

ASIAN DEVELOPMENT BANK

TAR: REG 38574

TECHNICAL ASSISTANCE
(Financed by the Japan Special Fund)

FOR THE

GREATER MEKONG SUBREGION

BIODIVERSITY CONSERVATION CORRIDORS INITIATIVE

December 2004

ABBREVIATIONS

ADB	–	Asian Development Bank
BCC	–	biodiversity conservation corridors
GIS	–	geographic information system
GMS	–	Greater Mekong Subregion
GMSEC	–	Greater Mekong Subregion economic corridors
IUCN	–	World Conservation Union
PRC	–	People's Republic of China
SEF	–	Strategic Environmental Framework
TA	–	technical assistance
UNEP	–	United Nations Environment Programme
WWF	–	World Wide Fund for Nature

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention
Sector	–	Agriculture and natural resources
Subsector	–	Environment and biodiversity
Theme{s}	–	Regional cooperation, environmental sustainability, and sustainable economic growth

NOTE

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

This report was prepared by J. H. Mir.

I. INTRODUCTION

1. The Greater Mekong Subregion (GMS) biodiversity conservation corridors (BCC) initiative is to support the broad-based agenda of sustainable development identified by the GMS countries and incorporated in the Regional Cooperation Strategy and Program 2004–2008 of the Asian Development Bank (ADB).¹ ADB's strategy and program aim to address GMS development challenges and support the countries' strategic objectives by enhancing connectivity and competitiveness, and developing a greater sense of community in the region. Regional economic corridors are expected to play a crucial role in helping deliver this development agenda. But concern is growing that increasing development needs and economic corridors may result in the fragmentation of natural landscapes. This would undermine the functioning and performance of the region's ecosystems, thereby threatening long-term socioeconomic and environmental security of the region.

2. Recognizing this development challenge, the BCC initiative was considered by the First Task Force Meeting for the Preparation of the Second GMS Summit held in Beijing, People's Republic of China (PRC) in July 2004.² The task force members agreed in principle to pursue the proposal in consultation with relevant line ministries. Accordingly, the Working Group on Environment meeting held in September 2004 in Viet Nam considered and endorsed the BCC initiative. As secretariat for the GMS, ADB will provide technical assistance (TA) to the GMS countries for undertaking the initiative. The TA approach, objectives, scope and outputs were finalized in consultation with the relevant line ministry staff and other development partners during the Working Group on Environment meeting. These were confirmed during the consultation mission undertaken by ADB.³ Consultations were held with other development partners including the United Nations Environment Programme (UNEP), World Conservation Union (IUCN), and World Wide Fund for Nature (WWF). The general consensus reached was that this initiative will strengthen the region's commitment to, and capacity for, sustainable development. The governments support the TA approach, objectives, scope and outputs. The TA framework is in Appendix 1.⁴

II. ISSUES

3. The GMS countries' Strategic Development Framework, adopted in 2001, guides development cooperation until 2011.⁵ Over the last decade, investments of \$2 billion were committed in the energy and transport sectors alone. A more ambitious level of investment (\$10 billion at a minimum) is envisaged for the next 10 years. This will induce significant economic and social changes in the subregion. Countries will be increasingly linked through transportation, telecommunications, energy production and usage, and cross-border trade. Gross domestic product per capita in the subregion is expected to double by 2015, by which time the population will have increased by 40 million. Economies will undergo structural

¹ The GMS includes Cambodia, Lao People's Democratic Republic, Myanmar, Thailand, Viet Nam, and Yunnan Province in People's Republic of China.

² The task force comprises GMS government officials responsible for the planning and organization of the Second GMS Summit to be held in PRC in July 2005.

³ The mission led by Javed H. Mir, Sr. Natural Resources Specialist, MKAE, visited PRC (22 November 2004); Cambodia (24 November 2004); Viet Nam (26-29 November 2004); Thailand (30 November –2 December 2004); and Lao PDR (6 December 2004).

⁴ The TA first appeared in the *ADB Business Opportunities* (Internet edition) on 14 October 2004.

