



Technical Assistance Report

Project Number: 44119-01
Research and Development Technical Assistance (RTA)
April 2010

Asia 2050

Asian Development Bank

ABBREVIATIONS

| | | |
|------|---|---|
| ADB | – | Asian Development Bank |
| OREI | – | Office of Regional Economic Integration |
| RCI | – | regional cooperation and integration |
| TA | – | technical assistance |

TECHNICAL ASSISTANCE CLASSIFICATION

| | | |
|---------------------------------|---|--|
| Type | – | Research and development technical assistance (RDTA) |
| Targeting classification | – | General intervention |
| Sector (subsectors) | – | Multisector (education; health and social protection; finance; public sector management; transport, and information and communication technology) |
| Themes (subthemes) | – | Regional cooperation and integration (cross-border infrastructure, money and finance, other regional public goods), economic growth (promoting economic efficiency and enabling business environment), social development (human development), governance (economic and financial governance) |
| Climate change | – | Climate change adaptation |
| Location impact | – | rural (low), urban (medium), national (high), regional (high) |

NOTE

In this report, “\$” refers to US dollars.

| | |
|---------------------|--|
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I. INTRODUCTION

1. Asia's rise has been the development story of the past 40 years. Japan's remarkable post-war revival helped it to reach advanced-economy status with its entry into the Organisation for Economic Co-operation and Development in 1964. Over time, this achievement convinced much of developing Asia that it should shift away from import substitution toward a more open, export-oriented development model. This approach brought the region sustained growth and transformed developing Asia's economic landscape—per capita gross domestic product in the region has increased sevenfold since the 1960s (see table).

Success Stories of Sustained High-Growth Economies

| Economy | Period of High Growth | Number of Years | Per Capita Income (\$) | |
|----------------------------|-----------------------|-----------------|------------------------|-------------------|
| | | | Beginning | 2005 ^a |
| Japan | 1950–1983 | 33 | 3,500 | 39,600 |
| Hong Kong, China | 1960–1997 | 37 | 3,100 | 29,900 |
| Singapore | 1967–2002 | 35 | 2,200 | 25,400 |
| Taipei, China | 1965–2002 | 37 | 1,500 | 16,400 |
| Republic of Korea | 1960–2001 | 41 | 1,100 | 13,200 |
| Malaysia | 1967–1997 | 30 | 790 | 4,400 |
| Thailand | 1960–1997 | 37 | 330 | 2,400 |
| People's Republic of China | 1961–2005 | 44 | 105 | 1,400 |
| Indonesia | 1966–1997 | 31 | 200 | 900 |

^a In constant 2000 prices.

Source: World Bank (as cited in the RHB Research Institute Economic Highlights on 28 January 2010).

2. Today, Asia's influence in the global economy is increasing dramatically as the region leads the world economy out of recession. Given emerging Asia's diverse and complex social and economic landscape, however, this rapid yet uneven rise offers both significant challenges and important opportunities. The proposed research and development technical assistance (TA)¹ will focus on what Asia must do over the coming 40 years to sustain its growth momentum, continue to improve livelihoods of the 900 million Asians who exist on less than \$1.25 per day, work toward inclusive growth, and prepare for other long-term development challenges. The study will define several scenarios of what Asia might look like in 2050, depending on the policy choices made and how they are implemented in the pursuit of sustainable growth and development. The TA design and monitoring framework is in Appendix 1.

II. ISSUES

3. One major question begs to be asked: Why another study on Asia? While a plethora of in-depth studies analyzing specific countries or sectors already exists, there are few region-wide studies that consolidate related themes that impinge upon potential development solutions. This study will not simply aggregate or summarize individual country analyses; it will instead encompass multigenerational issues impacting the region that so far have been largely ignored. To avoid duplication and ensure added value, it will build upon the existing studies done by the ADB and others.²

¹ The TA concept paper was cleared on 15 February 2010. The TA first appeared in the business opportunities section of ADB's website on 22 March 2010.

² Including current studies financed under ADB. 2009. *Technical Assistance for Sustaining Asia's Growth and Investment in a Changing World*. Manila (TA 7428-REG, \$800,000, approved on 11 December); ADB. 2009.

4. The study will focus on what Asia is capable of achieving by 2050, rather than provide a set of forecasts of what it will look like. It will explore policies relating to structural and institutional reforms that can be implemented to bolster progress. The study will draw upon success stories in East Asia and beyond, as well as lessons from Asia's failures. It will help derive long-term proposals on which development policies will work. A critical question is whether a paradigm shift is required for Asia to reach its development potential by 2050 and, if so, what that will involve in terms of policies and reforms across the economic and social spheres.

5. The region's strong production networks of multinational and regional firms have generated shared prosperity, mainly in East Asia. This process has been supported by unilateral, nondiscriminatory trade liberalization, which, in turn, has ensured that regional integration does not occur at the expense of global interconnectedness. While trade has been the main driver of growth, the gains have been distributed unevenly—with South Asia, Central Asia, and the Pacific subregion lagging behind. Similarly, even as the region's high savings rates and levels of investment have supported its strong growth performance, the development of domestic financial systems has not kept pace with the growth of the real sector. The region's vast savings are still largely intermediated through international financial centers mostly based outside the region.

