



Technical Assistance Report

Project Number: 38396
August 2006

BIMSTEC Transport Infrastructure and Logistics Study

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
BIMSTEC	–	Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation
BTILS	–	BIMSTEC Transport Infrastructure and Logistics Study
BWG	–	BIMSTEC Working Group
FTA	–	Free Trade Area
RCSP	–	regional cooperation strategy and program
SWOT	–	strengths, weaknesses, opportunities, and threats
TA	–	technical assistance
UNCTAD	–	United Nations Conference on Trade and Development
UNESCAP	–	United Nations Economic and Social Commission for Asia and the Pacific
WTO	–	World Trade Organization

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sectors	–	Transport and communications, industry and trade
Themes	–	Sustainable economic growth, regional cooperation

NOTE

In this report, "\$" refers to US dollars.

Vice President	L. Jin, Operations Group1
Director General	K. Senga, South Asia Department (SARD)
Director	R. Vokes, Country Coordination and Regional Cooperation Division, SARD
Team leader	M. Nagata, Principal Country Programs Specialist/Head, Regional Cooperation Unit, SARD
Team members	P. Seneviratne, Senior Transportation Specialist, SARD L. Ding, Senior Regional Economist, Thailand Resident Mission, SARD

I. INTRODUCTION

1. The Asian Development Bank (ADB) approved the Regional Cooperation Strategy and Program (RCSP), South Asia, 2006–2008 on 21 February 2006. It established interregional cooperation as a priority means of achieving the main goals of RCSP: to help South Asia realize its full economic potential, and to support economic integration of all Asian countries. The RCSP emphasizes support for the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) to help South Asia function as a hub of regions in Asia.

2. BIMSTEC was established as an interregional grouping in June 1997 to promote free trade, increase cross-border investment and tourism, and promote technical cooperation among the countries in South Asia and Southeast Asia. It comprises Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand (hereinafter referred to as “the BIMSTEC countries”). The annual Ministerial Meeting headed by the foreign ministers of the BIMSTEC countries is the top decision-making forum, while Senior Officers Meetings comprising the foreign secretaries of the BIMSTEC countries are regularly held to review and discuss cooperative activities agreed upon at the Ministerial Meeting. There are also a number of sector-specific ministerial or experts meetings and forums, particularly in the areas of economics, trade, and business. The overall coordination and monitoring of activities are performed by the BIMSTEC Working Group (BWG), established in Bangkok and comprising the ambassadors of the BIMSTEC countries to Thailand and a director general of Thai Ministry of Foreign Affairs. The Thai Ministry of Foreign Affairs is providing logistical support for BWG until a permanent secretariat is established.

3. Several meetings and forums on trade and business have been held under BIMSTEC over the past few years. Participants in these meetings have underscored the need for better transport infrastructure and logistics and a stronger regulatory and institutional framework to increase interregional trade in the BIMSTEC region. In September 2005, the Thai Ministry of Foreign Affairs, on behalf of BWG, approached ADB about the possibility of obtaining technical assistance (TA) to undertake a study on the BIMSTEC Transport Infrastructure and Logistics Study (BTILS).¹ Following ADB’s favorable response, the eighth BIMSTEC Ministerial Meeting, held in December 2005 in Dhaka, endorsed the undertaking of BTILS.

4. ADB reconnaissance and fact-finding missions visited Bangkok from 30 January to 3 February 2006, and from 30 March to 4 April 2006 to discuss the TA with the BWG. The missions also met other stakeholders, including representatives of Thai government agencies, private transport and logistics providers, and multilateral development partners. The missions and the BWG generally agreed to the goals, impacts, outcomes, scope, implementation arrangements, costs, and terms of reference of the consultants of the proposed ADB TA for BTILS.

II. ISSUES

5. BIMSTEC countries have a total population of about 1.4 billion (21.7% of the world population) and had a total GDP of \$812.7 billion in 2004 (at 2000 constant price). BIMSTEC has great potential to increase interregional trade among its member countries because the BIMSTEC region is large and populous, and serves as a geographical bridge between South Asia and Southeast Asia. Cooperation among the BIMSTEC countries has intensified since the first BIMSTEC summit in Bangkok in July 2004. This increased cooperation reflects the growing

¹ The TA for BTILS was included in the 2006 nonlending program of the RCSP, South Asia, 2006–2008. The TA first appeared in *ADB Business Opportunities* on 10 March 2006.

importance of South Asia in the global economy,² as well as India's and Bangladesh's "Look East" and Thailand's "Look West" policies. Interregional trade among the BIMSTEC countries has grown nearly twice as fast as total trade with the global economy.³

6. Despite the rapid expansion of interregional trade, it still accounted for only 1.9% of the BIMSTEC countries' total global trade in 2004. To further increase interregional trade volume, the regulatory and institutional aspects of cross-border trade must be strengthened, while transport infrastructure and logistics must be improved.