⁵ The framework guides development cooperation in five major areas: (i) strengthen infrastructure linkages using a multisector approach, (ii) facilitate cross-border trade and investment, (iii) enhance private sector participation and improve its competitiveness, (iv) develop human resource skills and competencies, and (v) protect the environment and promote sustainable use of shared natural resources.

changes: the manufacturing and service sectors will expand; while agriculture will become more diverse, intensive, and productive. These developments will inevitably impact the environment. In the absence of proactive and effective environmental management, future development efforts will be undermined with potential for increased environmental degradation. Accordingly, the Strategic Environment Framework (SEF) was formulated as an integral component of Strategic Development Framework. The SEF aims to protect environmental resources as fundamental prerequisites to sustainable development in the GMS. The proposed BCC initiative is seen by the GMS countries as a proactive strategy to accelerate SEF implementation.

4. BCC have gained currency as countries find that their existing protected areas, which are the main strategy for meeting their biodiversity conservation needs and obligations under the Convention on Biological Diversity, are unlikely to deliver the desired results on their own. Existing protected areas are small and are being reduced to islands within a cultivated landscape that is under increasing development pressure and fragmentation. Consequently, protected areas are unlikely to be able to protect viable populations of wide-ranging species or high-value ecosystems. The options in the GMS for addressing ecosystem fragmentation will become more limited, as attempts to enlarge protected areas is constrained by increasing pressures on land for other uses.

5. Ecosystem fragmentation is increasingly being associated with transport and economic corridors. For example, the Tumen River Strategic Action Program in the PRC recognizes that transport corridors are the drivers for economic development in the region of the PRC, Democratic People's Republic of Korea, Mongolia, and Russian Federation. But these corridors are also likely to exert additional impacts on biodiversity. Thus greening of the infrastructure and economic corridors is considered essential—one means is the establishment of BCC.

6. BCC are designed to ensure the long-term conservation of high-value ecological processes, biodiversity, and threatened species; as well as contribute to social and economic development by combining these with ecological and/or cultural tourism. To a certain extent BCC are analogous to the economic corridors in their functionality and objectives, i.e., both attempt to increase the system connectivity, economies of scale, integration, and efficiency. BCC do the latter by increasing the functional boundaries of the protected areas. BCC allow the unhindered movement of species, and gains in scale efficiencies that are needed to sustain ecological processes that underpin sustainable development.

7. By increasing connectivity between national and transboundary terrestrial, aquatic, and marine ecosystems, in particular high-value protected areas, BCC will prevent and mitigate habitat fragmentation. In the absence of such corridors, ecological and environmental services of importance to the GMS development agenda are likely to be threatened.

8. BCC can also act as insurance against the potential negative impacts of climate change. As climate change triggers changes in local temperature and moisture levels, BCC will act as safety valves by providing habitat for plant and animal species that will have to move along the climate gradient. This has implications for conservation of agro-biodiversity and long-term food security of the GMS countries.

9. Several sequential efforts have identified and delineated important biodiversity conservation areas in the GMS. BirdLife International has identified several important bird areas in the region; WWF and IUCN identified several centers of plant diversity; WWF and Wildlife Conservation Society identified a series of prioritized tiger conservation units, and WWF identified ecoregions across the Indo-Pacific region including in the GMS that are under threat

from landscape and habitat fragmentation. In 2002, the Stockholm Environment Institute developed (for ADB) the Strategic Environmental Framework for the Greater Mekong Subregion. This analysis assessed the impacts of ADB's planned regional developments on biodiversity and the environment. The framework identified a series of hot spots, broadly defined as areas of high biodiversity conservation value that will be impacted by regional development plans.

10. In 2004, the Critical Ecosystems Partnership Fund formulated an ecosystem profile for the Indochina Region of the Indo-Burma hot spot.⁶ The TA will build upon these and other initiatives and ADB's experience. In the Asia and Pacific region, BCC are under design and/or implementation in Bhutan, Philippines, Viet Nam, and Yunnan Province of the PRC. Under the proposed ADB Forests for Livelihood Improvement Project in Viet Nam, BCC are identified as the means to enhance the biodiversity conservation potential and function of protection forests in the Central Highlands of Viet Nam.