6. As Asia moves from rapid growth to income convergence, the question arises as to whether integration will continue to be largely market driven. As economies mature and graduate beyond production integration, what kind of institutions will be needed to deepen integration while retaining a strong outward-looking thrust intimately connected with the global economy?

7. The TA will employ a regional focus that cuts across several thematic issues. It will draw upon the experience of countries both within and outside the region, especially those that have avoided the middle-income trap³. The key question the study will answer is: How can Asia become free of poverty and attain inclusive growth by 2050? To realize this vision, what are the policies and reforms needed in terms of (i) education, technology, and innovation; (ii) population and demographic change, (iii) banking and financial markets, (iv) governance and regulatory mechanisms, (v) regional cooperation and integration, and (vi) infrastructure? In pursuing this vision, what potential negative spillovers and other adverse impacts will have to be mitigated? In particular, what is it that will be required to manage the environment and tackle rising urbanization, as well as the associated social and health costs, among others? Finally, what are

Technical Assistance for Long-Term Projections of Asian GDP and Trade. Manila (TA 7470-REG, \$225,000, approved on 23 December). External studies include (i) Nomura. 2010. *The Ascent of Asia*. http://www.nomura.com/europe/resources/pdf/nomura%20-%20the%20ascent%20of%20asia.pdf?bcsi_scan_7823DFCE46415F3E=0&bcsi_scan_filename=nomura%20-%20the%20ascent%20of%20asia.pdf; (ii) European Union. 2009. *The World in 2025: Rising Asia and Socio-Ecological Transition*. Brussels: European Union; (iii) US National Intelligence Council. 2008. *Global Trends 2025: A Transformed World*. Washington DC: National Intelligence Council; (iv) PricewaterhouseCoopers. 2008. *Beyond the BRICs: A broader look at emerging market growth prospects*. London: PricewaterhouseCoopers; (v) Goldman Sachs. 2007. *BRICs and Beyond*. London: Goldman Sachs; and (vi) Economic Intelligence Unit. 2006. *Foresight 2020: Economic, Industry and Corporate Trends*. http://graphics.eiu.com/files/ad_pdfs/eiuForesight2020_WP.pdf. Apart from general studies on future economic growth and development, the TA will draw upon a significant number of forward-looking theme-specific studies dealing with a host of issues, including climate change, food security, and population growth.

³ The middle-income trap refers to a situation in which a developing country is unable to make the transition to being a high-income country due to a variety of economic factors.

the key implications of crosscutting themes—such as private sector participation and gender equality—on envisaging scenarios for Asia's future inclusive growth?

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

8. The TA will support Asia's long-term growth and development, paying particular attention to the role that deepening RCI can play by identifying factors to facilitate policy reforms and provide strategic vision for sustaining robust economic growth and promoting wider and deeper regionalism while retaining global connectivity. The TA will contribute to the adoption and implementation of feasible, long-term regional policies and strategic measures designed to promote greater RCI in Asia.

9. The TA will also provide policy makers across the region with feasible regional policies and strategies designed to promote sustainable growth and development. The TA will achieve this by stimulating public debate on policies that can promote long-term sustainable growth and increase regional economic and financial cooperation. This will strengthen Asia's voice in global forums.

B. Methodology and Key Activities

10. The primary output of the TA will be the publication of a report that will (i) identify regional policies and related strategic measures, focusing on a number of key sectors and areas that are critical to deepening RCI in Asia and the Pacific; and (ii) develop a framework for incorporating such reforms and strategic measures into national plans, and coordinate these with the development plans of RCI institutions (knowledge creation).

11. The TA will start with an issues paper that will comprise a literature review and other background and preparatory material to ensure that the TA complements, rather than duplicates, the existing knowledge base. Studies on selected sectors and themes will also be produced to provide a solid empirical and analytical foundation for the main report, as follows:

- (i) **Education, technology, and innovation.** Review the literature and look at the existing policy framework governing education systems in the region, including the adoption of technology to generate skilled workers. Examine how Asia can generate highly skilled workers in order to build an enabling environment that encourages innovation and supports long-term growth.
- (ii) **Population and demographic change.** Examine the impact of demographic change on Asia, map out policy options for dealing with the problems it is causing, and outline how different subregions may require different responses.
- (iii) **Banking and financial markets.** Examine banking and finance sector developments, including changes introduced or initiated in light of the recent global crisis, and the development of financial norms and regulations, their impact on regional markets, and their role in the evolving global financial architecture. Explore how the region can mobilize its vast savings to meet its investment needs and how to intermediate resources within the region.

