sharing experiences and information among policymakers and business community are no doubt useful, and effective and efficient sharing of hard and soft infrastructure in the region must be promoted. Other possible measures include the creation of an Asian research zone and R&D fund as well as the establishment of product and service assessment centers in order to provide mechanism

for making better use of the region's creativity and ingenuity.

Standard, certification, and other institutional arrangements

In order to facilitate manufacturing and service businesses in the region, we should develop systems that are fundamental to business activities. Standards and certification, intellectual property rights protection, competition law, and other business related economic institutions are critical for aiming at the knowledge-based economy. As for standards and certification, the proliferation of diverse systems across countries would lead to inefficiencies in business, and the best solution may be the creation of integrated standards (i.e., "Asian standards").

(2) Narrowing development gaps

Development of consumer markets

Rapid and sustained economic development has considerably pushed up income levels of the countries in the region, and East Asia is now in the process of evolving from the "factory of the world" to the "consumer market of the world." A leading player in this evolution is the middle-income group. The upward shift in consumption by this group will raise the level of the consumer goods and service industries, in the course of which "Asian brands" will develop.

It is urgent to establish a solid institutional basis for vigorous market activities. For example, the system of consumer protection should be developed in most of the developing East Asia. Competition policy also has a lot of room for improvement.

Demand for cross-border consumption activities, such as e-commerce (in the form of online shopping) and tourism activities, is also steadily growing. Such cross-border consumption activities can often be inhibited by differences in regulatory regimes across countries. It is important to facilitate cross-border consumption activities by institutional harmonization.²

Development of financial and capital markets

Financial and capital markets bridge between saving and investment. They thus

present multifaceted features in the transformation of economic and social structure.³

First, the income of middle-income group has to come into stable saving. However, there are typically two obstacles: (1) savers exhibit a strong preference for short-term saving or even cash owing to the distrust of macro policy and banks, and (2) even where there exist arrangements such as a pension program, the knowledge about them may be insufficient due to, for example, employers' poor awareness. Possible solutions to these problems would be to introduce preferential interest rates and tax breaks, package lending programs with savings products, and raise knowledge and awareness on long-term saving.

Second, the effective use of saving is also important, particularly in funding infrastructure investment. The problems in the public-private partnership (PPP), where the government and private sectors share their roles, include a lot of uncertainty associated with projects themselves as well as finding providers of funds for long-term projects. One effective response to these concerns is to use policy finance institutions capable of reducing uncertainty over projects and providing long-term risk money.

Third, smooth finance for small and medium businesses is crucial. Small and medium business financing in developing and least developed countries in particular faces issues such as the following:

- (i) Funds raised from deposits may fail to keep pace with lending demand and also tend to revolve around short-term deposits subject to a preference for interest rates, making it difficult to raise long-term financing and stable operating capital.
- (ii) Banks are insufficiently capable of screening projects, often together with the low reliability of corporate data for small and medium businesses.
- (iii) Financial regulation and supervision are insufficiently flexible, and collateral systems and bond practices are underdeveloped.

Because of the compound nature of the issues in small and medium business finance, support from developed countries that combines

the provision of funds with technical assistance and the effective use of policy finance institutions could provide effective ways forward.⁴

Fourth, the differing scale and maturity of the financial markets in each country generate demand for regional financial links through cross-border markets. Effective means of doing so include, alongside the use of existing frameworks such as the Asian Bond Markets Initiative (ABMI), the development of standards to protect the rights of investors and the establishment of guidelines on government support (such as guarantees by governments in the region, and guarantees and insurance provided by developed countries and international agencies) in order to promote cross-border private-sector infrastructure investment in the ASEAN+6. Mechanisms need to be established to efficiently absorb stable saving and transform them into investment. Promoting PPP private finance should also be promoted.