7. The BIMSTEC countries agreed in 2004 to establish a free trade area (FTA) to stimulate trade and investment in the region. The BIMSTEC FTA is expected to come into force in 2006 following several meetings and rounds of negotiations in which other policy and procedural elements of cross-border trade were also discussed. Trade liberalization—including such measures as tariff reduction and harmonization of procedures—is a prerequisite to stimulating interregional trade. However, the rapid expansion of interregional trade experienced in the last decade is unlikely to continue unless transport infrastructure and logistics in the region are simultaneously improved.

8. While the principal mode for freight traffic within each BIMSTEC country is truck transport, the road network connecting the BIMSTEC region—particularly the network linking South Asia and Southeast Asia—is not well developed. Much of the primary road network is substandard and does not allow large trucks to operate at efficient speeds and at acceptable safety levels. There are no rail connections between Thailand and India or Bangladesh because of the lack of an east–west rail link. Furthermore, differences in technical standards (such as gauge incompatibilities) and in allowable axle loads constrain cargo movement over rail. There are many port developments ongoing or planned for the coast along the Bay of Bengal to accommodate the possible increase in interregional trade. However, it is unclear if any of these ports will have a competitive advantage over existing ports when the additional land distance and additional investments are considered. Air freight has experienced strong growth both within the region and outside the region. While the open skies policy adopted by most BIMSTEC countries has facilitated airfreight movement, air linkage is still relatively underdeveloped in the region and substantial infrastructure development is still needed.

9. The logistics industries in the BIMSTEC countries are small in scale. Multinational providers nominated by foreign buyers of the region's exports have provided more integrated and sophisticated logistics. Domestically, there has been little demand for or promotion of the value-added services associated with modern third-party supply chain management. The relatively small interregional trade volumes provide insufficient incentives for the local transport and logistics industries to develop rapid, low-cost regional freight connections. The problems of interconnectivity and interoperability in the transport network push up freight rates and lengthen shipment times, further limiting the scope for development of transport services. The time factor is critical to trading higher value and/or perishable products.

² The total GDP of the region in 2004 accounted for only 2.3% of global GDP, but the economic growth during 2000–2004 was much faster (at 5.8%) than that of the world average (2.6%).

³ From 1997 to 2004, trade among the BIMSTEC countries increased at 17%, while trade with the rest of the world increased only by 9%.

10. Several studies for improving connectivity and/or promoting trade have been carried out in both South Asia and Southeast Asia, some of them supported by ADB⁴ and others by development partners. However, most of them focused on either the transport sector (identification of the corridors) or the trade sector (such as customs harmonization and documents simplification), and did not encompass an interregional dimension. In addition, most of the studies on transport connectivity were not comprehensive enough to fully address the issues of logistics services.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

11. The TA will enhance interregional integration by increasing trade and travel among the BIMSTEC countries. The TA will complement trade facilitation efforts initiated by BIMSTEC and/or its member countries through the improvement of the region-wide regulatory environment and the BIMSTEC FTA negotiations. The TA's expected outcomes will be to enhance transport infrastructure, improve logistics, reduce transport time, and lower transport costs. Another expected outcome of the TA will be the BIMSTEC countries' acceptance of the policies, strategies, and arrangements to be proposed under the TA. The TA framework is given in Appendix 1.

B. Outputs

12. The TA will help identify and evaluate short-, medium-, and long-term policies and strategies—including specific roles to be played by ADB and other development partners—to relieve critical transport infrastructure and logistics bottlenecks. The TA will increase the cost-effectiveness of freight and passenger flows among BIMSTEC countries, and will result in an action plan to develop the logistics industries of the BIMSTEC countries.

C. Methodology and Key Activities

13. ADB will recruit a firm of international consultants working with national experts to conduct BTILS. The consultants will build on the findings and recommendations of earlier and ongoing studies on transport infrastructure and logistics and the operational experiences in the region, conduct necessary field surveys, and consult and interview key stakeholders in the BIMSTEC countries. Particular attention will be paid to studies of trade characteristics and forecasts, transport impediments and costs, and service quality in the BIMSTEC countries. Consultants will draw on the knowledge and experiences of ADB, the World Bank, the United Nations Conference on Trade and Development (UNCTAD), the World Customs Organization, the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and academic and research institutes.