- (iv) **Governance and regulatory mechanisms.** Identify how Asia and the Pacific can establish a durable governance structure for sustaining its economic prosperity. Highlight and recommend what policies should be implemented to ensure that poor governance structures and practices do not emerge as hurdles to the region's progress.
- (v) **Infrastructure.** Determine how countries can build, maintain, and connect infrastructure to support sustainable regional economic growth. Explore the role of the private sector in generating resources needed to address the region's massive infrastructure deficit.
- (vi) **Regional cooperation and integration.** Examine how Asia can strengthen its institutional architecture for regional cooperation, and thus promote more inclusive economic growth across the region. Can existing institutions, or even new ones, deliver the vision laid out in the Asia 2050 report? What will be the mechanisms through which regional institutions deliver agreed-upon objectives? What kind of governance structures and decision-making principles need to be put in place?
- (vii) **Environment and climate change.** Identify the adverse consequences of rapid economic growth, urbanization, and industrial expansion; and the deterioration and loss of natural resources. Explore the regional dimension of climate change and its implications for economic growth.
- (viii) **Urbanization.** Examine how cities in the region can support growth in the face of rapid urbanization and growing pressure on public services. Identify the necessary measures—resources, capacity, and governance structure—to create functioning cities for sustained growth

12. Where possible, efforts will be made to integrate private sector participation and gender equality issues in the analyses, as they have key implications for envisaging scenarios for Asia's future inclusive growth. These need to be considered in relation to securing the benefits of policy interventions in identified thematic areas, such as education and human resources, and population and demographic change. Similarly, there are significant benefits to be gained by giving due consideration to these dimensions within the broader context of governance and infrastructure development.

13. More detailed information on the sector and thematic issues are in Appendix 2.

14. The secondary output of the TA will involve extensive dissemination of the report's findings and recommendations (knowledge sharing). Workshops in the region's key cities and an international conference will be organized to present and discuss these outputs. Prior approval of relevant DMC governments will be obtained before organizing such workshops and conferences. The target audience will include senior policy makers and leading economic decision makers in the region, members of the domestic and international business communities, and international development partners.

C. Cost and Financing

15. The TA is estimated to cost the equivalent of \$1,300,000, and will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-IV). The financing will cover the

remuneration and travel expenses of international and national consultants, travel expenses of conference and workshop resource persons, equipment and database purchase, report production, and other miscellaneous expenses. The TA cost estimates and financing plan are in Appendix 3.

D. Implementation Arrangements

16. ADB will be the executing agency. The TA will be implemented by OREI with support from other ADB departments and offices. OREI will supervise the work of the TA consultants. The TA is expected to be completed over a period of two years from April 2010 to April 2012.

17. ADB will engage a consulting firm through the quality- and cost-based selection method according to ADB's Guidelines on the Use of Consultants (2007, as amended from time to time).⁴ A total of 76 person-months of international consulting services and resource persons are required for the TA, and will be recruited through the selected firm: one principal consultant (18 person-months), eight international economists (total of 32 person-months), and, as appropriate, five workshop facilitators (total of 4 person-months), two economics editors (total of 12 person-months), 12 translation services providers (total of 6 person-months), and about 20 resource persons (total of 4 person-months). These resource persons will be invited to participate in OREI seminars, workshops, and a conference as speakers and discussants.

18. The TA requires 66 person-months of national consultants who will be engaged individually according to ADB's Guidelines on the Use of Consultants. This includes two project coordinators and two research assistants. National consultants will also form part of the editorial team, including two manuscript editors, an artistic designer, two copy editors, and one typesetter. The scope of work and outline terms of reference for consultants are in Appendix 4.

19. Purchases of equipment (e.g., computer hardware and software) and statistical databases will be undertaken in accordance with ADB's Procurement Guidelines (2007, as amended from time to time) and in coordination with ADB's Office of Information Systems and Technology and Office of Administrative Services, where applicable. After the TA, any procured equipment will be disposed of in compliance with the project administration instruction on administering grant-financed technical assistance projects.⁵

20. Disbursements under the TA will be done in accordance with the ADB *Technical Assistance Disbursement Handbook*.⁶

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,300,000 on a grant basis for Asia 2050, and hereby reports this action to the Board.

⁴ Specific quality- and cost-based selection weighting is recommended at 90:10 (90% for the technical proposal and 10% for the financial proposal).

⁵ ADB. 2009. Administering Grant-Financed Technical Assistance Projects. *Project Administration Instructions*. Manila: PAI No. 5.11.

⁶ ADB. 2008. *Technical Assistance Disbursement Handbook*. Manila.

