



Regional Technical Assistance Report

Project Number: 39454
December 2007

Preparing the South Asia Subregional Economic Cooperation Transport Logistics and Trade Facilitation Project (Financed by the Japan Special Fund)

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
EIA	–	environmental impact assessment
IA	–	implementing agency
IEE	–	initial environmental examination
MOSRTH	–	Ministry of Shipping, Road Transport and Highways
PIU	–	project implementation unit
SAARC	–	South Asian Association for Regional Cooperation
SASEC	–	South Asia Subregional Economic Cooperation
TA	–	technical assistance

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Transport and communications
Subsectors	–	Roads and highways; railways
Themes	–	Sustainable economic growth; regional cooperation

NOTE

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

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I. INTRODUCTION

1. The Asian Development Bank (ADB) has been supporting regional cooperation among Bangladesh, Bhutan, India, and Nepal through the South Asia Subregional Economic Cooperation (SASEC) program since 2001.¹ In 2001 a transport working group was formed as one of the six priority sector working groups. In 2003, ADB provided a regional technical assistance (TA) project² to identify corridor-specific institutional and physical impediments to subregional transportation that hamper the efficient operation of subregional transport corridors. The TA identified six key transport corridors in the subregion, together with physical, operational, and institutional impediments thereof. In 2004, ADB provided a regional TA³ for South Asian Association for Regional Cooperation (SAARC) to support the SAARC Regional Multimodal Transport Study. The TA identified 10 road corridors, 5 rail corridors, and 2 inland waterway corridors over the SAARC region, together with the major physical and nonphysical barriers that inhibit the efficient movement of intraregional freight, and developed an action plan to remove these constraints so as to enhance intraregional connectivity and trade.

2. At the fifth SASEC transport working group meeting in 2006, SASEC member countries agreed to develop a regional transport and trade facilitation project to improve intraregional transport connectivity, and endorsed the specific scope of the project. The SASEC country advisors, convened in their fourth meeting on 4–5 June 2007, approved the project concept with its instruction for a minor modification of the scope. Subsequently, in July 2007 the ADB Fact-Finding Mission visited India and Bangladesh and reached an understanding on the objectives, scope, cost estimates, financing plan, and implementation arrangements for the TA. This TA was prepared on the basis of the outcomes reached at the fifth SASEC transport working group meeting, the SASEC country advisors' meeting, ADB's subsequent Fact-Finding Mission and its review of relevant data, studies, and reports.⁴ ADB management approved the TA concept paper on 11 August 2007. The design and monitoring framework is in Appendix 1.

II. ISSUES

3. South Asia inherited an integrated transport infrastructure from the British, but this infrastructure was fractured not only by the partition of India but also by its political aftermath, and now needs to be rebuilt within the context of greater political harmony in South Asia. Across the mainland of South Asia, the original transport infrastructure is already in place but in many areas has fallen into disuse and needs upgrading. Apart from the inconvenience to travelers, these barriers have raised the cost of travel and trade.

4. Integrating the transport network of South Asia is crucial to Nepal, Bhutan, and regions such as northeast India as it will end their landlocked or semi-isolated status. Within such a framework, Nepal, Bhutan, and the northeastern region of India would have the benefit of improved access to the ports and important economic centers of the region, and a choice of route and mode. The northeastern region of India is connected to the rest of India by a narrow congested land corridor between Bangladesh and Nepal. This landlocked region, a natural

¹ The program has been supported through ADB. 2000. *Technical Assistance for Identification and Prioritization of Subregional Projects in South Asia*. Manila (TA 5936-REG); ADB. 2003. *Technical Assistance for the South Asia Subregional Economic Cooperation II*. Manila (TA 6010-REG); and ADB. 2005. *Technical Assistance for the South Asia Subregional Economic Cooperation III*. Manila (TA 6297-REG).

² ADB. 2003. *Technical Assistance for the Subregional Corridor Operational Efficiency Study in the South Asia Subregion*. Manila.

³ ADB. 2004. *Technical Assistance for Promoting South Asian Regional Economic Cooperation*. Manila.

⁴ The TA first appeared in *ADB Business Opportunities* on 23 November 2007.

hinterland to Chittagong (Bangladesh) port, trades with the rest of India and the world through this congested strip of land. The costs of transporting goods to and from the northeastern region are consequently high. Tea from Assam is shipped to Europe via Kolkata port. The transportation costs include a trucking distance of more than 1,400 kilometers (km) through the land corridor around Bangladesh to Kolkata port. The traditional tea route for Assamese tea via Chittagong port would cut the distance by almost 60%. Third-country trade for both Nepal and Bhutan is also routed through this corridor to Kolkata port, with associated delays and costs.

5. Given the large potential for reduction in transportation costs, allowing the landlocked region of northeastern India, Bhutan, and Nepal access to Chittagong port through Bangladesh's eastern border or to Mongla port through its northwestern border has been a key issue among concerned authorities, although no tangible result has been reached yet. This concern and interest was explicitly expressed recently by SAARC. The first meeting of the SAARC Inter-Governmental Group on Transport, held in December 2006, endorsed to the next SAARC summit in April 2007 the construction of the identified missing link between Agartala and Akhaura, which would enable the landlocked region to access Chittagong port through the eastern border of Bangladesh. The fourth SAARC summit, held in April 2007, approved the SAARC Regional Multimodal Transport Study that included the Agartala–Akhaura rail link as a key transport corridor. Currently, Indian Railways is constructing a new broad-gauge line connecting Kumarghat in Tripura (northeastern India) to Agartala. The connection of Agartala and Akhaura by rail and the transportation of imports and exports between the landlocked region and Chittagong port will accelerate economic integration of the SASEC subregion and promote mutual prosperity. The SASEC Subregional Corridor Operational Efficiency Study indicated that seamless transit transport through the Kakarvitta–Panitanki–Fulbari–Banglabandha corridor will allow Nepali traders to have easier access to Mongla port or Chittagong port in Bangladesh, which in turn will promote competition among transshipment ports such as Kolkata/Haldia, and help lower logistics costs for Nepali traders.

6. In addition to the provision of physical infrastructure, it is critical to lower the nonphysical barriers in order to promote cross-border movement of goods, services, and people among SASEC countries. The current cross-border procedures in the SASEC subregion are both cumbersome and time consuming. Customs clearance procedures can add significant costs and delays, even though they represent a relatively small part of the logistics chain. Poorly defined or complex procedures and documents reduce transparency, especially when the approval of many people is required. In the key border crossing point at Benapole (Bangladesh) and Petrapole (India), through which more than 80% of trade between two countries gets routed, severe congestion results in long queues of trucks on both sides of the border and waiting times of 1–5 days. It is known that more than 85% of the time spent waiting at the border is spent on queuing, customs clearance, and transferring cargo to Bangladeshi vehicles.⁵ To mitigate the congestion and improve the efficiency of border operation, the Government of India is in the process of developing an agreement for cross-border truck movement in consultation with the Government of Bangladesh, which, once endorsed and in effect, will drastically improve cross-border operations at Petrapole–Benapole.