11. BCC are of relevance and importance to GMS countries, as both sustainable development and competitiveness of GMS member countries will to a large extent depend upon the efficiency and effectiveness with which their natural resource endowments are protected and maintained. Without this, the direct and indirect costs of environmental degradation could undermine the region's development performance. The TA will assist the countries in reconciling and enhancing the development and environmental protection function and performance of their development plans and investments.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

12. The purpose is to prepare a GMS BCC development strategic framework (2005–2014) and action plan (2005–2008). The strategic framework will (i) identify and prioritize terrestrial BCC of strategic importance from a biodiversity conservation as well as development perspective, (ii) review and analyze conservation and economic development policies that need to be rationalized and harmonized among GMS countries for effective and sustainable functioning of BCC, and (iii) identify an enabling governance and management arrangement for implementation of the 2005–2008 BCC action plan.

13. The TA components will include (i) threat analysis of high-value terrestrial biodiversity conservation areas and protected areas with specific reference to GMS economic corridors (GMSECs) and BCC potential and establishment options, (ii) assessment of conservation and development policy coherence/incoherence for BCC development, and (iii) institutional and management options analyses.

14. The Second GMS Summit is expected to include a declaration endorsing the BCC initiative. Specific outputs will include (i) a BCC needs assessment report, (ii) a BCC feasibility assessment report, (iii) a GMS 2005–2014 development strategic framework and 2005–2008 BCC action plan, and (iv) a draft GMS Summit declaration. The framework will (i) provide an integrated biodiversity conservation and development strategy and action plan that will safeguard and improve livelihoods of people living in or near BCC and/or economic corridors;

⁶ Critical Ecosystems Partnership Fund. 2004. *Ecosystem Profile. Indo-Burma Biodiversity Hotspot. Indochina Region*. Prepared by BirdLife International for the Critical Ecosystems Partnership Fund. Final Draft submitted 7 September 2004

and (ii) enhance GMS countries' economic competitiveness by reducing the potential social, environmental, and economic costs of inefficient management of shared natural resources of the subregion.

B. Methodology and Key Activities

15. The TA will adopt a multistakeholder participatory diagnosis and design approach for its implementation using geographic information system (GIS) and field surveys. Key activities will include (i) identify high-value terrestrial ecosystems in the GMS; (ii) undertake threat analysis in terms of ecosystem and species habitat fragmentation with specific reference to the GMSECs; (iii) identify priority BCC to prevent and mitigate landscape and habitat fragmentation in the GMS with particular focus on GMSECs; (iv) identify conservation and development policy and plan rationalization and harmonization needs; (v) prepare a GMS BCC development strategic framework (2005–2014) and action plan (2005–2008), including cost estimates for implementing the 2005–2008 action plan, and indicative cost estimates and financing strategy for implementing the strategic framework; and (vi) undertake institutional option analyses, and identify appropriate implementation arrangements for implementing the action plan and meeting capacity-building needs.

16. The TA will also identify the enabling policy and institutional framework for effective and efficient planning, establishment, and management of the priority BCC in the GMS. Moreover, data and information needs, availability, sources, and sharing mechanisms for supporting BCC establishment and management will be identified.

C. Cost and Financing

17. The total cost of the TA is estimated at \$500,000 equivalent. ADB will provide \$400,000 equivalent. The TA will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. UNEP will finance (in kind) \$60,000 equivalent, and the concerned GMS governments will finance (in kind) \$40,000 equivalent. Detailed cost estimates are in Appendix 2.

D. Implementation Arrangements

18. ADB's will be the Executing Agency for the TA. In addition to partner line agencies from GMS countries, the TA will be implemented in coordination with UNEP, WWF, IUCN, and other environmental nongovernment organizations, and universities and research institutions that are active in the GMS. The partner line agencies will (i) facilitate on-site data collection and consultants' field work, and provide data and information on protected area development plans; and (ii) help develop and implement action plans for the priority BCC. UNEP will provide GIS data and information and analyses expertise, and facilitate interagency discussions and cooperation. WWF and IUCN will provide technical expertise on regional conservation and protected area system development and management.

19. The TA will be implemented in two phases over 8 months. Phase 1, from December 2004 to January 2005, will focus on the needs assessment. This will involve identifying high-value terrestrial biodiversity corridors to prevent and mitigate landscape and habitat fragmentation in the GMSECs, developing GIS data and overlay maps showing existing or planned corridor initiatives in the GMS economic corridors, identifying ongoing and planned major road and transport infrastructure plans of relevance to the initiative, and identifying current conservation plans. Phase II, from March to July 2005, will focus on preparing the strategic

framework and action plan. This will involve identifying high priority BCC for the GMS; identifying policy, institutional, and technical frameworks for BCC planning and establishment; undertaking harmonizing and rationalizing of conservation and development plans for the priority BCC; and undertaking a participatory design approach to preparing the 2005–2014 strategic framework and 2005–2008 action plan.