DESIGN AND MONITORING FRAMEWORK

| Design Summary | Performance Targets/Indicators | Data Sources/Reporting Mechanisms | Assumptions and Risks |
|---|--|---|---|
| <p>Impact Contribute to the implementation of medium- and long-term and regional policies to promote greater regional cooperation and integration (RCI) in Asia and the Pacific</p> | <p>Greater integration of RCI objectives and strategies in national development plans</p> <p>Increase in the number of new subregional and/or RCI agreements, and/or initiatives, and/or projects</p> <p>Expansion of trade, investments, and cooperation in cross-border infrastructure and regional public goods</p> | <p>Joint ministerial statements, cooperation agreements, and development plans and reports of national ministries and agencies and RCI institutions</p> <p>Asian Development Bank (ADB) ongoing and pipeline projects, technical assistance (TA) performance reports</p> <p>Regional trade and investment indicators from the International Monetary Fund (IMF) Direction of Trade Statistics and the United Nations Conference on Trade and Development (UNCTAD) World Investment Report</p> | <p>Assumptions Governments in Asia and the Pacific remain committed to RCI initiatives, which includes pursuing related policy reforms and improving regional relations</p> <p>Policy makers and other major stakeholders are in a position to make informed decisions</p> <p>Risks Tensions and disputes (e.g., political, economic, and social) arise at the national level, between countries, and at regional and interregional levels</p> <p>Shifts in domestic policy and expenditure priorities undermine implementation</p> |
| <p>Outcome Inform policy makers of feasible regional policies and strategic measures to achieve greater RCI in the region</p> | <p>Citation of proposed reforms and strategic measures in government policy statements, knowledge products, or administrative reports</p> <p>Percentage of policy makers who favorably endorse the proposed reforms and strategic measures</p> | <p>Official policy statements or government policy papers</p> <p>Back-to-office reports of policy makers present at dissemination activities</p> | <p>Assumption Key messages are communicated effectively, and reach the appropriate levels of government</p> <p>Risk Unforeseen domestic events and/or shifts in domestic priorities weaken interest among policy makers</p> |
| <p>Outputs</p> <p>1. Knowledge creation Thematic studies and main report that will (i) identify regional policies and related strategic measures, focusing on a number of key sectors and areas that are critical to deepening RCI in Asia and the Pacific; and (ii) develop a framework for incorporating such reforms and strategic measures into national plans, and coordinating these with the</p> | <p>Studies and report follow the specific terms of reference</p> | <p>TA performance report</p> | <p>Assumption Accurate and up-to-date information is available for analysis</p> <p>Risks Economic or other shocks derail baseline assumptions, analysis, and projections</p> <p>Unforeseen circumstances compromise production of the report</p> |

| Design Summary | Performance Targets/Indicators | Data Sources/Reporting Mechanisms | Assumptions and Risks |
|--|--|---|--|
| development plans of RCI institutions. | | | |
| 2. Knowledge sharing Extensive dissemination of the report's findings and recommendations | Number of dissemination activities implemented Number of stakeholders reached | TA performance report, events proceedings Web downloads Media coverage and readership | Assumption Findings and recommendations are sufficiently robust to disseminate Risk Delays in dissemination activities due to unforeseen events or circumstances |
| Activities with Milestones 1. Knowledge creation (thematic studies and main report) 1.1 Engagement of consultants (April–May 2010) 1.2 Literature review and preparatory work on Asia 2050 (June–July 2010) 1.3 Organization of consultation and preparatory workshop (July 2010) 1.4 Preparation of reports (August 2010–April 2011) 2. Knowledge sharing (dissemination activities) 2.1 Organization of a series of consultation workshops (October 2010–May 2011) 2.2 Publication of studies and reports (December 2011) 2.3 Disseminate study findings and recommendations (April 2011–April 2012) | | | Inputs 72 person-months of international consulting services and 4 person-months of resource persons, including travel and per diem (\$900,000) 66 person-months of national consulting services (\$100,000) Databases, equipment, and computer software (\$25,000) Training, seminars, and conferences (\$100,000) Miscellaneous administration and support costs, including reports, communications, and office supplies (\$35,000) Translation (\$10,000) Contingencies (\$130,000) Total cost: \$1,300,000 Analytical input from ADB staff |

Source: Asian Development Bank estimates.

ISSUES TO BE COVERED IN THE STUDY

1. The technical assistance (TA) will address several thematic issues related to the pursuit of sustainable and inclusive growth in Asia and the Pacific, drawing on the experience of countries both within and outside the region, especially those that have dealt with the middle-income trap. The study will identify the policies and reforms needed to help Asia and the Pacific become free of poverty and attain inclusive growth by 2050. The study will also explore the potential adverse impacts of economic growth (e.g., environmental degradation caused by urbanization) and identify appropriate mitigating measures for policy makers to pursue. Finally, the study will determine how gender equality and women's empowerment can most effectively contribute to Asia's future inclusive growth.