Social protection

Social protection is an important issue with a wide variation in its roles depending on a country's stage of development. A particular concern in countries where per capita income is less than US\$3,000 remains on alleviating poverty and improving public health, and to overcome these challenges is essential to continuing economic development. As income levels rise, these issues are replaced by a challenge to provide social safety nets associated with industrial restructuring and possibly growing disparities within countries. Countries whose per capita income exceeds US\$10,000 will experience population aging, the seriousness and urgency of which depends on each country's demographic structure. Eliminating people's concerns about the future by developing pension programs and welfare services such as nursing care for the elderly will become crucial to expanding consumer spending. Japan and other developed countries can share their experiences in the social protection with East Asian countries in order to achieve further improvements in social protection.⁵

(3) Sustainable economic development Food resources, environment, and energy

To ensure the sustainability of economic growth in the region, actions on food resources, environment, and energy should target improvements in the efficiency and advancement of agricultural production, the avoidance of future environmental costs, the development of sustainable energy sources, energy conservation, and green development through the promotion of the 3Rs (reduce, reuse, and recycle).

More specifically, there is a need for the deployment of energy efficient and energy-saving technologies in order for countries in the region to leap frog their projected trajectory on the environmental Kuznets curve (reducing their environmental impact per capita) and improve efficiency in resource and energy usage, together with the development of new and renewable energy sources and the improvement of intra- and inter-city transport system.

While the demand for food, minerals, bio resources (bio fuels, pharmaceuticals, foodstuffs, wood, paper, and pulp, and others), and CO₂ sinks expands with demographic and economic growth, efficient land usage should be established. Air purification, watershed protection and water cleaning, soil formation and conservation, agricultural support (pollination and pest control), alleviation of natural disasters, and maintenance of environmental services that generate eco-tourism and other values will serve to support economic growth with synergy effects. It is also important that these resources be maintained and restored by reducing the impact on the environment (both qualitatively and quantitatively).⁶

Urban development

With a bit abuse of the concept of sustainability, we would like to highlight the following two issues, which are often accompanied with serious market failure in the dynamic context and are particularly serious in middle-income countries and regions trying to step up to fully developed stage. One is the dynamic sustainability of industrial agglomerations and cities, and the

other is the sustained growth path of human resources.

Urban areas attract both population and economic activities due to positive agglomeration effects. Such geographical concentration, on the other hand, generates congestion effects, which include wage hikes, land price surge, traffic jam, pollution problems, and others. To properly control both agglomeration effects and congestion effects is crucial to sustained growth of urban areas. In addition, it is essential to foster industries that generate employment and indirect effects across industries, transform themselves into innovative economic activities, and accelerate the accumulation of human capital. Urban areas should also be the cradles of creative human resources with attractive urban environment. The strategic development of hard and soft infrastructure is necessary for urban areas to realize innovative industrial agglomerations and charming urban amenity.

Development of human resources

The development of human resources is also prone to heavy market failure. Individual decision on having education and making occupational choice is a long-term decision with incomplete information. The supply of labor thus easily suffers from wide mismatch with the demand.

The problem is particularly serious when labor moves across industries and across different skill levels. The occupational migration from the primary sector into the secondary and tertiary sectors will necessitate the provision of vocational training to some 500 million people. Over the next 10 years, the number of people employed in the primary sector will decline by approximately 290 million, and those in the secondary and tertiary sectors will increase by around 150 million and 340 million, respectively, resulting in a combined increase of almost 500 million. To ensure that this transformation goes smoothly, human resources will have to be developed to provide the skills required by industries.

For businesses to recruit high-caliber human resources from the region, overseas studies in

the region must be promoted, and the visualization of skill levels needs to be pursued by such means as the clarification of skill requirements and the integration of qualification schemes. It is also important that credit-sharing arrangements between universities in the EAS region be expanded in order to increase the intra-regional mobility of human resources. At the same time, skill requirements in core areas of industries need to be better defined, and training should be provided to develop necessary skills.

4. Conclusion

East Asia now embarks on an unprecedented trial toward a more prosperous and equitable region. Our income can be doubled in 2008-2020 if we can properly handle both quantitative expansion and qualitative transformation of our economy. East Asia should take advantage of its strength in extending production networks and utilize four virtuous circles, namely, industrial agglomeration and trade/investment, urban concentration, consumption and production, and saving and investment. To make these virtuous circles work as a four-wheel drive, we must have the courage to meet a number of policy challenges. In East Asia, deepening economic integration, narrowing development gaps, and sustainable economic development can be achievable.