⁵ One of the biggest obstacles to the unhindered movement of goods between the two countries is that no truck of one country is allowed to enter the other country, which in consequence requires transshipment of cargo from a truck of one country to a truck of the other country at the border point. This practice poses an insurmountable impediment to achieving an efficient cross-border management system. Free movement of trucks between India and Bangladesh will be a requisite to enable all other efficiency improvement measures for cross-border management to become workable.

III. TECHNICAL ASSISTANCE

A. Impact and Outcome

7. The regional TA will help promote subregional economic cooperation and integration between four SASEC countries. To this end, the TA will help SASEC countries prepare an investment project that will facilitate the unhindered movement of goods, services, and people across SASEC countries through improved cross-border transport infrastructure and the introduction of modern cross-border management regimes.

8. The TA consists of three components: (i) a road corridor component, (ii) a rail link component, and (iii) a modernized cross-border regime component. The outputs of the road corridor component include (i) the feasibility study and preliminary design of the Kakarvitta–Panitanki–Fulbari–Banglabandha road, and (ii) an economic viability assessment of the Chittagong–Akhaura–Agartala road corridor as an extension of the Kakarvitta–Banglabandha–Dhaka–Chittagong corridor to supplement the Agartala–Akhaura–Chittagong rail link. The outputs of the rail link component will include (i) the feasibility study and preliminary and detailed design for the Agartala–Akhaura rail section, (ii) operational agreements for rail service between Chittagong and Agartala to be agreed by the two railways operators, and (iii) customs arrangement for bonded transit between Chittagong and Agartala. The modernized cross-border regime component will consist of three subcomponents: (i) trucking operations for the Petrapole–Benapole border crossing, (ii) customs arrangements for transit cargo using the Birganj–Raxaul, Phuentsholling, Kakarvitta–Panitanki, Fulbari–Banglabandha, and Petrapole–Benapole border crossings, and (iii) trade-related infrastructure for four SASEC countries. The outputs of the second component will include (i) the operational framework including the necessary bilateral or trilateral agreements for trucking operations and customs arrangements for transit cargoes, (ii) defining investment requirements together with preliminary cost estimates, and (iii) identification of capacity-building needs and development of the necessary training programs.

B. Methodology and Key Activities

9. **Road Corridor Component.** The component will (i) conduct the feasibility study and prepare a preliminary design for the Kakarvitta–Panitanki–Fulbari–Banglabandha road; (ii) prepare a social development and environmental impact assessment, resettlement plan and, if needed, indigenous peoples development plan; (iii) conduct economic analysis; and (iv) conduct an assessment for economic benefits and viability of the Chittagong–Akhaura–Agartala road corridor as an extension of the Kakarvitta–Banglabandha–Dhaka–Chittagong corridor to supplement the Agartala–Akhaura–Chittagong rail link .

10. **Rail Link Component.** The component will be implemented in two stages. During the first stage, the component will (i) review current practices of cross-border rail operations at the Gedes–Darshana and Singhabad–Rohapur border crossings currently operational on Bangladesh’s western border with India in line with the existing agreement; (ii) review the Indian Railways feasibility assessment for the Agartala–Sebrum–Chittagong link and assess its socioeconomic costs and benefits in comparison with those of the Agartala–Akhaura–Chittagong link; (iii) develop an operational framework of rail services including the location of transshipment of cargoes from meter gauge to broad gauge and the location of locomotive exchange; and (iv) develop customs clearance arrangements at both Chittagong and Agartala. During the second stage, the component will (i) conduct the feasibility study and prepare preliminary and detailed design for the Agartala–Akhaura section; (ii) prepare a social

development and environmental impact assessment, a resettlement plan and, if needed, an indigenous peoples development plan; (iii) undertake economic and financial analyses; and (iv) identify additional investments for ancillary facilities and/or equipment.

11. **Cross-Border Regime Component.** The component will be implemented in two stages. During the first stage, the component will (i) review the existing arrangements in place for cross-border trucking operations and customs procedures for transit cargo including the current truck operation at the Birganj–Raxaul border crossing and the existing transit agreements between Nepal and India and between Bhutan and India; (ii) review the planned approaches for cross-border trucking operations and customs procedures for transit cargo including the draft comprehensive vehicle movement agreement currently under preparation by the Government of India and the SAARC recommendation adopted recently for customs procedures for transit cargo; (iii) develop operational frameworks for cross-border truck operations and customs procedures for transit cargo to be adopted by relevant countries, including the draft bilateral agreements; and (iv) identify specific areas for institutional and financial assistance. During the second stage, the component will (i) develop draft bilateral or trilateral agreements for cross-border truck operations and customs procedures for transit cargo, (ii) identify investment requirements and develop cost estimates together with a cost-benefit assessment, and (iii) identify capacity-building requirements and develop training programs.

12. The initial poverty and social analysis is in Appendix 2.

C. Cost and Financing

13. The total cost of the TA is estimated at \$1,000,000 equivalent and will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. Detailed cost estimates and the financing plan are in Appendix 3. The Governments of Bangladesh, Bhutan, India, and Nepal have been informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

14. **Road Corridor Component.** The Ministry of Shipping, Road Transport and Highways of India (MOSRTH), the Roads and Highways Department of Bangladesh, and the Ministry of Physical Planning and Works of Nepal will be the implementing agencies (IAs). Each IA will appoint a project director (responsible joint secretary) who will act as a focal point for TA implementation. The project directors from two IAs will appoint a project manager who will coordinate and interact with the consultants. The project directors, project managers, and the consultant team will constitute a project implementation unit (PIU) which will jointly conduct necessary studies and design and draft reports.

15. **Rail Link Component.** Indian Railways and Bangladesh Railways will be the IAs. Each IA will appoint a project director and a project manager who will act as a focal point for TA implementation. The project directors and project managers from two IAs and the consultant team will constitute a PIU which will conduct necessary studies and design and draft reports. The activities of the PIU will be overseen by the technical coordinating committee consisting of representatives (joint secretary level) of the Ministry of Communications of Bangladesh, the Ministry of Railways of India, customs authorities of each country, and ADB. The technical coordinating committee will review the PIU's reports, provide necessary guidance for revision, and endorse the reports from a sector perspective.

16. **Cross-Border Regime Component.** For the cross-border trucking operations subcomponent, the Ministry of Communications (Bangladesh) and MOSRTH (India) will be the IAs. For transit custom arrangements and trade-related infrastructure subcomponent, customs authorities of four SASEC countries will be the IAs. Each IA will appoint a project director (responsible joint secretary) who will act as a focal point for TA implementation. The project directors from two IAs will appoint a project manager who will coordinate and interact with the consultants. The project directors, project managers, and the consultant team will constitute the PIU, which will jointly conduct necessary studies and design and draft reports.

17. Overall project-level coordination covering all components and subcomponents will be conducted by a steering committee consisting of representatives of the Economic Relation Division of Bangladesh, the Department of Economic Affairs of India, relevant line ministries (for each of the components and subcomponent), and ADB. The steering committee will meet when the draft final report is prepared and also whenever county-level coordination is necessary.