- (i) **Education, technology, and innovation.** The information technology revolution has changed the way in which knowledge is acquired and transmitted. Successful development requires closing the technology and knowledge gap between the developed and developing world.¹ For Asia and the Pacific, increased productivity and improved competitiveness may be achieved through various measures, including developing human capital through education and training, and encouraging innovation by adopting new technologies.²

Progress in education in Asia has not kept pace with the demands of a rapidly developing world. Demographic shifts can work to Asia's advantage only if workers are able to acquire the necessary skills. Though experiences vary among Asia's subregions, common issues include renewing the emphasis on quality, upgrading teacher skills, streamlining education bureaucracies for effectiveness and efficiency at the national and subnational levels, and ensuring broader and more equitable access to schools. Dropout and incompleteness rates are alarmingly high in some countries. In more than half of the Asian Development Bank's (ADB's) developing member economies, only seven out of ten children entering first grade complete the primary cycle, and only four complete the secondary cycle.³ Furthermore, as economies become more knowledge-based, it becomes increasingly important to invest in tertiary and higher education. As the region and its needs continue to change in the years ahead, investment in education will become increasingly important.

- (ii) **Population and demographic change.** By the middle of this century, Asia's elderly population⁴ is projected to reach 922.7 million, and their share of the total population is expected to rise to 17.5%. Asia accounted for only 44% of the global elderly population in 1950, but by 2050, this is projected to increase to 62%.⁵ Within the next few decades, Asia will be home to the largest population of elderly people in the world. A rapidly aging population can have adverse effects on domestic economic performance and prospects through a decrease in the labor force, lower savings and investment rates, and spiraling pension and health care costs. However, countries in Asia are not aging at an even pace. This

¹ Asian Development Bank (ADB). 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

² Nomura. 2010. *The Ascent of Asia*. London.

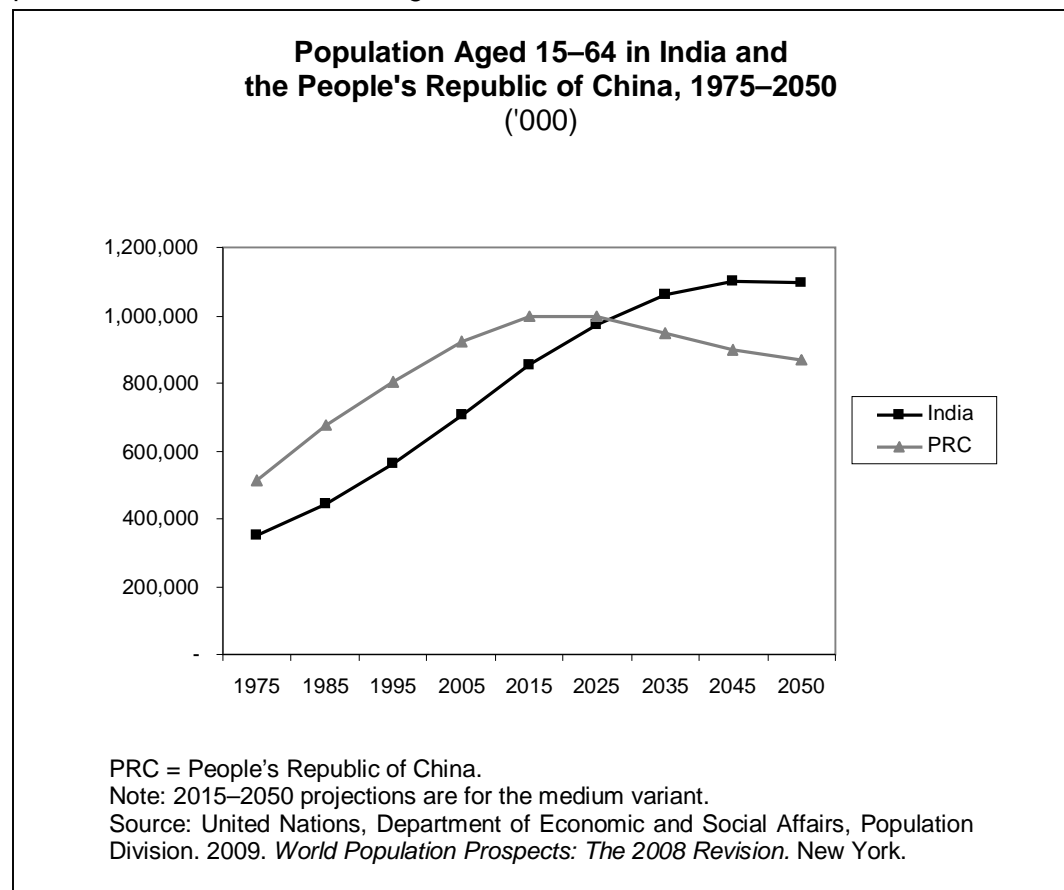
³ ADB. 2008. *Education and Skills: Strategies for Accelerated Development in Asia and the Pacific*. Manila.

⁴ Those 65 years or older.

⁵ United Nations. 2006. *World Population Prospects: The 2006 Revision*. New York: United Nations

contrast is most apparent in the two most populous countries in Asia—the People's Republic of China and India—with working-age populations in each showing opposing trends in projections to 2050 (see figure).