20. For TA implementation, ADB will recruit a team of international and domestic consultants on an individual basis. The consultants will be engaged by ADB in accordance with the *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB for the engagement of domestic consultants. A total of 19 person-months of consulting services will be required: 9 person-months international and 10 person-months domestic. The required expertise and outline terms of reference are provided in Appendix 3. All equipment will be procured in accordance with ADB's *Guidelines for Procurement*.⁷ At least two stakeholder workshops will be organized to secure stakeholder input. The following reports will be produced: (i) an inception report by the end of 4 weeks of consultant mobilization, (ii) an interim report by the end of 12 weeks, (iii) a draft final report by the end of 20 weeks, and (iv) a final report by the end of 24 weeks (after incorporating comments on the draft final report). The final report will include the GMS BCC development strategic framework (2005–2014) and action plan (2005–2008). TA implementation will be monitored through the (i) inception, interim, and final workshop reports; (ii) participation in stakeholder workshops; (iii) and at least two review missions.

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$400,000 on a grant basis for the Greater Mekong Subregion Biodiversity Conservation Corridors Initiative, and hereby reports this action to the Board.

⁷ Upon TA completion, ownership of the equipment provided under the TA will be retained by ADB.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Indicators/ Targets	Monitoring Mechanisms	Assumptions (A) and Risks (R)
<p>Goal Enhance sustainable development in the Greater Mekong Subregion (GMS).</p>	<p>By 2011, enabling development framework integrating economic development and biodiversity conservation under implementation in high conservation value areas</p>	<ul style="list-style-type: none"> • GMS Secretariat report • GMS country conservation and poverty assessment reports • Asian Development Bank (ADB)-funded project reports 	
<p>Purpose Prepare a strategic biodiversity conservation corridors development framework (2005–2014) and action plan (2005–2008) to establish and maintain high-value biodiversity conservation corridors (BCC) in the GMS.</p>	<p>By June 2005, strategic framework covering 2005–2014 for the establishment of BCC and their integration with economic corridors will be ready for the consideration of the relevant national agencies, stakeholders and the Second GMS Summit</p>	<ul style="list-style-type: none"> • GMS Summit minutes and resolutions 	<ul style="list-style-type: none"> • Sufficient levels of investments are undertaken by GMS countries and funding agencies in BCC and economic corridors (A) • GMS countries increasingly support BCC and increase recurrent expenditure flows to protected areas (A) • GMS member countries sustain interest and willing to give commitment for creation of BCC integrated with economic corridors (A)
<p>Outputs</p> <p>(i) BCC needs assessment report</p> <p>(ii) BCC feasibility assessment report</p> <p>(iii) GMS BCC development strategic framework (2005–2014) and action plan (2005–2008)</p> <p>iv) Draft GMS summit declaration</p>	<ul style="list-style-type: none"> • By February 2005, needs assessment draft ready for presentation and discussion at regional workshop with stakeholders • By April 2005, draft strategic framework 2005–2014 and action plan 2005–2008 ready for discussion at regional workshop • June 2005 • July 2005 	<ul style="list-style-type: none"> • Consultant progress reports • Review missions • Regional workshop report • Consultant progress reports • Review missions • Regional workshop 	<ul style="list-style-type: none"> • Commitment of GMS member countries is followed up by project support on the ground (A) • Information is easily obtainable from GMS countries (A) • Easy and unhindered access to protected areas and proposed corridor areas provided by GMS countries to international and domestic consultants (A) + (R)

Continued on next page

Design Summary	Performance Indicators/ Targets	Monitoring Mechanisms	Assumptions (A) and Risks (R)
<p>Activities</p> <p>(i) Identify feasible sites.</p> <p>(ii) Review conservation and development policy framework.</p> <p>(iii) Prepare overlays of satellite images (merging environment, poverty, and economic development plans).</p> <p>(iv) Complete threat analysis and identify gaps; and complete ground truthing and selected site visits.</p> <p>(v) Draft needs assessment report.</p> <p>(vi) Make presentation at regional workshop; carry out multistakeholder participatory consultations.</p> <p>(vii) Draft strategic framework and action plan.</p> <p>(viii) Make presentation at second regional workshop and secure endorsement.</p> <p>(ix) Submit strategic framework and action plan.</p>	<p>December 2004</p> <p>December 04-January 05</p> <p>Ditto</p> <p>March 2005</p> <p>March 2005</p> <p>March 2005</p> <p>April 2005</p> <p>May 2005</p> <p>June 2005</p>	<ul style="list-style-type: none"> • Consultant reports • Review missions • Budget utilization • Consultant progress reports • Draft report • Workshop report • Draft strategic framework and action plan • Workshop report • Strategic framework and action plan document 	