18. Three separate teams of international firms, in association with national consultants, will be engaged for the road corridor component, the rail link component, and the cross-border regime component using the simplified technical proposal procedures based on the quality and cost-based selection method and in accordance with ADB's *Guidelines on the Use of Consultants* (2007, as amended from time to time). The road corridor component will require 4 person-months of international consultancy services and 15 person-months of national consultancy services, the rail link component will require 6 person-months of international consultancy services and 26 person-months of national consultancy services, and the cross-border regime component will require 10 person-months of international consultancy services and 27 person-months of national consultancy services. Three individual national consultants will be separately engaged for the assessment of economic viability (3 person-months), environmental impact (3 person-months), and social and resettlement impact (3 person-months) of the cross-border regime component. The terms of reference for consultants are in Appendix 4.

19. The road corridor team will be based in Delhi (India); the rail link and cross-border regime team will be based in Dhaka (Bangladesh) and will make periodic trips to each of the other countries as work demands. The IA for the road corridor component in India and the IA for the rail link and cross-border regime component in Bangladesh will provide the consultant team with counterpart staff, secretarial service, furnished office space, office supplies, local communications including internet access, and information and data as required by the consultants. In the other countries, the IAs will provide temporary office accommodation. The TA will be implemented over a 6-month period from April 2008 to September 2008⁶.

IV. THE PRESIDENT'S DECISION

20. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$1,000,000 on a grant basis for preparing the South Asia Subregional Economic Cooperation Transport Logistics and Trade Facilitation Project, and hereby reports this action to the Board.

⁶ SASEC countries will confirm a no-objection to the TA in writing before commencing and financing the proposed TA activities in their territory.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Promote subregional economic cooperation and integration between four SASEC members</p>	<p>Transfer of 10% of the freight traffic from northeastern India currently using Kolkata/Haldia to Chittagong port each year for 5 years after project completion</p> <p>Transfer of 5% of the freight traffic currently using the Kathmandu–Birganj–Raxaul–Kolkata/Haldia corridor to the Kathmandu–Kakarvitta–Panitanki–Fulbari–Banglabandha–Chittagong/Mongla corridor each year for 5 years after project completion</p> <p>Reduction in cross-border processing time for trucks using the Petrapole–Benapole border crossing by 20% per annum for 3 years after project completion</p> <p>Reduction in transit transport time for the Kathmandu–Birganj–Raxaul–Kolkata/Haldia corridor and the Thimpu–Phuentsholling–Jaigaon–Kolkata/Haldia corridor by 20% per annum for 3 years after project completion</p>	<p>Compilation of government statistics</p> <p>ADB's TA review missions</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Bilateral or trilateral transit and transport agreement will be signed by concerned countries. • Operational agreements for rail service between Chittagong and Agartala will be agreed by the two railways operators. • Customs arrangements for bonded transit between Chittagong and Agartala will be agreed. • Operational agreements for truck operations at the Petrapole–Benapole border crossing will be signed. • Customs arrangements for transit cargoes crossing Birganj–Raxaul, Phuentsholling, Kakarvitta–Panitanki, Fulbari–Banglabandha, and Petrapole–Benapole border crossings will be agreed by concerned countries.
<p>Outcome Agreed design for the loan project.</p>	<p>Identification of project components agreed upon with concerned governments and ADB within 3 months after the TA starts</p> <p>Finalization of all project features, including the scope, cost estimates, financing plan, implementation</p>	<p>Consultant's interim and draft final report</p> <p>ADB TA review missions</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Cost sharing of the project cost among SASEC countries will be agreed upon. • The terms of ADB financing will be accepted by SASEC

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
	arrangements, implementation schedule, detailed analysis of safeguard compliance issues, and economic and/or financial viability agreed upon with concerned governments and ADB within 4.5 months after the TA starts		countries.
Outputs 1. Feasibility study and preliminary design 2. Operational agreements 3. Customs arrangement for bonded transit and other operational frameworks 4. Investment plan for trade-related infrastructure 5. Identification of capacity-building needs and the development of necessary training programs	<p>Preliminary design for the road and railway component completed within 4 months after the TA starts</p> <p>Economic viability assessment of the Chittagong–Akhaura–Agartala road corridor completed within 2 months after the TA starts</p> <p>Social impact assessment, resettlement plan and land acquisition plan completed within 5 months after the TA starts</p> <p>Environment impact assessment and environment management plan completed within 5 months after the TA starts</p> <p>Operational agreements for rail service between Chittagong and Agartala made within 5 months after the TA starts</p> <p>Customs arrangement for bonded transit between Chittagong and Agartala made within 5 months after the TA starts</p> <p>Operational framework, including the necessary bilateral or trilateral agreements for trucking operations and customs arrangements for transit cargo, made within 5 months after the TA starts</p> <p>Identification of the scope for trade-related infrastructure and training made within 5 months after the TA starts</p>	<p>Consultants' interim and draft final reports</p> <p>ADB missions to assess TA implementation</p>	Assumptions <ul style="list-style-type: none"> • Implementing agencies of concerned countries liaise closely to deliver the outputs through the project implementation unit • The technical advisory committee and the steering committee deliver its mandate

Activities with Milestones	Inputs
<p>Road Corridor Component</p> <ol style="list-style-type: none"> 1. Conduct the feasibility study and prepare a preliminary design for the Kakarvitta–Panitanki–Fulbari–Banglabandha road within 4 months after the TA starts. 2. Prepare social development and environmental impact assessment, resettlement plan, and, if needed, indigenous peoples development plan within 4 months after the TA starts. 3. Conduct an assessment for economic benefits and viability of the Chittagong–Akhaura–Agartala road corridor as an extension of the Kakarvitta–Banglabandha–Dhaka–Chittagong corridor to supplement the Agartala–Akhaura–Chittagong rail link within 2 months after the TA starts. <p>Rail Corridor Component</p> <ol style="list-style-type: none"> 1. Review current practices of cross-border rail operations at Gedes–Darshana and Singhabad–Rohapur border crossings operational on Bangladesh’s western border with India in line with the existing agreement within 1 month after the TA starts. 2. Review the Indian Railways feasibility assessment for the Agartala–Sebrum–Chittagong link and assess its socioeconomic costs and benefits in comparison with those of the Agartala–Akhaura–Chittagong link within 2 months after the TA starts. 3. Develop an operational framework of rail services, including the location of transshipment of cargoes from meter gauge to broad gauge and the location of locomotive exchange, within 4 months after the TA starts. 4. Develop customs clearance arrangements at both Chittagong and Agartala within 4 months after the TA starts. 5. Conduct the feasibility study and prepare a preliminary and detailed design for the Agartala–Akhaura section within 4 months after the TA starts. 6. Prepare social development and environmental impact assessment, resettlement plan, and, if needed, indigenous peoples development plan within 4 months after the TA starts. 7. Identify additional investments for ancillary facilities and/or equipment within 5 months after the TA starts. <p>Cross-Border Regime Component</p> <ol style="list-style-type: none"> 1. Review the existing arrangements in place for cross-border trucking operations and customs procedures for transit cargo including the current truck operations at the Birganj–Raxaul border crossing and the existing transit agreements between Nepal and India and between Bhutan and India within 2 months after the TA starts. 2. Review the planned approaches for cross-border trucking operations and customs procedures for transit cargo, including the draft comprehensive vehicle movement agreement currently under preparation by the Government of India, and the SAARC recommendation adopted recently for customs procedures for transit cargo, within 3 months after the TA starts. 3. Develop operational frameworks for cross-border truck operations and customs procedures for transit cargo to be adopted by relevant countries, including the draft bilateral agreements, within 5 months after the TA starts. 4. Identify specific areas for assistance, both institutional and financial, within 3 months after the TA starts. 5. Develop draft bilateral or trilateral agreements for cross-border truck operations and customs procedures for transit cargo within 5 months after the TA starts. 6. Identify investment requirements and develop cost estimates together with cost-benefit assessments within 5 months after the TA starts. 7. Identify capacity-building requirements and develop training programs within 5 months after the TA starts. 	<p>TA financing of \$1 million on a grant basis by the Japan Special Fund</p> <p>Governments’ in-kind contribution to TA</p> <p>20 person-months of international consulting services and 77 person-months of national consulting services</p>