Economic interactions are expected to take place among countries that are economically integrated but aging at different speeds; these interactions can help mitigate many of the negative impacts that aging will have at the domestic level. Asymmetric demographics partially explain changes in the patterns of trade in goods and services, financial capital flows, and labor mobility. With growing global cooperation and integration, such open economy interactions will play an increasing role in mitigating labor and capital market imbalances caused by demographic changes. Regional initiatives such as ASEAN+3,⁶ which bring together aging and younger countries within a very broad framework, should prove instrumental in facilitating such interactions.



- (iii) **Banking and financial markets.** Asia's banking sector was relatively shielded from the recent global crisis because of the significant restructuring in the aftermath of the 1997/98 Asian financial crisis that focused on instituting stronger risk management systems and regulations, and adopting prudential lending. In the same period, domestic capital market infrastructure was boosted to support the real sector.

⁶ The ASEAN+3 refer to the 10 ASEAN member states plus the People's Republic of China, Japan, and the Republic of Korea.

However, the development of banking and capital markets remains uneven. While intraregional capital flows have improved, the region still has a long way to go before it is able to efficiently tap into its own resources rather than rely on intermediation through markets outside the region. Stronger banking systems and capital markets will allow the region to efficiently allocate capital into sectors and subregions within Asia that are either paying a premium for financing or are simply unable to access it.

- (iv) **Governance and regulatory mechanisms.** Governance and regulatory reform have been an essential part of the region's rapid economic expansion in recent decades. They were the foundation of the region's long stretch of economic growth prior to the 1997/98 Asian financial crisis, and played a critical role in the economic resurgence after the crisis. The region has had remarkable success in pursuing governance and regulatory reform, whether in bank consolidation, developing local currency and regional bond markets, liberalizing capital flows, or allowing more flexible exchange rate mechanisms. But this reform process is far from over. Several indicators—including the World Bank's ranking of business-friendly countries—show that regulatory quality in a number of developing Asian countries has barely improved since the early 2000s, and that in a few countries regulatory quality has actually declined. Continuing the regulatory reform process must remain a high priority in the years ahead.

Traditionally, governance and regulatory reform initiatives have focused on what can and should be done nationally, but growing integration necessitates a closer look at what can and should be done regionally. In many ways, the process of reform is best viewed as an iterative one: regulatory reforms are essential to removing domestic or “behind the border” barriers to regional economic integration. However, the impetus to remove these domestic barriers will often have to come from outside the country. ADB's experience with implementing regional projects has shown that, in some instances, the best entry points for regulatory reform can be found beyond national borders. There is a key role for regional cooperation and capacity building to strengthen domestic policy-making institutions and encourage a common purpose in the pursuit of governance and regulatory reform.

- (v) **Infrastructure.** Infrastructure plays a key role in promoting and sustaining rapid economic growth. Differences in infrastructure help explain East Asia's superior growth in relation to other emerging subregions. Improving connectivity in Asia and the Pacific would bring the region large welfare gains through increased market access, reduced trade costs, and more efficient energy production and use. If the required investment toward pan-Asian connectivity is made in the region's transport, communications, and energy infrastructure during 2010–2020, then developing Asia's real income during that period could reach \$13 trillion.⁷

As barriers to trade in Asia and the Pacific have fallen, infrastructure deficiencies have grown significantly. There has been progress in developing subregional infrastructure programs since the early 1990s, with overlapping subregional groups cooperating to varying degrees. These connections are most advanced in

⁷ ADB and Asian Development Bank Institute (ADBI). 2009. *Infrastructure for a Seamless Asia: A Joint Study of the Asian Development Bank and the Asian Development Bank Institute*. Manila: ADB and Tokyo: ADBI.

the Greater Mekong Subregion, while less developed in other subregions. Connections between subregions—notably between South Asia and East Asia—are particularly weak. Further progress requires creating an effective new framework for regional cooperation, as well as strengthening coordination among and capacity within existing frameworks.

- (vi) **Regional cooperation and integration.** Asia's progress in expanding its national economies is one of the great success stories of the last few decades. This spectacular performance has been facilitated by greater integration with regional and international markets. The integration of regional markets has been achieved through a combination of market forces and regional cooperation initiatives. Asia's integration has been supported by a dense web of regional and subregional institutions designed to foster cooperation on specific issues and address common concerns.

This institutional structure has served the region well thus far. However, it cannot be assumed this will continue to be the case in the future. Key questions that arise with respect to regional cooperation and integration (RCI) include: Can existing institutions, or even new ones, deliver the vision laid out in the Asia 2050 report? What will be the mechanisms through which regional institutions deliver agreed-upon objectives? What kind of governance structures and decision-making principles need to be put in place? The challenge for Asia is to strengthen its institutional architecture for regional cooperation to enable it to entrench achievements and deepen integration, thus promoting more inclusive economic growth across the region.