⁴ These include, among others: (i) Draft Report on SAARC Regional Multimodal Transport Study (2006), a component of TA 6187-REG (ADB. 2004. Technical Assistance for Promoting South Asian Regional Economic Cooperation. Manila, \$500,000 approved on 27 September); (ii) Draft Report on Greater Mekong Subregion Transport Sector Strategy Study (2006), a component of TA 6195-REG (ADB. 2006. Technical Assistance for Greater Mekong Subregion Transport Sector Strategy Study. Manila [for \$950,000, approved on 20 October]); (iii) ADB. 2002. *Technical Assistance for Private Sector Cooperation in the South Asia Subregional Economic Cooperation (SASEC) Subregion (Phase I)*. Manila (TA 6090-REG, for \$150,000, approved 19 December); and ADB. 2003. *Technical Assistance for Private Sector Cooperation in the South Asia Subregional Economic Cooperation (SASEC) Subregion (Phase II)*. Manila (TA 6132-REG, for \$150,000, approved 5 November); and (iv) ADB. 2004. *Technical Assistance for Facilitating Cross-Border Trade and Investment in the Greater Mekong Subregion (Financed by the Japan Special Fund)*. Manila (TA 6228-REG, for \$600,000, approved on 23 December).

14. The main activities under the TA will include, but will not be limited to:
- (i) comprehensive review of the regional cooperation experiences in transport, logistics, and trade facilitation of the BIMSTEC countries and key development partners;
 - (ii) review of current trade and passenger volumes, origins and destinations, modal shares of trade and passengers, transport services (including multimodal and interline services), infrastructure quality, border crossings, and performance of major gateways;
 - (iii) estimation of future subregional and interregional trade flows and analysis of passenger flow (forecasts made by various international organizations) of the BIMSTEC countries in the absence of physical and nonphysical barriers;
 - (iv) identification and evaluation of existing and possible future transport and logistics barriers to potential trade and passenger flows, particularly the impact of those barriers on transaction costs;
 - (v) identification and evaluation of possible policies and strategies to overcome the barriers, with particular reference to multimodal solutions and private sector participation;
 - (vi) presentation of barriers, corrective policies, and strategies—and the cost-effectiveness of these policies and strategies—to BWG and ADB at the meetings (such as the steering committee meetings) and workshops (such as inception and final tripartite workshops), and discussion of logistics development plan with public and private sector representatives at seminars conducted at selected locations; and
 - (vii) preparation of strategy and policy framework and schedule for implementing the corrective measures, where possible outlining implementation responsibilities, costs, and funding resources.

D. Cost and Financing

15. The total cost of the TA is estimated at \$960,000, to be financed on a grant basis by ADB's TA funding program. Details of the costs and financing plan are in Appendix 2.

E. Implementation Arrangements

16. ADB will serve as the Executing Agency and the TA will be implemented over a period of 13 months starting August 2006. A team of ADB staff from South Asia Transport and Communications Division, South Asia Country Coordination and Regional Cooperation Division, and resident missions in the BIMSTEC countries will be responsible for the overall administration of the TA and supervision of the consultants. BWG will be the focal agency and will nominate a coordinator for BTILS in each of the member countries to guide the consultants on technical and country-specific issues.

17. The TA will require 35 person-months of services from an international consulting firm (18 person-months of international consultants and 17 person-months of national advisors and consultants) to be engaged by ADB using the quality- and cost-based selection method and simplified technical proposals, in accordance with *ADB's Guidelines on the Use of Consultants*. The international consultants will include: (i) a transport planning & logistics specialist/team leader (6 person-months); (ii) a trade analyst (4 person-months); (iii) a ports and shipping specialist (2 person-months); (iv) an airport and aviation specialist (2 person-months), (v) a road and rail infrastructure specialist (2 person-months); and (v) a transport & trade facilitation specialist (2 person-months). Seven national advisors and/or consultants will be engaged for a total of 17 person-months to assist the team in obtaining and analyzing data, conducting surveys, and

recommending measures for improvement. Outline terms of reference for the consultants are given in Appendix 3. In addition, the staff of research institutions in the region or private sector and associations such as forwarders, shippers and/or exporters in the region may be subcontracted by the consultant team leader, in accordance with procedures satisfactory to ADB. They will support the team of consultants in providing and assessing data necessary for the consultants' analyses.

18. The consultants will provide the final report in July 2007. A study steering committee will be formed and chaired by the BWG chairperson, or by his or her nominee, and will comprise the country coordinators and ADB team. Study steering committee members and BWG members or their representatives will participate in the workshops, evaluate the technical outputs of the consultants, and provide guidance as needed.