ADB = Asian Development Bank, SAARC = South Asian Association for Regional Cooperation, SASEC = South Asia Subregional Economic Cooperation, TA = technical assistance.

INITIAL POVERTY AND SOCIAL ANALYSIS

Country/Project Title:	Preparing the South Asia Subregional Economic Cooperation Transport Logistics and Trade Facilitation Project		
Lending/Financing Modality:	Project	Department/ Division:	South Asia Department/ Transport and Communications Division

I. POVERTY ISSUES

A. Linkages to the National Poverty Reduction Strategy and Country Partnership Strategy

1. Based on the country poverty assessment, the country partnership strategy, and the sector analysis describe how the project would directly or indirectly contribute to poverty reduction and how it is linked to the poverty reduction strategy of the partner country.

- The project is primarily designed to help SASEC countries accelerate economic growth and alleviate poverty through promoted subregional economic cooperation and integration. The project will facilitate the unhindered movement of goods, services, and people across SASEC countries through improvement of cross-border transport infrastructure and the introduction of modernized cross-border management regimes. By improving the cross-border transport infrastructure, the project will contribute to improved access to services and better quality of life for the project beneficiaries, thereby alleviating aspects of human poverty.

B. Targeting Classification

1. Select the targeting classification of the project:

- General Intervention Individual or Household (TI-H); Geographic (TI-G); Non-Income MDGs (TI-M1, M2, etc.)

2. Explain the basis for the targeting classification:

- The project will reduce poverty in an indirect manner.

C. Poverty Analysis

1. If the project is classified as TI-H, or if it is policy-based, what type of poverty impact analysis is needed?

- N/A

2. What resources are allocated in the PPTA/due diligence?

- Social/resettlement consultants will be engaged under TA.

3. If general intervention, is there any opportunity for pro-poor design (e.g., social inclusion subcomponents, cross subsidy, pro-poor governance, and pro-poor growth)?

- N/A

II. SOCIAL DEVELOPMENT ISSUES

A. Initial Social Analysis

Based on existing information:

1. Who are the potential primary beneficiaries of the project? How do the poor and the socially excluded benefit from the project?

- The users of the transport services across SASEC countries will be the primary beneficiaries of the project. A poverty and social analysis will be carried out through the TA to identify the socioeconomic profile of the population in the project-influenced areas, expected benefits and constraints, and ability of the poor and socially excluded to benefit from the project.

2. What are the potential needs of beneficiaries in relation to the proposed project?

- Improvement of the cross-border transport infrastructure and introduction of modernized cross-border management regimes, thereby improving access to cross-border services.

3. What are the potential constraints in accessing the proposed benefits and services, and how will the project address them?

- No constraint had been identified at this stage. If there are any potential constraints identified during the TA study, these constraints will be reviewed and mechanisms and operational frameworks will be developed to address them.

B. Consultation and Participation

1. Indicate the potential initial stakeholders.

- MOSRTH, RHD, MOPPW, MOC, MOR, the users of transport services, and NGOs across SASEC countries,

2. What type of consultation and participation is required during the PPTA or project processing (e.g., workshops, community mobilization, involvement of nongovernment organizations, and community-based organizations)?

- National workshops, interviews with public and private sector stakeholders, involvement of NGOs, and community mobilization.

3. What level of participation is envisaged for project design?

- Information sharing Consultation Collaborative decision making Empowerment

4. Will a C&P plan be prepared? Yes No Please explain.

- C&P plan will be included in the resettlement plan and in any IPDP required.

C. Gender and Development

1. What are the key gender issues in the sector and/or subsector that are likely to be relevant to this project?

- The project design will include measures so that women's groups can be actively engaged in developing the project to ensure that their needs are addressed. In addition, the EA will be required to ensure that women and men are given equal opportunities for employment on the project. Contractors will be required to ensure equal payment for equal work. A specific clause will be included in the bidding documents of the civil works. A monitoring mechanism will be developed to monitor these actions in due course.

2. Does the proposed project/program have the potential to promote gender equality and/or women's empowerment by improving women's access to, and use of, opportunities, services, resources, assets, and participation in decision making? Yes No Please explain.

- By improving the cross-border transport infrastructure, the project will contribute to improved access to services and better quality of life for the project beneficiaries, including both men and women.

3. Could the proposed project have an adverse impact on women and/or girls or to widen gender inequality?

- Yes No Please explain.

- Involuntary resettlement may impact women and girls. A resettlement plan will be prepared to address such impact to the women and girls if identified.

III. SOCIAL SAFEGUARD ISSUES AND OTHER SOCIAL RISKS			
Issue	Nature of Social Issue	Significant/Limited/ No Impact/Not Known	Plan or Other Action Required
Involuntary Resettlement	The project may require land acquisition. Needs of resettlement will be minimized by utilizing existing right-of-way. Resettlement plans for road and rail components will be prepared through the TA.	Significant	<input checked="" type="checkbox"/> Full Plan <input type="checkbox"/> Short Plan <input type="checkbox"/> Resettlement Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Indigenous Peoples	Although no adverse impact is expected on tribal groups, the TA will further verify if there are any issues and if required will prepare an IPDP.	Limited	<input type="checkbox"/> Plan <input checked="" type="checkbox"/> Other Action <input type="checkbox"/> Indigenous Peoples Framework <input type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Labor <input checked="" type="checkbox"/> Employment Opportunities <input type="checkbox"/> Labor Retrenchment <input type="checkbox"/> Core Labor Standards	The TA design will incorporate the employment opportunities within the project to be available to all on the basis of professional competence, irrespective of gender or ethnic or religious group.	No Impact	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Affordability	The improvement of the cross-border transport infrastructure will reduce the transport costs, transit time, cross-border processing time for trucks, and increase the mobility of goods, services, and people across SASEC countries. This will make transport more affordable to all users.	No Impact	<input type="checkbox"/> Action <input checked="" type="checkbox"/> No Action <input type="checkbox"/> Uncertain
Other Risks and/or Vulnerabilities <input checked="" type="checkbox"/> HIV/AIDS <input checked="" type="checkbox"/> Human Trafficking <input type="checkbox"/> Others (conflict, political instability, etc.), please specify	The TA will develop mechanisms to address HIV/AIDS, human trafficking, and social issues if identified during the poverty and social analysis.	Not Known	<input type="checkbox"/> Plan <input type="checkbox"/> Other Action <input type="checkbox"/> No Action <input checked="" type="checkbox"/> Uncertain
IV. PPTA/DUE DILIGENCE RESOURCE REQUIREMENT			
1. Do the TOR for the PPTA (or other due diligence) include poverty, social and gender analysis and the relevant specialist/s? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why.			
2. Are resources (consultants, survey budget, and workshop) allocated for conducting poverty, social, and/or gender analysis, and C&P during the PPTA/due diligence? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please explain why.			