- (vii) **Environment and climate change.** Rapid economic growth in Asia has depleted the region's natural resources and contributed to environmental degradation. The urgency in addressing these concerns and constructing environmentally sustainable approaches to economic growth has increased. The continued depletion of natural resources, combined with the direct and indirect impacts of climate change, could easily reverse the region's economic and social gains, and increase health risks for the poorest and most vulnerable.
- (viii) **Urbanization.** The region's phenomenal economic growth has also led to a rapid rise in its urban population. The result has been increased air and water pollution, problems with waste management, and unsustainable demands on soil and water supplies for food production, among others. Energy consumption for transport and industry has also contributed significantly to a rise in the production of greenhouse gases.⁸ These conditions are likely to worsen as urbanization continues at its current pace, or even accelerates, and urban infrastructure is stretched beyond capacity. For example, it is estimated that the number of urban dwellers in Asia will increase by 1.5 billion between 2000 and 2050.⁹

2. The TA will seek to integrate private sector participation and gender equality in the study, as these factors are critical to securing sustained, inclusive growth in the region. For example, the role of the private sector and promotion of gender equality should be considered in terms of

⁸ ADB. 2009. *Environment Program: Progress and Prospects*. Manila.

⁹ United Nations. 2007. *World Population Prospects*. New York.

maximizing the effectiveness of policies and reforms that seek to increase access to education, address demographic changes, strengthen governance, and develop regional infrastructure.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

| Item | Amount |
|--|----------------|
| Asian Development Bank Financing^a | |
| 1. Consultants | |
| a. Remuneration and per diem | |
| i. International | 600.0 |
| ii. National | 100.0 |
| iii. Resource persons | 40.0 |
| b. International and local travel | 260.0 |
| 2. Training, seminars, and conferences | 100.0 |
| 3. Databases, equipment, and computer software | 25.0 |
| 4. Miscellaneous administration and support costs (including reports, communications, and office supplies) | 35.0 |
| 5. Translation | 10.0 |
| 6. Contingencies | 130.0 |
| Total | 1,300.0 |

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-IV).

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. International Consultants

1. The technical assistance (TA) will prepare a study that focuses on what Asia is capable of achieving by 2050, and the related policies and reforms that may be required to reach its development potential. To assist in the implementation of the TA, a firm will be engaged to recruit the international consultants listed.

1. Principal Consultant (18 person-months)

2. The principal consultant will be a well-known international economist with (i) a master's degree in economics, or related field, (ii) proven knowledge and extensive work experience in policy making and economic research in Asia and the Pacific, and (iii) solid experience in similar assignments involving the preparation and coordination of research products on regional economic development and thematic issues. The consultant will be engaged to

- (i) prepare the literature review and draft the issues paper relating to the thematic areas as well the overall framework;
- (ii) assist in preparing the specific terms of reference for the various parts and chapters of the thematic studies;
- (iii) prepare the draft thematic studies and guide, coordinate, and review the work of the various international economists;
- (iv) oversee the quality and content of the final report;
- (v) coordinate with the economics editors to ensure that the resulting reports, papers, and studies are of high quality; and
- (vi) participate in the international conference and workshops, as necessary.

2. Economists (8 persons, 4 person-months each)

3. The economists will be engaged to assist and support the preparation of the various thematic studies. The scope of engagement for each economist will be determined separately, according to the requirements of each study and in coordination with the principal consultant. The economists will have (i) an advanced degree in economics (with strong econometric and statistical skills), international relations, political science, or in other areas relating to thematic issues to be examined in the report; (ii) proven knowledge and extensive work experience on regional cooperation and integration issues in Asia and the Pacific; and (iii) extensive experience working with international financial institutions. The economists will generate a report on thematic areas that will be reviewed by the principal consultant and the Asian Development Bank (ADB). The report will be subject to revision based on peer reviews and feedback from the principal consultant and ADB. The project will hire the economists with expertise in different sectors and thematic areas, but not necessarily limited to the following areas:

- (i) **Education, technology, and innovation.** The economist will review the literature and look at the existing policy framework governing education systems in the region, including the adoption of technology to generate skilled workers. The economist will examine how Asia can generate skilled knowledgeable workers in order to build an enabling environment that encourages innovation and supports long-term growth.
- (ii) **Population and demographic change.** The economist will examine the impact of demographic change on Asia, map out policy options for dealing with the problems it

- is causing, and outline how different subregions may require different responses.
- (iii) **Banking and financial markets.** The economist will look at (i) banking and finance sector developments, including changes introduced or initiated in light of the recent global crisis; and (ii) the development of financial norms and regulations, their impact on regional markets, and their role in the evolving global financial architecture. The report prepared by the economist should closely examine how the region can mobilize its vast savings to meet its investment needs, and how to intermediate the resources within the region.
 - (iv) **Governance and regulatory mechanisms.** The economist will produce a report that identifies how Asia and the Pacific can establish a durable governance structure for sustaining its economic prosperity. The report should highlight and recommend what policies should be implemented to ensure that poor governance structures and practices do not emerge as hurdles to the region's progress.
 - (v) **Infrastructure.** The economist will look at how countries can build, maintain, and connect infrastructure to support sustainable regional economic growth. The report should focus on how inadequate coverage and quality of infrastructure services create bottlenecks that constrain growth in many parts of the region. The report will also explore the role of the private sector in generating resources needed to address the region's massive infrastructure deficit.
 - (vi) **Regional cooperation and integration.** The economist will examine how Asia can strengthen its institutional architecture for regional cooperation, and thus promote more inclusive economic growth across the region. Can existing institutions, or even new ones, deliver the vision laid out in the Asia 2050 report? What will be the mechanisms through which regional institutions deliver agreed-upon objectives? What kind of governance structures and decision-making principles need to be put in place?
 - (vii) **Environment and climate change.** The economist will produce a paper that examines the adverse consequences of rapid economic growth, urbanization, and industrial expansion; and the deterioration and loss of natural resources. The paper will also look at the regional dimension of climate change and its implications for economic growth.
 - (viii) **Urbanization.** The economist will produce a paper that examines how cities in the region can support growth in the face of rapid urbanization and growing pressure on public services. The paper will identify the necessary measures—resources, capacity, and governance structure—to create functioning cities for sustained growth.