19. To facilitate timely implementation and successful completion of the TA, BWG will provide the following: (i) documentation necessary for international consultants to obtain visas, customs clearances, etc., to enable them to perform the tasks as specified in the terms of reference; and (ii) available copies of technical reports and drawings, as well as access to general information such as maps and databases that will add value to the TA.

20. The BWG will organize two stakeholder workshops and two seminars with the necessary support from ADB. The first workshop will be held in Bangkok at the inception stage (within 6 weeks of consultant mobilization) to present the consultants' initial findings and work plan, and obtain suggestions and proposals from the governments and private sector. The second workshop will be held in Delhi during month 6 of the study to discuss the draft policy and strategy framework with the governments and private stakeholders, and make the necessary refinements. The consultants will conduct the seminars and present and discuss the action plan for developing the logistics industries in the member countries. Seminar locations will be decided in consultation with BWG and ADB.⁵

21. Besides the consultants who will carry out BTILS, ADB will engage a senior advisor and a senior program analyst for efficient and effective TA implementation. They will be based in ADB's headquarters and each will provide 13 person-months of technical and logistical support for undertaking BTILS and other activities related to strengthening coordination and cooperation between BIMSTEC and ADB. These national consultants will be selected as individual consultants in accordance with ADB's *Guidelines on the Use of Consultants*.

IV. THE PRESIDENT'S DECISION

22. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$960,000 on a grant basis for the BIMSTEC Transport Infrastructure and Logistics Study, and hereby reports this action to the Board.

⁵ Assistance to each participating DMC will not begin until ADB receives a no objection from the government of the participating DMC.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>1. Enhanced interregional integration through increased trade and travel among BIMSTEC countries</p>	<p>Expansion of interregional trade among the BIMSTEC region in terms of both volume and type of goods traded</p> <p>Expanded cooperation in the transport sector as well as in other areas</p>	<p>Baseline data collected during TA and provided by BWG</p>	<p>Assumption Continued strong commitment of the BIMSTEC countries to cooperative activities under the BIMSTEC framework</p> <p>Risk Region-wide political instability could adversely affect mutual trust.</p>
<p>Outcome</p> <p>1. Enhanced transport infrastructure</p> <p>2. Improved transport logistics in the BIMSTEC region</p>	<p>Improved road, rail, ocean, and aviation connections among the BIMSTEC countries</p> <p>Percent reduction in average transportation cost as a share of total transaction cost</p>	<p>TA paper and baseline data; periodic post-implementation data collected through BWG and the ADB resident missions of the respective countries</p>	<p>Assumptions BIMSTEC countries continue to prioritize elimination of transport and logistics impediments.</p> <p>Financing and technical assistance readily available to implement framework</p> <p>Risks Political problems delay implementation of framework.</p> <p>Insufficient funding for major infrastructure development projects</p>
<p>Outputs</p> <p>1. Review of present trade patterns and identification of the main transport and logistics constraints and their impact on transaction costs and trade</p> <p>2. Framework of policies and strategies to overcome the constraints</p>	<p>Discussions held under BIMSTEC framework on possible strategies and policies to remove bottlenecks identified under TA</p> <p>Short-term strategies and policies adopted jointly and/or independently by the BIMSTEC countries for implementation</p>	<p>BWG meetings, Ministerial Meetings, and Senior Officials' Meetings; review missions and project steering committee evaluations</p>	<p>Assumptions Consultants gain unimpeded access to data and to border crossings and inter-modal terminals.</p> <p>BIMSTEC member countries provide timely comments and guidance to consultants.</p>

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
3. Outline of possible financing modalities and sources (including ADB)	Request for financial support from the BIMSTEC member countries to development partners to implement strategies and policies		<p>Risks</p> <p>Emerging differences in the BIMSTEC countries' perspectives and priorities in the future</p> <p>Consultants fail to perform satisfactorily and fail to deliver quality outputs</p>
<p>Activities with Milestones</p> <ol style="list-style-type: none"> 1. Detailed review of present trade patterns, trade volumes, and quality of transport and logistics, and preparation of work plan within 4 weeks. 2. Inception workshop to discuss and approve consultants' work plan within 6 weeks of mobilization. 3. Presentation of a preliminary summary of trade potential and transportation improvement initiatives by 25 January 2007 to be discussed at BIMSTEC summit in February 2007. 4. Detailed evaluation of major transport and logistics constraints on present and estimated future trade, and proposals for remedial measures, strategies, and policies within 20 weeks. 5. Final workshop within 28 weeks to discuss constraints, countermeasures, and strategic framework by all stakeholders. 6. Logistics industry seminars after 7 months of TA commencement. 7. Consultants' final reports. 			<p>Inputs</p> <ul style="list-style-type: none"> • ADB: \$960,000 A. Consultants (\$630,000) B. Surveys (\$35,000) C. Workshops and Trainings (\$100,000) D. Technical and Logistical Support (\$105,000) E. Contingency (\$90,000)

ADB = Asian Development Bank, BIMSTEC = Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation, BWG = BIMSTEC Working Group, TA = technical assistance.