Continued on next page

Design Summary	Performance Indicators/ Targets	Monitoring Mechanisms	Assumptions (A) and Risks (R)
<p>Inputs (inputs required to realize outputs defined)</p> <p>1. International consultants' level of effort</p> <p>2. Domestic consultants' level of effort</p> <p>3. International consultants' remuneration and per diem</p> <p>4. Domestic consultants' remuneration and per diem</p> <p>5. Travel</p> <p>6. Consultations/surveys</p> <p>7. Equipment and supplies</p> <p>8. Publication. miscellaneous administration</p> <p>9. Contingencies</p> <p>Total ADB Budget</p>	<p>9 person-months</p> <p>10 person-months</p> <p>\$160,000</p> <p>\$30,000</p> <p>\$55,000</p> <p>\$64,000</p> <p>\$7,000</p> <p>\$34,000</p> <p>\$50,000</p> <p>\$400,000</p>	<ul style="list-style-type: none"> • Consultant procurement and mobilization schedules • Consultant inception report and work plans • Technical assistance (TA) expenditure and disbursement schedules 	<ul style="list-style-type: none"> • Required expertise available for the TA (A) • Recruitment and deployment of consultants on time (R) • Continued stakeholder commitment to the TA (R)

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	160.00
ii. Domestic Consultants	30.00
b. International and Local Travel	55.00
c. Reports and Communications	25.00
2. Equipment ^b	7.00
3. Training, Seminars, and Conferences	
a. Facilitators	15.00
b. Training Program	35.00
4. Surveys	14.00
5. Miscellaneous Administration and Support Costs	9.00
6. Contingencies	50.00
Subtotal (A)	400.00
B. United Nations Environment Programme Financing	
1. Office Accommodation and Transport	30.00
2. Counterpart Staff Time	30.00
Subtotal (B)	60.00
C. Governments^c	
1. Office Accommodation and Transport	20.00
2. Counterpart Staff Time	20.00
Subtotal (C)	40.00
Total	500.00

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

^b Laptop computer, printer, and projector.

^c Governments of Cambodia, People's Republic of China, Lao People's Democratic Republic, Thailand, and Viet Nam.
Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

A. Background

1. The technical assistance (TA) is to prepare a Greater Mekong Subregion (GMS) biodiversity conservation corridors (BCC) development strategy for 2005–2014. The strategy will identify BCC of strategic importance from conservation and development perspectives, review and analyze conservation and economic development policies that need to be rationalized and harmonized among GMS countries for effective and sustainable functioning of BCC, and identify an enabling governance and management arrangement for the implementation of the 2005–2008 BCC action plan. The indicative consultants' inputs and outline terms of reference follow.

B. Team Leader and Planning Specialist (international, 3 person-months)

1. Scope of Work

2. As team leader and planning specialist, the consultant will lead a team of international and national consultants to first carry out a needs and feasibility assessment of the proposed GMS BCC action plan from December 2004 to July 2005. The consultant will work under the technical guidance of the project officer, Asian Development Bank (ADB) Manila. The team leader will be responsible for the overall TA implementation. Tasks will include the following:

- (i) In collaboration with the wildlife conservation specialist and ecologist, identify high-value terrestrial biodiversity corridors to prevent and mitigate landscape and habitat fragmentation in the GMS economic corridors (GMSECs).
- (ii) In collaboration with the biodiversity corridor specialist develop a GMS BCC strategy and action plan showing activities, time frame, responsible agencies, and investments required to establish BCC.
- (iii) In collaboration with the United Nations Environment Programme (UNEP) (main collaborating partner) identify geographic information system (GIS) data and overlay maps showing corridor initiatives and landscapes already undertaken by key institutions in the GMS; protected areas; transboundary conservation areas; major GMS roads in the economic corridors, priority biodiversity corridors; and overview of population, people (including ethnic minorities), and poverty data;
- (iv) In collaboration with other partner institutions (World Conservation Union, World Wide Fund for Nature, etc.), identify current conservation plans and future potential institutional framework, livelihood improvement measures to reduce poverty including ecotourism networks in the priority biodiversity corridors identified within the GMSECs.
- (v) Review ADB's Policy on Indigenous Peoples, and assess policy and practice priorities of relevance to the BCC initiative planning and implementation.
- (vi) Undertake planning and implementation of field work and management of the TA.
- (vii) Maintain effective communication and coordination with the partner institutions and other relevant agencies collaborating on the TA.
- (viii) Monitor progress toward reaching TA milestones, inform ADB of problem areas, and recommend corrective action.
- (ix) Prepare draft needs assessment after phase I (December 2004–January 2005) and strategic framework after phase II (March–July 2005) showing options and scenarios of priority terrestrial biodiversity conservation corridors (integrated ecological networks and landscapes) across the GMSECs.

- (x) Conduct regional workshops, present drafts, and secure consensus.
- (xi) Write up and submit to ADB by June 2005 a GMS biodiversity corridor strategic framework for 2005–2014 and a biodiversity corridor action plan for implementation during 2005–2008.

2. Implementation Arrangements, Reporting, and Deliverables

3. The consultant will work under the direction of the responsible project officer, or such other ADB staff member as from time to time may be delegated for the task by the Director, Agriculture, Environment & Natural Resources Division. The team leader will deliver the needs assessment report (10 pages); BCC feasibility assessment (10 pages); and the GMS biodiversity corridor strategic framework and action plan (25–30 pages). This will include a cost estimate for implementing the 2005–2008 action plan, and an indicative cost estimate and financing strategy for implementing the strategic framework.

B. Wildlife Conservation Specialist and Ecologist (international, 1 person-month)

1. Scope of Work

4. The wildlife conservation specialist and ecologist will work with the team leader to carry out a needs and feasibility assessment of the proposed GMS BCC initiative. The main tasks and responsibilities of the consultant include the following:

- (i) Identify high-value terrestrial/wetland biodiversity conservation and protected areas in the GMSECs.
- (ii) Undertake threat analysis in terms of ecosystem and species habitat fragmentation in the GMSECs.
- (iii) Identify potential subregional BCC to prevent and mitigate landscape and habitat fragmentation.
- (iv) Coordinate with GIS technical experts at UNEP for inputs on data/information source identification, organization, and capture regarding
 - (a) priority ecosystems (terrestrial),
 - (b) overlay of current protected area system and network,
 - (c) main population centers—current and planned,
 - (d) overlay of GMS economic corridors, and
 - (e) land use status and patterns.
- (v) Identify ecosystem/ecological data, organize, and analyze on the basis of
 - (a) priority ecosystems and species,
 - (b) threat analysis, and
 - (c) corridor relevance and potential.

2. Implementation Arrangements, Reporting, and Deliverables

5. The consultant, working under the direction of the ADB project officer, will report to the team leader on an as-needed basis, and prepare a report not exceeding 20 pages on biodiversity conservation threats with special focus on GMSECs and biodiversity corridor feasibility/potential.

C. Biodiversity Corridor Specialist (international, 2 person-months)

1. Scope of Work

6. The biodiversity corridor specialist will work with the team leader to design a strategic framework and action plan based on the needs and feasibility assessment of the proposed GMS BCC initiative. Main tasks/responsibilities of the consultant include the following:

- (i) Identify activities required to secure the priority high-value terrestrial/wetland biodiversity conservation and protected areas in GMSECs identified and agreed upon by GMS countries for detailed planning.
- (ii) Identify measures to be undertaken at subregional and country levels to prevent and mitigate landscape and habitat fragmentation of the priority BCC.
- (iii) Coordinate with GIS technical experts to finalize inputs on data/information sources showing a current and future map of the BCC in the GMS.
- (iv) Provide on-the-job training to concerned staff on corridor design and development planning approaches and tools.
- (v) If required, carry out ground truthing and verification visits to the priority sites in conjunction with GIS specialists from collaborating partner (UNEP) and focal persons within the GMS to finalize current and future status maps.
- (vi) In collaboration with other potential implementation partners (government agencies, nongovernment organizations, research institutes) identify poverty reduction and livelihood improvement measures that can be embarked upon in the priority biodiversity corridors within the scope of the action plan and beyond.
- (vii) Incorporate priorities and concerns of ADB's Policy on Indigenous Peoples in proposed BCC framework design.
- (viii) Assist the team leader in identifying a list of policy and legal framework measures (changes) that will be required to realize the priority biodiversity corridors on the ground and establish a time frame (critical path) in conjunction with the action plan.
- (ix) Contribute written inputs to the team leader for developing the strategic framework 2005–2014 and the action plan 2005–2008 with clear phasing of activities, identification of responsibilities, policy and legal adjustments, poverty reduction measures, and cost estimates for establishment of priority biodiversity corridors, conservation and sustainable management, and livelihood and poverty reduction measures within the BCC framework.

2. Implementation Arrangements, Reporting, and Deliverables

7. The consultant, working under the direction of the team leader, will prepare a report not exceeding 25 pages on the action plan 2005–2014 with costs required to establish the priority BCC in the GMSECs and will report to the team leader on an as needed basis.

D. Regional Environmental Specialist (international, 1 person-month)

1. Scope of Work

8. The regional environmental specialist will work with the ADB project officer to validate the context of the strategic framework and action plan of the proposed GMS BCC initiative and design a communicative, public document for wider dissemination. Main tasks/responsibilities include the following:

- (i) Assess complementarity between existing and/or planned environment plans of GMS countries and highlight implications for the design and implementation of the BCC initiative.
- (ii) Review the strategic framework document and action plan in its wider regional context of overall GMS/ADB environment plans.
- (iii) Put the BCC initiative (strategic framework and action plan) in the proposed GMS core environment program and the overall regional environmental framework.

2. Implementation Arrangements, Reporting and Deliverable

9. The consultant, working under the direction of the team leader, will prepare a report not exceeding 25 pages on the action plan 2005–2014 with costs required to establish the priority BCC in the GMSECs; report to the team leader on an as-needed basis; and, write a communicative, marketable quality version of the strategic framework and action plan for wider public dissemination and for circulation among potential development partners.

E. Environmental Economist (international, 1 person-month)

1. Scope of Work

10. The consultant will have the following responsibilities:

- (i) Review and analyze the economic development plans of the GMS countries focusing on the economic corridors.
- (ii) Assess the trade-offs involved in the development plans of GMS economic corridors in terms of environment and natural resources.
- (iii) Identify the environmental economics inputs necessary to implement the GMS biodiversity corridor strategic framework and action plan.

2. Implementation Arrangements, Reporting, and Deliverables

11. The consultant will work under the direction of the ADB project officer. In consultation with the team leader and other relevant team members, the consultant will produce a report outlining the economic development planning component of the framework.

F. ADB and Development Member Country Program and Portfolio Analyst (international, 1 person-month)

1. Scope of Work

12. The analyst will have the following responsibilities:

- (i) Inventory ADB's and developing member countries' development and investment program and portfolio of relevance to the BCC initiative.
- (ii) Identify and review protected areas and forest sector development strategies and plans of relevance to the BCC initiative.
- (iii) Identify and review provincial and districts development plans of relevance to the BCC.
- (iv) Coordinate domestic consultants work with regard to data and information gathering and reporting.

- (v) Train and supervise domestic consultant in participatory data and information gathering, validation, and ground truthing.
- (vi) Provide technical support to the team leader in organizing and facilitating in country consultations.

2. Implementation Arrangements, Reporting, and Deliverables

13. The consultant will work under the direction of the ADB project officer. In consultation with the team leader and other relevant team members, the consultant will compile a 2005–2015 GMS economic development and investment perspective plan for GMS economic corridors and priority BCC.

G. Domestic Consultants (10 person-months)

14. On average, 2 person-months of domestic consultant input will be required for each participating country. The domestic consultants will have the following responsibilities:

- (i) Assist the team leader in organizing in-country stakeholder consultations and workshops.
- (ii) Assist and facilitate in-country field work of the international team members.
- (iii) Help collect data and information from relevant line agencies, development partners and nongovernment organizations for BCC strategic framework and action plan preparation.
- (iv) Assist in undertaking an institutional capacity building needs assessment.
- (v) Facilitate in-country information and report dissemination.