4. Where possible, efforts will be made to integrate private sector participation and gender equality in the study, as they have implications for envisaging scenarios for Asia's future inclusive growth. These need to be considered in relation to maximizing the benefits of policy interventions in identified thematic areas such as education and human resources, and population and demographic change. Similarly, there are significant benefits to be gained by giving due consideration to these dimensions within the broader context of governance and infrastructure development.

3. Workshop Facilitators (5 persons, 4 person-months total)

5. Academic institutions, research centers, firms, or individual consultants will be hired to assist ADB staff organize an international conference and several workshops. These will be held over the span of the study, including during dissemination of the report. The workshop facilitators will have proven experience in organizing public outreach activities, and be knowledgeable about

regional cooperation and integration (RCI) in Asia and the Pacific. They will facilitate the smooth, effective, and efficient organization of these events, including logistics, communication, printing of materials, and the various aspects of telecommunications equipment (e.g., videoconferencing facilities) that may be required.

4. Economics Editors (2 persons, 6 person-months each)

6. The editors will review and edit drafts and manuscripts to ensure coherence and readability, sound economic arguments, and the highest publication standards. Specifically, the editors will

- (i) examine economic arguments to assess if they are logical and based on accepted economic theory and principles;
- (ii) rewrite, add, or delete information; help revise various pages or sections, if necessary, to tighten economic arguments; fill in gaps in the discussions; and ensure the smooth flow of ideas; and
- (iii) examine tables, figures, and charts to ensure data consistency within pages and documents; and suggest deletions and additions to ensure that they are useful.

5. Translation Services Providers (12 persons, 6 person-months total)

7. Selected papers, studies, and reports will be translated into Bahasa Indonesia, Chinese, Japanese, and Russian. To provide complete translation services, one translator, one manuscript editor, and one typesetter will be hired for each of these four languages. The translator will translate from English into the chosen language; the manuscript editor will ensure the accuracy and quality of the translation; and the typesetter will typeset the translated documents.

B. Resource Persons (about 20 persons, approximately 4 person-months total)

8. Resource persons (policy makers and/or subject experts) will be engaged to review publications and working papers, and attend as participants in related workshops and conferences.

C. National Consultants

9. The TA will engage national consultants individually.

1. Project Coordinators (2 persons, 24 person-months total)

10. The project coordinators will be engaged to coordinate the studies and will be responsible for

- (i) liaising and maintaining proper communication with the principal consultant, international economists, and resource persons;
- (ii) ensuring the timely delivery of outputs;
- (iii) reviewing and editing several documents, including the studies, papers, and reports;
- (iv) supervising publication and dissemination; and
- (v) organizing the various workshops and an international conference.

2. Research Assistants (2 persons, 12 person-months each)

11. The research assistants will assist ADB staff and international consultants on research work related to the studies, papers, and reports; gather data and information; maintain communication; and prepare technical materials. Research assistants will have an appropriate academic background for the tasks required.

3. Manuscript Editors (2 persons, 4 person-months total)

12. The manuscript editors will be hired to edit the thematic studies, draft reports, and other related papers. The editors will ensure that the language and content of the papers conform to ADB style and usage. The manuscript editors will work in close coordination with ADB staff and the economics editors and project coordinators.

4. Artistic Designer and Report Layout Expert (6 person-months)

13. An artistic designer and report layout expert will be hired to create the layout of the ADB report, its cover, and several other materials related to the study. The expert will work in close coordination with the project coordinators and ADB staff.

5. Copy Editors (2 persons, 4 person-months total)

14. Copy editors will be hired to check the papers and draft reports prepared for the study. The copy editors will ensure that the final manuscripts do not contain grammatical mistakes or misprints before publication. The copy editors will work in close coordination with the economics editors and the project coordinators.

6. Typesetter (4 person-months)

15. Typesetter will be hired to typeset all study-related material to be published. The typesetter will ensure that the text, tables, and figures are properly included, and the publications are presented in an orderly and clear format. The typesetter will work in close coordination with the economics editors and the project coordinators.