Cleared by: _____

Richard W. A. Vokes
Director, SAOC

Kunio Senga
Director General, SARD

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
Asian Development Bank (ADB) Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	400.0
ii. National Consultants	130.0
b. International, Regional, and Local Travel	80.0
c. Reports and Communications	20.0
2. Surveys	35.0
3. Workshops and Trainings	
a. Stakeholder Workshops	70.0
b. Seminars	30.0
4. Technical and Logistical Support	
a. Remuneration and Per Diem	90.0
b. International Travel and others	15.0
5. Contingency	90.0
Total	960.0

^a Financed by ADB's technical assistance funding program.
Source: ADB estimates.

OUTLINE TERMS OF REFERENCE

1. Under the TA, both international and national consultants will be recruited (i) to conduct the BIMSTEC Transport Infrastructure and Logistics Study (BTILS); and (ii) to provide both the BIMSTEC Working Group (BWG) and the Asian Development Bank (ADB) with technical and administrative support. While ADB will engage a consulting firm for the former (i), the latter (ii) will be engaged as individual consultants.

A. Conduct of BTILS

1. Scope of Services

2. To conduct BTILS, 35 person-months of services of consultants (18 person-months of international consultants and 17 person-months of national advisors and/or consultants) will be required. ADB will engage a consulting firm using the quality and cost-based selection method, in accordance with ADB's Guidelines on the Use of Consultants and other arrangements acceptable to ADB for selecting and engaging national consultants. The international consultants will include: (i) a transport planning and logistics specialist (6 person-months); (ii) a trade analyst (4 person-months); (iii) a ports and shipping specialist (2 person-months); (iv) an airport and aviation specialist (2 person-months); (v) a road and rail infrastructure specialist (2 person-months); and (vi) a transport and trade facilitation specialist (2 person-months). Seven national advisors and/or consultants will be engaged for a total of 17 person-months.

3. The consultants will build on operational experiences and the recommendations of earlier studies on transport infrastructure in the region, conduct field surveys, and interview key stakeholders in every member country. Particular attention will be paid to studies of trade characteristics and forecasts, transport impediments and costs, and service quality in the BIMSTEC countries, drawing on the knowledge and experiences of ADB, World Bank, the United Nations Conference on Trade and Development (UNCTAD), the World Customs Organization, UNESCAP, and academia and research institutes. The TA will cover the following main areas:

- (i) current and future levels of trade among the BIMSTEC countries;
- (ii) present and planned transport infrastructure and logistics on which the BIMSTEC countries depend for regional trade;
- (iii) strengths, weaknesses, opportunities, and threats (SWOT) analysis of the region's transport infrastructure and services; and
- (iv) policies and strategies for correcting the weaknesses and eliminating threats.

2. Terms of Reference

4. The main activities under the TA will include, but will not be limited to:

- (i) a comprehensive review of the latest regional cooperation among the BIMSTEC countries and key development partners in transport, logistics, and trade facilitation;
- (ii) extensive consultations with private sector and public sector stakeholders in each country, field surveys, and interviews with the public and other national and international experts;
- (iii) analysis of current trade and passenger volumes, transport services (including the multimodal and interline services), infrastructure quality, border crossings, performance of major gateways and transport services;

- (iv) estimation of future subregional and interregional trade flows and analysis of passenger flow (forecasts made by various international organizations) in the BIMSTEC countries in the absence of physical and nonphysical barriers;
- (v) identification and evaluation of existing and possible future transport and logistics barriers to potential trade and passenger flows, in particular the impact of those barriers on transaction costs;
- (vi) identification and valuation of possible measures to overcome those barriers, with particular attention paid to multimodal solutions and private sector participation;
- (vii) discussion of barriers and corrective measures—and their cost-effectiveness—with stakeholders at interactive workshops;
- (viii) presentation of industry best practices and an action plan for the development of domestic logistics industries at two seminars;
- (ix) preparation of schedule for implanting the corrective measures, outlining implementation responsibilities and costs where possible; and
- (x) preparation of reports.