EA = executing agency, HIV/AIDS = human immunodeficiency virus/acquired immune deficiency syndrome, MOC = ministry of communications, MOPPW = ministry of physical planning and works, MOR = ministry of railways, MOSRTH = ministry of shipping, road transport and highways, NGO = nongovernment organization, PPTA = project preparatory technical assistance, RHD = roads and highways department, SASEC = south asia subregional economic cooperation, TA = technical assistance.

COST ESTIMATES AND FINANCING PLAN
(\$ '000)

Item	Total Cost
Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration	
i. International Consultants	352.0
ii. National Consultants	324.0
b. Per diem for International Consultants	60.0
c. Travel	40.0
2. Vehicle Rental (3 vehicles including operational cost)	25.0
3. Steering Committee Meeting	40.0
4. Workshop	20.0
5. Surveys	30.0
6. Reports and Documents	5.0
7. Miscellaneous Administration and Support	15.0
8. Contingencies	89.0
Total	1,000.0

^a Financed by the Japan Special Fund, funded by the Government of Japan.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Road Corridor Component

1. Scope of Work

1. One international consultant—a highway engineer and team leader (4 person-months)—will team up with six national consultants—a highway engineer (4 person-months), a structural engineer (3 person-months), two transport economists (one Indian for 2 person-months and one Bangladeshi for 3 person-months), an environment specialist (2 person-months), and a social and resettlement specialist (2 person-months)— and carry out the following tasks.

2. Highway Engineering.

- (i) Review available traffic count data and other studies, and carry out supplementary machine and classified counts on homogeneous sections of the road under study, as well as origin-destination surveys to obtain information on the current pattern and volume of vehicle and commodity movements. Axle-load surveys will also be carried out by the consultants to determine the magnitude of vehicle overloading on the project road sections, and for the purpose of pavement design.
- (ii) Carry out topographical surveys, including alignment plans, longitudinal sections, cross-sections, and drainage surveys, and establish horizontal control points, benchmarks, and reference beacons as required. Assess and cost any right-of-way requirements for the project road sections.
- (iii) Undertake investigations of the existing pavement structure, if necessary, including roughness assessment, and identify the most economic way of improving it.
- (iv) Study existing roadside and cross-section drainage facilities, and following an analysis of rainfall and flood records supplemented by detailed field investigations, establish the adequacy of embankment heights and pavement levels, as well as side and run-off ditches.
- (v) Investigate all bridges and culverts on the project road to determine their condition, adequacy of waterway openings, load capacity and widths, anticipated future serviceability, and general extent of repairs and strengthening needed. In case of replacement and new construction of bridges, carry out subsoil investigations considering long-term flooding cycles.
- (vi) Prepare preliminary designs based on the typical pavement sections with application of sound engineering practice, and giving due regard to environmental aspects in accordance with the environmental guidelines of the Asian Development Bank (ADB).
- (vii) Determine the most cost-effective improvement option for the project road. Where new pavements are to be provided, they will be designed using internationally recognized procedures for a 10-year life with provision for overlays during or at the end of that period to extend the life to 15–20 years.
- (viii) Prepare preliminary technical specifications for each work item, taking into account relevant specifications in use in the country and elsewhere for similar works.
- (ix) Prepare preliminary cost estimates for civil works appropriately broken down into foreign (direct and indirect) and local components, as well as taxes and custom duties.

- (x) Prepare preliminary engineering drawings, including road plans, longitudinal profiles, cross-sections, structure plans, and other relevant requirements.

3. Economic Analysis.

- (i) Review the project rationale and provide a basis for ADB involvement. Assess the relevance and priority of the project to the transport sector strategy, ADB's and the South Asia Subregional Economic Cooperation's (SASEC's) subregional development strategies, and the United Nations Millennium Development Goals.
- (ii) Identify all project costs and benefits comparing with-project and without-project situations. Undertake an economic evaluation of the project by following ADB's *Guidelines on Economic Analysis of Projects*¹. Estimate economic internal rate of return on the basis of no incremental and incremental economic benefits and economic costs (including economic capital, operation, and maintenance costs) in constant economic prices. The analysis should be carried out by using a consistent set of national economic parameters and standard conversion factors and/or shadow exchange rate factors, identifying the traded and nontraded components of both economic costs and benefits, and applying the standard conversion factor to nontraded items (or a shadow exchange rate factor to the traded items). In an economic analysis, evaluate the environmental aspects, analyze poverty reduction benefits, and assess the benefit distribution to various project stakeholders envisaged under the project.
- (iii) Undertake sensitivity analysis to assess the effects of adverse changes in key assumptions that underline the economic analysis (including, but not limited to, project costs, traffic, and implementation delays). Express results as a sensitivity indicator and a switching value. If the project is sensitive to the value of a key variable, recommend measures to minimize the risk. Carry out quantitative risk analysis in accordance with ADB's *Guidelines on Economic Analysis of Projects*.
- (iv) Together with item (i), develop for project monitoring a set of performance indicators that can be verified and monitored (including operational, financial, environmental, socioeconomic, and poverty reduction parameters). Specify baseline targets for socioeconomic and poverty indicators and a sustainable mechanism for monitoring during and beyond the construction stage. Assess the developmental impact of the project, focusing on generated economic activities. Draw up a project performance management system.
- (v) Assess the economic benefits and economic viability of the Chittagong–Akhaura–Agartala road corridor as an extension of the Kakarvitta–Banglabandha–Dhaka–Chittagong road corridor.
- (vi) When the economic viability is fully established for the Chittagong–Akhaura–Agartala road corridor as an extension of the Kakarvitta–Banglabandha–Dhaka–Chittagong road corridor, assess the road conditions of the Chittagong–Akhaura–Agartala road corridor and develop any corridor improvement plan, taking into account existing national road improvement programs for the corridor already set out in India and Bangladesh.

¹ ADB. 1997. *Guidelines on Economic Analysis of Projects*. Manila.