¹ ERIA has conducted a number of policy studies for enhancing institutional connectivity from various angles. See, for example, Corbett and Umezaki (2009) and Urata and Okabe (2010).

² ERIA has initiated a series of studies on the development of consumer markets. See Pibulyarajana (2010) and Matsumoto (2010) for our preliminary results.

³ Findlay, Parulian, and Corbett (2010) investigate linkages between real and financial aspects of economic integration from various angles.

⁴ Harvie, Narjoko, and Oum (2010) conduct an extensive questionnaire survey on SMEs in the region and find that insufficient financing is indeed perceived as a major constraint to the development of SMEs.

⁵ In FY2009, ERIA conducted an extensive survey on social protection system in EAS countries (Asher, Oum, and Parulian (2010)). More in-depth analysis is planned in FY2010.

⁶ ERIA has conducted a series of policy studies on energy and environment in order to obtain sustainable economic development. See, for example, Kimura (2010) on energy saving potential, Goto, Oguma, and Chollacoop (2010) on biodiesel fuel standardization, Sagisaka (2009) on the sustainability of biomass utilization, and Kojima(2010) on 3R policies.

About the authors

Takeshi Fujimoto is Executive Director, JETRO Singapore.

Shoichiro Hara is Senior Consultant, Nomura Research Institute, Ltd.

Fukunari Kimura is Chief Economist, ERIA.

References

Asher, Mukul; Oum, Sothea, and Parulian, Friska, eds. (2010), *Social Protection: Current State and Challenges*. ERIA Research Project Report 2009, No. 12 (to be posted at <http://www.eria.org>).

Corbett, Jenny and Umezaki, So, eds. (2009), *Deepening East Asian Economic Integration*. ERIA Research Project Report 2008, No. 1 (<http://www.eria.org>).

Economic Research Institute for ASEAN and East Asia (CADP) (2010), *Comprehensive Asia Development Plan* (to be posted at <http://www.eria.org>).

Findlay, Christopher; Parulian, Friska; and Corbett, Jenny, eds. (2010), *Linkages between Real and Financial Aspects of Economic Integration in East Asia*. ERIA Research Project Report 2009, No. 1 (<http://www.eria.org>).

Goto, Shinichi; Oguma, Mitsuharu; and Chollacoop, Nuwong, eds. (2010), *EAS-ERIA Biodiesel Fuel Trade Handbook: 2010* (<http://www.eria.org>).

Harvie, Charles; Narjoko, Dionisius; and Oum, Sothea. (2010), 'Constraints to Growth and Firm Characteristics Determinants of SME Participation in Production Networks', In Vo Tri Thanh, Dionisius Narjoko, and Sothea Oum, eds., *Integrating Small and Medium Enterprises (SMEs) into the More Integrated East Asia*. ERIA Research Project Report 2009, No. 11 (to be posted at (<http://www.eria.org>).

Kimura, Shigeru, ed. (2010), *Analysis on Energy Saving Potential in East Asia*. ERIA Research Project Report 2009 No. 11 (<http://www.eria.org>).

Kojima, Michikazu, ed. (2010), *3R Policies for Southeast and East Asia*. ERIA Research Project Report 2009 No. 10 (<http://www.eria.org>).

Matsumoto, Tsuneo, ed. (2010), *Establishment of a Secure and Safe E-Commerce Marketplace*. ERIA Research Project Report 2009, No. 6 (<http://www.eria.org>).

Piburyanojana, Komain, ed. (2010), *Strengthening Information Security in the Business Sector*. ERIA Research Project Report 2009, No. 5 (<http://www.eria.org>).

Sagisaka, Masayuki, ed. (2009), *Guidelines to Assess Sustainability of Biomass Utilisation in East Asia*. ERIA Research Project Report 2008 No. 8-2 (<http://www.eria.org>).

Urata, Shujiro and Okabe, Misa, eds. (2010), *Tracing the Progress towards the ASEAN Economic Community*. ERIA Research Project Report 2009, No. 3 (<http://www.eria.org>).