a. International Consultants

**i. Road Transport and Logistics Specialist/Team Leader
(6 person-months)**

5. The road transport and logistics specialist should have experience in international road transport operations—preferably in South Asian Association for Regional Cooperation and/or Greater Mekong Subregion countries—as well as in multidisciplinary team leadership and technical report writing. He or she will provide at least 5 person-months of input from the field, visit key facilities and sites, interview major stakeholders (e.g., private and public service providers) in the member countries, and carry out the following tasks:

- (i) Together with other team members, conduct a preliminary review of data and other information—in particular information related to the work done by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)—and prepare a work plan, schedule and an appropriate framework (including benchmarks to evaluate performance transport infrastructure and services) to carry out the study.
- (ii) Organize a TA inception workshop to discuss the preliminary findings and evaluation framework with ADB, BWG, and key stakeholders.
- (iii) Perform a comprehensive review of reports and papers, conducting personal interviews where possible.
- (iv) Use existing models (e.g. UNESCAP's time–distance model) to determine the level of performance of transport services (particularly transaction costs, which depend on speed and reliability), impacts of past interventions, details of ongoing and planned interventions and their expected impacts in the BIMSTEC countries.
- (v) Review the current status of the road transport and logistics industry in Asia (particularly in the BIMSTEC region), looking at other studies to identify critical aspects of transport infrastructure and services, including cross-border truck movements, international security agreements such as the Container Security Initiative, warehousing, inland container depots, dry ports, multimodal terminals, labor laws, finance, etc., that affect performance of road transport, and trade.
- (vi) Perform a detailed evaluation of the cost structure of the road passenger and freight transport industries, looking into the capacity and effectiveness of industry representatives such as freight forwarders' associations and road haulage associations; place the main factors affecting cost—particularly factors that directly and indirectly impact trade among the BIMSTEC countries—into categories such as

- "financial," "legislative," and "international agreements"; where possible, quantify the impacts.
- (vi) Together with other team member, identify measures in the form of policies and strategies to improve performance (lower the costs of delays, unreliability, damages, etc.) of the different modes of transportation and logistics, and organize a second workshop to present and discuss them with stakeholders.
 - (vii) Prepare an action plan for enhancing the logistics industry and conduct two seminars in a BIMSTEC country to be determined to outline industry best practices and steps to develop the industry for private and public sector stakeholders.
 - (viii) Present the action plan to industry and government participants at the two seminars to be organized in consultation with ADB and BIMSTEC.
 - (ix) Based on recommendations provided by the team and in close consultation with ADB, develop a framework for implementing the performance improvement policies and strategies (including education, regional networking, and knowledge sharing mechanisms), which clearly outlines the stages, responsibilities, financing modalities, etc.
 - (x) Identify appropriate domestic research institutes, private sector associations or persons and recruit them to assist the team of consultants, when necessary.
 - (xi) Serve as focal person for the study, manage the team of international and national experts, and ensure that data, conclusions, and recommendations are accurate and valid.
 - (xii) Ensure timely submission of reports and input to ADB, BWG, and other stakeholders.

ii. Trade Analyst (4 person-months)

6. The trade analyst must be fully versed in trade in South and Southeast Asia and multilateral trade agreements, and must have a sound understanding of trade databases and models developed by institutions such as UNCTAD, World Trade Organization (WTO), and UNESCAP. He or she will provide at least 3 person-months of input from the field, visit member countries, and carry out the following tasks in consultation with other team members:

- (i) Assess recent trade patterns and volumes, categorized by major commodity type, origin and destination (actual in country), and mode of transport.
- (ii) Review trade forecasts and the underlying modeling techniques used in recent studies in the region and in the BIMSTEC countries, and determine whether those techniques and forecasts are relevant for BTILS.
- (iii) Use the above data and/or models, or better techniques, to predict short- and medium-term trade volumes of major commodities among the BIMSTEC countries under different scenarios and assumptions.
- (iv) Evaluate the implications of unmet transport demand on trade among the BIMSTEC countries under different scenarios of infrastructure investment and logistics development.
- (v) Together with other team members, evaluate and prioritize strategies to improve transport infrastructure and services, taking into account the likelihood and expected benefits of such strategies.
- (vi) Provide input as necessary, both verbally and in writing, to the various team members.

iii. Ports and Shipping Specialist (2 person-months)

7. The ports and shipping specialist should have extensive knowledge of regional shipping services and port infrastructure. He or she will provide at least 1.5 person-months of input from the field and undertake the following tasks:

- (i) Review earlier studies of ports, waterways, and international and regional shipping services, including cruise liners (passenger liners).
- (ii) Analyze present volumes of ocean freight and passengers, fares, freight rates, routings, capacity, frequency, average shipping rates and times, etc. Among the BIMSTEC countries, define performance indicators and evaluate service performance in relation to selected benchmarks.
- (iii) Analyze freight trade and passenger volumes, shipping service (maritime, coastal, and waterways), infrastructure (port capacity and efficiency), and hinterland transport (distribution and collection) in the short to medium term.
- (iv) Evaluate the impact of the above trends on performance and costs, and consequently on trade and passenger traffic, paying particular attention to: the development of new ports, expansion of existing ports, mergers of feeder shipping operators, and private sector involvement in ports, technology, etc.
- (v) Identify policies and strategies that will improve port and shipping sector performance and contribute positively to trade among the BIMSTEC countries.
- (vi) Provide write-ups and input as needed for the reports prepared by the team leader.

iv. Airport and Aviation Specialist (2 person-months)

8. The airport and aviation specialist should have an extensive knowledge of types and performance of regional air services and airport infrastructure. He or she will provide at least 1.5 person-months of input from the field and undertake the following tasks:

- (i) Review earlier studies of airports in the BIMSTEC region and international and regional air services, including charter operations (both freight and passenger).
- (ii) Analyze present volumes of freight and passenger traffic, fares, freight rates, routings, capacity, frequency, average times, etc. Among the BIMSTEC countries, define performance indicators and evaluate service performance in relation to selected benchmarks.
- (iii) Analyze trends in freight and passenger volumes, services, infrastructure (airport capacity and efficiency), and hinterland transport in the short- to medium-term.
- (iv) Evaluate the impact on performance and costs—and consequently on trade and passenger traffic—of the above trends, particularly the development of airports, low-cost operators, private sector involvement in airports, and technology.
- (v) Identify policies and strategies for improving airport and aviation sector performance that will contribute positively to trade among the BIMSTEC countries.
- (vi) Provide write-ups and input as needed for the reports prepared by the team leader.

v. Road and Rail Infrastructure Specialist (2 person-months)

9. The road and rail infrastructure specialist should have a sound understanding of road and rail infrastructure in Asia, including the proposed Asian highway and rail networks. He or she will provide at least 1.5 person-months of input from the field and undertake the following tasks:

- (i) Define the road and rail infrastructure in the main trade corridors in the BIMSTEC region, including the Asian Highway and Railway networks, and provide an overview of the infrastructure's capacity, condition, and connectivity. This work should be done with reference to studies conducted by ADB and others since 2000.
- (ii) Define the critical bottlenecks, such as missing links, border facilities, gauge differences, and lack of rolling stock.
- (iii) Review the proposed plans and ongoing work to alleviate bottlenecks.
- (iv) Prepare brief descriptions of projects and possible investments that will significantly reduce transport costs and increase trade and personal travel opportunities.
- (v) Provide write-ups and input as needed for the reports prepared by the team leader.

vi. Transport and Trade Facilitation Specialist (2 person-months)

10. The transport and trade facilitation specialist should have a sound understanding of WTO and World Customs Organization regulations, particularly the revised Kyoto Convention Agreements on Technical Barriers to Trade and Sanitary and Phytosanitary measures as well as international transport conventions and agreements, and their relevance to the BIMSTEC countries. He or she will provide at least 1.5 person-months of input from the field and undertake the following tasks:

- (i) Flow chart the typical (international best-practice) procedures and information flows involved in clearing and forwarding cargo by air, land, and sea, and the use of IT systems and EDI to expedite these procedures in main seaports, airports, and land crossings.
- (ii) Identify significant deviations in the BIMSTEC countries from the standards followed by transport providers (airlines, shipping lines, truckers, etc.) and their implications in terms of on cost, time, trade competitiveness, etc.
- (iii) Review work related to transport and trade facilitation undertaken by other international agencies, such as UNESCAP, the United Nations Economic Commissions for Europe, and the Transport Corridor Europe Caucasus Asia (TRACECA).
- (iv) Identify critical Sanitary and Phytosanitary measures and technical standards applicable to the BIMSTEC countries, and assess their implication on transport of goods among the countries.
- (v) Identify critical transport and transit agreements, including labor laws that govern movement of goods among the BIMSTEC countries and agreements not yet in place.
- (vi) Evaluate the direct impacts of those standard agreements and protocols, including missing agreements and protocols in the BIMSTEC region on transport costs and their implications on trade.
- (vii) Develop strategies that could lower transport costs and improve efficiency of trade flows, such as changing surface vehicle inspection and testing procedures, weights and dimensions, and driving licensing; propose a framework for implementing those strategies as well as training materials.
- (viii) Provide write-ups and input as needed for the reports prepared by the team leader.

b. National Advisors/Consultants (17 person-months)

11. The national advisors and/or national consultants will assist the team in obtaining and analyzing published data and reports, conducting surveys, and identifying and recommending policies and strategies to improve transport infrastructure and logistics services. The field of

expertise of the consultants will be determined according to need. Seven national advisors and/or consultants will be engaged for a total of 17 person-months.