4. Environmental Impact Assessment.

- (i) Prepare an initial environmental examination report and a summary IEE report in accordance with the ADB's *Environment Policy*² and the requirements of both governments. In the review of potential environmental impacts, temporary and permanent damage to the environment—particularly forests, wildlife reservations, and areas with archaeological value and potential risks from toxic and hazardous chemicals—should be included. An environmental management and monitoring plan should be included in the IEE report. The IEE study will also cover the assessment of transboundary and cumulative impacts for this sector at the regional level. The consultation with affected people will also be carried out during the preparation of IEE, which should also provide background data to help ADB determine whether or not an environmental impact assessment (EIA) is needed.
- (ii) If ADB determines that an EIA is needed, prepare an EIA report and a summary EIA report. If an EIA is not needed, the IEE report and summary IEE report will be finalized on the basis of comments by ADB and governments.
- (iii) The consultant will (a) determine costs of the proposed environmental measures, (b) appraise the level of cost against expected environmental benefits, (c) incorporate appropriate mitigating measures into the project design, and (d) prepare contractor specifications for environmental management and monitoring.
- (iv) Prepare detailed terms of reference for the national environment specialist and supervise their work.

5. Social and Resettlement Analysis.

- (i) Based on the review of data and reports, and field investigations, prepare a poverty and social analysis for investment components in accordance with ADB's *Guidelines for the Incorporation of Social Dimensions in ADB Operations*³ and ADB's *Handbook on Poverty and Social Analysis*.⁴
- (ii) (a) Prepare a study of the socioeconomic and poverty status of the project areas of influence, including the nature, extent, and determinants of poverty in these areas, (b) identify and estimate the likely socioeconomic and poverty reduction impacts of the project, and (c) prepare proposals for monitoring and evaluating the benefits and impacts before and after the project.
- (iii) Determine the presence of indigenous peoples and/or ethnic minorities in the project areas.
- (iv) Based on the findings of (i) and (iii), prepare an indigenous peoples development plan or formulate specific actions for indigenous peoples, if required, in accordance with ADB's *Policy on Indigenous Peoples* (1998).
- (v) Conduct gender analysis and identify project design elements that have the potential to address gender equity.
- (vi) Assess all investment components and identify potential land acquisition and involuntary resettlement impacts as defined in ADB's *Involuntary Resettlement Policy* (1995).

² ADB. 2002. *Environment Policy*. Manila

³ ADB. 1997. *Incorporation of Social Dimensions in Bank Operations*. Manila.

⁴ ADB. 2001. *Handbook on Poverty and Social Analysis: A Working Document*. Manila.

- (vii) Prepare a resettlement plan in accordance with ADB's *Involuntary Resettlement Policy* and in reference to ADB's *Handbook on Resettlement*⁵ as a guide.

2. Reports

6. TA consultants will prepare the following reports and documents for the governments of Bangladesh, India, and Nepal, and ADB, and will submit five copies to each. For ADB (and where appropriate to the nature of the report or document) the consultants will also submit an electronic version of reports. All reports will be in English.

- (i) The inception report, to be submitted within 1 month of the start of services, should outline any changes in the approach, methodology, or work plan, as well as cost implications for the consultants' services (contained in the consultants' proposal) that are required to fulfill the terms of reference.
- (ii) The interim report, to be submitted within 2 months of the start of services, should include preliminary study results for the project road.
- (iii) The draft final report, to be submitted within 3 months of the start of the services, should include final study results for the project together with reports on safeguard issues to be used for subsequent loan preparation.
- (iv) The final report is to be submitted within 1 month of receipt of comments from the governments of India and Bangladesh and ADB.

B. Rail Link Component

1. Scope of Work

7. One international consultant—a railway engineer and team leader (6 person-months)—will team up with seven national consultants—two railway engineers (6 person-months each), a project economist (3 person-months), a financial specialist (3 person-months), an environment specialist (3 person-months), a social and resettlement specialist (3 person-months), and a legal specialist (2 person-months)—and carry out the following tasks. The consultant team is required to lead the project implementation unit (PIU) that will be established for day-to-day implementation of the TA with railway experts from Indian Railways and Bangladesh Railways.

8. Railway Engineering and Operations.

- (i) Develop terms of reference for the PIU which will (a) jointly develop the rail link component of the project, (b) form the PIU consisting of the project director nominated by Indian Railways, the project manager nominated by Bangladesh Railways, the technical assistance consultant team in coordination with concerned authorities in both countries, and the ADB project officer; (c) make full utilization of available expertise in Indian Railways and Bangladesh Railways for development of the rail link component of the project; and (d) closely coordinate with the cross-border facilitation experts from the customs authorities for development of efficient transshipment arrangements at the border points through the mechanism of the PIU.
- (ii) Review the South Asian Association for Regional Cooperation (SAARC) and the South Asia Subregional Economic Cooperation (SASEC) plans for (a) development of a regional and subregional transportation network and other

⁵ ADB. 1998. *Handbook on Resettlement: A Guide to Good Practice*. Manila.

infrastructure in the project area, particularly the missing link between Agartala and Akhaura and improvement of the Akhaura–Chittagong rail line; (b) a complementary road network; and (c) constructing link and access roads and social development programs. Document details of projects and/or programs that will affect the rail traffic through the Agartala–Akhaura border crossing, giving estimated costs, funding source, implementing agencies, schedules, and benefits envisaged.

- (iii) Review the railway development plans of Indian Railways and Bangladesh Railways, including plans to modernize and upgrade technology and institutional management, particularly the Indian Railways feasibility assessment for the Agartala–Sebrum–Chittagong link. Identify issues and actions that could be carried out under the proposed project, and, for the Indian Railways feasibility study for the Agartala–Akhaura–Chittagong link, assess its socioeconomic costs and benefits in comparison with those of the Agartala–Akhaura–Chittagong link.
- (iv) Review and document the history of bilateral dialogue that has occurred between the governments of India and Bangladesh in relation to a rail link between Agartala and Akhaura, and identify the key obstacles that hampered such dialogue from moving forward and thereby prevented the two border points from being connected by rail.
- (v) Review current practices of customs and immigration procedures adopted at Gedes–Darshana and Singhabad–Rohapur cross-border points in line with the working agreement made between the Government of India and the Government of People’s Republic of Bangladesh represented by the Indian Railways and Bangladesh Railways relating to Gedes–Darshana, Singhabad–Rohanpur, and Agartala–Akhaura, and identify the constraints to efficient cross-border movement of cargo and people by rail both in terms of cross-border operations facilities and the bilateral agreement.
- (vi) Develop a phased improvement plan for facilities and/or equipment for transshipment, cross-border inspections, and other activities necessary for ensuring efficient railway transit operations between Chittagong and Agartala as well as for supporting bilateral agreements. The first phase will develop an efficient transshipment arrangement within the constraint of two different railway gauges, and will include construction of transshipment facilities and an amendment of existing bilateral agreement to support the proposed transshipment arrangement. The second phase will develop cross-border operations facilities with no constraint of transshipment and include construction of cross-border operations facilities that will allow for seamless movement of rolling stock and an amendment of the existing bilateral agreement.
- (vii) Develop an operational framework of rail services, including the location of transshipment of cargo from meter gauge to broad gauge and the location of locomotive exchange, and develop customs clearance arrangements at both Chittagong and Agartala.
- (viii) Analyze alignment alternatives for the Agartala–Akhaura link to determine the least-cost solution while minimizing environmental impact and involuntary resettlement.
- (ix) Detail requirements and proposals for passenger stations and station facilities, industrial sidings, and marshalling yards. Make recommendations on how their construction may be facilitated to benefit the railway, passengers, and/or users. Examine multimodal issues to enhance the overall positive impact of the project.
- (x) Assess how the rail link component of the project will enhance subregional cooperation within SASEC countries. Evaluate the regional benefits of the

proposed rail link and suggest options (including intermodal and facilitation measures) to maximize the traffic potential in Bangladesh and India and within the SASEC region.

- (xi) Review all technical aspects presented in the SAARC Regional Multimodal Transport Study⁶ and the Subregional Corridor Operational Efficiency Study,⁷ and develop preliminary designs, including safety aspects during construction, and operation and maintenance of the new and improved rail link after its completion.
- (xii) Formulate cost estimates on the basis of current prices of goods and services (including the costs of environmental mitigation measures and monitoring, land acquisition, and resettlement).
- (xiii) Review the demand for rail transport through Agartala–Akhaura, particularly the conversion of existing traffic from the northeastern states of India to Kolkata/Haldia, and develop a traffic forecast by commodity with a 25-year time frame. Assess service differentiation with road transportation in terms of types of transport services demanded, bus and truck service complementation, and competition. Review demand for transport of goods by rail based on origin-destination data and traffic forecast by commodity. Review demand for passenger traffic based on an origin-destination survey. Develop a passenger profile for the railway. Subdivide forecast of freight and passengers into categories to show the source of the traffic and enable the benefits of the railway and modal competition to be estimated. Subdivide forecast into traffic diverted from roads, traffic diverted from other modes, and traffic generated. The traffic forecast should cover 25 years from the start of project operation.
- (xiv) Prepare a list of contract packages for possible ADB financing, giving a detailed justification, estimated contract value, and mode of procurement. Review and propose measures to encourage participation in bidding by international bidders from among ADB's member countries.
- (xv) Assess the options on implementation arrangements and organizational set-up for project management and maintaining project accounts. Prepare an implementation schedule and schedule for disbursement of loan and counterpart funds, taking into account all major activities, logistics of procurement, and seasonal aspects.
- (xvi) Assess the need for consultant input for construction supervision.
- (xvii) Prepare a design and monitoring framework that outlines the impact, outcome, outputs, and activities and inputs under the project, in accordance with staff instructions on the use of logical frameworks for ADB-assisted loans and technical assistance.
- (xviii) Prepare detailed terms of reference for national railway engineers and supervise their work.

9. Financial and Institutional Analysis.

- (i) Undertake financial analysis of the project following ADB's *Guidelines for the Financial Governance and Management of Investment Projects*⁸, including a

⁶ ADB. 2004. *Technical Assistance for Promoting South Asian Regional Economic Cooperation*. Manila.

⁷ ADB. 2003. *Technical Assistance for the Subregional Corridor Operational Efficiency Study in the South Asia Subregion*. Manila.

⁸ ADB. 2001. *Guidelines for the Financial Governance and Management of Investment Projects Financed by ADB*. Manila.

financial return at constant prices and financial projections over 25 years at current prices. Calculate financial internal rate of return and weighted average cost of capital for comparison with the financial internal rate of return. Prepare the financial projections of the existing railway administration in the project area on a pro forma basis.

- (ii) Identify risk factors and test the sensitivity of the project to them, and propose mitigating measures. Undertake sensitivity analysis by varying tariff rates, project cost, implementation delay, traffic volume, and combination of these factors. Switching values for these factors, excluding implementation delay, should also be calculated. Review the sensitivity of the financial viability of the project to future exchange rate movements.
- (iii) Review and analyze the financial performance of Indian Railways and Bangladesh Railways. The analysis should be made on operating performance, liquidity and returns on investment, and debt serviceability. Assess the impact of the capital assets investment program on the financial projections.
- (iv) Review the potential for private sector participation in the construction of project facilities and provision of services for operation, and assess the financial impact.
- (v) Assess the impact of reforms and restructuring of Indian Railways and Bangladesh Railways under implementation on the operation of the Agartala–Akhaura link, and identify institutional and reform measures that may form a basis for further policy dialogue with the governments of India and Bangladesh to improve the efficiency and financial viability of the rail infrastructure to be provided by the project.

10. Economic analysis, environment impact assessment, and social and resettlement analysis will follow the tasks elaborated in paras. 3–5.

2. Reports

11. TA consultants will prepare the following reports and documents for the governments of India and Bangladesh and ADB, and will submit five copies to each. For ADB (and where appropriate to the nature of the report or document) the consultants will also submit an electronic version of reports. All reports will be in English.

- (i) The inception report, to be submitted within 1 month of the start of services, should outline any changes in the approach, methodology, or work plan, as well as cost implications for the consultants' services (contained in the consultants' proposal) that are required to fulfill the terms of reference.
- (ii) The interim report, to be submitted within 3 months of the start of services, should include preliminary study results for the project road.
- (iii) The draft final report, to be submitted within 5 months of the start of the services, should include final study results for the project together with reports on safeguard issues to be used for subsequent loan preparation.
- (iv) The final report is to be submitted within 1 month of receipt of comments from the governments of India and Bangladesh and ADB.

C. Cross-Border Regime Component

1. Scope of Work

12. The second component will consist of three subcomponents: (i) trucking operations at the Petrapole–Benapole border crossing; (ii) customs arrangements for transit cargoes using the Birganj–Raxaul, Phuentsholling, Kakarvitta–Panitanki, Fulbari–Banglabandha, and Petrapole–Benapole border crossings; and (iii) trade-related infrastructure for four SASEC countries. The outputs of the second component will (i) include an operational framework including the necessary bilateral or trilateral agreements for trucking operations and customs arrangements for transit cargoes, (ii) define the investment requirements together with preliminary cost estimates, and (iii) identify capacity-building needs and the development of necessary training programs.

13. Two international consultants—a transport and/or trade facilitation specialist (6 person-months) and a customs specialist (4 person-months)—will team up with five national consultants—four transport and/or trade facilitation specialists (one in each country, 6 person-months each) and a legal specialist (3 person-months)—and carry out the following tasks.