3. Implementation Arrangements

12. ADB will serve as the Executing Agency. A team of ADB staff from the South Asia Transport & Communications Division, the South Asia Operations Coordination Division, and resident missions in the BIMSTEC member countries will be responsible for the overall administration of the TA and supervision of the consultations. BWG will be the focal agency and will nominate a coordinator in each of the member countries to guide the consultants on technical and country-specific issues. ADB will engage a senior advisor and a senior project analyst at ADB headquarters in Manila who will each provide 13 person-months of technical and logistical support to the consultants, BWG, and the ADB team (terms of reference for the senior advisor and the senior project analyst are detailed below).

13. BTILS will be conducted over a period of 8 months commencing October 2006. ADB will form a study steering committee, chaired by the BWG chairman or his or her nominee, and comprise the country coordinators and ADB team members. Study steering committee members or their representatives will participate in the inception and final tripartite workshops, evaluate the technical outputs of the consultants, and provide guidance as needed.

14. To facilitate timely implementation and successful completion of the TA, BWG will provide the following: (i) documentation necessary for international consultants to obtain visas, customs clearances, etc., to enable them to perform the tasks specified in the terms of reference; and (ii) access to available copies of technical reports, drawings, maps, databases, and other general information that will add value to the TA.

15. The BWG will organize the two stakeholder workshops with the necessary support from ADB. The first workshop will be held in Bangkok at the inception stage (within 6 weeks of consultant mobilization) to discuss the consultants' initial findings and work plan. The other will be held in Delhi during month 6 of the implementation to discuss the draft final report of the consultants, which will include the draft policy and strategy framework.

4. Reporting Requirements

16. The consultants will submit the following reports in English within the indicated timeframe (starting from the date of mobilization): (i) an inception report within 6 weeks; (ii) interim reports within 15 weeks, (iii) draft final report within 30 weeks, and (iv) final report within 36 weeks. ADB and BWG will review and comment on the draft final report within 4 weeks of receipt. The BWG requires 14 hard copies as well as electronic copies (on compact discs) of each report. ADB requires two CDs and two hard copies of each report, and eight hard copies and eight soft copies of the draft final report.

17. All reports should be concise and professionally edited. The following sections are mandatory: (i) table of contents; (ii) executive summary; (iii) conclusions and recommendation; and (iv) references and/or bibliography in an internationally accepted format. Sources of quotes, data, etc. included in the reports should be duly cited under the references or as footnotes to the main text.

B. Technical and Logistical Support

1. Scope of Services

18. Two individual consultants—a senior advisor and a senior program analyst—will be required to help the BWG and ADB team implement the TA efficiently and effectively.

2. Terms of Reference

a. Senior Advisor (national, 13 person-months)

19. A senior advisor will be stationed at ADB headquarters and will: (i) work as an ADB team member and support BWG and the ADB team to effectively implement the TA by providing technical advice, liaising with stakeholders, and ensuring the smooth flow of documents and communications among all stakeholders involved in TA implementation; (ii) help arrange workshops, seminars, and meetings under the TA, in close consultation with BWG; (iii) prepare TA-related documents and papers as required; (iv) manage the information database related to TA implementation; and (v) participate in ADB missions, workshops, seminars, and other meetings as required.

b. Senior Program Analyst (national, 13 person-months)

20. The senior program analyst will be recruited at ADB headquarters for 13 months to (i) prepare a checklist of logistics requirements and assignments and provide support for BTILS; arrange workshops and seminars under the TA; (ii) assist BWG and the ADB team in TA administration, including budget preparation and liquidation of all individual activities under the TA; (iii) prepare and maintain a comprehensive and orderly filing system for the TA, updating files regularly; (iv) help ensure the smooth flow of documents and communications related to TA implementation; (v) assist the TA implementation advisor in managing the database on TA implementation; (vi) help draft routine communications; and (vii) participate in ADB missions, workshops, seminars, and other meetings as required.