- (i) Review and update the Subregional Corridor Operational Efficiency Study (footnote 7) final report, with emphasis on recently concluded trade and/or transit bilateral agreements between SASEC countries, and planned and/or ongoing improvements in land customs stations and/or inland clearance depots as well as in border link roads and railway lines.
- (ii) Review the existing arrangements in place for cross-border trucking operations and customs procedures for transit cargo, including the current truck operations at Petrapole–Benapole border crossing and the existing transit agreements between Nepal and India and between Bhutan and India.
- (iii) Review the planned approaches for cross-border trucking operations and customs procedures for transit cargo, including the draft comprehensive vehicle movement agreement currently under preparation by the Government of India, and the SAARC recommendation adopted recently for customs procedures for transit cargo.
- (iv) Review existing bilateral transport and trade agreements and their protocols between SASEC countries, and draft national legal and regulatory frameworks in each SASEC country and bilateral or multilateral agreements to support the proposed cross-border regime of each development stage.
- (v) Develop operational frameworks for cross-border truck operations and customs procedures for transit cargo to be adopted by relevant countries, including the draft bilateral or trilateral agreements.
- (vi) Identify specific areas for institutional and financial assistance.
- (vii) Conduct field surveys and assessment of topography of (a) border areas; (b) existing border infrastructure and road and/or railway conditions; (c) vehicle parking and logistics facilities; (d) current levels and characteristics of road and/or rail passenger, freight, and truck and/or train traffic, (e) actual border processes and procedures; and (f) private sector participation in border management.
- (viii) Estimate future subregional trade and passenger volumes and monetary values, and the respective share of the priority border crossings.

- (ix) Organize broad-based consultation with public sector and private sector stakeholders in each SASEC country through interviews, national workshops, and scheduled meetings of the SASEC transport working group.
 - (x) Identify investment requirements and develop cost estimates together with cost-benefit assessments and develop an investment project suitable for ADB financing in 2008–2009, together with preliminary design of physical investment items.
 - (xi) Formulate terms of reference for consulting services (a) to develop detailed design and bid documents, and (b) for the supervision of construction of facilities.
 - (xii) Identify capacity-building requirements in support of the modernized cross-border regime and operational arrangements, and develop training programs.
14. Three individual national consultants will be separately engaged for the following tasks.
15. **Project Economist.** A project economist will be engaged for 3 person-months to carry out the following tasks.
- (i) Review the project rationale and provide a basis for ADB involvement. Assess the relevance and priority of the project to the transport sector strategy, ADB's and the SASEC's subregional development strategies, and the United Nations Millennium Development Goals.
 - (ii) Identify all project costs and benefits comparing with-project and without-project situations. Undertake an economic evaluation of the project by following ADB's *Guidelines on Economic Analysis of Projects* (footnote 1). Estimate economic internal rate of return on the basis of nonincremental and incremental economic benefits and economic costs (including economic capital, operation, and maintenance costs) in constant economic prices. The analysis should be carried out by using a consistent set of national economic parameters and standard conversion factors and/or shadow exchange rate factors, identifying the traded and nontraded components of both economic costs and benefits, and applying the standard conversion factor to nontraded items (or a shadow exchange rate factor to the traded items). In an economic analysis, evaluate the environmental aspects and analyze poverty reduction benefits envisaged under the project.
 - (iii) Undertake sensitivity analysis to assess the effects of adverse changes in key assumptions underlining the economic analysis (including, but not limited to, project costs, traffic, and implementation delays). Express results as a sensitivity indicator and a switching value. If the project is sensitive to the value of a key variable, recommend measures to minimize the risk. Carry out quantitative risk analysis in accordance with ADB's *Guidelines on Economic Analysis of Projects*.
 - (iv) Together with item (i), develop for project monitoring a set of performance indicators that can be verified and monitored (including operational, financial, environmental, socioeconomic, and poverty reduction parameters). Specify baseline targets for socioeconomic and poverty indicators and a sustainable mechanism for monitoring during and beyond the construction stage. Assess the developmental impact of the project, focusing on generated economic activities. Draw up a project performance management system.

16. **Environment Specialist.** An environment specialist will be engaged for 3 person-months to carry out the following tasks.

- (i) Prepare an initial environmental examination (IEE) report and a summary IEE report in accordance with the ADB's Environment Policy (footnote 2) and the requirements of both governments. In the review of potential environmental impacts, temporary and permanent damage to the environment—particularly forests, wildlife reservations, and areas with archaeological value and potential risks from toxic and hazardous chemicals—should be included. An environmental management and monitoring plan should be included in the IEE report. The IEE study will also cover the assessment of transboundary and cumulative impacts for this sector at the regional level. The consultation with affected people will also be carried out during the preparation of IEE, which should also provide background data to help ADB determine whether or not an environmental impact assessment (EIA) is needed.
- (ii) If ADB determines that an EIA is needed, prepare an EIA report and a summary EIA report. If an EIA is not needed, the IEE report and summary IEE report will be finalized on the basis of comments by ADB and governments.
- (iii) The consultant will (a) determine costs of the proposed environmental measures, (b) appraise the level of cost against expected environmental benefits, (c) incorporate appropriate mitigating measures into the project design, and (d) prepare contractor specifications for environmental management and monitoring.

17. **Social and/or Resettlement Specialist.** A social and/or resettlement specialist will be engaged for 3 person-months to carry out the following tasks.

- (i) Based on the review of data and reports and field investigations, prepare a poverty and social analysis for investment components in accordance with ADB's *incorporation of social dimensions in ADB operations*.
- (ii) (a) Prepare a study of the socioeconomic and poverty status of the project areas of influence, including the nature, extent, and determinants of poverty in these areas; (b) identify and estimate the likely socioeconomic and poverty reduction impacts of the project; and (c) prepare proposals for monitoring and evaluating the benefits and impacts before and after the project.
- (iii) Determine the presence of indigenous peoples and/or ethnic minorities in the project areas.
- (iv) Based on the findings of (i) and (iii), prepare an indigenous peoples development plan or formulate specific actions for indigenous peoples, if required, in accordance with ADB's *Policy on Indigenous Peoples*.
- (v) Conduct gender analysis and identify project design elements that have the potential to address gender equity.
- (vi) Assess all investment components and identify potential land acquisition and involuntary resettlement impacts as defined in ADB's *Policy on Involuntary Resettlement (1995)*, *Operations Manual F2 on Involuntary Resettlement (2003)*.
- (vii) Prepare a resettlement plan in accordance with ADB's *Involuntary Resettlement Policy* and in reference to ADB's *Handbook on Resettlement* as a guide.

2. Reports

18. TA consultants will prepare the following reports and documents for the governments of India, Bangladesh, Bhutan, and Nepal, and ADB, and will submit five copies to each. For ADB (and where appropriate to the nature of the report or document) the consultants will also submit an electronic version of reports. All reports will be in English.

- (i) The inception report, to be submitted within 1 month of the start of services, should outline any changes in the approach, methodology, or work plan, as well as cost implications for the consultants' services (contained in the consultants' proposal) that are required to fulfill the terms of reference.
- (ii) The interim report, to be submitted within 3 months of the start of services, should include preliminary study results for the project road.
- (iii) The draft final report, to be submitted within 5 months of the start of the services, should include final study results for the project together with reports on safeguard issues to be used for subsequent loan preparation.
- (iv) The final report is to be submitted within 1 month of receipt of comments from the governments of India, Bangladesh, Bhutan, and Nepal, and ADB.